

Institution: Sheffield Hallam University

1. Context and mission

Mission

Our mission is simple: we transform lives. We give people from all backgrounds the opportunity to acquire the skills, knowledge and experience to succeed. Our research is characterised by a focus on real world impact - informed by international, national and regional policy priorities - addressing the social, economic, environmental and cultural challenges of today. We are ambitious for our people, our partners, our region and our world. Our vision is to be the world's leading applied university, demonstrating what an institution genuinely focused on transforming lives can achieve through creativity, endeavour and collaboration.

Sheffield Hallam sits at the heart of its region, woven into the fabric and culture of its place. Our [Transforming Lives](#) strategy and our [Creating Knowledge Implementation Plan](#) underpin our research mission. These plans inform our actions to ensure our research generates innovative, practical solutions to real world problems, and that through partnerships we deliver wide-reaching societal advances. It is our ambition to identify and lead research in new and emerging areas, and be recognised internationally for research that has real impact.

During the REF period, we have grown and strengthened the strategic direction of our research base. Significantly investment in research intensity has doubled the number of staff with significant research responsibilities. We have invested in our research infrastructure, building a more sustainable and supportive environment in which cross-disciplinary working can thrive, facilitated by the establishment of four new [research institutes](#). It is our vision that these institutes will create academic focus and critical mass to address themes of global importance.

We have also created three challenge-led impact platforms - **Enabling Healthier Lives**, **Driving Future Economies** and **Building Stronger Communities** - which sit across structures, framing and building capacity in order to address key societal challenges in interdisciplinary ways, informing our approach to delivering impact.

Size

Sheffield Hallam is the UK's eighth largest university by student numbers (HESA 2018/19). We have more than 1200 active researchers (500 staff and 715 doctoral). Between 2014 and 2020 we doubled the number of staff with significant research responsibilities from 16% to 32%. Our ambition is that this will reach 50% by 2027. We have expanded the breadth of our research, with extensive research communities and groupings now spanning 14 UoAs, compared with 11 in 2014. Psychology, Computing and Social Policy have been particular growth areas. Our ambition is for this growth to continue to 2027, as emergent areas continue to be cultivated. This expansion of activity has also been reflected in the growth of our research income over the REF period.

Structure

Research and innovation is structured around four research institutes through which we articulate three main research modalities: strategic centres of excellence, broader departmental-led enquiry, and large-scale cross-disciplinary institute networks. Our institutes are:

- Health
- Industry and Innovation
- Social and Economic
- Creativity and Culture

Research institutes span traditional academic groups of departments and centres. Each institute has a mission to encourage dialogue and work across disciplinary borders, as detailed in our Strategy section. This has delivered a significant step-change in the way we collaborate and has opened-up opportunities for disciplines to enter new contexts internally and externally. This cross-disciplinary and cross-sectoral working is exemplified in the richness of our impact case studies and is central to our future priorities.

Through staff development and recruitment strategies, detailed in the People section, the University has been moving from a principally 'pockets of excellence' research model, to one that extends our excellence deeper into our teaching and into our professional networks. This is evidenced through the doubling of staff with significant research responsibilities, the establishment of new UoA submissions, and the mobilisation of our growing expertise base to build larger scale networks around key challenge-led themes.

Research and Innovation Services (RIS) provides a balance of academic and professional support (87 FTE). This ensures a strong partnership ethos across both domains, providing roles embedded within research institutes, and a central co-ordination underpinned by academic leadership. Core functions include: strategy and policy, income generation, project and resource planning, legal and IP, research excellence and impact, and doctoral provision. As we have shaped the environment to meet the future needs of our researchers, we have positioned RIS in a key role, building researcher capacity, capability and foresight.

2. Strategy

Strategic Direction

During the assessment period we sought to increase our weighting of staff with significant research responsibilities, build capacity and invest in areas of growth. Research has thrived in terms of development and income generation, resulting in a doubling of our research intensity and an income base that has grown from £8.5million in 2014 to £11.1million in 2021 (HESA research data). Our future ambitions are to continue to increase research intensity (from 32% to 50% by 2027) and to continue to increase research income (by 13% year-on-year).

