



**ROBERT GORDON  
UNIVERSITY ABERDEEN**

**SUSTAINABILITY REPORT:  
2021-2022**

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## STRATEGY

In Our Strategy we make the commitment, as one of our Key Strategic Enablers, that -

**WE WILL PLAY OUR ROLE IN CREATING A MORE SUSTAINABLE FUTURE THROUGH:**

**Minimising our environmental footprint and meeting our Net Zero Targets**

**Realising our moral purpose for the common good**

**Being recognised as a leading university in the energy and health sectors**

With RGU having a strategic commitment to play our role in a more sustainable future through minimising the environmental footprint of our campus, embedding sustainability across our curriculum and offering thought leadership and innovation in the transition to the future of energy in a greener economy.

We have also implemented policies and initiatives to reduce our waste, energy and water consumption, and to encourage sustainable behaviour among our community such as uptake of carbon reducing travel schemes including cycling and provision of electric vehicles. We are also exploring large scale energy reduction projects that will harness renewable energy from our campus including extending the existing geothermal network to provide additional heat resource.

We recognise that the race to carbon neutrality in response to the climate emergency will influence the prosperity of the region for generations to come. We continue to focus on skills development through our upskilling portfolio to harness the expertise and capabilities in support of our region's energy transition and to help deliver the UK and Scottish net zero goals. The publication of the 'Making the Switch' by our Energy Transition Institute (ETI) has also been a central component of our contribution to working with the industry in the North East of Scotland to help shape the future skills requirements of the offshore workforce and the supply chain and establish the region as a global energy hub in a green economy.

Additionally, we provide support to businesses and organisations to adapt the environmental sustainability of their operations through consultancy, Knowledge Transfer Partnerships, Innovation Vouchers or innovation centre funded projects. Our delivery of activity that drives entrepreneurial business growth such as our Regional Startup Accelerator is a key part of our contribution to

ensuring the long-term sustainability of the economy through diversification of businesses, products and services. Through embedding sustainability across our courses and widening access to University, we are equipping the brightest minds with the knowledge and skills to solve complex global energy issues, and collaborate with industry to find innovative solutions to achieve net zero targets.

RGU's strategy recognises the importance of our responsibility to reduce the environmental impact of our operations, understanding that the pace of climate change will continue to accelerate without urgent interventions across all aspects of society. A key component of this commitment is our Net Zero Carbon Reduction programme driven by a board of representatives from across the University and supported by local initiatives led by groups located within our campus buildings.

The programme for 2021-2022 has focused on informing our approach to transport and travel, ensuring that sustainability and carbon are considered alongside expenses and procurement. This activity is underpinned by our strategic enabler to create a more sustainable future for our University as well as the communities in which we operate. Sustainability also acts as a guiding principle for our policies and processes and ensures the University remains compliant with its legislative duties with regards to the Climate Change (Duties of Public Bodies; Reporting Requirements) (Scotland) Order 2015 to support the Climate Change Act.



## Race to Zero for Universities and Colleges

RGU signed up to the Race to Zero for Universities and Colleges, pledging its commitment to reducing emissions in the drive towards Net Zero.

More than 1,000 universities from 68 countries have signed the pledge, which is an initiative led by EAUC – The Alliance for Sustainability Leadership in Education and Second Nature with support from the UN Environment Programme (UNEP).

As part of the pledge, the University has agreed to publish its plans on achieving Net Zero by the Scottish Government's target of 2045, as well as committing to reporting publicly on the actions it is taking, and progress it is making.

Professor Steve Olivier, Principal and Vice-Chancellor of RGU, said:

*"We understand that without urgent interventions, the pace of climate change will continue to accelerate. This is why we have a strategic commitment to reduce our environmental impact."*

*"At RGU, sustainability goes beyond just reducing carbon emissions; it is about shaping and influencing thought leadership on energy transition, helping the next generation access higher education so that they can solve complex global energy issues, and collaborating with industry to find innovative solutions to achieve net zero targets."*

*"We have a unique opportunity to shape the sustainability landscape by bringing to bear our strengths in teaching, research, innovation and industry partnerships."*



## Net Zero Project Board

The Net Zero Project Board oversees the University's commitment to deliver sustainability.

It is dedicated to developing, implementing and monitoring actions to support the University's Carbon Reduction Project Zero Plan, as well as introducing institutional plans that align with the United Nations' SDGs and deliver on a strategic commitment to create a more sustainable future.

Furthermore, the Net Zero Project Board monitors and evaluates progress against KPIs and ensures effective and regular communication with internal and external stakeholders to achieve our net zero targets and support the Energy Transition. The Sustainability Group promotes and embeds the University's sustainability ambitions and reports to The Executive and Academic Development Committee.

### Membership

Members of the Net Zero Project Board come from various departments and portfolio areas across the University led by The University Secretary and Vice Principal Corporate Services, and comprising student representatives, and staff from departments including Estates, Human Resources, Finance, Communications and our Academic Schools.

Reporting through to the Board is, our network of building users' groups to identify and embed sustainability initiatives.

### Building User Groups

Each RGU campus building has its own Carbon Reduction Building User Group (CRBUG). All RGU department's must submit a representative to attend the Carbon Reduction Building User Group for their building. These meetings are held on a 6-weekly cycle which are structured with an Agenda and Terms of Reference. The CRBUG are responsible for encouraging sustainable practices within their departments, reducing consumption of resources and to reduce greenhouse gas emissions.

## Progress on emission targets to deliver Net Zero by 2045

The University's emissions are reported annual as part of our Public Sector Climate Change Reporting. The table below details our total emissions, and RAG (Red, Amber & Green) rates those emissions against of targets for reduction to achieve Net Zero by 2045.

