

Institution: University of Edinburgh
Unit of Assessment: UoA21 (Sociology)
<p>Section 1: Unit context and structure, research and impact strategy</p> <p>1.1 Overview</p> <p>Sociology at the University of Edinburgh (UoE) comprises a community of 81 (76.51 FTE) scholars committed to research to understand and help navigate the transformations facing societies. We address social challenges across many areas, notably intimacy and cultural life, nationalism, race, migration and decoloniality, climate change, scientific and financial innovations and digital society. Since 2014, a series of appointments (including 18 new posts) and a 51% increase in grant income have underpinned renewal and growth across our core areas of strength, while enabling strategic expansion into two key areas: race and decolonial studies (3 new posts, including Meer as Chair in Race, Identity and Citizenship) and data and digital sociology (5 new appointments). Our cutting-edge work in data/digital sociology has enabled us to take a leading role in the Edinburgh Futures Institute (EFI) and its Centre for Data, Culture and Society. The EFI was established in 2018 through a £140M capital investment to support data-driven innovation to address inequalities and digital exclusion, part of the £237M awarded to the UoE by UK and Scottish Governments through the Edinburgh and Southeast Scotland City Deal.</p> <p>Our UoA integrates staff based in Sociology and Science, Technology & Innovation Studies (STIS) within the School of Social and Political Science (SSPS), as well as sociologists in Islamic and Middle Eastern Studies, Asian Studies, and Informatics. These productive collaborations have secured research grants and centres, enabled joint PhD supervisions, mentoring and peer review and strengthened a shared research culture that celebrates and supports innovative research, leadership and impact, underpinned by an inclusive and collegial environment.</p> <p>Over the REF period, we have increased the breadth and quality of our research, as evidenced by:</p> <ul style="list-style-type: none"> • A 32% increase in staff FTE compared to REF2014 (to which all eligible staff were submitted), from 58.14 to 76.51 FTE, through 18 new appointments including 2 new Chairs, 3 Senior Lecturers/Readers and 13 Lecturer posts. • A 51% increase in research income to reach £17.5M (£11.58M in 2014), including 3 new ERC grants (with a fourth completed within the REF period), and major grants for methodological training and research, including co-leading the ESRC National Centre for Research Methods (NCRM) (phase 3 £4.9M 2014-19, of which £636K to UoE; phase 4 £2.8M 2020-25, of which £282K to UoE). • Support for early career researchers, through securing 11 prestigious externally-funded postdoctoral fellowships, including 4 British Academy Postdoctoral Fellowships and 4 Leverhulme Early Career Fellowships. • A 75% increase in the average number of doctoral completions per year (on average 20.85 per year compared to 11.9 per year for REF2014). • Outstanding intellectual leadership, including leadership of the British Sociological Association (BSA) (Jamieson President 2014-2017, Meer and McKie trustees 2016-2019) and the Association for the Study of Ethnicity and Nationalism (ASEN) (Hearn President 2019-current, Krasniqi on the steering committee) and through 8 new editorships since 2014 of leading journals (<i>Cultural Sociology</i>; <i>Emotions and Society</i>; <i>Energy Research and Social</i>

Science; Families, Relationships and Societies; Finance and Society; Identities; Journal of Cultural Economy; Scottish Affairs).

1.2 Research and Impact Strategy

Our overarching goal is to produce innovative sociological research to understand and address major issues facing societies. This has led us to strategically direct our research capacity by:

1. **Investing in researching new social challenges** around energy and the environment, data and digital society, science and technology, finance, and race and decolonial thought. This has led to new appointments in these areas: Howell, Jenkins, Winskel (energy); Currie, Gregory, McFall (digital society); Barany, Englemann, Vermeulen (science and technology); Coombs, Van Gunten (finance); and Meer, Vadasaria, Liberatore (decolonial studies). These investments positioned us to take leading roles in strategic initiatives such as the interdisciplinary Energy@Ed cluster (co-led by Winskel), RACE.ED (led by Meer), the EFI (where McFall directs a major new initiative on digital inclusion), and EFI's Centre for Data, Culture and Society (where Gregory co-leads the Digital Social Science Research Cluster). To further these investments, we have intensified our efforts to globalise and decolonise our sociological contributions through the appointment of experts on Latin America (Dias Lopes, Thumala, Van Gunten); the Middle East and Gulf (Akinci, Vadasaria); and Eastern Europe (Krasniqi), supplementing our expertise in Africa, Asia, North America and Scotland/UK.
2. **Supporting ambitious grant activity** through the development of researchers and of centres and institutes. As described in Section 3, we have grown our research funding to average £2.5M per year (£1.93M per year in 2014). Development of ECRs, for example, through mentoring and peer reviewing support, resulted in the 11 Fellowships noted above. The Innogen Institute was established in 2014 to build on the previous ESRC funded Innogen Centre and it has nurtured successes such as Garcia Sancho's ERC award on the history of genomics and Calvert and Schyfter's ERC award on synthetic biology. The £1.2M Wellcome Trust-funded Centre for Biomedicine, Self and Society was established in 2017 with Sturdy and Haddow as key applicants. Our leading role in the NCRM (£636K to UoE 2014-19, £282K 2020-25, delivered by Edinburgh: Crow, Gayle, Orton-Johnson, and Jamieson in collaboration with Southampton and Manchester Universities), fosters development of the wider research community through research methods training.
3. **Transforming our approach to impact**, ensuring it is a reflexive, critical and collaborative enterprise. This agenda has been driven by a major expansion of professional support, training and seed funding for knowledge exchange and impact (KEI, described in Section 3), as well as our dynamic centres and institutes, which have pioneered new approaches to interdisciplinarity and co-creation. Aside from the Impact Case Studies (ICSs), one example is the EFI providing the specialised infrastructure to enable Stewart to develop the Living Lab, which brings people together to solve problems using data and design (see Section 3.3). Collaborative approaches to impact are also evident, for example, in Moore's Reanimating Data project involving academics, archivists and activists in co-creating understandings of changes in young women's sexual health and empowerment by making publicly available interviews with girls in the 1980s. Over the REF period, the UoA has run over 70 public engagement events, attended by around 20,000 people, including at many of Edinburgh's festivals and through our Beltane Public Engagement Fellows (Bancroft, Haddow, Rodrigues). We thus integrate impact into the research process, and this can be seen across our research clusters.

1.3 Research clusters

We aim to produce research that addresses the social challenges of responding to migration and diversity; navigating transformations in intimacy and cultural life; and understanding and regulating scientific, digital and financial innovations. Our approach is designed to guide research without constraining autonomy. The clusters described below reflect investment in areas of strength as well as organically emerging collaborations between junior and senior colleagues within and beyond this diverse UoA. Highlights of the research and impact relating to these areas are presented below.

Our research on **data and digital sociology** deals with the promise and problems of digital innovations around big data, and around decision-making, labour, and markets in the digital sphere. Our work critiques the commercialised and proprietary nature of digital practices, for example, through Orton-Johnson's large consortium ARTICONF grant (H2020 €427K to UoE, facilitating the recruitment of Jacobetty) which is developing alternative social media platforms. She found that decentralised social media networks can create revenue streams for people who were previously giving their data away for free and contribute to a more collaborative approach to technology use. Bancroft's research on cybercriminal use of online cryptomarkets showed that darknet technologies have wider benefits and significance by improving confidentiality and autonomy online. This led to his 2019 monograph, and to a role in UoE's successful EPSRC application to become an Academic Centre of Excellence in Cyber Security Research. Gregory's innovative EFI funded research on Deliveroo workers in Edinburgh demonstrated how they negotiate the physical, financial and epistemic risks of digital labour, thus challenging elitist and commercialised narratives of urban space. Williams has been evaluating NHS England's global digital exemplars to help improve healthcare IT (Department of Health £1.1M 2017-21) and developed public-facing information on using ePrescribing to promote antimicrobial stewardship (NICR £2.4M, with the College of Medicine, £28K to Williams). We have organised highly successful 'hackathons' allowing data activists and civic hacking groups to challenge anti-democratic practice and injustice (175 attending Currie's Data Justice Week, May 2019), and helping users to understand career paths for professional footballers (according to a user of Campagnolo's Turing fellowship data study group, they made more progress in one week than the Head of Football Operations at Real Madrid had in three years). Leadership in this field includes Williams's place on the Scientific Committee during the start-up phase of the Alan Turing Institute, of which Campagnolo is now a fellow.

