

Institution: Coventry University

1. Context and mission

Coventry University is forward looking and dynamic with a mission of 'Creating better futures'. We work with our partners to ensure that our students are prepared for their futures and that our research is impactful. We are an anchor institution which invests, directly and indirectly, in our city and region. Approximately one third of our academic staff contribute to our research mission and, as of the 31st July 2020, the University had 1,820 academic staff, 38,449 students and a turnover of £428M.

At the time of the REF2014 submission, we were renowned for our teaching excellence and strong tradition of delivering applied research, influencing policy and practice, supporting business, and enriching our education provision. The outcome of REF2014 recognised the small clusters of internationally excellent research dispersed across Coventry. To build on this excellence, maintain our focus on relevant research, and further enhance our teaching, we began the current REF period with a new 'Excellence with Impact' strategy which has transformed our research activity. Figure 1 shows that, following significant investment and senior management support, we focused our research into 14 challenge-led multi-disciplinary research centres, where all staff with significant responsibility for research (SRR) are based. Our REF2021 submission shows a threefold increase in our return, and 85% of staff submitted are new to Coventry.

Figure 1: Research Centres, showing primary alignment and growth with all four REF Main Panels; staff and research student numbers (at census date); research funding portfolios and FTE returned to REF2021 compared to REF2014.

		Research Centres	REF2021	REF2014
Panel A	93 Staff 123 PGR £8.3m	Intelligent Healthcare (IH) Sports, Exercise and Life Sciences (SELS) Global Learning and Education (GLEA)	44.2 FTE	31.6 FTE
Panel B	200 Staff 209 PGR £25.1m	Fluid and Complex Systems (FCS) Future Transport and Cities (FTC) Built and Natural Environment (BNE) Data Science (DS)	137.4 FTE	40.7 FTE
Panel C	224 Staff 268 PGR £29.5m	Agroecology Water and Resilience (AWR) Business in Society (BIS) Financial and Corporate Integrity (FCI) Trust Peace and Social Relations (TPSR)	200.5 FTE	46.1 FTE
Panel D	82 Staff 72 PGR £4.0m	Arts, Memory and Communities (AMC) Centre for Post Digital Cultures (PDC) Centre for Dance Research (DARE)	69.8 FTE	34.5 FTE
		Total	451.9FTE	153.0 FTE



The success of this strategy has been recognised and is set to continue into the next REF period. Since the census date, we have strengthened the senior research leadership team, refreshed our Research Services provision, established a new research centre, invested further in research infrastructure, and nearly doubled our investment in studentships.

2. Strategy

This REF period coincided with the first stage of our 15-20 year research strategy, and Coventry's largest ever research investment in people, facilities and infrastructure. We consolidated dispersed areas of research into stand-alone centres and invested in areas that align to local, national and international challenges, informed by the UK Industrial Strategy and the UN Sustainable Development Goals. This strategic focus on our research, research students and investment has developed cohesive research identities provided physical places for staff and students to engage in research and develop the ambition, skills and connections that have delivered world-leading research.

Figure 2: Research organisation chart

Deputy-Vice-Chancellor Research Academic Leadership Professional Services Leadership Deputy-Vice-Chancellor Research Director of Research Services (Development, Delivery, Finance, Four Associate Deans for Research Administration, Excellence and Ethics) Health and Life Sciences Engineering, Environment and Computing **Director of the Doctoral College Business and Law** (Student Life Cycle, Research Capability Arts and Humanities Training) **Other Services Research Centres** Intelligent Healthcare Associate Heads of School Research Sports, Exercise and Life Sciences Library Fluid and Complex Systems Registry **Future Transport and Cities** Marketing and External Affairs **Built and Natural Environment** People Team 1 **Data Science** Digital Team Agroecology Water and Resilience Strategy and Planning Business in Society Enterprise and Innovation Financial and Corporate Integrity **Estates** Trust Peace and Social Relations International Global Learning and Education Legal **Business Transformation** Arts, Memory and Communities Centre for Post Digital Cultures Policy Unit Centre for Dance Research



To accelerate this shift of focus to research excellence and the associated culture change, leadership, management, support and finances of our centres is centrally coordinated by the Deputy-Vice-Chancellor for Research (DVCR) (Figure 2). Four Associate Deans for Research (ADRs) align to the REF Main Panels, providing discipline leadership in their area. Each centre is led by an Executive Director (reporting into the DVCR or one of the four ADRs) supported by a dedicated operations team, central Research Services, the Doctoral College and Centre for Research Capability Training (ReCap) and an Enterprise and Innovation Office (EIO).