Reference year	Year	Year type	Scope 1	Scope 2	Scope 3	Total	Units	Comments
Baseline Year	2010/11	Academic	3,824	5,271	583	9,678	tCO <sub>2</sub> e	1st August - 31st July
Year 1 carbon footprint	2011/12	Academic	3,344	5,207	542	9,093	tCO <sub>2</sub> e	1st August - 31st July
Year 2 carbon footprint	2012/13	Academic	4,479	5,283	578	10,340	tCO <sub>2</sub> e	1st August - 31st July
Year 3 carbon footprint	2013/14	Academic	4,004	6,761	780	11,545	tCO <sub>2</sub> e	1st August - 31st July (24,000m <sup>2</sup> new build space added to portfolio)
Year 4 carbon footprint	2014/15	Academic	3,307	5,928	573	9,808	tCO <sub>2</sub> e	1st August - 31st July (8000m <sup>2</sup> of new build space added to portfolio. Disposal of 11,600m <sup>2</sup> property in the city centre July 2014)
Year 5 carbon footprint	2015/16	Academic	3,579	4,751	594	8,924	tCO <sub>2</sub> e	1st August - 31st July
Year 6 carbon footprint	2016/17	Academic	2,893	3,769	474	7,135	tCO <sub>2</sub> e	1st August - 31st July (6215.5 m <sup>2</sup> in city centre was disposed of in June 2016)
Year 7 carbon footprint	2017/18	Academic	3,150	3,023	343	6,516	tCO <sub>2</sub> e	1st August - 31st July
Year 8 carbon footprint	2018/19	Academic	2,912	2,721	320	5,953	tCO <sub>2</sub> e	1st August - 31st July
Year 9 carbon footprint	2019/20	Academic	2,974	2,339	282	5,596	tCO <sub>2</sub> e	1st August - 31st July (Have applied Kerosene conversion factor as Fuel Oil conversion factor was accidently applied which has reduced CO <sub>2</sub> emissions by 6.3 tonne.)
Year 10 carbon footprint	2020/21	Academic	3,775.90	2,110	9,560	15,446	tCO <sub>2</sub> e	GHG reporting has been expanded to now include: Homeworking, WEEE, Sanitary Waste, Refrigerant Losses and Paper Consumption.
Year 11 carbon footprint	2021/22	Academic	2,937	1,835	11,787	16,559	tCO <sub>2</sub> e	GHG reporting has been expanded to now include purchased goods & services and some business flights and car hire data.



## Runway to COP 26

In November 2021, Glasgow hosted the 26th UN Climate Change Conference of the Parties (COP26), the world's most significant summit on climate change. COP26 will bring together leaders from around the world with the aim of setting out objectives and frameworks to help end the global climate crisis.

RGU's 'Runway to COP26' comprised of a variety of sustainability-focussed activities and initiatives with emphasis on supporting the key themes of the milestone UN COP26 Conference.

These activities supported businesses, communities and individuals to consider their carbon footprint and provide solutions to some of the key barriers to sustainable ways of living and working.

This programme highlighted a range of initiatives at RGU with thought leadership from Professor Paul de Leeuw, Director of the Energy Transition Institute (ETI) addressing-scope-3-emissions-through-effective-supply-chain-management session in which Aberdeen Business School experts Adekunle Oke and Oluyomi Osobajo, considered innovative techniques and methods for reducing supply chain carbon emissions

Sustainability in the Creative and Cultural Industries Symposium which addressed issues of sustainability across architecture, art, communications, computing, data, design, events, fashion, hospitality, journalism, marketing, media, product development, and tourism through a daily programme of live-streamed and pre-recorded content was available from 4-8 October 2021, exploring both subject-specific and collaborative perspectives and efforts from architecture students at the Scott Sutherland School of Architecture and Built Environment helping to improve energy efficiency for islanders on South Uist.

[Read more about Runway to COP 26](#)



## Creating Impact and Sustainable Development Goals

RGU has recently been recognised for its drive towards a more sustainable future after making its debut in the Times Higher Education (THE) Impact rankings 2023 (based on data from 2020-2021). RGU is focused on the following SDGs: Good Health and Wellbeing, Clean Water and Sanitation, Affordable and Clean Energy, Decent Work and Economic Growth, Sustainable Cities and Communities and Partnership for the Goals.

The University's best-performing SDGs are: SDG 8 Decent Work and Economic Growth - ranked 201 - 300 out of 960 institutions, with a score of 65 points out of 100 SDG 3 Good Health and Wellbeing - ranked 301 - 400 out of 1,128 institutions, with a score of 65.1 points out of 100 SDG 7 Affordable and Clean Energy - ranked 301 - 400 out of 812 institutions, with a score of 53.6 points out of 100.

RGU was rated as 301-400 for SDG 6 Clean Water and Sanitation with a score of 46.2 points out of 100 and when it came to SDG 11 Sustainable Cities and Communities the University was ranked 301 - 400 with a score of 53.6 points out of 100.

For the compulsory SDG 17 Partnership for the Goals the University received a score of 59.2 points out of 100.

The THE Impact rankings demonstrate how higher education institutions across the world are working towards the SDGs. RGU's overall ranking in the table is determined by the combined score of its three best-performing SDGs and the compulsory category so the University's overall score was 67 points out of 100. Find out more about Sustainability and RGU's progress on SDGs at RGU

[Find out more about Sustainability and RGU's progress on SDGs at RGU](#)



# SUSTAINABLE DEVELOPMENT GOALS



## RGU & the United Nation's Sustainable Development Goals

To help us meet our strategic enabler, to play our role in creating a more sustainable future, we have adopted the United Nations' Sustainable Development Goals (SDGs). The SDGs were adopted by the UN in 2015 as an international appeal to protect the planet, end poverty and ensure that everyone will enjoy peace and prosperity in the next decade.

Our strategic focus on energy and health and wellbeing, as well as our reputation for employability, innovation and enterprise, together with areas of our leading research on good health and well-being, have shaped our initial focus in reporting our work on six key SDGs: 3,6,7,8,11 and 17 - clean water and sanitation, affordable and green energy, decent work and economic growth, sustainable cities and communities, and partnerships for the goals.

Notwithstanding that focus, the University is actively making progress on all 17 of the SDGs, as demonstrated in our impact case studies for 2021-22.



