



University for the Common Good

GCU Research Strategy (2017 Refresh)

SUSTAINABLE DEVELOPMENT GOALS



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Executive Summary

This document presents a refresh of Glasgow Caledonian University's strategy for research for 2020, the original Strategy having been signed off by University Court in September 2014. This refresh is taking place due to developing internal and external environments and the need to begin to look beyond 2020; no less because the next Research Excellence Framework will now take place in 2021.

As top Modern University for research power in Scotland, it will be seen that this strategy refresh is built on a strong trajectory. Our strengths, both within and across GCU's three Schools and existing research centres, allow us to be global in our ambitions; hence our focus on the potential of our research to address several of the United Nations' 2015 Sustainable Development Goals. Simultaneously, this will also ensure that we are addressing the needs and goals of other international organisations, international and national competitive grant funders, governments and industry, all of which require the multi-disciplinary and multi-sectoral approaches to inclusive growth and enhancement of health, well-being and sustainability that we possess at GCU.

The framework through which we intend to meet such needs and goals has several features:

- three societal challenges of *Inclusive Societies*, *Healthy Lives* and *Sustainable Environments*.
- six associated themes – social innovation and public policy; social justice, equalities and communities; public health; long-term conditions; built environments; and efficient systems – intended not only to reflect strengths within our Schools and societal challenges, but also to encourage more research across the challenges and the University.
- cross-cutting research to be further facilitated by a new *University research centre approval and renewal process* to endorse four new (or existing) research centres.

University resources will be targeted at promoting the highest quality research within and across the above themes and centres to grow research income for large research projects and also via Knowledge Transfer Partnerships, and related sources of government support for innovation, as well as industry funding.

The pursuit of cutting-edge research will also be driven via coordination with the goals of other University strategies: enacting the principles of research-led teaching articulated in the GCU Strategy for Learning 2015-2020; enhancing research partnerships by building on those already established by our research community, working through global engagement initiatives as outlined in our Internationalisation Strategy, and integrating public engagement for research with our Public Engagement Strategy. Our evolving Digital Strategy supports crucial aspects of research infrastructure, such as open access publication, communication and collaboration and improved research management systems. Finally, and in line with GCU's People Strategy, we seek to place research excellence at the heart of recruitment and create a stronger researcher development environment in line with University values of integrity, creativity, confidence and responsibility.

1. Introduction

- 1.1 This document presents a refresh of Glasgow Caledonian University's Research Strategy; a supporting strategy for the University's Strategy 2020. The Research Strategy provides a framework for both discipline-led and inter-disciplinary research within and across all academic units.
- 1.2 As a University for the Common Good, the focus of Strategy 2020 is upon transforming lives, enriching cities and communities, creating societal benefit through social innovation and engaging globally. This provides the platform for research at GCU to achieve global impact by addressing multiple Sustainable Development Goals – see Appendix 1. In September 2015, the United Nations adopted these goals in order to “end poverty, ensure prosperity for all and protect the planet”. Thus, through our research, GCU will address the Sustainable Development Goals via three societal challenges of *Inclusive Societies*, *Healthy Lives* and *Sustainable Environments*. These challenges also reflect the strategies of other international organisations, international and national competitive grant funders, governments and industry, which call for multi-disciplinary and multi-sectoral approaches to inclusive growth and enhancement of health, well-being and sustainability reflected in the academic strengths and critical mass in GCU's three Schools.
- 1.3 GCU's Research Strategy also drives and informs the University's Outcome Agreement with the Scottish Funding Council which encourages GCU to grow total research income from all sources. GCU's Research Strategy also sits squarely alongside the University's other supporting Strategies for Learning and Internationalisation. It sets out a number of strategic objectives which are in line with GCU values.

2. The importance of research

- 2.1 Research is at the heart of GCU's mission as a University for the Common Good and is central to our other major activities, such as teaching. More particularly, research:
- contributes to the development of intellectual and social capital, generating benefits to society via impacts on economic, environmental, cultural and social policy to enhance the quality of life;
 - enhances our reputation as an international centre of knowledge and expertise, with positive financial consequences in terms of research excellence grant income;
 - provides a basis for collaboration with other organisations in the UK and internationally across the public, voluntary and private sectors;
 - is crucial to our employment as educators, attracting high-quality staff and students from all over the world, and informing their professional development;
 - informs and underpins the content of all curricula, enhancing the student experience, helping to produce skilled, intellectually adept and employable graduates.

3. GCU's developing Research Themes and associated Centres

From Societal Challenges to Research Themes

- 3.1 Research within each challenge will focus on two broad research themes, these being:
- For *Inclusive Societies*: Social Innovation and Public Policy; Social Justice, Equalities and

Communities;

- For *Healthy Lives*: Public Health; Long-term Conditions;
- For *Sustainable Environments*: Built Environments; Efficient Systems.

3.2 The following outlines each of the six themes, offering a framework around which we expect much of our research activity to coalesce:

Social Innovation and Public Policy: This theme explores collaborative approaches and other responses to social problems, focusing on (i) the governance and impact of public and civil society organisations (ii) responsible management and sustainable business (iii) risk, accountability and regulation.

Social Justice, Equalities and Communities: This theme explores the dynamics of social vulnerability and well-being, focusing on (i) identities, diversity and equity (ii) enhancing the evidence base for initiatives and interventions (iii) the socio-cultural analysis of policy and practice.

Public Health: This theme explores the development and evaluation of public health interventions, focusing on (i) healthy ageing (ii) anticipatory health interventions (iii) infection prevention and control.

Long-Term Conditions: This theme explores long-term conditions with a high socioeconomic and disease burden and inequality, focusing on (i) diabetes (ii) visual impairments (iii) musculoskeletal health (iv) stroke rehabilitation.