Our research community, across and between all levels of staff and students, is tight-knit and interconnected. The challenge-led nature of our research means we routinely work across centres and disciplines with diverse stakeholders, encouraging collegiate and inter-connected working. Communication across centres is facilitated by regular meetings and strategy days involving research leadership and related professional services. This approach enables prompt and considered responses to external and internal demands; strategic resource allocation; direction and application of strategy and effective responses to challenges and opportunities created by a growing research base. Inclusive collaboration is also fostered at the Early Career Researcher (ECR) and research student levels through fora and events coordinated by our Doctoral College.

Research and Impact Strategy

Our overarching focus, since 2014, has been 'Excellence with Impact' (Figure 3). We declared and achieved an ambition of trebling our submission to REF2021 *cf* REF2014, with a concomitant increase in research quality. We strategically selected metrics to benchmark our improvement in quality, with an ambition to be better than the UK sector average by the end of 2021. (Table 1).

Table 1: Institutional publication data outlining improvement since 2014 cf UK average

Metric	Coventry University 2014	Coventry University 2020	UK Sector Average 2020
Outputs in top 10% cited papers worldwide (field weighted)	10.8%	16.2%	15.8%
Outputs in top 25% of Journal Percentiles by SNIP	48.8%	59.7%	62.7%
Outputs internationally co-authored	37.6%	62.0%	60.2%

Source: SciVal, 23/03/2021

Our approach to impact acceleration is grounded in developing strategic partnerships to identify challenge-based research questions; co-create research proposals and embed partners within centres. We have successfully built collaborations with local, national and international stakeholders such as: Coventry Cathedral, Compton Verney Art Gallery, Severn Trent, TWI, the National Engineering Laboratory and the United Nations. Our greatest impact occurs when researchers are 'at-elbow' and co-located with our partners. For example, our Centre for Agroecology Water and Resilience is based alongside Garden Organic at Ryton Gardens and our Centre for Advanced Low Carbon Propulsion is a joint venture with German Automotive Consultants FEV, placing our partner and researchers together in a purpose-built facility on our technology park.



Our impact case studies demonstrate the benefit of working with partners. With many staff new to Coventry during this period, we have produced underpinning research and generated impact for our case studies in a single REF cycle. Our ability to do this demonstrates the success of our impact acceleration strategy and the full fruits of this will be seen in the next cycle.

Stakeholder engagement

Our stakeholder engagement strategy of developing academic partnerships/networks locally, nationally and internationally has been essential in delivering research excellence and impact acceleration. Our relationship with external partners enables us to realise research impact. A significant proportion of this engagement is delivered through the centres with academic and impact partners identified and developed at centre formation. We deliberately recruit both career academics and practitioners to instil a culture of relevance to our research and create, sustain and grow stakeholder networks, while developing strategic partnerships. Our engagements are delivered through the centres and supported by institutional frameworks:

Academic Partnerships/Networks

Support for developing research relationships is provided through Research Services, our international hubs and offices, and the Collaborative Programmes team in the Doctoral College, which handles our portfolio of cotutelle students (currently 49) with 16 universities ranging from the University of Warwick to Deakin University in Australia.

Local

Engagement with the City Council and Coventry and Warwickshire Local Enterprise Partnership (CWLEP) is led by our Associate Pro-Vice-Chancellor (Strategy) who is strategy adviser for the CWLEP. Through CWLEP, we have received funding for our National Transport Design Centre (NTDC) and the extension to our Advanced Manufacturing Engineering (AME) Centre. We are involved with research-led initiatives with local organisations, including the RISING Global Peace Forum and the City of Culture 2021, which has led to funded projects working with local practitioners from the cultural and creative sector, charities and community groups.