## UN SDG IMPACT CASE STUDIES

The following summary case studies are presented as being indicative of the University's active engagement with the UN Sustainable Development Goals:

### Case Study 1: Left Hungry: Understanding Maternal and Infant Food Insecurity Amongst Young Mothers in the UK

RGU's [School of Nursing, Midwifery & Paramedic Practice](#) looked into a research project related to understanding and improving child poverty in North-East Scotland and beyond.

Lone parents with children under five are amongst the most food insecure in the UK. Yet maternal and infant food insecurity experience remains poorly understood. Drawing on findings from qualitative research conducted with parents of infants and young children, and early years health professionals, the research team has worked with communities in the region and sought to find out more about the hidden nature of poverty and food insecurity amongst young mothers.

The research involved two interview studies carried out between 2020 and 2022 by Professor Flora Douglas, Public Health Researcher at RGU's [School of Nursing, Midwifery & Paramedic Practice](#); Dr Lesley Frank, Research Chair in Food, Health and Social Justice, [Acadia University](#); Danielle Flecher-Horn, Founder, [AberNecessities](#); and Laila, a mother who also volunteers at [AberNecessities](#).

The study, funded by NHS Grampian and the [NHS Grampian Charity](#), aimed to assess the impact of national policies aimed at ameliorating child poverty in low-income households in the north east of Scotland. The policies, centre around the Child Poverty Act (2017) in Scotland, which require all health visitors, midwives and family nurses in Scotland to screen and offer financial advice, otherwise known as 'Financial Inclusion Pathways' (FIPs) to at-risk pregnant women and parents/carers of families with children under five in Scotland to tackle child poverty

This work was featured in RGU's [Research Revealed](#) series.

#### Impact

This work was cited in an invited and submitted paper to the Scottish Government appointed Poverty and Inequalities and the Children's Commissions in 2022, on the subject of maternal and infant food insecurity. This led to further invited meetings with both Commissions, and then subsequently with Scottish Government officials from the Supporting Maternal and Child Wellbeing, and the Tackling Food Insecurity/ Financial Wellbeing Units during 2022 and 2023.

Those discussions resulted in two national workshops and a subsequent published Scottish Government paper setting out its commitment to addressing and monitoring infant food insecurity in Scotland going forward. Infant food insecurity: summary report - gov.scot ([www.gov.scot](http://www.gov.scot)) Professor Douglas continues to work closely with those in the Scottish Government involved in delivering this work.

#### Publications and References

DOUGLAS, F., MACIVER, E., DAVIS, T. and LITTLEJOHN, C. 2023. *Maternal and infant food insecurity in the UK: a problem hiding in plain sight? Presented at the 11th Nutrition and nurture in infancy and childhood conference (MAINN 2023): bio-cultural perspectives, 19-21 April 2023, Grange-over-Sands, UK.*

Aligns with the following UN SDGs:





## Case Study 2: Student-Led Exercise Class, Old Torry Community Centre

RGU's academic provision includes more than 4,500 students studying on courses for the Allied Health Professions.

To achieve flexibility of learning, the course portfolio incorporates full-time, part-time and online learning modes through the School of Nursing, Midwifery and Paramedic Practice, the School of Health Sciences, the School of Pharmacy and Life Sciences, and the School of Applied Social Sciences.

Through these Schools, RGU delivers and supports a range of health initiatives within local and regional communities. As an example, in October 2021, the School of Health Sciences entered into partnership with the community centre in Torry, an historic community within the city of Aberdeen, for the delivery of a student-led physiotherapy clinic.

The student-led clinic offered two services; firstly a 'Move More' group exercise class for people aged over 55, and secondly a drop-in clinic for education and advice on health conditions. Due to its success, the project has evolved beyond academic year 2021-22, and currently the student-led physiotherapy clinic offers the chance for residents, of all ages and abilities, to exercise and/or seek advice, before staying for some refreshments. Over time, numbers have grown from a handful of local service users to 40+ regular weekly attendees.

The project benefits student learning through skills development informed by service user feedback, whilst also providing the public with access to health advice. Community benefits are multiple, including:

- Physical and mental health benefits to individuals through exercise
- Delivery of balance and strengthening exercises to reduce the risk of falling and sustaining life-changing injuries
- Myth busting and the promotion of healthy living strategies
- Advice on Physiotherapy matters to assist individuals with function, wellbeing, activities of daily living and independence
- Opportunities to socialise and interact across generations, and to build social relationships across the community
- Reduction of social inequalities across this community
- Reduction of health anxieties
- Gaining a greater sense of purpose, occupation, and achievement through participation
- Signposting and sharing of information and initiatives across the community i.e. at the Community Centre, Local Health Centre and Student-led Law Clinic.

### Impact

The success of the project was nationally recognised in a debate on the unique contribution of Allied Health Professions at the Scottish Parliament to celebrate Allied Health Professions Day 2022.

Feedback from the community has been very positive, with participants testifying to the value that the opportunity offers them. This success has underpinned the further evolution of the project in subsequent academic years.

### Publications and References

[https://www.scottishparliament.tv/meeting/members-business-s6m-05922-carol-mochan-allied-health-professions-day-2022-helping-people-live-their-best-lives-november-3-2022?clip\\_start=17:32:28&clip\\_end=17:33:09](https://www.scottishparliament.tv/meeting/members-business-s6m-05922-carol-mochan-allied-health-professions-day-2022-helping-people-live-their-best-lives-november-3-2022?clip_start=17:32:28&clip_end=17:33:09)

Aligns with the following UN SDGs:





### Case Study 3: Grampian Community Law Clinic

Grampian Community Law Centre, an initiative involving students from RGU's School of Law, in partnership with Torry Medical Practice, Aberdeen, and the Environmental Law Foundation. RGU's Law Clinic, initially launched as an on-campus service in 2013, underwent significant development in 2021-22 to provide an embedded community clinic for residents to get assistance with a wide range of social welfare legal matters. The Centre also provided a climate clinic that proactively works with environmental charities and activist organisations to tackle grassroots issues around planning, development, environment and animal law.