In **finance and economic sociology**, we made significant contributions to researching the implications and regulation of financial innovation. MacKenzie won a Progress Medal in 2018 for exposing how modelling produces financial markets and outcomes. D'Adderio's work has demonstrated that health-sector organisations proactively respond to performance rankings, for example by attempting to influence the assessment criteria. The recruitment of Coombs, McFall and Van Gunten expanded this cluster, which also highlights the increasing importance of understanding algorithms in order to avert financial crises. For example, MacKenzie's ERC Advanced Grant (£1.5M 2012-2018) applied sociological analysis to high-frequency trading (see major *AJS* article) and Coombs's Leverhulme Fellowship project 'Governing Financial Algorithms' (2014-17) produced the article 'What is an Algorithm?' in *Economy and Society*. McFall brings new insights by examining previous financial innovations such as the selling of 'dull' insurance products. As one review notes of her monograph *Devising Consumption* '[w]hat's remarkable about McFall's account is the detail she enters into to explain exactly how this system worked through "market devices"'. KEI highlights include Van Gunten's findings on

consensus in the economics profession being summarized on the *Washington Post's* Monkey Cage blog and MacKenzie's many articles in the widely-read *London Review of Books*.

We strengthened our cluster researching the potential and challenges of **scientific innovation** through new appointments in the sociology and history of science, technology, and medicine (Vermeulen, Barany, Engelmann). Sizeable grants, including Garcia-Sancho's (ERC €1.5M), allowed scholars to explore genomic innovations such as sequencing the human, yeast and pig genomes and to critically interrogate the connection of modern genomics to the 'medical-industrial complex' (Wellcome Trust £821K, Sturdy, supporting Huzair's appointment). In addition to Hadow's Wellcome Trust-funded (£289K) study of the experiences of 'everyday cyborgs' with heart implants (see ICS), other highlights include Mazanderani's conceptualisation of 'patient choice', informing a National Institute for Health Research funded study using patient feedback to improve the NHS. Strategic appointments and funding bids have also improved understanding of previous pathways to successful innovation. For instance, Vermeulen researched the history of scientific collaboration and discovery at the Francis Crick Institute (Wellcome Trust £50K) and Dritsas examined the National Museums of Scotland acquisition of African collections from Scottish travellers, missionaries and explorers between 1870 and 1930 (Carnegie Trust £4.4K). Parry, in an article on 'The EPSRC's Policy of Responsible Innovation from a Trading Zones Perspective', found that innovation is supported by attending to local contexts of knowledge exchange and opportunities for researcher interaction. Notable outputs on histories of science include Engelmann's analysis of AIDS atlases, which a reviewer describes as a 'magnificent new book ... [that] sheds new light on the medical history of HIV/AIDS and provides insights into the manufacturing of scientific facts'. Barany's expository *Nature* article about the Fields Medal examines barriers to researcher diversity within mathematics, and appeared in *The Best Writing on Mathematics*, 2019. KEI also includes Vermeulen's app 'Curious Edinburgh', which provides mobile walking tours on Edinburgh's scientific and community heritage. It won the Tam Dalyell Prize (2016) for excellence in public science engagement, the first social science winner.

We advanced our interdisciplinary study of **social and policy implications of the life sciences** through substantial funding, and have had major impact in this area (see ICSs). A series of major grants have supported investigation of innovations in regenerative medicine (ESRC £479K; Tait and Mittra, collaborating with Universities of York, Sussex and Birmingham) and synthetic biology (BBSRC £500K 2014-21, Tait for the UK Centre for Mammalian Synthetic Biology). Resulting outputs include Mittra's monograph *The New Health Bioeconomy*, hailed by reviewers for addressing 'fundamental questions about how the new biology-based research is transforming healthcare'. Calvert and Schyfter's ERC 'Engineering Life' project (€1.5M 2014-20) critically explores whether ideas and practices from engineering can be applied in the life sciences, with Schyfter using the work to develop sociological conceptions of biological function. Bruce's research has furthered understanding of antibiotic resistance, climate change and food security (grants include ESRC £580K). For example, she argued that successful Dutch and Danish policies to reduce veterinary antibiotic use provide important examples of how other countries might improve their antibiotic stewardship to protect human health. In addition to Tait's research on scientific policy (see ICS), impact from this cluster includes Banda using his research on drug production in various African nations to provide evidence briefs for agencies such as the German Federal Ministry for Economic Cooperation and Development. Interdisciplinary research is actively promoted by this cluster, notably through Lyall's exploration of how interdisciplinary research is valued by funders but not always facilitated by institutional arrangements (H2020 €250K 2019-21, Lyall Co-I). Lyall's work has had wide international reach, leading to her being commissioned by HEA (now Advance HE) to record an audio presentation

on interdisciplinary learning and teaching as a resource for deans of learning and teaching in Hong Kong in 2016.

Our research on **energy and the environment** focuses on the challenges of energy system transitions, energy policy, and how to encourage environmentally sustainable practices. The cluster has produced agenda-setting work, with Webb's research (see ICS) revealing how financialised and centralised government institutions and powers can impede innovations. Other work has addressed lay engagement with science and the environment, including Jamieson's BSA presidential address in the journal *Sociology* about how practices of intimacy form and frame orientations to sustainability. Related outputs are Moore's monograph, with associated online archive, about ecofeminist protests in Clayoquot Sound, Canada. She shows how activism can help rethink contemporary feminist theory and counter claims about the death of feminism, as well as demonstrating the importance of ecofeminist ideas and practices for current thinking about the environment. At the system and policy level, Bolton, Winskel, Pullinger, Haggett and Webb have captured significant funding for their research (over £4.5M since 2014), which is leading political debate and changing policy on domestic energy use, energy markets, and on community input into sustainable energy projects (see ICSs). Researchers are also informing energy policy. Jenkins's pioneering analysis of energy justice, for example, highlights the need to determine who is responsible for ensuring that energy developments deliver energy that is equally available to all. Howell's research on behavioural change around mitigation and adaptation led to her advising the Scottish Parliament on aspects of the latest Scottish Climate Change Plan and on the Emissions Reductions Targets Bill. R. Jeffery is researching environmental policy-making within the GCRF 'South Asian Nitrogen Hub' (£17M, of which £563K to UoE). Pathways to impact are strengthened by links with the Edinburgh Centre for Carbon Innovation (ECCI). Winskel is on the Directorate of resident ECCI organisation Scottish ClimateXChange and Webb received funding from it. In addition, Bolton, Webb and Winskel lead the UoE 'Energy and Society' network, part of Energy@Ed, which links energy transition researchers worldwide with public sector and general audiences.

Our researchers are reinvigorating **methods training and development** locally and nationally, as evident in our leadership of the NCRM (Crow, Gayle, Jamieson, Orton-Johnson) and our prime role in founding the nationwide Q-Step programme (MacInnes, now retired) funded by Nuffield Foundation, ESRC and HEFCE. Members of this cluster have revitalised quantitative methods in British sociology, for example via the ESRC grant 'Data Science - Training and Capacity Building' (AQMeN III £296K, Gayle) and the Scottish Consortium, ESRC Centre for Population Change Phase II (£5M 2014-19, of which £178K to UoE, MacInnes PI). Connelly and Gayle's research has made important contributions to methodological debates, for example those on measuring social class. Ralston (*Sociological Research Online*, 2019) produced the first research to empirically examine a relationship between epistemological anxiety and statistics anxiety in sociology students. CPD contributions include Gayle's quantitative research training workshops offered to academics and non-academics through AQMeN and NCRM. Leadership on methodological innovation is also furthered by high profile publications such as Kemp's article in *Sociological Theory* outlining a methodological framework for evaluating theories based on internal coherence. Advances in digital and data-driven methods are nurtured by the Centre for Data, Culture and Society, which sits within the EFI. The centre supports applied digital research through seminars, advice on funding bids, and discussion forums (www.cdcs.ed.ac.uk/); Currie, Gregory, Orton-Johnson and Prior are part of its Media and Communications cluster. We have also led on initiatives promoting the combining of methods: for example, Crow founded the Scottish Graduate School of Social Science (SGSSS)'s 'When Methods Meet' dialogues; and Jamieson (with Davidson) secured ESRC NCRM funding (£88K 2018-19) for a project on 'scaling up' analysis across longitudinal qualitative studies and

published results on this distinctive form of 'big data'. We have further invested in methods via a new Social and Political Science Research Training Centre to support our researchers; 3 of the 5 new appointments to the centre are UoA members (Connelly, Davidson, Ralston).