National

We are part of the University Alliance Research and Innovation Network, which facilitates senior research leaders from like-minded modern universities to engage proactively on identifying future cutting-edge research opportunities, and provides engagement opportunities with key national research bodies.

International

Our international hubs and offices, in locations such as Brussels, Singapore, Dubai, and China, enable us to consolidate and extend international engagement through cotutelles and academic partnerships, engage with local academic networks, gain access to foreign government investment, generate impact and change policy.

Impact

A competitive annual impact acceleration fund (typically 10% of our QR income) helps generate impact from our research. Our Research Excellence team build in impact from research idea through to delivery and impact forms a significant part of the annual strategic research reviews chaired by the Vice-Chancellor (VC).

Public

We are committed to ensuring our communities benefit from being part of our research mission. For example, MiFriendly Cities relates to research on migration and social cohesion (Centre for Trust Peace & Social Relations (CTPSR)); a collaboration with Coventry University Social Enterprise CIC and the City Council, promoting, raising awareness of, and building the market for,



refugee and migrant social enterprises within the West Midlands. We also use 'Pint of Science' to share our research with the wider community in city venues.

Policy

The centres work alongside Coventry's Policy Unit to build links with representatives from local, national and international government and political parties. This ensures research is aligned to regional and national priorities, providing a mechanism for Coventry to respond to research-related policy consultations. Through working with the Industry and Parliament Trust, researchers are informed about Parliament/Government and connect with MPs, Ministers, Select Committees, Civil Servants and pressure groups and have refined skills in drafting policy briefings.

Knowledge Exchange

Our EIO supports developing non-academic partnerships and plays a pivotal role in the establishment of Knowledge Transfer Partnerships, industry funded research degrees and supports the development of non-academic partnerships. Since 2015, we enrolled 109 industry funded PhDs, representing 26% of our PhD population (9% 2015). EIO also coordinates our CPD and Consultancy activities, further supporting knowledge exchange and influencing policy and practice.

Interdisciplinary research

Interdisciplinarity is hard-wired into the centres by bringing together researchers and external stakeholders from a variety of disciplines to solve Grand Challenges. For example, the Institute of Future Transport and Cities brings mechanical, electrical, manufacturing and materials engineers together with designers and psychologists to work on future mobility challenges. This is supported through internal and external sandpits (with academic and non-academic stakeholders), institutional funding calls for PhD studentships and pump-prime funding for cross-centre projects. We are also a partner in the University Alliance (Marie Skłodowska-Curie Action funded) Doctoral Training Alliance which supports three interdisciplinary research programmes in Applied Biosciences for Health, Energy and Social Policy.

Open research environment

We foster an open research environment by supporting participatory research, translating research into more accessible formats, encouraging open data and mandating open access (OA).

Participatory research is embraced to ensure the inclusion of partners and beneficiaries across the research life-cycle (co-creation, co-delivery, co-reporting). For example, we have invested approximately £400k in research infrastructure to develop a citizen science focused FabLab (CTPSR) which has engaged approximately 1,800 people from 51 countries in the co-creation of our research. This research, directly aligned with our approach to citizen science, has been highlighted by the European Commission as best practice.

As part of our impact strategy, we translate our research into a range of publicly accessible formats, blogs, videos, white papers etc. Our dedicated Research Marketing and External Affairs (MEA) team supports staff and students in their knowledge mobilisation activities. We have an institutional membership of *The Conversation* and, in 2019/20, wrote 29 articles which received 893,545 reads, with re-publishers including BBC, RTE and *The Independent*.

Our approach to open access is outlined in our OA policy (https://libguides.coventry.ac.uk/rsp/openaccess) which requires deposit of all output types onto Pure (our research information system and OA repository) (https://pureportal.coventry.ac.uk/) to make these OA where copyright, funder stipulations and other conditions allow, with a preference



for the sustainable and cost-effective 'green' route. Since 2011, Coventry has supported the open-source Open Journal Systems (OJS) (https://publications.coventry.ac.uk/) and now publishes regular issues for two journals (with four in development) which attract international submissions and have a range of international reviewers/editors, one of which is indexed by Scopus. The journals are fully OA and do not attract charges. Our commitment to OA is further illustrated by our role as lead partner, and investor, in the Community-led Open Publication Infrastructures for Monographs (COPIM) project (https://copim.pubpub.org/).