Situated in Torry, Aberdeen, the Grampian Community Law Centre consists of several streams or sub clinics and a mediation service. The benefits of the law clinic are to provide real life practical experience to students whilst providing access to justice for those who cannot afford it. The clinics have been set up in close collaboration with the communities which they serve in order to provide a service which is relevant, and which provides required access to justice for local residents. The types of case therefore differ slightly from location to location dependent on the needs of the community. The new Community Clinic offers an entirely free legal service to those on low incomes across the city as part of the community outreach facility and is an example of the University's commitment to collaborative partnerships to enhance both the community and the experience and engagement of students.

Forming part of Robert Gordon University's Law School, the rebranded, student-led Grampian Community Law Centre operates from Torry Medical Practice and is the first of its kind in Scotland to be embedded within a medical practice. This innovative partnership greatly assists in the development of an holistic understanding of social phenomena and in tackling the root cause of issues which may be contributing to mental and physical health difficulties.

It allows the Law School to develop closer links to communities and to work in partnership with third sector organisations. For students, the community-based experience is supported by a credit-bearing module dealing with professional legal skills, as well as other skills-based modules within the curriculum. The Law clinic will enable the Law School to develop impactful research when the evaluation of its services in 2021-22 and the subsequent year is completed.

#### Impact

The relaunch of the Grampian Community Law Clinic has deepened and broadened the opportunities for students to engage in real life legal scenarios, and to use this experience to hone their professional skills. There are currently 56 students engaged in the various activities, both on the Garthdee campus and at the Centre in Torry.

Equally, the service provided by the Clinic has been welcomed by the Torry community for whom obtaining legal advice had previously been largely unaffordable. The Law Centre is currently running at capacity, and it is clear that it is having an impact on access to justice.

#### Publications and References

DARNELL, H. 2022. *Grampian Community Law Centre. Presented at the 2022 RGU annual learning and teaching conference (RGU LTC 2022): enhancing for impact, 21 October 2022, Aberdeen, UK.*

<https://www.rgu.ac.uk/life-at-rgu/learning-facilities/law-facilities/the-law-clinic>

<https://www.rgu.ac.uk/news/news-2022/5411-grampian-community-law-centre-prepares-for-torry-launch-in-scotland-first>

Aligns with the following UN SDGs:





## Case Study 4: Embedding Sustainable Business Practices at Harris Tweed

In 2021, RGU entered into a 2-year Knowledge Transfer Partnership (KTP), funded by Innovate UK, with the internationally renowned brand Harris Tweed Hebrides (HTH), with the aim of providing year-round and sustainable business demand for the Harris Tweed Hebrides brand and the home weaver industry on the isles of Lewis and Harris. The project was co-funded by the Arts and Humanities Research Council.

Harris Tweed Hebrides, the largest of the three tweed mills currently in operation, produces 65% of all Harris Tweed manufactured. The organisation works with a network of 140 skilled weavers, who all work independently on a treadle loom. The production of handwoven Harris Tweed provides the main source of work within the private sector in the Outer Hebrides, and it is vital to the economy of those islands that the integrity, distinctive character and worldwide renown of Harris Tweed is maintained. Implementation of the Harris Tweed Industry Strategy in 2010 led to a sustained period of growth, achieving a 125% increase in production during the period 2012 to 2015. The number of double-width weavers has increased dramatically, whilst the average age of weavers and mill workers has reduced significantly.

The project aligned closely with the strategic objectives of Harris Tweed Hebrides, specifically:

- Protecting the heritage of Harris Tweed
- Providing opportunities to develop a year-round sustainable business for the benefit of the remote, rural economy of the Outer Hebrides
- Combining 21st century business practices with an artisan manufacturing model

The KTP Associate worked at the company's premises in the Isle of Harris, collaborating closely with key staff within the organisation to help transform business operations and diversify the product range to open up new markets.

### Impact

The project delivered several commercial and wider societal benefits for the rural island community of the Outer Hebrides.

Strategically, the Knowledge Transfer Partnership has been important for the company. As the manufacturer of an Autumn/Winter textile, new product innovations developed over the course of the KTP will support the strategic aim of being a sustainable year-round business which maintains rural employment across the Isle of Lewis and Harris, directly with company mill workers and indirectly through the self-employed weaving population being supplied regular work.

The development of greener practices is essential to maintain a competitive advantage in the global textile market, and the company is now OEKO TEX Standard 100 certified which demonstrates that no harmful chemicals are used in the manufacturing process. Such external accreditations are seen by Harris Tweed as adding value to their products.

The KTP has allowed HTH to undertake technological improvements through the introduction of CAD in the business. This software has improved efficiency within the business and reduced waste. This technology will continue to benefit the business as it is further embedded in the company. Commercially, turnover was immediately impacted by the use of CAD system to support existing sales accounts and OEKO TEX Standard 100 accreditation has supported securing trading with a number of UK and European customers.

In addition, the partnership helped increase understanding of the strategic importance of sustainability across Harris Tweed Hebrides, and in the development of a culture of learning that empowers employees to innovate in relation to its key business processes.

### Publications and References

CROSS, K., STEED, J. and JIANG, Y. 2021. *Harris Tweed: a global case study*. *Fashion, style and popular culture* [online], 8(4), pages 475-494. Available from: [https://doi.org/10.1386/fspc\\_00102\\_1](https://doi.org/10.1386/fspc_00102_1)

<https://www.rgu.ac.uk/news/news-2021/4306-rgu-works-with-harris-tweed-hebrides-to-support-diversification>

[https://www.heraldscotland.com/business\\_hq/19456898.harris-tweed-hebrides-robert-gordon-university-knowledge-transfer-partnership/](https://www.heraldscotland.com/business_hq/19456898.harris-tweed-hebrides-robert-gordon-university-knowledge-transfer-partnership/)

<https://www.scotsman.com/business/harris-tweed-hebrides-sews-up-new-partnership-to-help-boost-demand-3314975>

Aligns with the following UN SDG:





## Case Study 5: Widening Access to Higher Education

RGU has a long-standing commitment to widening access to higher education, with an approach firmly rooted in delivering credible, high-quality interventions which work by inspiring, supporting, and enabling people and their families to engage in higher education. In 2021-22, as in other years, the university delivered a range of widening access activity throughout the region and beyond to make higher education accessible to a broad range of learners. This included RGU's new 'hub' model of engagement with secondary schools. Through this approach, university staff were embedded in nine regional secondary schools, working directly with teachers and learners on a sustained basis, including those furthest from higher education to support a positive journey to university.