We have expanded our strength in researching **nationalism and political action** to new global contexts. New ECR appointment Krasniqi researches how contested states like Kosovo and North Cyprus find creative ways to provide status, rights and protection to their residents. In China, Woodman discovered that assessment of inter-urban migrants' level of education is vital to their citizenship claims. Woodman's expertise led to her being Co-I on an ESRC (£400K 2015-18, of which £46K to UoE) project studying the mobility of Chinese higher education students, which found that these students are diverse in background, but the vast majority adjust well to studying in Europe and the UK. Hearn, Kennedy and Riga continue their strongly historical orientation via high profile publications. Hearn's article in the leading journal *Sociological Theory* reinterprets the division of labour as a more important concept than competition in Adam Smith's *The Wealth of Nations*. It inspired an international conference on 'Competition and Social Change' in Edinburgh in 2018. In the lead chapter of a prestigious essay collection on *Federalism and National Diversity in the 21st Century*, Kennedy argues that informal practices of federalism are more important in reconciling multinational unity and diversity than the formal institutions of federation. Riga has exercised intellectual influence on current political debates in China, where discussions of her 2012 book *The Bolsheviks and the Russian Empire* have prompted visits to Edinburgh by Chinese scholars. The political ripples created by her work are indicated by the authorities' heavy censoring of the recent Chinese translation of that book. Researchers also work on 'local' forms of nationalism such as the Scottish referendum, for example Bond's detailed dissection of data from major national surveys found that it may have led to closer alignment between national identities and political attitudes. Rosie, Gorrige and Jamieson demonstrated that young 'Yes' voters made sense of their referendum participation in the context of their own transitions to 'independent' adulthood. Rosie's work on sectarianism has influenced Scottish Government policies, with Scottish First Minister Nicola Sturgeon publicly stating that she welcomed Rosie's independent national review of marches, parades and demonstrations as the government seeks to end sectarian disorder.

This cluster also furthers our globalising and decolonising strategy through outputs, funding and KE. Gorrige's monograph on Dalit politics, *Panthers in Parliament*, provides a detailed picture of how social movements become institutionalised. It received major media coverage in India and led Tamil Nadu politicians to publicly state that they need to do more to recognise social minorities. Govinda's expertise on feminism and intersectionality in South Asia is attested to by invitations to speak internationally and by UKIERI funding for a collaboration that produced the edited collection *Doing Feminisms in the Academy*. McLeister informs both academic and wider audiences about church-state interactions in China, including through his article about how church demolitions have heightened millenarian beliefs, showing the influence of political campaigns on popular Christianity in China.

We have strategically expanded our contributions to the **sociology of race and decolonial thought** through new appointments and play a major part in University and wider debates and initiatives on race and decoloniality, including through RACE.ED, which showcases excellence in teaching, research and KEI in race and decolonial studies (Meer and Vadasaria lead). Meer (Royal Society of Edinburgh Personal Research Fellow 2017-2020) contributed to the UK Cabinet Office Race Disparity Audit and the Scottish Government's Race Equality Framework. He was on the Royal Society of Edinburgh Post COVID-19 Futures Commission, launched May 2020 and the Expert Reference Group (ERG) on COVID-19 and Ethnicity, which met in June and July 2020. The Scottish Minister for Older People and Inequalities noted that the 2020

'Programme for Government reflects your [Meer's] work [on the ERG] in a number of areas'. His 'GLIMER' project addressing responses to migration and refugees at the level of cities and nation-states (ESRC £475K 2017-21) produced recommendations to Scottish local authorities on housing asylum seekers, and a United Nations University (2017) address on refugee displacement. Other research addresses displacement and migrant integration/exclusion as facilitated by education systems (NordForsk 368 NOK 2020-23, Viry Co-I), and as emotionally navigated by racialised young displaced people in Beirut (British Academy £10K 2016-18, Riga PI, Holmes Co-I). Investment in ECRs in this area has enabled new funded projects on 'Multi-Religious Encounters in Urban Settings' (ERC €347K to UoE, Liberatore) and on the potential of using blood donation as a social policy tool for the post-secular integration of immigrants into broader society (Leverhulme Early Career Fellowship, Hashemi). New arrival ECRs Vadasaria and Akinci globalise and decolonise our expertise, through research on, respectively, the racialised logics at the heart of modernity, and global Arab migrant communities. Stanley's intellectual leadership in this field was recognised by her ESRC Professorial Fellowship, 'Whites Writing Whiteness', exploring and making available everyday documents by whites in South Africa, interpreting how they represented whiteness and its various 'others' from the 1770s to 1970s (see ICS).

Strong intellectual leadership is exercised by our scholars researching **culture**, with the UoA hosting the BSA journal *Cultural Sociology* (edited by Prior and Thumala). That leadership is also evident in pioneering monographs such as Prior's *Popular Music, Digital Technology and Society*, examining the assemblages that animate music; and McCormick's *Performing Civility*, providing what a reviewer deemed a 'compelling and insightful' exploration of the civility and cosmopolitanism promoted by music competitions. Members of the cluster also led by promoting approaches that avoid narrowly reductionist analyses of culture, for example, Thumala's recent article for the leading journal *Poetics* focuses on the ethical and existential dimensions of reading fiction. Their leadership has also fostered interdisciplinarity: for example, McCormick is part of an interdisciplinary team that received a Templeton Religion Trust grant on 'Investigating Art and the Sacred at the Edinburgh Festival Fringe' (postponed till 2021); and Darmon (with Moore and Fletcher contributing) leads the group Food Researchers in Edinburgh (FRIED), which runs seminars and writing retreats that bring together Edinburgh academics from a range of disciplines as well as co-organising successful workshops with food researchers in Paris and Copenhagen. One example of the strong outputs related to this network is Darmon's pioneering analysis of how some well-known movements have sought to 'emancipate', 'democratise', and 'diversify' music and cuisine in ways that have produced sound and flavour anew.

Investment in scholars working on major social issues related to the **sociology of intimacy** has produced new grant and impact successes. Brownlie's research (£190K from the University of Sheffield as part of 'A Shared Space and a Space for Sharing', allied to the ESRC-supported EMOTICON network) on emotional distress and digital outreach showed the importance of careful attention to, and expression of, emotions when offering online support. As the Samaritans' website notes, this research has made them highlight 'the role of trust and empathy in providing online support for people in extreme circumstances'. Other members in the cluster also contribute to understanding and addressing social exclusion by investigating the importance of emotionally meaningful relationships across the life course: for example, Viry's research on spatial mobility skills, network overlap and conjugal quality amongst young adults in Switzerland (CHF150K to UoE); Holmes's monograph showing how couples in *Distance Relationships* maintain intimacy through emotional reflexivity; and Crow's Leverhulme-funded research (£53K) examining academics' transitions to retirement. Newly recruited ECRs enable further strategic attention to disadvantaged young people. Dias Lopes's UNESCO fellowship funded her chapter on higher education in South America in the Global Monitoring Report, which shows how many

young people lack access to, or are absent from, education, employment and training. Leverhulme Early Career Fellow Davidson's research revealed how library cuts imperil young people's social engagement in Scotland. Mahadeen explores concerns around inequalities and intimacy, researching the construction of femininity, masculinity and virginity within a Jordanian context. Our researchers also impact debates and policies around care through conceptual contributions such as McKie's on 'care ecology', 'caringscapes' and 'carescapes'. Media coverage has included the *New York Times* and the *Wall Street Journal* invoking Janus's research that revealed limitations in the provision of elder care. Chaudhry's British Academy PDF advances our decolonising agenda through her examination of changing British Asian family structures and the effects on elder care. Additional impact includes Davidson's work with the Bookbug programme (Scottish Book Trust) encouraging Scottish families to share stories with young children, and Viry's collaboration with French train operator SNCF on a graphic novel about commuting.

1.4 Open and ethical research

We are committed to making our research and data as widely available as possible, embracing the UK Data Service's principle of 'open where possible, closed where necessary'. Open Research is promoted by a Research Data and Information Officer, who provides training and support to achieve ambitious OA requirements covering all outputs published since 2016 (we have a 97.2% REF OA compliance rate). McCormick is the School academic lead for OA and Data. Our staff have made important contributions to Open Data, including Connelly and Gayle's work to promote sharing of the complete workflow of quantitative research (see *BJS* article 2019). We have also pioneered innovative approaches to sharing qualitative data, notably Moore's qualitative online archive, 'Clayoquot Lives: An Ecofeminist Story Web', based on her research into eco-feminists and Stanley's website making searchable hitherto inaccessible documents on racialising processes in South Africa (www.whiteswritingwhiteness.ed.ac.uk/).

We adhere to rigorous standards of ethics and integrity, which are of particular importance given the nature of our work on ethically complex areas such as digital/online methods, health and technology innovations, race and ethnicity, and our research with vulnerable participants. As School academic lead for Research Ethics (2016-2019), Moore drew on her experience of conducting innovative sociological research, including ethnographic, action and archival research, to build a new, streamlined online ethical review system (www.sps.ed.ac.uk/research/ethics). The resulting online ethics application allows light touch checks prior to the submission of grant applications, while ensuring detailed scrutiny of projects where ethical risks are unavoidably high (for example Riga and Holmes's work with refugee youth in Beirut). Calvert has also used her research to challenge and suggest alternatives to the 'ethical, legal and social issues' (ELSI) framework for interdisciplinary collaboration between natural and social scientists in sociotechnical knowledge production and innovation.

1.5 Future strategic aims and goals

As we look to 2030, sociology is committed to identifying, understanding and working to address the key social issues of our time. We will further develop our research on the impacts of racism and nationalism, the profound consequences of the data revolution and other scientific innovations for humans and their environment, and investigate the link between all of these and ongoing changes in our relationships and cultural practices. We plan to:

- Make further strategic appointments in the sociology of data and digital society, including in computational sociology, algorithmic knowledge and digital methods. This will support

our work with EFI to address digital innovations and the social and political challenges that they give rise to, especially in light of the COVID-19 pandemic.

- Extend the work of RACE.ED to co-develop further decolonising initiatives and new forms of support for BAME staff and staff from the Global South. For instance, we will use our links to the Edinburgh Institute of Advanced Studies in the Humanities' (IASH) Decoloniality project (Meer and Yearley are on the steering committee), including hosting fellows under the scheme.
- Attend to COVID-19's impacts on wider society and on research. For instance, we will use our expertise to research links between health and inequalities and renew our internal funding strategy to target resources to ECRs.
- Develop our excellence in methods in order to strengthen and support UoA members' methodological practices, enabling them better to research these key challenges. The new SSPS Research Training Centre will enhance dialogue between methods initiatives including Q-Step, AQMeN and NCRM, and will work to improve impact and public engagement, for example by training researchers in the use of transparent and reproducible research techniques.

Section 2: People

Our staff strategy has focused on recruiting and supporting outstanding staff across our key areas of growth, with a strong focus on inclusion and equality of opportunity; and on nurturing our growing cohort of early career researchers (17% of our submission) to set and achieve ambitious goals in research and impact.

2.1 Recruiting and retaining staff

Growth in student numbers and in external grant capture have enabled us to grow as a unit and enhance our supportive culture. We recruit and support promising researchers early in their academic careers, making open-ended appointments wherever possible. Since 2014, 13 ECRs have been appointed to Lectureships: Banda, Barany, Coombs, Currie, Gregory (now a Senior Lecturer), Howell, Huzair, Janus, Jenkins, Krasniqi, Liberatore, Vadasaria and Van Gunten. A further two ECR colleagues (Engelmann and Moore) were appointed as Chancellor's Fellows, the University's research-intensive, tenure-track scheme (joining 4 Chancellor's Fellows appointed pre-2014). These initially research-focused positions have teaching and administrative duties gradually added over 5 years, to become a standard lecturing position.

We have appointed 3 internally-funded Career Development Fellows, 3-year positions for ECRs, with 40% of their workloads allocated to research to allow those staff to build their research profiles towards applications for open-ended positions (Akinici, Dias Lopes, and formerly Krasniqi - now a Lecturer).

We have also ensured continuing vitality by planning for succession, appointing strong mid-career sociologists (McCormick, Thumala), more experienced Chancellor's Fellows (D'Adderio and McFall), and 2 new chairs: McKie (Head of School) and Meer. Three staff (J. Henry, P. Jeffery, J. MacInnes) have retired, but mid-career staff have been promoted and taken up leadership positions (Bond, Hearn, Holmes, Kemp, Prior) alongside other senior staff.

We have also worked to incorporate research-only staff firmly within the UoA. In STIS, formerly contract researchers (Bruce, Banda, Mittra, Rodrigues, Schyfter, Stewart) successfully transferred to open-ended teaching and research posts, and have taken leadership positions, including Bruce's School role as Associate Director of Research (KEI), and Lyall's and Mittra's roles as Head of STIS.

The UoA's recruitment and support processes have achieved a good balance of senior staff and those newer to academia. Within our UoA, 6 current staff have been promoted to Grade 10 (Professor), 16 to Grade 9 (Senior Lecturer/Senior Research Fellow/Reader) and 3 to Grade 8 (Lecturer/Senior Researcher) since 2014. Currently about one quarter of the UoA are Professors, one quarter are Readers or Senior Lecturers, one third are Lecturers or Senior Researchers and the remainder are Researchers or Postdoctoral Fellows.

2.2 Developing and Supporting Staff Research

Various mechanisms support the development of staff as researchers. On the workload model staff are allocated 40% of their time for research. New lecturers have a 25% teaching and administration reduction in workload in the first 1 to 2 years. Extra time is allocated for staff writing new lectures as opposed to updating existing ones. Staff also benefit from generous research leave provision, with colleagues eligible to apply for one semester after 5 semesters of service, or 1 year after 10 semesters. Allowances continue to accrue during parental leave and time bought out for grants. We make provision for some optional courses to be offered every second year to ensure that we can have several members of staff on sabbatical at once.

Career development is supported by mentoring and Annual Review, and by internal and external training opportunities. Annual Review is conducted with a senior member of staff to provide recognition of achievements, and advice and support for career development. Newly appointed staff are mentored by a more experienced researcher who is not their line manager. Since 2014 we have also introduced mentors for mid-career staff. The School Research Office runs ECR workshops (for example on developing a successful publication strategy and applying for post-doctoral funding). This guidance, alongside a rigorous and constructive internal review process, has enabled us to win 11 competitive postdoctoral fellowships. These include 4 from the British Academy (Chaudhry, Davis, Hunter, Panayotova), 4 from Leverhulme (Coombs, Davidson - who started as a Chrystal Macmillan Fellow in 2014, Hashemi, Liberatore), 1 ESRC (Wilks), 1 MSCA Individual Fellowship (Holbrook) and 1 Marie Skłodowska-Curie Research Fellow (Cheikh). Research staff are supported by a peer-support group (CResT), which is represented on the Research Committee, and organises regular meetings and activities. Career development support for all staff is also offered by UoE's Institute for Academic Development (IAD), including training on research skills, building a research career, public engagement, and career coaching. All staff and PhD students can take Q-Step courses to strengthen their quantitative methods skills and several have attended each year. For example, 5 UoA members attended a recent course on the statistical data processing package R.

Financial support for the development of research careers includes the Research Development Fund (RDF) for conference attendance and other staff research development expenses, through which staff can apply for up to £1,800 per staff member per annum, £2,000 for ECRs. Staff can use this for small pilot projects, or networking activities. For example, Viry used RDF funds to attend a conference in Lausanne in 2018 where he networked with European colleagues, leading to him becoming PI on a collaborative project analysing how adults' spatial mobility skills and social networks moderate the influence of residential mobility on young Swiss couples (CHF150K from the University of Lausanne to UoE). Staff can receive up to £5,000 per annum via the Strategic Research Support Fund (SRSF) (recently adapted to mitigate COVID-19 disruptions on ECRs). For example, Stanley used SRSF funding to employ an RA to assist in constructing the Whites Writing Whiteness digital databases allowing access to South Africa's past (see ICS), significantly increasing their impact by adding photographic and text resources. Around £60K per year in RDF and SRSF funding has been awarded to UoA members since 2014.

2.3 Equality of opportunity

We are deeply committed to embedding equality and diversity across all of our work. The UoA played a major role in SSPS's achievement of an Athena Swan Bronze Award in 2017 (Holmes and Viry) with Holmes Acting Chair of the EDI Committee at the time, and responsible for following-up on the results of a health and wellbeing survey that complemented the Athena Swan actions and has informed School planning. The EDI Committee facilitates career development through supporting wellbeing, and a healthy work-life balance. Within this REF period it initiated working groups on gender culture, physical accessibility, trans/non-binary issues, harassment and bullying, and mental health, and held focus group discussions on PG student support, webpage content, women in academia and speed mentoring, black and ethnic minorities, and returning parents/carers. Innovations include: guidance on preferred pronouns, gender-neutral wheelchair-accessible toilets on each floor of SSPS's main Chrystal Macmillan Building, baby-changing facilities and a secure, single-occupancy breastfeeding and/or expressing room with a dedicated milk storage fridge (for which SSPS was awarded an NHS Lothian Breastfeeding Friendly certificate in 2016).

The wellbeing survey conducted in 2017 showed staff in sociology experiencing high levels of wellbeing (for example, averaging over 7.41 on a 10-point scale for scores measuring their sense of worthwhileness). Remarkable staff retention also indicates success in creating a supportive environment: apart from retirees, only 2 staff on open-ended contracts have left since 2014.

Diversification of the unit has occurred via a range of strategies, including actions related to the Athena Swan Bronze Award. Concerted efforts to attract women candidates have enabled twenty appointments that addressed the previous gender imbalance in the UoA: 40% representation of women in the UoA in 2014 has increased to 54%. Women colleagues are well spread across senior, mid and early career; 42% of Professors are women (35% in 2013). Women have also held prominent research leadership roles, for instance Jamieson as President of the BSA and co-director of Centre for Research on Families and Relationships (CRFR), Tait as Director of the Innogen Institute, Holmes as UoA REF coordinator, Haddow as impact leader and STIS research convener. McKie serves as Head of School, and Brownlie, Govinda, Moore and Riga have all had periods as sociology research PG convenors. In STIS, Lyall was head of subject from 2015-2017, and in 2017 won the Susan Manning Award for Best Mentor. Mazanderani has been PGA advisor and pathway convener for the Scottish Graduate School of Social Science. The School also encourages women academics (Grades 7 and 8) to apply for the Aurora leadership training programme, which offers University-linked places available each year for early and mid-career women to develop leadership skills. McCormick completed the programme in 2019-20 and was promoted to SL in 2020. Within the UoA these positive results in career development of women has also been facilitated by the considered allocation of annual reviewing across senior staff, allowing women in the UoA to benefit from advice from senior women. Women in the UoA are moving up the career ladder. Promotions within the UoA during the REF period have seen 3 women promoted to Grade 10 (Professor) and 9 women advance to Grade 9 (Senior Lecturer/Reader), at least 50% of promotions in each case. Two out of 3 promotions to Senior Research Fellow have also been women.

Although international staff recruitment has been strong (staff originate from 20 different countries), only 5 staff are from the Global South and non-white minorities are significantly underrepresented among our staff (approximately 8 self-identified BAME staff across the unit). The appointment of a Chair of Race and Ethnicity (Meer) with expertise in addressing such lack of diversity (for instance, via work with the British Sociological Association) is resulting in new

initiatives, such as RACE.ED, a University-wide research and teaching hub for scholars of race and ethnicity, bringing new appointments in race and decolonial thought (Vadasaria, also Bento starting August 2020). Riga runs anti-racist teaching workshops. LGBTQ+ staff in the UoA can draw support from the University's Staff Pride Network which was the Stonewall Scotland Network of the Year 2018. Good support is offered for staff with disabilities, health problems or caring responsibilities that impinge on their work. Adjustments have included the provision of personal assistants or standing desks. Researchers with accessibility challenges are provided support in setting up a home office that meets the specifications of an on-campus office. Experience of doing this enabled smooth transitions to working from home during the COVID-19 pandemic. We encourage and support staff – including but not only those with caring responsibilities or health issues – who wish to move to more flexible working arrangements, and 10 UoA members work flexibly. Promotions support is offered through workshops and internal review to help staff strengthen their applications and set appropriate career goals. Support from these initiatives has, for example, helped Haggett be promoted to Senior Lecturer while working part-time.

Equality, diversity and inclusion (EDI) have been central to the construction of our REF submission, in line with the University's Code of Practice, and building on our inclusive 2014 submission (100% of eligible staff submitted). The reviewing of publications was completed in a fair and rigorous manner, aided by unconscious bias and EDI training. Special circumstances that had impacted on researchers' production of outputs were taken into account. The provisional outputs list was assessed by an independent EDI panel to minimise biases shaping the selection of outputs. The review confirmed that the selected output list contains a wide range of pieces from researchers across area, career stage, and gender (other protected characteristics are reported voluntarily thus figures are unreliable). 78% of submitted staff have two or more publications selected. Most of those with one publication are ECRs or had substantial periods working part-time. Just over half of the outputs in the final selection were authored or co-authored by women in the UoA, and all the ICSs are led by or involve women researchers. The panel were happy with the proposed spread of outputs selected, and satisfied that the review process was rigorous and fair, and had carefully considered implications for E&D.

2.4 Research students

Doctoral researchers are an important part of our research culture, international in make-up, dedicated and often path-breaking in their research. We have awarded 145.96 PhDs, an average of 20.85 per year over the assessment period (11.9 per year in REF2014). This increase compared to 2014 has been possible partly due to our expansion and the attraction of supervisors with expertise in our new research areas. We have also invested in new support for PhD students, including by increasing sociology post-graduate convenor roles from 2 to 3, and improving student progress review processes. Students have been funded by the ESRC, Scottish Graduate School for Arts and Humanities AHRC Creative Economy Studentships, AHRC Collaborative Doctoral Awards, the CONACYT programme, Chinese Government scholarships, Commonwealth Doctoral Scholarships, Leverhulme Doctoral Fellowships, Taiwan state awards, and the Wellcome Trust. Alongside this, 8 sociology/STIS students have had places funded through UoE sources including the Alice Brown and Chrystal Macmillan PhD studentships.

The main vehicles of our postgraduate research training are the Scottish Graduate School of Social Science (SGSSS, of which Crow was Director from 2013-2016) and SSPS's recently formed Research Training Centre (RTC). The SGSSS includes the ESRC's Doctoral Training Partnership in Scotland, incorporating 6 Scottish HEIs, and consolidating the School's long-

standing interdisciplinary research training expertise. These arrangements foster a postgraduate community beyond subject areas and HEI boundaries, including through the SGSSS Summer School courses (with major UoA staff input), which promote cohort-building beyond narrow disciplinary lines. All students are offered non-academic work experience, with many students taking up 3-month internships with partners such as the Scottish Government. In addition, our students receive advanced training through SGSSS, such as that provided by UoA members, including workshops on visual methods and augmented reality. We have restructured our research training courses to make them more flexible, and students can take fundamental research skills and design courses, alongside innovative courses run by members of the UoA such as *Understanding Data Visualization* (Campagnolo), *Researching Digital Life* (Gregory and Orton-Johnson), and *Research Problems in Drugs and Crime Online* (Bancroft). Students can also engage with theoretical debates via *Contemporary Social Theory* (Stanley) and *Sociological Theory for Social Research* (Van Gunten), a particularly beneficial course for PGs without a sociology background.

Our robust policies and processes aid the progress of PhD students. Policies ensure that all doctoral researchers have at least 2 supervisors. Supervisor training includes teaming early-career staff with experienced supervisors, and ECRs attend seminars on best practice in supervision. All supervisors are required to attend regular updating sessions to ensure that they are familiar with ESRC training guidelines and other relevant developments. Revised procedures ensure that students' work is developing appropriately. At the end of the first year, a board including their supervisors and 2 other staff assesses whether students can progress to doctoral status based on submission of an extended proposal. From second year onwards an improved online student annual review process requires students to record their progress, supervision and career development activities across the year, supervisors then offering their reflections and suggestions for training and development. This report is checked by the subject area's on-course PG advisor. In addition, students are required to present at our annual postgraduate conference.

Sociology support for PGRs has also been improved by adding a student experience-focused role to our existing team dealing with admissions and on-course students. Likewise, the Graduate School Office has been reorganised to better meet the different needs of PG research and PG taught students.

Career development opportunities are provided to PhD students in a variety of ways including:

- Research experience as RAs, co-authors and editorial assistants (for example on the 8 journals we edit). For example, PhD students were RAs on Riga's BA grant project and co-authored publications from it; Bancroft (2014) undertook research with students resulting in a joint article in *Sociological Research Online*.
- Paid tutoring with staff on our research-led courses, enabling them to develop experience in those areas of expertise as well as in general sociology. Tutors are supported by: regulation of hours to prevent over-load, workshops to develop their teaching skills, annual observations by colleagues and feedback from this and from student evaluations.
- Presenting papers at professional conferences, with the costs met from the PhD Research Support Fund (up to £500 per annum).
- Special Project Grants: PGR students can also apply for funds to organise conferences, workshops, writing retreats, networking, and research and technology training. This funded, for example, a series of PGR-led writing retreats.
- Popular sociology-specific 'What's next?' workshops to help with career development aims, CV building and preparation for making job applications. During the COVID-19 lockdown we introduced a virtual networking initiative called 'I'll meet you at the tea

break' (blogs.ed.ac.uk/ed-decameron/ill-meet-you-at-the-tea-break/). Eight 'tea breaks' took place between April and July 2020 with scholars elsewhere in the UK, Australia and New Zealand.

The School's Graduate School Student Development Office offers transferrable skills such as presentation and interview skills, particularly targeted at first year research students. Training tailored to different stages includes introductory academic writing courses for early PGR students; and CVs and cover letters, advanced writing, peer review, publishing, and postdoctoral fellowship application techniques for later stage PhDs. Online professional development workshops are accessible to students remotely. The Edinburgh Award and the Professional Development Certificate reward PGR students for undertaking extracurricular community and public engagement, digital content creation, and coaching. The IAD and SGSSS support PGR students via courses on research planning, communication and IT skills, professional development, and new online courses on academic writing and research data management.

Building community is a priority, promoted through activities that bring staff and PGRs together. One example is involvement of present and past PGRs as curators and contributors to our blog responding to COVID-19 (blogs.ed.ac.uk/ed-decameron/). Supported by staff, students also founded a refugee-focused NGO, LIVED, whose outputs include a film of life in Zaatari refugee camp. Also important has been our student-organised annual PG conference *New Directions*, offering all students the opportunity to present and receive feedback in a supportive environment. Other PGR-led conferences have included the 2018 high-profile event on the *History of Sociology in Britain*, organised by Panayotova (now a PDF), and PGR students assisted in organising other Edinburgh-based conferences such as the joint *BSA/ESA Emotions Network* conference (2018) and the *ASEN* conference (2019). Since 2017, students and staff have discussed work in progress in the 'Theorising Our Work' reading group. One success was now graduated PhD student Zelinsky presenting, then using the extensive feedback to rework a paper that appeared in the *European Journal of Social Theory*. School level events include the Graduate School [Robert] Burns Supper every January, and communications are facilitated by the Graduate School student newsletter. Postgraduate representatives attend all Sociology and STIS staff meetings.

The effectiveness of our postgraduate training and supervision is apparent in the success of our students in gaining nominations and prizes for their work, and taking on postdoctoral fellowships, grants, and academic positions. Former PGR students have won prizes for books based on their PhDs. For example, in 2016 Maddie Breeze's *Seriousness and Women's Roller Derby: Gender, Organization, and Ambivalence* won the highly competitive BSA Philip Abrams Memorial Prize for best first monograph, Sam Friedman's *Comedy and Distinction* being shortlisted for the prize in 2015. Amy Chandler's *Self-Injury, Medicine and Society: Authentic Bodies* won the 2018 Foundation for Sociology of Health and Illness book prize. Jennifer Fleetwood's *Drug Mules: Women in the International Cocaine Trade* was winner of the British Society of Criminology Book Prize, 2015. Matjaz Vidmar won the prize for *Emerging Space Leaders*, International Astronautical Federation, 2017. William Kerr's article 'Descent of Nations: Social Evolutionary Theory, Modernism and Ethnosymbolism' won the 2019 Anthony D. Smith Prize.

Sociology and STIS PhDs have won 7 competitive postdoctoral fellowships and 14 other postdoctoral grants since 2014. And many of our former doctoral researchers have launched successful academic careers, including at: Bath Spa (Y. Zhu), California State University (E. Hughes), Edinburgh (A. Chandler, D. Cetra, G. Krasniqi, E. Ribe), Emory University (K. DeDominicis), Glasgow Caledonian (J. Foley, M. Laidlaw), Houston State University (J. Zimpfer), Imperial College (O. Murray), Napier University (F. McQueen), Queen Margaret University (A. Dakessian), Strathclyde University (M. Breeze), Queens University, Belfast (C. Murtagh),

Swansea University (C. Bouzanis), University of the West of Scotland (C. Maclean), Linköping (S. Bea), National Chengchi University (Chun-Ming Huang).

Students have also won secondments to government departments during their doctoral studies (M. Kattirtzi, M. Laidlaw, T. Squirrel,) and gone on to a range of government positions, including in the Scottish Government's Heat Planning and Delivery unit (D. Hawkey), as well as policy roles in the UK, Canada and Ireland.

In line with our commitment to globalising and decolonising sociology, in 2018 we initiated a University 'remote' visiting PhD student scheme, to support PhD students persecuted in Turkey as 'academics for peace' (signatories of a 2016 peace petition demanding an end to the bombing of Kurdish regions by the government). The scheme allows the selected PhD students free access to Library e-resources, remote supervision by staff and supported mentoring by Edinburgh-based PhD students. Six students have benefitted from the scheme so far.

Section 3: Income, infrastructure and facilities

3.1 Research income

The UoA has received £17.5M in grant income since 2014, an increase of almost £6M compared to the last REF. One of the goals of this REF period has been to broaden the spread of funding across staff, with researchers from all career stages and research fields being supported to seek funding where appropriate. This resulted in over 80 external grants spread across 40 staff, with substantial awards won by ECRs (such as our 11 postdoctoral fellows), mid-career (Bancroft, Brownlie, Bruce, Garcia-Sancho, Haddow) as well as senior staff (Calvert, MacKenzie, Tait, Webb, Williams). We have had a 38% success rate on grant applications submitted since 2016 (when new monitoring systems made that calculation possible).

Large grants have enabled us to research financial innovations, histories of science, and race including:

- MacKenzie's ERC FP7 Advanced grant (£1.5M 2012-2018) in the sociology of finance;
- Garcia-Sancho's ERC H2020 for research into 'Medical Translation in the History of Modern Genomics' (£1.1M 2016-21);
- Calvert and Schyfter's ERC FP7 Consolidator grant 'ENLIFE', exploring synthetic biology and the role of the social sciences within the field (£1.1M 2014-2020);
- Meer's Royal Society of Edinburgh Fellowship (£270K 2017-20) and Stanley's ESRC Professorial Fellowship (£380K 2013-2015).

Interdisciplinary work on methodology and scientific innovation has been furthered through our substantial success in funding bids for interdisciplinary centres, and collaboration with other HEIs. Examples include:

- AQMeN centre funding which rolled out data science training to business and industry (ESRC £296K 2017-19, Gayle, MacInnes PIs);
- Administrative Data Research Centre Scotland (ESRC £120K 2013-18). Gayle was Deputy Director;
- ESRC Centre for Population Change Phase II (£5M 2014-19, of which £178K to UoE MacInnes PI, Gayle Co-I of the Scottish Consortium);
- NCRM (£7.7M 2014-25, of which £918K to UoE, Gayle and Orton-Johnson Co-Is);
- The Centre for Biomedicine, Self and Society (Wellcome Trust 20% of £1.2M 2017-2022, Haddow was Co-PI, Sturdy is Co-Director).

- Williams's Department of Health funding for 'Evaluation of Global Digital Exemplars' (£1.1M 2017-2021), working with NHS England, the NHS Digital Academy, and NHS Trusts to advance the 'Paperless 2020' agenda;
- Tait's funding for synthetic biology research (BBSRC £500K 2014-21 for the Edinburgh Mammalian Synthetic Biology Research Centre) leading to influential contributions to regulatory policy (see ICS);
- Webb's ongoing funded work on energy demand, with over £4.5M from EPSRC, Energy Technologies Institute and other sources since 2013;
- Meer's 'GLIMER' project to study local integration of migrants in Scotland (ESRC £475K 2017-2021);
- Bruce and Tait's ESRC-funded study of Diagnostic Innovation and Livestock (DIAL) (£580K);
- Woodman's Co-I role in the ESRC Bright Futures project tracking East Asian students' mobilities, in collaboration with the Universities of Essex, Bielefeld and Tsinghua (ESRC £46K to Edinburgh).

The ESRC, UKRI and the EU provide the majority of our research income. However, we have successfully achieved our 2014 aim of diversifying our sources of funding, securing more grants of higher value from a wider range of funders including Energy Technologies Institute, the National Environment Research Council, ClimateXChange and UK-India Education and Research Initiative (UKIERI). The average successful bid value was £163K in 2016-17 and £224K by 2018-19.

3.2 Support for research grants

Our success in winning external research funding has been underpinned by outstanding professional support from the School Research Office (serving 4 UoAs), expanded as a strategic aim we identified in REF2014 (from 6.8 FTE in REF2014 to 17.95 FTE in REF2021). This expansion has enabled the Research Office to support increasingly complex applications, reporting, ethical and data management requirements, KEI and post-award delivery. It provides information on funding opportunities, offers bespoke briefings, and prepares costings and administrative sections of applications. The School sets internal application deadlines to provide support and feedback for applications to ESRC and other high demand schemes, including managing application numbers where necessary. An indicator of the success of these measures is our 51% increase in grant income. School Research Office support is complemented by specialised services from the University's Edinburgh Research Office, which provides support through horizon-scanning and briefings on key funders and schemes, and guidance on complex bids.

Staff applying for grants also benefit from mentoring and internal peer review from previous grant holders. Further support is provided through regular research days run by Sociology and STIS, which allow staff to discover shared interests, encourage collaboration, and provide support on matters such as developing impact. Examples of successful collaborations that began at research days include Riga and Holmes's BA funded project and the bids to edit leading journals.

Staff can access a range of schemes to fund pilot projects and activities to develop grant applications. The School's Strategic Research and Support Fund (SRSF) provides seed funding grants through an accessible light-touch process (with outcomes communicated within 48 hours). Staff can apply for up to £2,000 per annum to support funding bids, networking or the writing of publications; those preparing bids for large consortium-based grants can apply for up

to £5,000 per year. Garcia-Sancho's ERC grant is one example of successful use of these funds, as an SRSF grant funded his travel to do application-enhancing pilot archival research. Further support is provided through the Global Challenges Scottish Funding Council grant, which awarded Bancroft and colleagues £23K to assess the development of digital platforms to support precarious workers in the informal economy in South Africa.

3.3 Support for impact

The 11.15 FTE expansion of the Research Office has included investment in professional support for impact. During the REF period, at least 2.5FTE has been specifically devoted to impact-related roles by professional staff, including a School Knowledge Exchange and Impact Manager, supported by a full-time Impact Research Fellow dedicated to our UoA. Support includes workshops, assistance in developing impact pathways, and facilitating the gathering of evidence of impact. In addition, an Events Officer helps academic staff plan and deliver a range of events, including successful conferences such as the *ASEN* conference in 2019.

Impact is also enhanced by the activities of our vibrant centres and institutes, many of which have KEI woven into their missions. The EFI organises and supports collaborations between industry, government and communities that aim at solving social problems. For example, EFI has funded a project by the Living Lab (led by Stewart) to use event and transport datasets to understand and relieve festival-related traffic congestion, in collaboration with the University's supercomputing centre, the Edinburgh magazine the *List*, and Transport for Edinburgh. The Innogen Institute (Tait Director, Banda and Huzair Co-Directors) supports impact by providing impartial, non-partisan, evidence-based advice to public, private and social sector stakeholders and by enhancing the skills of participants engaging with the innovation process. These activities have influenced policy on Responsible Research and Innovation (see ICS). Smaller centres such as the Centre for Research on Families and Relationships (Jamieson and Davidson are Co-Directors) also support impact, for example by developing relationships with partners, offering events and training (approximately 50% of attendees are from government or third sector) and publishing briefings for stakeholders. For example, the Scottish Book Trust commissioned CRFR to evaluate their early years reading programme, providing evidence for future improvements.

Staff also have access to generous funding for KEI, and have been awarded £120K in grants from the University's grants for Knowledge Exchange and Impact (up to £2K per grant) and the ESRC Impact Acceleration Grant (up to £20K). Brownlie, for example, used our School's impact consolidation funding to prepare the ground for an ESRC Impact Accelerator Grant awarded for 'The Kindness Sessions', linking academics with policy makers (see ICS). Banda received a University Global Impact Accelerator Grant (£31K) for work to provide countries with evidence to formulate their Neglected Tropical Disease strategies.

3.4 Infrastructure and facilities

As we have grown, we have invested in infrastructure and facilities to improve our research capacities. The Chrystal Macmillan Building (CMB) is the main home of the Sociology subject area, benefitting from updates such as Ground café installed in 2017 at a cost of ~£1.25M. This has vastly improved interaction between researchers at all levels and promotes our inclusive research culture. Ground is used for research-related and community-building events such as conference dinners, a staff 'Garden Party' and exhibitions, including a 2019 exhibition on Black graduates of the University, researched by PGRs across the School. CMB lifts have been replaced to allow wheelchair users to evacuate the building safely. Meanwhile, STIS are housed

in recently refurbished listed buildings 10 minutes' walk away, adjacent to Edinburgh Centre for Carbon Innovation.

As the School has grown, major investment has been made in a £1.75M restoration of Georgian houses into a centre for our PhD students (opened 2019), across George Square from CMB (see pictures below).



A student competition resulted in naming the building after anti-apartheid activist Dr Kesaveloo Goonam, who attended the University's medical school 1928-36. PhD students also decided on the allocation of desk space. The latest high connectivity speed networking has been installed. Kitchens and back gardens facilitate interaction between doctoral students and staff.

Data management is supported by detailed policies, online resources and courses. McCormick is Deputy Director of Research: Data and Open Research. The University has invested £1.1M in infrastructure for a data safe-haven providing security to ISO standards. Our staff are well-provided with high specification technical devices, and all PhD students are offered a laptop. High-performance computing is available for those who need it, such as our quantitative specialists running advanced statistical software.

Edinburgh University Library and the National Library of Scotland are world-class research libraries that are within a few hundred metres of our offices. The A-listed Basil Spence-designed University Library holds in excess of 2M printed volumes and provides access to almost 1.4M e-books, 185K e-journals, 850 licensed databases and over 60km of special collections materials. The National Library, founded in 1689 as the Library of the Faculty of Advocates, has had legal

deposit status since the 1710 Copyright Act, permitting the accumulation of an almost unrivalled collection of 15M printed items.

We have created new spaces for knowledge exchange: Ground Café and the Violet Laidlaw (former secretary to the sociology department) Room in CMB are popular venues for events with audiences within and beyond academia.

4. Collaboration and contribution to the research base, economy and society

4.1 Sociology and interdisciplinary research

The UoA is committed to promoting the importance of sociological approaches in addressing the social challenges of climate change, migration and diversity, nationalism, digital, scientific and financial innovations and transformations in intimacy and cultural life. It fulfils this commitment through research and through impactful activities within and beyond academia.

Our promotion of interdisciplinary research, with particular strength in connecting the social and natural sciences, is furthered through collaborative research. As well as path-breaking and impactful studies linked with biomedicine, energy, and digital and data studies, members of the UoA direct or co-direct many of the centres and institutes that support interdisciplinary research such as the Centre for Research on Families and Relationships (CRFR) (Jamieson and Davidson), Institute for the Study of Science, Technology and Innovation (ISSTI) (Williams), Innogen (Mittra and Tait), Institute for Advanced Studies in the Humanities (Yearley), Centre of Canadian Studies (Kennedy), and Centre for South Asian Studies (Gorringer). Research connected to Innogen has included Tait and Mittra's ESRC research on regenerative medicine, as well as a project exploring Edinburgh's role in the emergence of animal biotechnology through a history of Dolly, the first cloned sheep (Garcia-Sancho). ISSTI projects have included Williams's work on e-prescribing and research on Integrating Technical and Social Aspects of Fire Safety Engineering Expertise (MacKenzie, Williams, Yearley). Projects in the Centre for South Asian Studies include the North-South cross-disciplinary feminist research and pedagogic collaboration over two years between the University of Edinburgh and Ambedkar University Delhi, India, led by Govinda (UKIERI). We also have a strong presence in the EFI (Coombs, Gregory, MacKenzie, McFall, McKie, Stewart, Webb). Large-scale collaborations include those with Medicine, such as Williams's 'Evaluation of Global Digital Exemplars', Engineering (for instance Tait Co-I on 'Implantable Microsystems for Personalised Anti-Cancer Therapy'), and centres such as the Global Academy of Agriculture and Food Security (Tait). The UoA is also home to interdisciplinary research networks, such as the Digital Economy network and the Researching Latin America network, running workshops and seminars.

4.2 Research collaborations with private, public and NGO sectors

In addition to the collaborations described in the impact case studies, academics at all career stages have engaged with a wide range of **charitable, industry, scientific and cultural organisations**. Examples include: Harm Reduction International (Bancroft); Samaritans UK (Brownlie's work for them on trust and empathy online); Scottish Book Trust (Davidson's project on their early years Bookbug programme); UK Council for International Student Affairs (Woodman's Bright Futures project on student migration); Care Opinion (Mazanderani); Positively UK HIV charity and peer-support organisation (Mazanderani); Shift.ms and CCSVI Australia [multiple sclerosis charity and activist group] (Mazanderani); Royal Society of Edinburgh and Royal College of Surgeons of Edinburgh (Vermeulen); three Beirut based humanitarian organisations working with refugees [details confidential] (Riga, Holmes). The latter



included creating a mural with the young refugees, expressing what they wanted to say to 'Beirut' (in white in the photograph on the left); Syngenta (Mitra, Tait); The Secret Experiment [video games company] (Prior); RAFT solutions [for sustainable livestock; Floodplain Meadows Partnership production] (Bruce); Cool Farm Alliance Industry group; Food and Drink Federation Scotland (Darmon); CICERO – Norway's Centre for International Climate Research (Jenkins's INCLUSIVE Decarbonization and Energy transition project); European Bioinformatics Institute (Garcia-Sancho); Edinburgh Science Festival, Edinburgh International Festival; Edinburgh Film Festival (Haddow, Vermeulen); Kayd Somali Arts and Culture (Liberatore); Edinburgh Fringe Festival (10 UoA members have contributed to the Cabaret of Dangerous Ideas).

Collaborations with **Government, Political and Regulatory** organisations include: British Standards Institution (Tait); Better Regulation Executive (Tait); Scottish Government in relation to National Performance Framework (Brownlie); All-Party Parliamentary Group for International Students (Woodman through her project on students moving to study); Scotland's Rural College (Bruce; DEFRA); ClimateXChange (Bolton, Webb; Winskel); OFGEM (Bolton); United Nations Industrial Development Organisation (Banda); New Partnership for Africa's Development (Banda); NHS England and NHS Digital (Williams); Swiss Federal Department of Defence, Civil Protection and Sport (Viry); Local Energy Scotland (Haggett); Marine Scotland (Haggett); Edinburgh City Council (Stewart, Vermeulen); Viduthalai Chiruthaigal Katchi (Liberation Panther Party), and the Circle of Intellectual Dalit Actors (Gorrington). Webb co-directs the UK Energy Research Centre, is a member of the Infrastructure Commission for Scotland and adviser to the UK Government Industrial Strategy Challenge: Prospering from the Energy Revolution Programme.

4.3 National and international research collaborations

Our aim to globalise and decolonise our sociological contribution is pursued through collaborations with overseas research leaders in our specialisms. UoA members have held at least 20 international visiting positions since 2014, including at Cornell University; University of Melbourne; Tata Institute of Fundamental Research in Mumbai; University of Tokyo of the Arts; and University of the Free State, South Africa. Substantial forms of collaboration (for example, formal memoranda of understanding; extended visits; exchange of staff; joint research; funding applications; co-authorship; co-editorship; academic event co-organisation) link the UoA to 39 UK universities, and 79 overseas research institutes and universities from Addis Ababa to Zhejiang.

Examples of a particularly successful international collaboration resulting from our strategic prioritisation of quantitative methods is Viry's research with a team who secured Swiss Government funding for a large survey of a national cohort of young men (Swiss Federal Department of Defence, Civil Protection and Sport - DDPS £1.2M, about 50,000 participants). Important as part of our decolonising agenda was the aforementioned UKIERI funded project led by Govinda. Along with the Nitrogen Hub research mentioned, this marks Edinburgh's ongoing

engagement with India's shift from being a 'research site' for social scientists to becoming an important collaborator and funder of social science.

4.4 Esteem Indicators

Many colleagues' publications have won or been shortlisted for prestigious prizes including: winning the LSE Monographs in Social Anthropology/Bloomsbury First Book Prize (Liberatore 2016); Singer Prize Special Commendation, post-graduate and early career essay competition, British Society for the History of Science (Barany 2014); shortlisting for the BSA Thinking Allowed prize for ethnography (Gorringe, 2018); Special Mention, Prize for Young Scholars, International Union for the History and Philosophy of Science and Technology (Barany 2017); winning the Farabi International Award 2018 and shortlisting for the BSA Philip Abrams Memorial Prize (Hashemi). Stanley was awarded the 2015/2016 Andrew Mellon Fellowship in Digital Humanities at the National Humanities Research Center, North Carolina, USA. CRFR Research Associate Dr Sarah Nelson was awarded an OBE in 2020 for her longstanding work on behalf of survivors of childhood sexual abuse. In 2018 MacKenzie was awarded a medal by the Society for Progress to recognise his work showing how finance markets and products are produced by financial models. Webb received an MBE in 2020 for her services to energy transition in the UK.

Staff have given over 30 high-profile keynote or plenary talks at major international conferences, including Calvert at the *World Economic Forum Annual Meeting 2015*, Davos, Switzerland; Meer at ESA, Manchester 2019; Orton-Johnson at *Economic Regeneration in Europe* conference Dubrovnik, 2018. Between 2014 and 2020, 48 different staff have provided 268 media releases relating to their expertise.

4.5 Agenda-setting research leadership

UoA members also demonstrate leadership by editing or co-editing 8 major journals in our areas of expertise, including 5 hosted at Edinburgh: *Cultural Sociology* (one of four BSA-affiliated journals), brought to UoE in 2016 for 5 years, was edited by Prior and Thumala (and previously Darmon and McCormick); Jamieson brought *Families, Relationships and Societies* to Edinburgh and has been chief editor since 2017; Meer is Chief Editor and Woodman and Krasniqi Associate Editors on *Identities*; Rosie is Chief Editor and Bond is Associate Editor of *Scottish Affairs*; and Coombs is Founding Editor of *Finance and Society*. Holmes is Founding Co-Chief Editor for *Emotions and Society*; McFall co-founded and co-edits *Journal of Cultural Economy* and McCormick is Associate Editor for *American Journal of Cultural Sociology*. Brownlie and Holmes exercised intellectual leadership by reviving and convening the BSA Emotions study group (2015-2019), were founding editors of the Routledge book series on Studies in the Sociology of Emotions, and hosted a joint BSA/ESA *Sociology of Emotions Conference* (2018).

Eleven members of the UoA have held editorial (chief, co- or associate) roles on journals, and seven have edited book series. Since 2014 we have held 37 editorial board positions, including for: *Civic Sociology*; *Contemporary Voice of Dalit*; *Ethnic and Racial Studies*; *Information Communication and Society*; *Nations and Nationalism*; *Science and Technology Studies*; *Scottish Affairs*; *Social Inclusion*; *Sociological Theory*; *Sociology*.

Research events within the UoA comprise both smaller internal intellectual and community-building talks, and larger outward-facing events. Important in the latter category were events celebrating the 50 year anniversaries of Sociology and of Science Studies at UoE. The 2014 conference *Edinburgh Sociology: 50 Years of Engaging the Contemporary* was the keystone event in year-long festivities. It was a homecoming of great intellectual and emotional meaning,

with packed-out attendance by sociologists from across the UK and beyond. Speakers included John Brewer, Brendan O'Leary, Saskia Sassen, Gita Sen and Dorothy Smith, as well as past staff and students of the department. The celebrations of 50 Years of Science Studies at the University brought together many key figures from the history of STIS at Edinburgh and around the world, and included public lectures by Helga Nowotny and Bruno Latour. We have also organized events about the development of sociology in the UK, such as the 2018 conference on the *History of Sociology* in Britain (80 attending), which included speakers such as John Goldthorpe and Jennifer Platt.

More regular events include weekly Sociology or STIS seminars, with invited speakers from many nations. General seminars are held within normal working hours to facilitate attendance by those with childcare commitments. Specialist seminars run by UoA members are also regularly held, for example the Latin America research seminar series, the Centre for South Asian Studies Seminar and the Centre for Research on Families and Relationships Seminar Series. Public lectures included a visit from Virginia Eubanks (author of *Automating Inequality*) in 2019 and high profile events such as the annual Goffman Lecture, which celebrates Erving Goffman's connection to the University of Edinburgh. It was delivered in recent years by Jeffery Alexander, Howard Becker, Michelle Lamont, and Sylvia Walby, amongst others. Theda Skocpol had to postpone due to COVID-19.

We have also hosted agenda-setting events in our areas of strength, including the *ESA/BSA Emotions Networks Joint Conference* in August 2018 (75 attending), the *Futures of Finance and Society conference 2018* (200 attending), and the 2019 *ASEN Annual Conferences* (130 attending). Darmon organised an international conference on Weber/Simmel antagonisms in December 2015 resulting in a special issue in *Classical Sociology*.

Eighteen staff in the UoA were members of 26 conference organising/scientific committees between 2014 and 2020. These include Calvert being a member of the Academic Committee for the International Symposium *Quite Frankly: It's a Monster Conference*, celebrating 200 years since the publication of Mary Shelley's *Frankenstein*, in 2018; Haggett's organisation of 'Local energy systems in the UK', held at the Edinburgh Centre for Carbon Innovation, 2016; and Kemp's organisation of the Theory Stream for the BSA Annual Conferences 2014-2017.

As a marker of our intellectual leadership in our areas of research strength, UoA members or retired members have held key positions in national associations. For example, Jamieson was President of the BSA 2014-2017, Meer and McKie serving as trustees (2016-2019). P. Jeffery (retired 2016) was President of the British Association of South Asian Studies (2014-2020). Hearn was elected President of ASEN in 2019. Stanley was the 2020 recipient of the BSA's Distinguished Service to British Sociology Award.