Research ethics and integrity

The University's Research Conduct and Ethics Policy (https://www.coventry.ac.uk/research/about-us/research-ethics/) outlines our commitment and expectation that any research activity, undertaken by staff or students, meets the highest ethical standards. A member of our Senior Research Leadership Team (SRLT) is the University Ethics lead and chairs the University Research Ethics Committee (comprising the centres' Ethics Leads). A Research Ethics and Integrity Manager (Research Services) supports and coordinates this activity, managing our ethics approval system (updated 2019/20).

Coventry welcomed the revised UUK Concordat on research integrity (2019) and we completed a comprehensive review of the commitments, resulting in a thorough action plan to ensure compliance. Our Responsible Metrics Working Group, with academic and professional services representation, embeds responsible metrics within University processes and meets the needs of all our funders and disciplines. A key outcome from this group was the production of a Responsible Use of Indicators in Research Evaluation Standard, aligning with the principles of the Leiden Manifesto. (https://www.coventry.ac.uk/globalassets/media/documents/responsible-use-of-indicators-in-

(https://www.coventry.ac.uk/globalassets/media/documents/responsible-use-of-indicators-in-research-evaluation-standard.pdf)

Strategic goals for research and impact over the next five years.

Global events of the last year show that research challenges are ever-changing. Our strategy, based around challenge-led centres, successfully adapts to the ever-changing world. Our research structure, reviewed and refreshed in 2020, sets the strategic foundation for the next five years (Figure 3). Our ambition, as articulated in our 2030 Corporate Strategy is to further enhance research quality, to place us in the top quartile for research in REF2028 (Top 30 by 2030). We will retain our transdisciplinary research centre approach, focusing on challenges, with an ambition to become world-leading in each. We will grow our external income to increase research student numbers (>1000 FTE), technical and administrative support, and ECR funding. This will be accompanied with only a modest growth in our establishment, with an objective of submitting ~500 FTE to the next REF.

Figure 3: Strategic objectives and enablers for research

Excellence with Impact

Deliver novel, significant, rigorous & ethical research/innovation with/for external partners through our challenge led research centres.

Research Enriched Learning

Provide challenge led, transdisciplinary postgraduate education & support research enriched undergraduate education.

Objectives

People (High Performing Transdisciplinary Teams)

Identify, recruit, support and retain key leaders and the leaders of the future with a focus on wellbeing, diversity, inclusion and equity.

Place (Inspiring Spaces)

Provide our staff and students with "digital first" creative spaces and facilities to enable them to commission and deliver high quality research.

Post Graduate Students (Securing the Pipeline)

Develop innovative PG funding schemes. Identify, recruit and support quality postgraduates from around the world.

Partnership (Global Challenges/Local Impact)

Develop significant partnerships with top organisations locally, nationally and internationally in strategic countries.

Our revised research structure (January 2021) demonstrates continued commitment to research. To provide optimised research support, drive further improvements in research excellence, impact acceleration and deliver research enriched learning, we created eight research institutes containing our 14 centres (Figures 4 and 5). Each Institute Director holds specific functional leadership responsibility to foster even deeper cross-centre collaboration, and support the DVCR in realising our strategic ambitions. Furthermore, we have started the new REF period with over £8M committed spend in 2020/21 for enhancing research infrastructure; over 100 new research student scholarships, and the formation of a new Centre for Healthcare Research, to host our new Care Excellence partnership with University Hospital Coventry and Warwickshire.

Key areas of focus for the next period will be increasing diversity, especially at the senior level, growing transdisciplinary research (built into the Grand Challenge nature of the institutes), enhancing our approach to open research and further diversification of income, alongside QR funding, including consultancy, research-led masters, CPD and contract research. This will provide funding to grow our research base, focusing on the newer and smaller centres in the areas of Health and Wellbeing, Global Education and Creative Cultures.

To support knowledge exchange and impact acceleration we are creating a number of challenge-led innovation districts including: Clean Growth, Cultural and Creative, Ed Tech, Health and Wellbeing, and Mobility. Anchored by the University, these districts will bring together companies to connect with start-ups, business incubators and accelerators. Based in and around the city, they will exploit the physical assets of the University and the proximity to housing, retail and office spaces to promote an urban innovation ecosystem.