Throughout 2021-22, RGU has significantly grown its portfolio of upskilling short courses to contribute to the region's skills priorities and support the development of individuals and workforces, with an emphasis on supporting those most disadvantaged or affected by the impact of the Covid-19 pandemic. These courses covered a wide range of subject areas across a number of sectors, including energy transition for business, data science with Python, tourism entrepreneurship, digital literacy in health and social care, and commercial contracts for business. RGU offered 580 fee-waiver places across its upskilling portfolio with its allocation from the Scottish Funding Council's Upskilling Fund and National Transition Training Funds. In addition, the university was able to offer a further 700 fee-waiver places to anyone living in Aberdeen City and Shire with funding from the North-East Economy Recovery & Skills Fund.

RGU continues to deliver Graduate Apprenticeships to support organisations to develop their workforces in line with their skills needs throughout 2021-22. This includes a Graduate Apprenticeship in Cyber Security, the only one of its kind in Scotland.

### Impact

As a result of the 'hub' schools engagement model, RGU has seen a significant growth in its widening participation programmes, which are tailored for each school and run for the entirety of the learner journey, supporting pupils from S1 to S6. Notably, the university has seen a 212% increase in participation in its 'Access To' programme for S5 and S6 pupils. In 2021-22, the university delivered 23 upskilling courses to more than 1200 individuals.

The benefits of the 'hub' model are multiple, including:

- Developing knowledge in subjects of interest
- Developing confidence in applying for degree courses at RGU
- Gaining invaluable experience that can be used in UCAS application personal statements
- Developing an understanding of RGU ahead of starting university
- Achieving a certificate on completion of the programme
- Gaining an introduction to the university environment and student life.
- Supporting the development of transferable skills such as problem-solving, teamwork, communication, and presentation.
- Undertaking independent study.
- Obtaining advice and support to support informed decision-making about your future.
- Obtaining advice on careers, pathways, and progression.
- Receiving an RGU student card and access to the library and online learning resources, along with access to retail discounts via our Associate Student Scheme.

### Publications and References

<https://www.rgu.ac.uk/study/apply/access-rgu>

<https://www.rgu.ac.uk/study/apply/access-rgu/outreach>

Aligns with the following UN SDG:





## Case Study 6: Supporting Female Entrepreneurship in Nigeria

In 2021-22, Aberdeen Business School carried out research into access to [finance for female-run businesses in Nigeria](#), the aim of which was to critically evaluate the role of access to finance on the development of female-run enterprises in Nigeria. In addition, the study examined the role of gender as it is perceived in Nigerian society, and the impact of this on the perceptions of financial inclusion.

The study focused on four entrepreneurs from two sample groups, female entrepreneurs belonging to a social entrepreneurial network called the International Federation of Business and Professional Women (Nigerian Chapter) - an international NGO exclusively for female entrepreneurs - and male entrepreneurs belonging to an alumna network of the Enterprise Development Centre, a hub that trains and certifies entrepreneurs across Nigeria.

Adopting an interpretivist paradigm, the study explored the social reality within which entrepreneurship is enacted, using semi-structured interviews to access the richness and depth of the participant's reflections on their social world.

### Impact

The contribution of the research lies in the nuance of social perception and expectation that was uncovered and discussed as it relates to the lived experiences of the interviewees seeking to finance their enterprises. Contrasting perspectives and experiences demonstrate that, while structural access may be apparent, the entrepreneurial process of financing a business is characterised, in part, by gender.

In terms of implications for policy and practice, the research highlights the need for an examination of social perceptions and expectations of gender when considering issues of accessing finance for business growth. While financial institutions and policy makers may assume a 'one size fits all' approach to business financial support, the social constructions of gender mean that experiences can be very different for males and females.

### Publications and References

ONOSHAKPOR, C., CUNNINGHAM, J. and GAMMIE, E. 2022. *Female entrepreneurship in Nigeria and access to finance: a comparative study*. In *Proceedings of 36th British Academy of Management conference 2022 (BAM 2022): reimagining business and management as a force for good, 31 August - 2 September 2022, Manchester, UK*. London: British Academy of Management [online]. Available from: <https://www.bam.ac.uk/conference-proceedings.html>

Aligns with the following UN SDG:





## Case Study 7: Safe Water for Sri Lanka

Commencing in 2021, the School of Pharmacy & Life Sciences, in partnership with the University of Sri Jayewardenepura, University of Edinburgh, University of Peradeniya, Queen's University Belfast, undertook research that examined the potential to create sustainable water treatment solutions using readily available resources.

The research explored the possibility of using natural products to combat a growing shortage of safe drinking water, which has been caused in part by cyanobacterial toxin contamination. The project looked specifically at the use of biochar - waste plant material that is burnt into a material that is similar to charcoal - as a solid surface on which toxin-degrading natural microbes can live in water. This solution would be cost-effective, efficient and sustainable, particularly for rural communities and for low- and middle-income countries. Work on this project began in 2021 and involves partners from Sri Lanka and Brazil, both countries that have problems ensuring the availability of clean drinking water.