Built Environments: This theme explores the anthropogenic impacts of climate change and resource utilisation by critically promoting fairer, healthier and sustainable approaches, focusing on (i) climate justice (ii) healthy buildings and urban spaces, and (iii) risk and value management.

Efficient Systems: This theme explores technological innovations to increase efficiency and fairness of infrastructure, systems and processes in urban environments, focusing on (i) energy generation and storage (ii) diagnostic systems and sensors (iii) computing (Big Data; Internet of Things; digital security and games) and (iv) industrial processes, manufacturing and virtual engineering.

GCU Research Centres

3.3 There are deep connections between the challenges, the corresponding themes and the interdisciplinary work required to address them. They also reflect the impacts that we wish to make through our research and the intra and inter-School collaborations required to achieve them. Pursuit of these themes will, therefore, be facilitated by the creation (and retention) of a small number of research centres, aiming to work across the University's Departments and Schools as well as the research themes, but without the expectation that every aspect of every theme will be contained within such centres. We will encourage strong international, inter-sectoral and inter-disciplinary research both within and across themes and centres. This will be underpinned by strong methodological foundations and related individual scholarship drawn from the appropriate academic disciplines across Schools, and accompanied by a new Centres Approval and Renewal Process.)

Investing GCU research funds

3.4. We will invest University resources in promoting the highest quality research within and across the above themes to grow research income attracted for large research projects and also via growth in Knowledge Transfer Partnerships, and related sources of government support for innovation, as well as industry funding (e.g. industry-sponsored PhDs). This will include: embedding of government-funded strategic research partnerships – such as the Nursing, Midwifery & Allied Health Professions Research Unit (given its focus on interventions, sustainable health & social care, quality and delivery) and with Health Protection Scotland (given its focus on public health) – within our flagship research entities; continuing to support major centres targeting research council and other prestigious funds (Yunus Centre for Social Business & Health) as well as those addressing the University's global engagement agenda

through interaction with various development agencies (the Centre for Climate Justice); and building on recent and ongoing indicators of research strength (membership of Scotland's ESRC Doctoral Training Partnership).

Research for global engagement

- 3.5 In order to achieve the goal of Strategy 2020 to engage globally, we will generate a set of research propositions and planned international collaborations. These will build on important initiatives of the University, such as Fair Fashion and the British School of Fashion, whilst relating these to core strengths in Glasgow, as reflected the research themes above and the collaborations built ground-up by our research groups.
- 3.6 This will also involve building research around digital platforms and collaborations we have invested in, and for which we have attracted funding, to address global issues consistent with our challenges and themes – examples of these being the Climate Justice Repository, Common Good First and the African Leadership Network and other university-to-university partnerships and wider international collaborations being developed as part of GCU's Internationalisation Strategy.

4. Strategic Goals and Enablers

4.1 Our strategic research goals are to:

- I. Devise and carry out cutting-edge research, relevant to our three societal challenges.
- II. Deliver and promote the successful impact of our research outputs, based on collaborations with private, public and voluntary sector partners.
- III. Extend our research capacity, capability and culture, focused on achieving the highest standards of research excellence.
- IV. Strengthen our research-teaching nexus.

4.2 These goals will be enabled by:

- i. Targeting resources and creating research structures to support research addressing our societal challenges, and monitoring corresponding progress in research income, activity and outputs, not only to meet the challenges but also achieve standards required by the Research Excellence Framework.
- ii. Ensuring, through researcher development training and peer-review processes, that impact is considered 'early and often' in development and conduct of research projects, forms part of our strategy to maintain and enhance our Knowledge Transfer Partnership profile and, relatedly, meets the standards required of the Research Excellence Framework.
- iii. Placing research excellence at the heart of recruitment and personal development, using infrastructure support to develop new centres and early career researchers, providing strong researcher development programmes and promoting research culture via activities such as an annual research celebration and articulation of our research successes across internal and external multi-media.
- iv. Supporting the principles of research-led teaching as articulated in the GCU Strategy for Learning 2015-2020 and case studies of Research-Led Teaching Thresholds, such as researcher participation in teaching and curriculum design, planning modules for engagement of students in research and addressing real world problems via research, and ensuring experience from Knowledge Transfer Partnerships, and related innovation activities, are transferred into teaching examples.

5. Strategic Outcomes in 2020

5.1 Pursuit of research Key Performance Indicators (such a research income targets) will be accompanied by implementation of:

- GCU's Enhanced Athena SWAN Action Plan;
- recommendations in GCU's Research Integrity Policy to which we are committed as a signatory to the Concordat to Support Research Integrity of Universities UK;
- RCUK's Concordat for Engaging the Public with Research;
- recruitment plans which emphasise research criteria based upon our Research Strategy.

6. Research and Values Alignment

6.1 Finally, and returning to GCU Strategy 2020 and our associated People Strategy 2020, the thrust of our research:

- is "striving to make a positive difference in the world" (aligning with our core value of Integrity);
- encourages us in "challenging ourselves with new problems" (Creativity); and
- drives the belief that "positive change is within our power to realise" (Confidence).

Our research centres model will allow researchers to:

- "draw inspiration from working with others and across discipline boundaries" (Creativity).

Our commitments to Athena Swann and Research Integrity (see Section 5.2) encourage Responsibility, and, in particular, underline our support for staff and students to:

- "take responsibility for our work, study and environment";
- "empower others to be independent contributors"; and
- "own, learn from and grow through our mistakes".

Perhaps most importantly, we hope that we have explained why it is important that we "value and share our knowledge and expertise" (Confidence) and, through all of the above, demonstrated how our research aligns to our GCU Values.

Appendix 1: UN Sustainable Development Goals

SUSTAINABLE DEVELOPMENT GOALS