Over this period we have built strong networks of knowledge, addressing key challenges with the potential for significant impact, and invested in our people and our research infrastructure (as evidenced in the Income, Infrastructure and Facilities section). Over the next 3-5 years we will build on these themes as we set future objectives, developing a greater emphasis on stakeholder engagement, diversity and inclusivity, larger-scale interdisciplinary collaboration, and increased collaborative doctoral provision.

We have created a more sustainable and vibrant research culture and made a significant step-change through strategic investment - creating supportive, dynamic structures, and promoting collaboration. We are actively encouraging greater global reach, wider international co-authorship, interdisciplinary innovation and a commitment to wider research partnerships. The next step is addressing our civic mission, developing insight and collaborations to respond to local needs, and taking our research into new contexts, communities and geographies.

We have made investments in research infrastructure, our human and physical resources, and our capacity to leverage new income streams. We have, and continue to develop, a diverse income portfolio that is flexible and sustainable, allowing us to support and develop individual researchers, research communities, and larger-scale interdisciplinary multi-partner consortia.

Interdisciplinary Research

We have learned how interdisciplinarity can be developed and mobilised, and understand how it impacts positively on real world challenges to deliver innovative outcomes. We are committed to providing an environment, through our strategies, leadership, people, processes, investment and facilities, in which disciplines can convene and collaborate within and around our strategic platforms. We encourage new perspectives from disciplines whose expertise may not immediately be seen as relevant to identified challenges, and we strive to build distinctive and innovative perspectives into our collaborations. In committing to this approach, we aim to develop unique and transferable clusters of knowledge, and establish our place as innovators in and beyond the sector.

Our strategy and implementation plans have focused on challenge-led research, in line with the UK Industrial Strategy's Grand Challenges and our institutional mission of Transforming Lives. Our thematic impact platforms - **Enabling Healthier Lives**, **Driving Future Economies** and **Building Stronger Communities** - have sought to galvanise high-impact interdisciplinary research and provide a framework for developing intra-university and external collaboration. The platforms have helped focus our investment decisions, set our priorities and grow our research income. This has become a firm tenet informing the deployment of our expertise, as evidenced by the type and scale of our secured income, and the interdisciplinary nature of many of our impact case studies.

Our 14 centres of excellence are strongly aligned to the platforms and all centres focus on applied, interdisciplinary, high-impact research at scale. Centres - such as the Art and Design Research Centre; the Centre of Excellence in Terrorism, Resilience, Intelligence and Organised Crime Research; the Sport and Physical Activity Research Centre; and the Centre for Regional Economic and Social Research - have a heritage of delivering excellent interdisciplinary research and impact extending over decades. Newer centres established during this REF period have broadened this interdisciplinary base of activity (further detail of these in the Income, Infrastructure and Facilities section).

Our future ambitions for the centres of excellence are to build a critical mass of interdisciplinary activity around the platforms, and to leverage larger scale investments in order to widen global reach and deliver greater impact.

Enabling Impact

Our institutional approach to the application of research and delivery of impact is embedded in our values. Fundamental to our Transforming Lives strategy is the belief that universities should make material contributions to social, economic, environmental and cultural challenges. Impact activities are channelled through the three platform themes, and driven by our strategic centres of excellence, to galvanise high-impact interdisciplinary research from across the University. Our team of impact support staff provide training and engagement mechanisms to enable researchers to develop partnerships and deliver impact. Impact is embedded into academic promotion and recruitment criteria through the [Academic Careers Framework](#), where it is given equal weighting with the production of outputs and income generation.

Our impact strategy is informed and developed through close working with international, national and regional partners, policy makers and research users, to accelerate the achievement of our Transforming Lives mission. We work with partners and stakeholders, in the co-design and co-production of research - to deliver economic and social prosperity, and improve health, wellbeing, security, resilience and community cohesion.

Enabling Healthier Lives

The [Advanced Wellbeing Research Centre](#) (AWRC) brings together academic expertise across disciplines to undertake research and innovation in partnership with end-users and communities, addressing the social, behavioural and environmental determinants of health, and helping people lead healthier active lives. The AWRC Wellbeing Accelerator, recently awarded University Enterprise Zone status and with funding from Research England, supports start-ups to bring health and wellbeing innovations to market through a programme of business planning, mentoring, prototyping, trials and investment.