Although freshwater is usually available in Sri Lanka, around 50% of the country depends on single-household dug wells. Despite preconceptions that there is a low risk of contamination in well water, the study identified the presence of cyanobacteria cells and potent cyanotoxins, microcystins and cylindrospermopsin at unsafe levels throughout the year. These toxins can lead to serious and chronic illness, but the research has shown that it is possible to biodegrade them using microbes. The ability of biochar to mediate and support microbial degradation of these contaminants, combined with its carbon-sequestration potential, had attracted attention in recent years, and the material was identified as a possible candidate for use in cost-effective and sustainable biological water treatment.

The study evaluated the scope, potential benefits (economic and environmental) and challenges of sustainable biological water treatment using 'Biologically-Enhanced Biochar'. It demonstrated the various opportunities in adopting Biologically-Enhanced Biochar as a cheaper and more viable alternative in Low and Middle Income Countries and compared it to the current benchmark, 'Biological Activated Carbon'. Additionally, it focused on recent advances in the areas of data science, mathematical modelling and molecular biology to systematically and sustainably design Biologically-Enhanced Biochar filters, unlike the largely empirical design approaches seen in water treatment. 'Sequential biochar systems' were introduced as specially designed end-of-life techniques to lower the environmental impact of Biologically-Enhanced Biochar filters, and examples were given of their integration into biological water treatment that can fulfil zero-waste criteria for Biologically-Enhanced Biochars.

### Impact

The development of cost-effective, efficient, and sustainable water treatment solutions utilising existing materials and technology benefits low and middle-income countries, making adoption easier, and hence supporting the improvement of public health.

The research proposed a nature-based water treatment solution by enriching degradative and cyanolytic potential in a microbiome localised on biochar prepared from locally sourced biogenic waste. This enabled the development of a low-cost reliable water treatment 'module' that can be lowered into dug wells, degrading dissolved toxin and reducing regrowth by limiting light levels. Such solutions are of particular value to agrarian economies with easy access to abundant biomass in the form of crop residues and organic wastes.

### Publications and References

JAYAKUMAR, A., WURZER, C., SOLDATOU, S., EDWARDS, C., LAWTON, L.A. and MAŠEK, O. 2021. New directions and challenges in engineering biologically-enhanced biochar for biological water treatment. *Science of the total environment* [online], 796, article number 148977. Available from: <https://doi.org/10.1016/j.scitotenv.2021.148977>

EDWARDS, C., MOORE, J., LAWTON, L. and MONTGOMERY, L. 2023. *Clean water, green future: the story of bio-based treatment*. [Video recording]. *Research revealed, SO1E01*. Hosted on YouTube [online]. Available from: <https://www.youtube.com/watch?v=OeLw7c9VMR8>

Aligns with the following UN SDG:







## Case Study 8: Analysis of Workforce Requirements to Support Energy Transition

RGU's [Energy Transition Institute \(ETI\)](#) is continuing to influence and advise the government and industry on the skills and investment required to meet Scotland's and the UK's energy transition ambitions through its extensive work.

The ['Making the Switch' report](#) published in May 2022, sets out the scale of the opportunity and the challenge of delivering Scotland's ambition for energy transition between now and 2030. It makes the case that with around 90% of the oil and gas workforce having medium-to-high skills transferability, and with 80% of today's energy workforce expected to still be working in 2030, there is a pressing need for upskilling and reskilling. Joined-up strategy and investment will be crucial in order to develop the necessary infrastructure and supply chain at the pace required while also matching the supply of and demand for skills to deliver the energy transition.

'Making the Switch' has been influential within the sector as well as at government levels, proposing the future shape of the energy workforce in the North-East of Scotland and the levels of renewables investment and activities needed to establish the North-East of Scotland as a global energy hub. The review revealed that if the region can attract £17billion in renewables investment and activities over the next eight years, it could help secure 54,000 direct and indirect jobs by 2030.

### Impact

In November 2022, the outcomes of this work were presented at a reception held at the Scottish Parliament, chaired by the MSP for Aberdeen South and North Kincardine. The event, which was attended by a number of MSPs and industry figures, included a speech by Jamie Hepburn MSP, Scottish Government Minister for Higher Education and Further Education, Youth Employment and Training, in which he highlighted the "legacy" of RGU's Making the Switch report.

(<https://www.rgu.ac.uk/rgview/extending-reach/5541-holyrood-reception-hears-about-skills-for-energy-transition>)

In addition, Making the Switch is referenced in the footnotes of the Scottish Government's Draft Energy Strategy & Just Transition Plan, which may be accessed at: <https://www.gov.scot/publications/draft-energy-strategy-transition-plan/pages/22/>

### Publications and References

Further details may be accessed at: <https://www.rgu.ac.uk/news/news-2022/4986-establishing-ne-scotland-as-global-energy-hub-can-create-thousands-of-jobs>  
<https://www.bbc.co.uk/news/uk-scotland-north-east-orkney-shetland-57231444>  
<https://www.energyvoice.com/oilandgas/north-sea/412106/report-warns-up-to-17000-north-east-jobs-at-risk-without-energy-transition-cash/>  
<https://www.rgu.ac.uk/about/sustainability-at-rgu/thought-leadership-the-energy-transition>  
<https://www.agcc.co.uk/news-article/targeted-energy-investment-could-create-9-000-additional-jobs-in-the-north-east>  
[https://www.businessforscotland.com/massive-structural-investment-needed-to-turn-aberdeen-into-a-renewables-hub/?doing\\_wp\\_cron=1698763837.8243420124053955078125](https://www.businessforscotland.com/massive-structural-investment-needed-to-turn-aberdeen-into-a-renewables-hub/?doing_wp_cron=1698763837.8243420124053955078125)

Aligns with the following UN SDGs:





## Case Study 9: Supporting the Professional Skills Base for Effective Building Retrofit

In recent years, RGU has launched a series of sustainability focused courses across its academic schools. This includes a [PG Cert Building Retrofit](#) developed in 2021 by the Scott Sutherland School of Architecture & Built Environment, which aims to develop the professional knowledge and skills necessary to improve the energy efficiency of buildings, a vital component in achieving UK and Scottish Government Net-Zero targets. This initiative capitalised on long-standing expertise within the School in the field of low energy design, developed through research and practice over some 25 years.