Figure 4: Research institutes and alignment with research centres and faculties

Docoarch	Inctituto	for Hoalth	& Wellbeing
Research	Institute	tor Health	& wellbeing

Research Centres: Sport, Exercise & Life Sciences, Intelligent Healthcare,

Healthcare Research

Research Institute for Global Education

Research Centres: Global Learning (GLea)

Research Institute for Clean Growth & Future Mobility

Research Centres: Future Transport & Cities

Research Institute for Mathematical, Physical and Computational Sciences

Research Centres: Computational Science & Mathematical Modelling, Fluid &

Complex Systems

Research Institute for Sustainability, Equity & Resilience

Research Centres: Agroecology, Water & Resilience

Research Institute for Responsible Business, Economies & Society

Research Centres: Business in Society, Financial & Corporate Integrity

Research Institute for Peace, Security & Social Justice

Research Centres: Trust Peace and Social Relations

Research Institute for Creative Cultures

Research Centres: Post Digital Cultures, Dance Research, Arts Memory &

Communities

Faculty of Health & Life Sciences

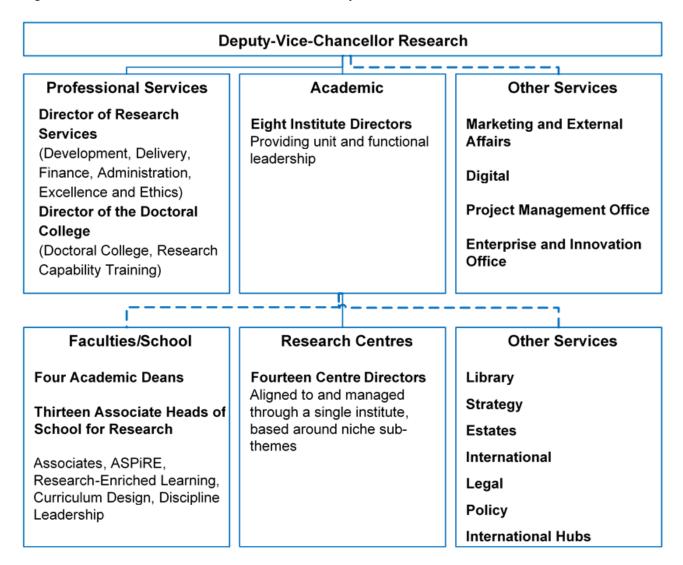
Faculty of Engineering, Environment &

Faculty of Business &

Faculty of Arts & Humanities



Figure 5: Research structure effective from January 2021



3. People

Staffing strategy and staff development

Our research base has grown through a strong commitment to researcher development, talent management and targeted recruitment into our centres.

We develop future talent by identifying and recruiting ECRs, promoting the 'stars of the future' from research intensive universities. This, combined with targeted recruitment of professors (37), enabled us to bring in expertise and mentorship from senior academics, building capability in strategic areas to create vibrant, sustainable communities of practice with high-performing and ambitious teams.

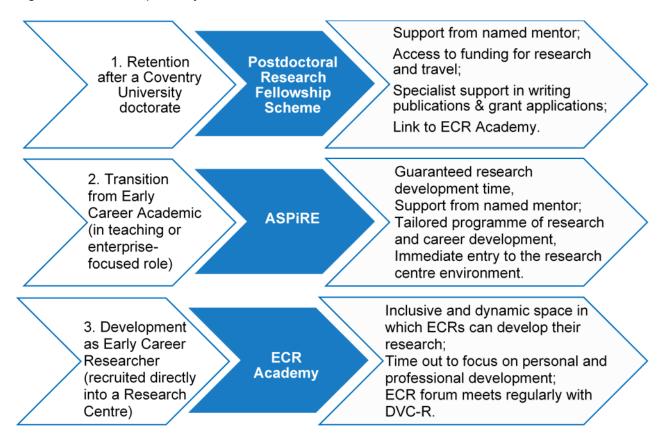
SRR is evidenced through core or associate membership of a research centre as described in our Code of Practice where staff are given time and resource to undertake and deliver internationally leading research. Staff join centres via:

- Core membership (directly employed by centres)
- Associate membership (faculty-based staff) for minimum three-year secondment available to all staff who can move to core membership as their research careers develop.
- Academic Support Programme in Research Excellence (ASPiRE) programme.