The [Lab4Living](#) research centre is underpinned by a collaborative community of researchers in design, healthcare and creative practice. It has delivered over 100 research projects with over 80 academic, hospital and community organisations - resulting in creation of IP, open-source collaborative tools and product design. Examples of this include the Life Café project, which radically rethinks how palliative and end-of-life care can be improved.

Driving Future Economies

The [National Centre of Excellence for Food Engineering](#) - developed in partnership with the national Food and Drink Federation, companies including Nestle and Premier Foods, and SMEs -

delivers engineering-led innovations to address food sector challenges. It is now established as an industry-facing catalyst for innovation, skills and training, providing a direct route for impact. The [Sheffield Innovation Programme](#), an ESIF-supported partnership with the Sheffield City Region Growth Hub, has helped more than 200 Sheffield Hallam researchers to work with more than 300 companies (SMEs) since 2016 - providing solutions to enable business to improve product and process performance, and enter new markets.

Cross-disciplinary applied research is a strength of our research centres. For example, our [Biomolecular Sciences Research Centre](#) works closely with the [Materials and Engineering Research Institute](#) on innovative health and medical applications projects, bridging science and engineering disciplines across areas such as imaging, thin films, polymers and nanocomposites.

Building Stronger Communities

The [Centre of Excellence in Terrorism, Resilience, Intelligence and Organised Crime Research](#) has global reach to both academic and professional expertise to progress ground-breaking security-focused research and innovation. As an example of collaborative development, the [Security Communication and Analysis Network](#) is an innovation that is helping to ensure the safety of UN personnel through a digital system, developed in partnership with the International Organization for Migration (IOM), that benefits thousands of IOM staff in over 150 countries.

Our leading policy-focused research centres (the [Centre for Regional Economic and Social Research](#); the [Centre for Development and Research in Education](#); and more recently the [Centre for Behavioural Science and Applied Psychology](#)) have led, informed and challenged policy at international, national and local scales - delivering research and evaluation to government, influencing policy on issues such as welfare reform, economic regeneration, 'energy invisibility', fuel poverty, educational attainment and widening participation. We are passionately committed to our region and have strong links with the Sheffield City Region Mayoral Combined Authority, working in policy advisory roles and with seven recent strategic commissions in key fields (clean air, transport, housing, employment and education), serving to transform our city and region.

Research Integrity

The Concordat to Support Research Integrity underpins our standards of good research practice. All University research is subject to ethical scrutiny, to ensure it is conducted to the highest ethical standards. Our ethics [policy and procedures](#) ensure that participants' interests are paramount, that they provide fully informed consent, and that confidentiality and anonymity are guaranteed. Since 2017 we have moved to a devolved system of ethical reviewing, where all active researchers are trained and empowered to review applications; this is viewed as an important development opportunity. In 2017, the University's Head of Ethics was invited to give evidence to the House of Commons Science and Technology Committee's inquiry into research integrity.

Our policy assures the highest standards of integrity, impartiality and data management. As a research provider to international and UK agencies, we have developed data security protocols compliant with data protection legislation; while local guardians ensure NHS data security and protection standards are met.

Open Research

The University aims to make all outputs of research widely available through unrestricted online access; this includes outputs outside the scope of the REF open access requirements.

The University's REF open access compliance levels are considerably above average; 70-80% (varying quarterly figures) of in-scope outputs were compliant (85-95% after exemptions), compared with the UK average of 61% (80% after exemptions; Research England 2018 report). Our institutional repository holds 20,000 items, downloaded 4.8million times. We support the publication of gold open access articles through a dedicated fund; almost 20% of items submitted to REF2 have been published through this route. During 2018/19 we introduced a 'Career Kickstart' fund, where Article Processing Charges (APC) funding was targeted specifically at Early Career Researchers (ECRs) and parental leave returners. 26% of our open access funds have supported Career Kickstart. Since 2017 all doctoral theses are submitted to the University's repository; we have digitised and made available our entire collection of historic theses (2000

theses, 764,442 downloads). We publish two open access journals - *Journal of Marlowe Studies* (UoA 27) and *People, Place and Policy* (UoA 13).

The University supports good practice in research data management and provides open access to research data where possible. Our research data archive is an asset we intend to build on and currently holds 40 significant datasets, which have been used 220 times.

The University has an embedded policy to ensure the responsible use of research metrics and is a signatory of the San Francisco Declaration on Research Assessment (DORA).

3. People

People Strategy

Our action plan for the Concordat to Support the Career Development of Researchers underpins the people and culture strand of our research strategy. We have held the HR Excellence in Research Award throughout this period and have worked towards a genuine step change in our support and career development offer for researchers. Regular review, evidence gathering (CROS/PIRLS) and researcher-led feedback have helped monitor progress and refine our forward plans. Instrumental initiatives that have contributed to development and capacity building include:

i) Investment: In line with our REF Code of Practice, all academic staff have the opportunity to secure significant research time allocation against forward-looking research plans.

ii) Progression: New routes for progression to professor and reader roles have been implemented within an overarching [Academic Careers Framework](#), which sets out expectations for progression across four strands: i) academic citizenship and leadership, ii) research and innovation, iii) teaching and learning, and iv) external and professional engagement.

iii) Recruitment: We have invested in a global talent recruitment programme to attract and secure staff - at leadership, mid-career and ECR levels - with the greatest research potential; to extend, complement and stimulate our existing research communities.

iv) Internal Funding: Since 2018, £1.3million has been invested across seven funding streams to support researchers at all stages of their career to stimulate research and impact activities. Three of the schemes, the Chancellor's Fellowship Fund, the Platform Challenge Fund and the Strategic Investment Fund, were designed to pump-prime activity; the others were focused on developing international collaborations, cluster funds to support research networks, and impact funding. 86 awards were made. A proportion of funding was ring-fenced for the development and support of ECRs.

v) Networks: A university-wide ECR Network was launched in 2018, with funding to facilitate collaborative and developmental initiatives (e.g. research cafes, poster sessions, writing for publications events). The Network is inclusive and covers all new or returning researchers. ECR representatives are embedded throughout our governance structures, providing a voice in decision-making, ensuring two-way communications with researchers.

vi) Mentoring: University-wide mentoring is provided by a hub of more than 100 mentors. Professors and readers mentor junior colleagues as part of their leadership roles. Female researchers can also access the Aurora scheme, run by AdvanceHE, or our internal Aspire scheme, developed by our Women Professors' Group - to help address gender imbalance in senior roles.

vii) Quality: we undertake regular assessment of our research in order to ensure research quality, assess impact, and consider alignment with our strategic priorities. The process is designed to be inclusive and supportive of the development needs of all our researchers.

viii) Development: A researcher development programme supports all researchers through their career progression. Delivery is informed by Vitae's Researcher Development Framework (RDF) and specific needs identified through research assessment and individual Performance and Development Review. Our annual Creating Knowledge Conference showcases the breadth of research across our institution and provides a platform for the development of doctoral and ECR research. Research institutes run a series of dialogue events around challenge-led topics (e.g. ageing, human rights), promoting debate and developing cross-disciplinary collaborations.

Research Students

In 2015 we established a Doctoral School to enrich the doctoral experience and improve support. We created academic leadership and professional services posts to co-ordinate policy, training and support provision. Training and development are delivered through university-wide and discipline-specific approaches. PGRs undertake a development needs analysis against Vitae's RDF and are encouraged to develop wider professional skills, e.g. 3-Minute Thesis, PubHD, Writefest and the Brilliant Club. Recent outcomes include two PGRs reaching the national final of 3-Minute Thesis (2015, 2019), one of whom (2019) won.

The Doctoral School has driven engagement in training partnerships nationally and internationally. Examples include:

- ESRC [White Rose Social Sciences DTP](#) (2017-23), a £17.4million collaboration across the Universities of Sheffield, York, Leeds, Hull, Sheffield Hallam, Bradford and Manchester Metropolitan.
- [Heritage Consortium](#) (2013-22), supported by £1.85million of funding from the AHRC and £1.11million from its partners - the Universities of Hull, Bradford, Sheffield Hallam, Huddersfield, Leeds Beckett, Northumbria and Teesside.
- [North of England Consortium for Arts and Humanities](#) (2014-open-ended), with the Universities of Hull, Bradford, Sheffield Hallam, Huddersfield, Leeds Beckett and Teesside.
- [Doctoral Training Alliance](#) (2015-23), co-ordinated by the University Alliance in: Applied Biosciences for Health (2015), Energy (2016) and Social Policy (2017). A €6.5million COFUND grant was awarded from the Marie Skłodowska-Curie programme.
- Global joint PhD programme with La Trobe University (2020-open-ended), focusing on health and wellbeing, sport and physical activity, and food and nutrition.

We offer a range of scholarships for PhD study, including Vice-Chancellor's Scholarships, strategic co-funds, and our Graduate Teaching Assistant (GTA) programme, which also provides academic development in teaching and learning.

We have performed well in national surveys; the 2019 Postgraduate Research Experience Survey identified Sheffield Hallam as an exceptional place to study, with an overall satisfaction rate of 85%. We scored in the top quartile for 7 of the 8 survey categories, placing us in the top quartile for student satisfaction. Bioscience and Communications (UoAs 5 and 34) were ranked first nationally in their disciplines. Annual doctoral completions have increased 55% compared with REF 2014.

In the next 3-5 years, our ambitions for our doctoral provision are to increase our collaborative doctoral awards with industry, extend our international doctoral awards beyond our current La Trobe partnership, and to establish an interdisciplinary programme where doctoral students from across our disciplines can convene collectively around themes of global importance.

Equality and Diversity

Equality, diversity and inclusion (EDI) are key priorities of our people strategy, aligning to the University's [Equality Objectives](#). EDI resources have been developed and all staff on recruiting panels, or involved in research assessment, are required to complete EDI and unconscious bias training. We have university-wide infrastructures to support diverse communities, through our LGBT+, race, disability, parent/carers and gender networks.

We recognise that inequalities exist and are making cultural and systemic changes to make a difference. We are members of the AdvanceHE Race Equality Charter (REC) and will submit our application for the REC in 2021. We are a Stonewall Diversity Champion and we hold an institutional Athena SWAN Award (bronze); while gender equality work is also recognised at discipline level: Nursing/UoA 3 (bronze), Psychology/UoA 4 (bronze), Bioscience/UoA 5 (silver), Engineering/UoA 12 (bronze) and Built Environment/UoA 13 (bronze).

Equality analyses were undertaken on every internal research assessment to determine representation with respect to equality groups, to monitor trends and inform interventions to reduce under-representation. Data-informed recommendations are embedded into action plans for Athena SWAN and the Concordat to Support the Career Development of Researchers. As an example of the progress made, female staff make up 47% of our REF submission, compared with 41% in 2014.

Our REF submission is comprised of 13% BAME staff, compared with 8% in 2014. Our EDI roadmap aspires to increase diversity in our research community through recognising and celebrating diversity, recruiting from more diverse and under-represented groups, and facilitating career progression and inclusive leadership. We have strengthened our EDI leadership and governance by introducing several EDI Steering Groups, chaired by University EDI Champions. In 2021 we will be launching our Hallam Values and refreshing our Equality Objectives, to reflect our enhanced commitment to EDI.

4. Income, infrastructure and facilities

Income

The University's annual income is approximately £290million per year, with research and innovation making up approaching a tenth of this. A trajectory of the REF period has been an increase in large scale strategic awards, involving interdisciplinary and multi-partner consortia. A strategic KPI is to increase research income 13% year-on-year.

Infrastructure Strategy

The University has an extensive, well-equipped £400million research estate. It is made up of £350million of buildings and £50million of equipment, enabling the wide-ranging work of our research community. We have an annual budget of around £3million for capital investment in research. The University's infrastructure strategy is to continuously invest in world-class facilities, leveraging external funding for capital partnership in key challenge areas where we can deliver the greatest impact.

Centres of Excellence

Three centres of excellence have been established with significant external funding during the REF period:

The [Advanced Wellbeing Research Centre](#) (AWRC) opened to the public in January 2020 with £14million investment from the UK's Department of Health, ERDF funds and industry sponsorship. It consists of a cross-disciplinary team of over 70 researchers, with a range of specialisms including sports engineering, materials engineering and software development, elite sports science, public health and psychology. It has fully equipped indoor and outdoor laboratories, including a 3D movement analysis lab, a 3D morphology scanning lab, a design engineering and manufacturing workshop, a human movement and performance lab, an emerging technologies hub and an innovation accelerator with SME co-working facility. As a centrepiece of Sheffield's Olympic Legacy Park, the AWRC addresses the social, behavioural and environmental determinants of health - helping people lead healthier active lives, be more active and adopt healthier lifestyles. Current themes include:

- RICOVR: helping people recover and rehabilitate from Covid-19 and manage longer term impacts
- Healthy and Active 100: supporting people into 100 years of healthy and active life
- Technological and Digital Innovations to promote independent lives

- Living Well with Chronic Disease: exploring the management and treatment of chronic disease through physical activity as a therapy

The [National Centre of Excellence for Food Engineering](#) (NCEFE) opened in October 2019 with support of the Food and Drink Federation and over 40 companies - including Mars, Nestlé UK, Warburton's and Premier Foods. Backed by investment of £10.32million, including £6.9million from HEFCE, this state-of-the-art food manufacturing and processing facility is co-located with the AWRC in our developing Don Valley Campus. The site includes pilot-scale production facilities, laboratories and workshops. NCEFE plays a strategic role in developing advanced engineering capability to address industry challenges, for example increasing automation, reducing food waste and energy usage, and improving product packaging, storage and distribution. Current projects include reduced energy usage in commercial kitchens and food processing, reduced fat in baked cheese products, international collaborations in China and India addressing waste, and the reuse of the by-products of rice milling.

In 2019 [Lab4Living](#) (L4L) was awarded £4million (matched by the University) from the Research England Expanding Excellence in Research Fund (E3), to help grow its multi-disciplinary collaborative community of researchers in design, healthcare and creative practices. The team address health and wellbeing challenges, for example design-led research projects that explore the '100-year life' and the 'future home', developing interventions that promote dignity and enhance quality of life. L4L's research has created global award-winning products and innovations, such as the Head-Up orthosis for patients living with Motor Neurone Disease, which sold over 1500 units in the first year through a local company (Talarmade).

Internal Investment

The University has also invested in emerging areas of research excellence. In 2019 the University invested £250,000 in establishing the [Centre for Behavioural Science and Applied Psychology](#) (CeBSAP). This centre of excellence applies contemporary psychological theory and behavioural science to issues of wellbeing, health, social inclusion, cognition and behaviour change. CeBSAP now receives external funding of £500,000+ a year, is part of the government's Business Intelligence Framework, and has been a pivotal centre nationally and locally regarding communication responses to Covid-19.

In 2020, we established London-based [Sonnet Advisory and Impact Community Interest Company](#), with £120,000 investment - co-creating and improving social, environmental and economic impact with charities, government and businesses.

Other infrastructure investment included a £27million building to house Psychology and Social Policy researchers, including state-of-the-art laboratories facilities (2014), a purpose-built £32million facility for Education researchers (2016), a £5.5million refurbishment of the Materials and Engineering laboratories (2017), a £10million investment in STEM facilities (2017), and a £9million regeneration project which saw Art and Design move into a landmark grade II listed building, which had lain derelict for 15 years (2016).

Future Facilities

Looking forward, the University has developed a [campus masterplan](#), a 20-year project to create a sustainable and flexible campus that will help achieve our ambition of becoming the world's leading applied university. The plans will bring new thinking to the future shape and scale of our research and teaching environment, reflecting the shift to advanced technical education and a highly interdisciplinary and applied research base.

The first phase of the masterplan will see the investment of £220million to upgrade our estate and create new buildings for Social Sciences and Business by 2023. The developments will provide sector-leading research facilities, enabling us to achieve sustainable benefits and high impact outcomes for our researchers and partners.