Currently around 13% of Scotland's carbon emissions are related to the way homes are heated. Scottish Government targets aim to reach net zero carbon emissions by 2045, with a commitment that gas boilers will no longer be installed in new homes from 2024. In Aberdeen, 45% of homes have no wall insulation, many suffer from damp problems and have poor indoor air quality, (Scottish House Condition Survey 2019).

The course, which is offered online in part-time mode to enable the participation of practitioners, combines theory and practice in considering the balance between performance, cost, and disruption in thermally retrofitting existing buildings.

### Publications and References

<https://northsearegion.eu/stronghouse/news/rgu-introduces-innovative-post-graduate-retrofit-course/>

Aligns with the following UN SDGs:





## Case Study 10: Reducing RGU's Resource Consumption

RGU aims to be Net Zero by 2045. Accordingly, it has been progressively reviewing its business operations from the perspective of reducing its carbon footprint, improving energy efficiency, and managing resources such as water and consumables. The following outlines a number of practices introduced in 2021-22:

In terms of its estate, RGU has adopted a fabric first approach to ensure the energy efficiency and sustainability of all our buildings and campus operations. RGU has a policy to ensure all renovations or new buildings follow the latest energy efficient standards of our Net Zero Emissions Construction, Refurbishment and Maintenance Standard.

RGU's Energy and Sustainability Manager has a remit to drive forward energy efficiencies. This is facilitated by RGU publishing monthly energy consumption per building, and the introduction of Building User Groups in early 2022, each tasked with improving efficiencies, reducing carbon generation at a local level, and promoting a culture of individual responsibility. Areas of major consumption, such as paper, have led to reduction targets in most schools and departments, with reductions being achieved over time, including during session 2021-22.

Over 2021 and 2022, RGU expanded its smart metres infrastructure to cover all water meters on its Garthdee Campus, Boat House and National Subsea Centre. Through this measure, should buildings have experience excessive water consumption, alarms notify the Estate's team should a water consumption value be breached for any particular building. In a similar vein, the University has invested more than £5 million to support our carbon reduction initiatives. This includes the installation of LED lighting across our estate, solar panels and new, more energy-efficient gas boilers across our campus. In parallel, during the time period, water-less urinals have been installed across the campus.

To encourage good practice in the travel behaviours of staff and students, the University participates in the [Liftshare scheme](#) to help individual find a car share partner. As well as reducing emissions, those that share transport can save money through both fuel costs and generous car share permit discounts.

RGU has secured funding for a [Campus Cycling Officer](#) to help increase cycling participation among both staff and students on campus and around Aberdeen. Furthermore, the University promotes a free [bus](#) travel scheme for under 22s, with various discounts through First & Stagecoach to assist with commute cost for staff and students not eligible for the free scheme. [Train](#) season ticket loans are available for staff of up to £2,000 interest free.

[Go Green](#) is a student-led sustainability network which aims to highlight sustainability and this can be help with cycling through [BikePad](#), which is operated by RGU Union and provides a workshop for bicycle repairs as well as offering bike hire. Go Green also operate Kaim Shop, where students can donate or take-home second-hand clothes for free and the Climate Action Network, which is a group of climate enthusiasts who educate students on climate change and work with the university to improve its carbon footprint.

### Impact

Viewed over time, the University's energy consumption figures show a general improvement in energy consumption, accepting that there are contextual factors of considerable influence such as the Covid-19 pandemic.

Significant reductions in water and paper consumption have been achieved, with work ongoing with the aim of achieving further efficiencies within the context of essential business needs.

### Publications and References

<https://www.rgu.ac.uk/about/sustainability-at-rgu/our-journey-to-net-zero>

<https://www.rgu.ac.uk/about/sustainability-at-rgu/our-journey-to-net-zero/campus-energy-consumption>

Aligns with the following UN SDG:





## Case Study 11: Managing Habitat and Biodiversity on RGU's Campus

RGU boasts a beautiful parkland campus that runs along the River Dee, extending to around 60 acres (or 23 hectares) and measuring 1.8 kilometres from end to end. RGU also owns 22 hectares of land at Waterside Farm on the opposite side of the River Dee.

In recent years, RGU has been progressively working to preserve the habitat on campus by preserving the natural state of wooded areas and the banks to the River Dee, managing the conservation of ancient trees on campus, identifying, and creating additional areas of rewilding and developing garden areas with fruit bushes, apple trees, herbs, and flowers.

The University has been forward thinking in adapting its parkland campus to increase nature wild spaces, develop garden spaces, increase biodiversity, and protect a range of species. For example, approximately 10% of the previously mown grassed areas have now been converted increasing the opportunity for an improved habitat for bees, insects etc. but also reducing the use of petrol driven mowers and grounds equipment- reducing emissions and use of fossil fuels.

Working in partnership with Scottish Wildlife Trust (SWT) the campus is a designated red squirrel campus, we manage our salmon fishing rights with limited rod access, preserve the natural state of the river and bank habitat for numerous species including protected freshwater mussels, our rewilding and new garden area in the [Garthdee House Annexe quad](#) are now home to a range of insects and other species.

Over the course of the last six to seven years, we have worked with the SWT's Saving Red Squirrels scheme to encourage this native species back. Through effective management of the grey squirrel population, red squirrels have been encouraged back to the campus which is now home to a growing population.

On the other side of the River Dee from the main built campus, RGU owns a sizeable tract of land on the floodplain which has been the subject of analysis and evaluation to determine its best future use. Soil carbon samples have been taken in this area, known as at Waterside Farm, by start-up company The Habitat People, and plans are in place to develop and maintain the area as a nature reserve and site of biodiversity. This reserve would provide habitats for a range of threatened species, whilst also creating a high-quality greenspace for both our students and staff as well as the local community. It is also an opportunity for the University to showcase its commitment to habitat conservation and rewilding by acting as custodians.