To invest in early career talent, we recruit newly-awarded doctoral graduates into permanent roles and our two-year structured ASPiRE programme supports them in becoming independent researchers. Following successful completion, participants can apply for centre membership. ASPiRE is one of **three transition pathways** supporting ECRs (Figure 6).

Figure 6: Transition pathways for ECRs



The Researcher Development Concordat principles and our action plan are at the heart of research career development. (appendix-c-2019-21-action-plan-to-support-the-career-development-of-researchers.pdf)

Our Doctoral College and ReCap (employability skills) support the research community, delivering an evidence-based offer of **development and training opportunities** 'from PhD to Professor'. developmental pathways (https://recap.coventry.domains/), aligned to Vitae's Researcher Development Framework, assist researchers in selecting relevant opportunities. Further development is provided through: Advance HE's Aurora 'Women in Leadership'; Coventry's leadership development programmes and Coaching and Mentoring Academy.

In addition to training and mentoring, ECRs engage with the assessment of applications for internal investment (Section 4) through Coventry's peer-review process and, with research students, are embedded in decision-making, e.g., through membership of the University Research Committee and Doctoral College Steering Committee. A quarterly ECR-led forum provides feedback to the DVCR, ReCap and Research Leadership, shaping and developing our ECR development strategy. Targeted links into taught modules provide pathways for research staff and students to contribute to teaching within our Research Enriched Learning programme.



Support for Research Students

We create a dynamic environment for research students through investment in support mechanisms, infrastructure and funded scholarships, funded through our QR budget.

We have established, and invested significantly in, our Doctoral College which provides centralised administrative and pastoral research student support. The comprehensive development programme supports students and their supervisors from admissions through to award. This investment has transformed research student support activity, increasing numbers by over 100%. On-time submission rates have increased to 85% over four years, and we aim to increase this over the next five years.

The Doctoral College and ReCap collaborate with centres in innovative projects, actively promoting inter-, trans- and multi-disciplinary collaboration. This structure is sector-leading, harnessing closer interactions across disciplines and peer to peer support, thus ensuring quality, coherency and consistency, fostering our 'PhD to Professor' ethos. Activities include Three Minutes Thesis, Research Hootenanny, Capability and Development Conference, and Research Student of the Year.

Each research student is co-located with their supervisory teams (typically three) in the centres to engage with a comprehensive training and development programme. This enables peer to peer learning, encourages depth and rigour around research methodologies, creates strong and interconnected communities of researchers and provides students with high levels of support.

We have a growing number of students on the University Alliance Doctoral Training Alliance programme and the numbers of research students on the AHRC Midlands4Cities DTP and cotutelle programmes also grows. We offer a diverse range of cohort-based training and career development opportunities. Mobility schemes for both research students and ECRs encourage networking and enables experiences of global research and work environments.

Our research and PhD recruitment (52% from outside the UK) are supported by our international hubs, offices and networks. We work with regional governments, organisations and companies to attract funding and students, e.g., the Indonesian Government and A*STAR (the Agency for Science, Technology and Research) in Singapore. Our diverse research student population is reflected in 55% (census date) of our research student population being from a BAME background compared to a sector average of 18% (Advance HE 2018/2019).

Equality, Diversity and Inclusion (EDI)

Our diverse research population helps us achieve excellence; attracting, recruiting and retaining the best research talent wherever that is found.

Coventry's EDI team covers equality for staff, students and visitors. EDI Committees (EDIC) drive forward the equality agenda at University and centre level. To support EDI within our Research Community, a sub-committee for research (EDIC-R) boasts a strong, diverse membership of researchers (from research student to professor). All University staff undertake specific EDI mandatory online modules, including unconscious bias training. Staff are supported by equality networks such as BAME staff, Cancer Support; LGBTQ+ Staff; Mental Health Support; Women in Research, and Women's Network.



Our commitment to EDI is illustrated by our institutional and departmental (CTPSR) Athena Swan Bronze Awards and we are supporting other centres to apply. We are recognised as a Disability Confident Employer and Stonewall Diversity Champion. Since 2013, our innovative work in developing an inclusive, research environment, supporting researchers at all stages of their career, has been recognised with an HR Excellence in Research Award.

We compare the characteristics of the staff within centres to the faculties to identify and address areas of under-representation. All centre members have equitable access to our research support opportunities, functions and infrastructure.

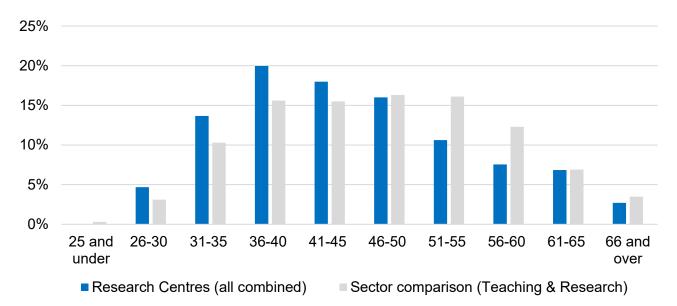
We are proud of our staff data on age (Figure 7, Table 4), ethnicity (Figure 9, Table 3), gender (Figure 8, Table 2) and disability (Table 5) which compares favourably with the sector. Our average is above the sector for staff from BAME backgrounds, and our young profile reflects the strategy of investing in academics at earlier career stages.

Table 2: Recruitment by age profile of all staff

	<25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66+
2014- 2020	1,304	1,129	1,121	923	816	650	527	400	162	83

Source: Coventry People Team

Figure 7: Age profile of research staff



Source: Coventry People Team, census date and Sector data, Advance HE, 2018/19

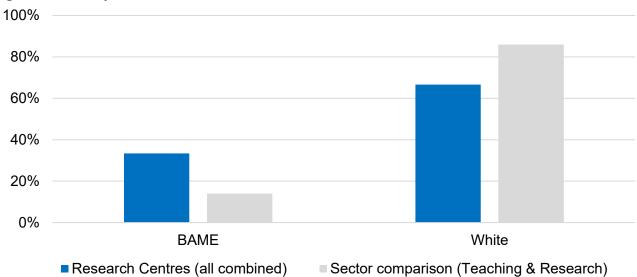
Table 3: Ethnicity of professors and senior staff

	BAME	White	No data
Average cohort % over REF period	10	86	4

Source: Coventry People Team



Figure 8: Ethnicity of research staff



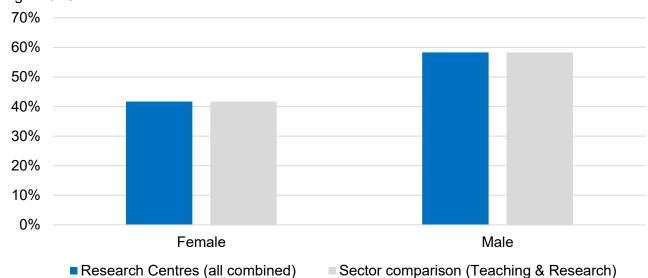
Source: Coventry People Team, census date and Sector data, Advance HE, 2018/19

Table 4: Gender of professors and senior staff

	Female	Male
Average cohort % over REF period	37.3	62.7

Source: Coventry People Team

Figure 9: Gender distribution of research staff



Source: Coventry People Team, census date and Sector data, Advance HE, 2018/19

Table 5: Declared disability of research staff cohort

Response	Disabled	Not Disabled	Not known/blank
Average cohort % over REF period	4	81	15

Source: Coventry People Team



Gender pay gap

Coventry's gender pay report for 2018 is available at:

https://www.coventry.ac.uk/the-university/key-information/equality-and-diversity/gender-pay-report/. Although the Government suspended the requirement to complete and publish the Gender Pay Report for 2019, Coventry completed the review. As a result of the actions we have taken, our mean gender pay gap is below the national figure at 15.5% (2017: 16.3%) and our median gender pay gap is 13.6% (2017: 13.7%).

Supporting policies and processes

Coventry operates a review and development process where staff and line managers agree objectives, record actions and comments, and review performance and priorities in a flexible, responsive manner. Outstanding contribution is recognised through annual Exceptional Performance Awards.

Academic progression runs annually, for all academic staff, in line with our single academic framework. A Professorial Conferment Committee, including DVCs, PVCs and external advisers considers professorial applications.

Our People Gateway gives access to policies which support staff. For example: Location Independent Working, Career Break and Maternity, Paternity and Adoption. Our focus on creating connected communities of researchers is also reflected in, and enhanced by, our flexible working policy which enables staff to be part of our environment.

4. Income, infrastructure and facilities

The investment in the establishment of our centres, over the period, was significant (£37.5M). This phase initiated a long-term strategy underpinned by continued financial support to ensure our facilities evolve to meet demands and priorities. Governors approved a strategic Research Excellence Programme (2019) of £10M investment in centres, including a £200k investment (per annum) in additional journal subscriptions. A further £8M (2020/21) will sustain quality growth across our research base.

All centres have benefited from investment to provide dedicated spaces that encourage creativity in a vibrant research environment which is attractive to talent and nurtures high-quality research. All centres are separate from Coventry's main teaching facilities, giving researchers access to state-of-the-art facilities and equipment in wholly dedicated research environments. This enables networking within and across research groups, discussion and development of ideas and the development of external networks to ensure our challenge-led approach to research is developed with our industry and academic partners as evidence with co-location of partners (Section 2).

The growth of, and investment in, our research base has enabled us to successfully attract significant Global Challenges Research Funding (GCRF) with awards in the last two years being £1.7M (2018/19-2019/20) and grow our European funding income of £3.5M (24% of portfolio). Our award value from Europe has increased by 35% from 2016/17-2019/20, bucking the trend of a significant fall in UK participation in H2020 over the same period.

We have created a bespoke professional services support structure dedicated to, and embedded within, our research community. Research Services cover funding and development, delivery and



operations, ethics, finance, management information and impact. To maximise the benefits of our challenge-led research, we have invested in a permanent team of research impact professionals to build in impact from research idea through to delivery and beyond. These well-resourced services support the embryonic development of centres and individual research portfolios of researchers at all career stages. These functions are managed centrally, but staff are embedded in centres and *de facto* are part of their community, enabling a responsive service (Table 6). Support given to staff in relation to EDI is addressed in Section 3.

Table 6: Research administrative support

Support Area	Headcount
Research Funding and Development	21
Research Systems	5
Research Operations	39
Research Delivery Support	32
Research Excellence and Impact	9

Additional research specific roles and teams have been established in ITS, MEA and the Library so that all relevant academic and professional service teams have dedicated staff. For example, MEA staff are allocated to centres to provide support and leadership in areas such as Digital, Social Media, Media and Stakeholder Relations, research marketing, communications and events. SIGMA, Coventry's Maths and Statistics support service and the Centre for Academic Writing also provide dedicated resource.

Our ongoing commitment to the sustainability of research is evidenced through our key infrastructure and collaborative investments in this period of which a <u>selection</u> is outlined here.

Investment in facilities

The £59M Alison Gingell building (opened 2017) has laboratories supporting CSELS and CIH. This helps drive interdisciplinary research, as well as research-enriched teaching. Over the period, we have invested in building satellite research facilities at Ryton Gardens (purchased 2019 (£2.4M)).

Investment in collaborations

AME, shared with Unipart, pioneered a 'Faculty on the Factory Floor' delivering world-class Manufacturing and Materials Engineering research. This success, following an initial £7.9M investment, led to further investment of £6.6M to grow space and equipment. The NTDC is a state-of-the-art interdisciplinary centre bringing together designers, human factors specialists, psychologists and technologists to develop novel applications for new and existing technologies.

Investment in infrastructure

We have made significant investment (over £2M) to ensure researchers have sustained access to accounting and research databases, and further investment in virtual reality equipment, statistical and GIS software necessary for high-quality research.

Income-in-kind

Researchers from FCS have had access to the European Magnetic Field Laboratory in Grenoble. The total value to Coventry was £646k between 2014/15 and 2019/20.