### Impact

The measures that have been taken over an extended period, which includes year 2021-22, are demonstrably delivering positive outcomes with respect to the flora and fauna on the campus. The most obvious signifier of this is the re-colonisation of the campus as a red squirrel habitat, although there are many species that may be found in the university's grounds, such as roe deer, foxes, rabbits, woodpeckers, oyster catchers, etc.

The work also has clear benefits from the perspective of the well-being of students and staff, and the campus welcomes the local community who have access and use it extensively for dog walking and other leisure and similar leisure pursuits.

### Publications and References

<https://www.rgu.ac.uk/about/sustainability-at-rgu/our-nature-positive-campus>

Aligns with the following UN SDG:





## Case Study 12: Connecting the Community to the Marine World

In 2017, Professor Gokay Deveci of the Scott Sutherland School of Architecture & Built Environment, became involved with charitable organisation, Greyhope Bay, with the aim of creating a high quality marine experience centre and visitor attraction that would connect Aberdeen and North-East Scotland to our marine world. Working closely with Greyhope Bay's Managing Director, Fiona McIntyre, he set out to preserve the history and heritage of an old artillery battery, known locally as the Torry Battery, which has overlooked Aberdeen harbour since 1860, and has been used to defend the city from threats during both World Wars.

The ambition for the project, which was completed in 2022, was to create an 'off-grid' eco-friendly facility that would become a vibrant destination in Aberdeen and a hub for the local community. With this in mind, an idea was developed to repurpose shipping containers, finished with timber cladding. The ambition was to create a tourist, hospitality and community centre that would contribute to the circular economy. By upcycling material, the overall carbon footprint of the project could be significantly reduced, whilst making it more affordable.

The Torry Battery is considered one of the best areas in Scotland to see Blue Nose dolphins and Minke whales. When the centre enables people to view these amazing cetaceans in comfort for the first time. Beyond this, 'Dolphins at the Battery' serves as a new community centre that allows people to connect with the natural environment whilst fostering better relations with one another. The Centre comprises a community space with a dolphin viewing centre, café, education and community hub, offering a ready-made canvas and unique window to the sea.

Opened in April 2022, the new centre is about much more than a stand-alone building. It has been designed innovatively and thoughtfully to strengthen the community around it. A significant element of the work for the staff and students of the School, has been to work closely with the Greyhope Bay Community Group to understand their needs. Accordingly, the facility offers a multi-layered visitor experience that offers multiple ways to connect with the community. An educational space is incorporated to enable visitors to learn more about the marine life on their doorstep as well as a place to connect with the local community.

The centre also echoes Aberdeen and North-East Scotland's ambition to transition beyond oil and gas production. It has sustainability at its core and operates entirely off-grid, harnessing solar and battery power, harvesting rainwater, and utilising treatment technologies to filter the water supply.

### Impact

The Visitors Centre has proved enormously successful, attracting large numbers since its opening. As well as serving a community function, the facility is also promoted by Visit Scotland as a attraction within the city, all of which expands public knowledge of dolphins as a species whilst offering an excellent opportunity to view them in their native marine habitat.

### Publications and References

<https://www.greyhopebay.com/build-it>  
<https://www.pressandjournal.co.uk/fp/opinion/4113503/professor-gokay-deveci-grehope-bay-torry-battery/>  
<https://www.pressandjournal.co.uk/fp/news/aberdeen-aberdeenshire/5557330/design-projects-led-by-rgu-professor-recognised-at-aberdeen-society-design-awards/>  
<https://www.rgu.ac.uk/rgview/extending-reach/4810-dolphins-at-the-battery-connecting-to-our-marine-world>  
<https://www.visitscotland.com/info/see-do/greyhope-bay-centre-p2676601>

Aligns with the following UN SDG:





## Case Study 13: Sustainable Goals Ideas Competition

In 2021-22, RGU's Entrepreneurship & Innovation Group (EIG) ran the [EIG Sustainable Goals Student Ideas Competition](#), focused on inspiring students to contribute towards tackling the 17 Sustainable Development Goals (SDGs) set by the United Nations. The Entrepreneurship & Innovation Group led competition aimed to encourage students to take innovative, creative and proactive approaches to tackling these challenges through supporting sustainably focused early-stage business innovations. The student competition is also seen as strengthening future employability.

Sponsored by the RGU Foundation Annual Fund, every month students can win cash prizes, raise their profile, give back, and be rewarded for thinking innovatively all at the same time! As an example of the ideas that it generates, the top prize-winning student from the month of March share their experience of participating in the competition below.

Melina Dimitrova is a high achieving student at RGU's School of Computing and won the top prize in the category of Local Community. Melina's previous [RGU Innovation Award](#) work familiarised her with the UN Sustainability Development Goals, particularly SDG 15 relating to Life on Land.

*"I am deeply concerned about the decline in green spaces, nature and wildlife and I realise the opportunities available to address this are decreasing. As my specialisation lies within computer science and technology, I wanted to apply my knowledge to help reverse the damage done to life on land."*

While Melina's idea of using Artificial Intelligence to tackle forestation challenges isn't entirely new, it is ambitious due to its large global scale.

*"I was worried my idea was utopian and just wishful thinking. I was not confident that it could be accomplished. But I learnt how valuable and relevant my idea is in the current times, and it made me realise it can be workable and not just a dream".*

### Impact

The series of competitions run throughout the academic year has generated a number of innovative and imaginative ideas, as well as delivering a number of other more fundamental benefits. These include a deepening awareness, understanding, and engagement of sustainability issues, the honing of skills in creative and critical thinking, communication, and time management, and development at a personal level including enhanced confidence and insight into the contributions that individuals can make.

### Publications and References

<https://www.rgu.ac.uk/rgview/student-experience/4991-rgu-students-address-global-problems-through-innovative-solutions>

<https://www.rgu.ac.uk/rgview/student-experience/4911-students-apply-innovation-to-solve-energy-health-and-economic-challenges>

Aligns with the following UN SDG:



