2023-2025 REPORT

THE UNIVERSITY OF MANCHESTER **SUSTAINABLE DEVELOPMENT GOALS**







KEY FACTS





in Europe for Environmental. Social and Governance performance in QS Sustainability Ranking We produce

of the UK's research across the 17 SDGs



ZERO CO, \checkmark

Zero carbon campus commitment by

Accredited

employer for Living Wage, Race, Gender, Disability, LGBTQ+ equality and GM Good Employer

Charter



local and global NGOs supported by student volunteers each year

N+



1.5 million+

public visitors to our cultural institutions



Platinum Engage Watermark for excellence in public engagement

National **Co-ordinating** Centre for Public Engagement

TIMES HIGHER EDUCATION IMPACT RANKINGS

based on the UN Sustainable Development Goals



	2019	2022	2021	2022	2023	2024
UK ranking	1st	1st	1st	2nd	1st	1st
European ranking	1st	2nd	1st	2nd	1st	1st
World ranking	3rd	8th	1st	9th	2nd	2nd
Total Entrants	450	768	1,240	1,406	1,705	2,152
Countries	76	85	98	106	115	125

INTRODUCTION



The United Nations' 17 Sustainable Development Goals (SDGs) are our world's call to action on the most pressing challenges facing humanity and the natural world.

At Manchester we face these challenges head on.

For 200 years we've responded to the needs of our city, our nation and our world. We acknowledge the profound obligation on great research universities, like Manchester, to meet the challenges set out in *Transforming Our World: the 2030 Agenda for Sustainable Development*.

As the UK's first university to have social responsibility as a core goal, we've developed a strategy to tackle the SDGs in four inter-related ways: research, learning and students, public engagement and operations.

Assessing impact on sustainable development involves complex methodological challenges and limitations. However, a range of indicators point to a compelling assessment of our performance. In the Times Higher Education Impact rankings, based on performance across 17 SDGs, we're the top ranked institution in the UK and in Europe. We're the only university in the world to feature in the global top 10 each year since the rankings were established in 2019. We're also proud to be the top performing institution in Europe for Environmental, Social and Governance (ESG) performance in the QS World University Sustainability Rankings.

This report is aimed at a wide range of local, national and international audiences across the public, private, NGO, policy and education sectors. We hope it stimulates further ideas, actions, collaboration opportunities and partnerships so that, together, we can play a full role in tackling the world's SDGs by 2030.

Dr Julian Skyrme

Executive Director of Social Responsibility and Civic Engagement

Professor Nalin Thakkar Vice-President for Social Responsibility

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659 million people around the world live on less than \$2.15 per day. Extreme poverty remains concentrated in the Global South.

Our African Cities Research

Consortium, in partnership with UK International Development, NGOs, partner universities and the UN, is addressing poverty and development challenges across 12 African cities.

LEARNING AND STUDENTS

Our **Global Development Institute** is the UK's largest university-based postgraduate centre specialising in international development.

UK's largest

postgraduate

centre

for international

development

More than 6,000 students have completed master's programmes in international development since 2012.

PUBLIC AND CIVIC ENGAGEMENT

Our Local Matters programme, developed by our Manchester Institute of Education, is tackling poverty in schools by empowering staff to engage in action-based research to develop an evidencebased response to local issues.

OPERATIONS

We offer a range of **student financial <u>support</u> to reduce obstacles faced by learners from economically challenged backgrounds. These include:**

- The Undergraduate Access Scholarship
- The Manchester Bursary
- The Manchester Master's Bursary
- Care experienced and care leaver bursaries
- The Living Cost Support Fund



6,000+ students completed master's programmes in international development since 2012









3.7%





internationally co-authored

low-income students receiving financial aid

0%

End hunger, achieve food security and improved nutrition and promote sustainable agriculture

RESEARCH

Hunger is the world's leading cause of death. Researchers in our <u>Manchester</u> <u>Institute for</u> <u>Biotechnology</u>

21.5%

of SDG2 research is co-authored with researchers in lowand middle-income countries

are improving the health of soil and food crops to increase yield and durability, and strengthening adaptation to climate through better understanding of plantsoil interactions, soil biodiversity and using cleaner and greener alternatives to fertilisers and pesticides.

publications

news references

references

Our BA Geography students undertake a Food and Farming unit covering hunger, ethical consumerism, environmental sustainability, animal rights and social equity. Bioscience undergraduates take a Plants for the Future unit, exploring how plant biology can address social and environmental challenges.

LEARNING AND STUDENTS

PUBLIC AND CIVIC ENGAGEMENT

2.1%

publications

policy

citations

UK

citation

impact

Our student volunteers from Manchester Food Partners: Commit to Community are tackling local food insecurity, working with Oldham Council to grow food for their affordable veg box schemes and providing cooking support and educational resources about sustainable food systems.

OPERATIONS

We support the <u>Kindling Trust</u>, an organisation combating climate change, biodiversity loss and economic inequity, by challenging the industrial food system. We buy vegetables through Kindling's operatives and own shares in Kindling Farm – a blueprint for fair, organic and ecological farming.

> 4.33 graduates from agriculture and aquaculture courses including sustainability aspects

4,000+ food supplies administered each year through our Manchester Foodbank Initiative

co-authored

with low and

middle-income

countries

internationally

co-authored

Certified

Fairtrade

status since

2005



Ensure healthy lives and promote well-being for all at all ages

RESEARCH

One in two of us receive a cancer diagnosis during our lifetime. Manchester's **research** ranges from understanding the molecular and cellular basis of cancer to developing and testing novel drugs and other therapeutic approaches.

Much of this is through the <u>Manchester Cancer Research</u> <u>Centre</u> – a partnership between the University, <u>CRUK</u> and <u>The Christie</u> <u>NHS Foundation Trust</u>.

LEARNING AND STUDENTS

0,656

publications

news references

references

We have the UK's largest medical school and are the biggest provider of graduate healthcare professionals to the NHS in England's

4,000+ students graduate in health-related programmes each year

5.1%

publications

policy

citations

UK

citation

impact

North West. We offer pioneering professional programmes including those on global health, humanitarianism and international healthcare leadership, as well as, open access programmes on **Public Health and the SDGs**, and **AI for Healthcare**.

PUBLIC AND CIVIC ENGAGEMENT

We deliver a wide range of healthcare **Service Learning** programmes, integrating community service with study to enrich learning, teach civic responsibilities and strengthen communities.

> Pharmacy and dentistry students are addressing public health challenges in local schools, communities and the Global South.

OPERATIONS

<u>Sporticipate</u> provides free and lowcost entry-level sport sessions for the University and wider community.

We host activities that promote wellbeing through nature. This includes the <u>Natural and Cultural</u> <u>Health Service</u>, by the Whitworth, and the <u>Green Wellbeing Project</u> held at our Firs Botanical Grounds.

> students graduate in health-related programmes each year

1/ SDGs covered in our free open access Public Health programme

internationally

co-authored

4

co-authored

with low and

middle-income

countries

QUALITY EDUCATION

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

We train

more than

RESEARCH

Our Manchester Institute of Education leads the awardwinning **#BeeWell** programme. Through it we listen to young people's voices, publish the results privately to schools and publicly by neighbourhood and drive action across society to improve wellbeing.

LEARNING AND STUDENTS

400 We provide interdisciplinary teachers units to support each year inclusive, sustainable and equitable education. These include Creating a Sustainable World: 21st Century Challenges and the Sustainable Development Goals and Equality, Diversity and Inclusion: Your Role in Shaping a Fairer World.

We offer expert-led, free Massive Open Online Courses (MOOCs), CPD programmes and train future teachers through our **PGCE** programmes.

PUBLIC AND CIVIC ENGAGEMENT

We lead science public engagement campaigns, like the UNESCO Great **Science Share for Schools** initiative that reaches more than half a million people worldwide.

More than 100,000 people have engaged with the RoundView in UNESCO sites, the National Trust, Manchester Museum and Greater Manchester libraries. The learning tools spark new ways of imagining sustainable futures across all sectors.

Our award-winning School Governor Initiative is one of the UK's most extensive programmes of work with local state schools and colleges.

OPERATIONS

The University of Manchester

Library is one of only five National Research Libraries in the UK. We open access to north west sixth form and mature students, and their teachers to help with A-level, vocational and access course work. Our John Rylands Research Institute and Library and Ahmed Igbal Ullah RACE Centre contain world-leading special collections, open to the public.

publications







UK

policy

citations



co-authored with low and middle-income countries

internationally co-authored

pupils engaged with our Greater Science Share for Schools initiative

2,094 new students from first-generation families to go into higher education (THE report)

> Governors from staff and alumni supporting schools

5



Achieve gender equality and empower all women and girls

RESEARCH

Our inter-disciplinary Morgan Centre for Research into Everyday Lives is an international centre of excellence for gender research. It covers issues of gender equality across personal relationships, intimacy, civil partnerships, same-sex marriage, reproductive technologies, and the growing incidence of shared living arrangements.

Our Work and Equalities Institute

uses research to identify and promote conditions for greater gender equality in employment arrangements.

LEARNING AND STUDENTS

Gender equality is embedded across our degree programmes, with many offering modules on gender and sexuality. Medicine and Nursing students study the impact of gender on inequalities in health outcomes and textiles students examine the role of gender in fashion.

We offer specialised programmes such as a master's in Gender, Sexuality and Culture.

PUBLIC AND CIVIC **ENGAGEMENT**

Every year, we celebrate International Women's Day with events that engage the University and wider community and raise awareness of gender equality, celebrate women's achievements and take action to promote equity.

OPERATIONS

Our Equality and Diversity Strategy illustrates what we're doing to advance gender equality across our University. Our annual **Equality** Information Report provides key information on staff and student gender equality. Our Gender Pay **Gap report** measures differences between the average (mean and median) earnings of men and women

who work at the University. We hold a Silver Athena Swan award for our work in advancing gender

equality.







We work with partners from industry, government, civil society groups, NGOs, and environmental organisations to ensure clean and responsible use of water. Research from our Sustainable Futures platform and Manchester Environmental Research Institute helps to enable sustainable, equitable and resilient management of water in the UK and internationally. This includes research on microplastic pollution, arsenic in water, graphene water filtration, flood management, irrigation and water-food environment systems.

LEARNING AND STUDENTS

We deliver cutting-edge teaching on clean water and sanitation. For example, master's students

publications

news references

references

in **Environmental Monitoring**, <u>Modelling and Reconstruction</u> explore solutions to groundwater contamination.

Our two free <u>Water Supply and</u> Sanitation Policy in Developing Countries MOOCs open up access

for citizens and leaders around the world to explore what can be done to solve this complex global issue.

0%

publications

policy

citations

UK

65

citation

impact

from our free MOOC on water supply and sanitation

28,110

learners benefited

internationally

co-authored

water used per

annum

PUBLIC AND CIVIC ENGAGEMENT

Our academics are taking the message about clean water to the wider public. Professor Jamie Woodward collaborated with celebrity Paul Whitehouse on *Our Troubled Rivers* to document how water companies illegally discharge untreated sewage, leading to microplastic pollution in UK rivers and contributing to biodiversity decline.

OPERATIONS

Staff and students can access 80 free water dispensers in our buildings and 1,200 bathrooms, 800 of which are publicly accessible.

We follow health and safety procedures and policies to prevent polluted water entering the water system, such as our **COSHH procedure**.

> **28,110** global learners have benefited from our free MOOC programme on water supply and sanitation

> > free water fountains across campus



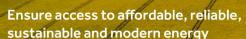
co-authored

with low and

middle-income

countries

AFFORDABLE AND CLEAN ENERGY



RESEARCH

Through our **Energy Beacon**, more than 600 experts are focused on three research challenges. Our work on Energy production and security looks to ensure efficient, reliable and secure access as we decarbonise. decentralise and digitise energy systems. Our work on Energy equity and engagement is working with governments, industries and communities to ensure universal access to energy. And our work on Energy and environmental sustainability is creating pioneering methods to mitigate the environmental impacts of energy supply and demand.

LEARNING AND STUDENTS

Over

state-of-the-art

laboratories to help

students address

clean energy

challenges

Our <u>Renewable</u> Energy and Clean Technology master's equips students with

students with a detailed understanding of solar, wind and marine energy-generation technologies.

Our Energy, Society and Space unit in Geography examines scientific and political issues associated with energy provision and demand.

PUBLIC AND CIVIC ENGAGEMENT

The **Dalton Nuclear Institute** is a trusted source of information, engaging with the public, media, stakeholders and government, and contributing to important national and international conversations around nuclear energy. We use events like bluedot,

Science X and the Dalton Seminar Series to <u>engage schools and</u> <u>the public</u> and highlight the role of nuclear energy in the UK's net zero future.

OPERATIONS

We anticipate that the University's electricity carbon footprint will halve following the implementation of a <u>Corporate Power Purchase</u> <u>Agreement</u> (cPPA), due to come online in 2025. The cPPA means that our electricity demand will be matched by a developer generating additional renewable energy on our behalf.





Our Work and Equalities Institute is helping to identify and promote the conditions for inclusive and fair work, and employment arrangements through informed contributions to policy formation

and the development of

employment practice. We lead a UK-wide **Productivity** Institute to inform national policy and debate on what productivity means for business, workers and communities, how it's measured and how it contributes to increased living standards and wellbeing.

LEARNING AND STUDENTS

Undergraduate students learn how to promote inclusive and sustainable economic growth, employment and decent work for all through our BSc Management programmes.

We deliver an online **Power. Politics** and Influence at Work programme that has engaged more than 2,500 people to date.

We offer Work Experience Bursaries to equalise access to unpaid careerenhancing work experience.

PUBLIC AND CIVIC ENGAGEMENT

We organise a Greater Manchester Citizens' Panel where 50 local people are working with local universities and regional government to ensure citizen voice is shaping the jobs, growth and skills priorities in our region.

We've joined forces with regional employers and Manchester City Council to champion decent pay and make Manchester a Living Wage Place.

OPERATIONS

We're addressing unemployment rates and skills gaps through our partnership in The Works - an employment and training initiative at the heart of our local Ardwick community.

We're a voluntary Living Wage employer, paying at least the independent rate



8

set each year by the Living Wage Foundation to ensure a decent standard of living for all. And we're proud to be accredited as a member of our Mayor's Good **Employment Charter.**







Build resilient infrastructure, promote sustainable industrialisation and foster innovation

RESEARCH

Our **Digital Futures** platform is driving digital innovation with industry. The **Christabel Pankhurst Institute** works with the NHS, businesses and regional government to promote needs-led health technology innovation.

Our Henry Royce Institute, National Graphene Institute and Graphene Engineering Innovation Centre are developing new technologies, products and processes with industry partners in advanced materials. The Creative Manchester platform is driving innovative AI research with creative industry sectors.

publications

news references

LEARNING AND STUDENTS

We encourage student innovation, such as through our <u>Innovation</u>, <u>Strategy and Entrepreneurship</u> <u>course</u> and <u>Innovation Management</u> <u>and Entrepreneurship master's</u>. The <u>Enterprise Challenge</u> is part of a University-wide interdisciplinary enterprise unit. Our <u>Masood</u> <u>Entrepreneurship Centre</u> is a focal point for enterprise and entrepreneurship skills development for students, staff and graduates.

PUBLIC AND CIVIC ENGAGEMENT

UK

citation

impact

publications

policy

citations

We're partnering with leading innovators from business, science, academia and local government to develop <u>Innovation Greater</u> <u>Manchester</u> – a plan to create 100,000 new jobs and boost the regional economy by £7 billion. We're partnering with Bruntwood SciTech to create ID <u>Manchester</u> – an innovation district where business, education and communities come together.

OPERATIONS

Our Innovation Factory protects and commercialises our innovations and intellectual property by creating spin-out companies based on our ideas. We're shareholder and partner in the independent business Northern Gritstone – a partner of choice for technology entrepreneurs, academics and inventors in the north of England, supporting visionary companies with strong intellectual property to grow.

63.3% E internationally co-authored indus

> **E7 billion** boost to economy from ID Manchester

E22m research income from industrial sources (*THE* report)

> spin-out companies created since 2000 and still active

co-authored with low and

middle-income

countries



Global inequalities is one of our five research beacons. We support dedicated institutes, centres and networks to drive world-leading interdisciplinary research to make our city, nation and world a fairer and more equal place to live.

These include the Global Development Institute, Work and **Equalities Institute, Cathie Marsh** Institute for Social Research. Christabel Pankhurst Institute, Centre for Dynamics of Ethnicity, Humanitarian and Conflict Response Institute, Institute for Health Policy and Organisation, Manchester Institute for Education and Manchester Urban Institute.

LEARNING AND STUDENTS

Students address inequalities in modules across all three faculties. This ranges from undergraduate Sociology students examining

social inequalities in contemporary Britain, to University College for Interdisciplinary Learning units such as Your Role in Shaping a Fairer World, empowering students to promote inclusive approaches to study and work.

PUBLIC AND CIVIC ENGAGEMENT

Our world-leading cultural institutions address inequalities through collections and exhibitions. This includes The John Rylands Research Institute and Library's AIU RACE Centre – using archive material to promote racial justice. The Whitworth Gallery delivers Queering the Whitworth to (re) discover missing LGBTQIA+ narratives associated with artists and artworks. The Manchester Museum Top Floor is dedicated to partnering with and hosting environmental and social justice charities.

OPERATIONS

We spend £30 million per annum on student bursaries and tuition fee discounts to address inequalities.

Our Equity and Merit Programme

supports exceptional students from lower income countries in Africa.

Our quality and Charter Marks include:

- Top 50 employer for LGBTQ+ equality with Stonewall.
- Silver Award for Race Equality.
- 15 Athena SWAN Charter Marks for Gender Equality.
- Care Leaver Covenant to support care leavers.
- University of Sanctuary status in support of our work with forcibly displaced students and staff.



6,665 students and 1,482 employees with disabilities

> awards and quality marks for promoting equality

10

publications news references references





.6%

publications

UK

nternationally co-authored

co-authored with low and middle-income countries

11

6,60 low-income students receive financial aid



11

We undertake interdisciplinary research to help cities be inclusive. safe, resilient and sustainable. Our Manchester Urban Institute works with local, national and international partners to improve life conditions in urban contexts. The Manchester **Environmental Research Institute** uses expertise to develop solutions for complex urban sustainability. Our Global Development Institute focuses on urban development in the Global South.

LEARNING AND STUDENTS

Manchester students learn how to make cities inclusive, safe, resilient and sustainable. Environmental Management undergraduates and **Global Development Institute** master's students explore the challenges of creating green infrastructure in cities resilient to climate change.

93.251 learners around the world have completed a Sustainable Cities MOOC, developed in partnership with Lund University, the World Wide Fund for Nature and ICLEL

PUBLIC AND CIVIC ENGAGEMENT

We host and partner with Ardwick **Climate Action** to understand air pollution levels along popular walking routes and provide alternatives that reduce exposure to harmful substances. We support measures to reduce the impacts of pollution, including planting activities, mapping green spaces and public engagement activities promoting active travel.

OPERATIONS

We've won

awards

cities and

FREE public access to our University

recognising our museum, gallery work in creating and library more sustainable

 Platinum Award for sustainable travel.

communities including:

- 2030 Climate Action prize at Green Gown Awards.
- Top in the UK and Europe, and third in the world, in the QS World University Rankings for Sustainability.
- Top in the UK and Europe, and second in the world for the THE Impact Rankings.

oublications

references

citation news references impact

UK publications

policy

citations

co-authored with low and middle-income countries

internationally co-authored

> spent on arts and heritage

learners completed our Sustainable Cities MOOC

> Platinum Award for sustainable travel

12

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Ensure sustainable consumption and production patterns

RESEARCH

We undertake interdisciplinary research to support more sustainable consumption and production patterns. Our Creating trusted sustainable solutions for plastics use with SMEs

Sustainable Consumption Institute works across consumption, cultural change, innovation, politics, and social justice in areas such as food, energy, housing, and transport. Our work in <u>sustainable industrial</u> <u>systems</u> uses advanced chemical engineering to identify sustainable solutions on a life cycle basis.

LEARNING AND STUDENTS

Our students learn about sustainable consumption and production of natural resources through a range of course units and programmes including: <u>Environmental Politics</u>, <u>Sustainability</u>, <u>Consumption and</u> <u>Global Responsibilities</u>, <u>Innovation</u> <u>for Sustainability</u> and <u>Sociology of</u> <u>Consumption</u>.

PUBLIC AND CIVIC ENGAGEMENT

We're working with the public on <u>One Bin to Rule Them All</u>, an initiative using material, management and social science to examine consumer engagement with a streamlined standard for plastics recycling, rolled out across UK homes.

Our student-led <u>Want Not Waste</u> zero-waste shop fosters a community of knowledge sharing and inspires sustainable consumer choices. <u>Game changers</u> tackles the impact of textile waste in the football industry – transforming surplus football shirts into unique reusable tote bags.

OPERATIONS

We follow the <u>6R Responsible</u> <u>Plastics Protocol</u>. It is designed to help people be aware of and combat plastic waste whenever and wherever possible.

University suppliers are required to minimise use of disposable materials – part of our approach to **responsible procurement**. For example, as part of our Supplier Engagement Tool we receive information on their management of waste and singleuse/disposable items.

12

3.75% UK initiatives implemented internationally publications publications to target sustainable food. co-authored growing and food waste Certified co-authored Fairtrade with low and news references citation policy middle-income status since references impact citations countries of waste recycled 2005



Our Sustainable Futures platform, Energy Beacon, Manchester Environmental Research Institute, Manchester Urban Institute, Global Development Institute and Tyndall Manchester Centre are examples of research structures that are changing policies and practice to combat climate change and mitigate its impacts.

This spans natural sciences, engineering and social sciences, and supports research impact in energy systems, carbon budgets and pathways, the water energy food nexus, renewables and future fuels.

LEARNING AND STUDENTS

Undergraduate students study the causes, impacts and mitigations of climate change across the full range of humanities, sciences, engineering and health disciplines. We offer four **master's programmes** with a focus on climate science. Every undergraduate student can take a dedicated <u>Climate Change</u> <u>and Society</u> unit.

PUBLIC AND CIVIC ENGAGEMENT

The Manchester Museum **Top Floor** space hosts and partners with environmental and social justice charities. We host Manchester Climate Change Youth Board, Ardwick Climate Action and the Clean Cities Campaign.

We also deliver climate action outreach initiatives at our annual **Community Festival**, **bluedot** festival of music, arts and culture, and through our global <u>Great</u> <u>Science Share for Schools</u> initiative.

OPERATIONS

We are committed to becoming a zero-carbon university by 2038 for Scope 1 and 2 emissions. This means we need to reduce our carbon emissions by an average of 13% each year. Our Scope 1 and 2 emissions have fallen by 36% since 2007. As part of this we are implementing a

Corporate Power Purchase Agreement (cPPA) in 2025, by which our electricity demand will be matched by a

Corporate Purchase Power Agreement (cPPA) for energy agreed from 2025

developer generating additional renewable energy on our behalf. We have also set a net-zero target for our **Scope 3** emissions (which are emitted as an indirect result of our activities) by 2050. We have halved emissions from air travel since 2019.



13



citations

UK

1%





66.9% internationally co-authored



zero carbon campus target Halved

2038

emissions from air travel since 2019

14 LIFE BELOW WATER



Conserve and sustainably use the oceans, seas and marine resources for sustainable development

RESEARCH

Our Manchester Environmental **Research Institute**

has 70 staff and 58 PhD researchers Pioneering working on water-related research undertaken issues. into marine-life Examples across the 400 so-called include 'dead zones' in oceans understanding and seas worldwide and improving practice and policy in reducing microplastic pollution in rivers, a key contributor to overall marine pollution.

LEARNING AND STUDENTS

Our Life Sciences undergraduates take units on biodiversity, conservation biology and marine biology, including fieldwork examining organisms living on shores and the seabed.

publications

news references

references

Geography undergraduates study an Environmental Pollution unit covering water control strategies. At master's level, our online

> **Pollution and Environmental Control** programme prepares students for a career in environmental management and resource conservation.

PUBLIC AND CIVIC ENGAGEMENT

We engage the public on issues of overfishing, illegal, unreported and unregulated fishing and destructive fishing practices. Professor Holly Shiels worked in partnership with the Physiological Society to produce four educational outreach video blogs on the Greenland Shark and the impact of overfishing halibut. The videos were shared with local, national and international communities on location in the Arctic.

OPERATIONS

Our commitment to reduce singleuse **plastics** involves minimisina waste and seeking opportunities to reuse and recycle, promoting circularity and efficiency. We've successfully eliminated 250,000 pieces of single-use plastics between 2018 and 2022. We're also committed to all laboratories achieving LEAF certification to reduce harmful pollutants.

Across our food operations we only buy Marine Stewardship Certified (MSC) fish.

> 37,000 pieces of plastic saved by our 6R approach each year

> > Marine **Stewardship** Council (MSC) certified

1,64% UK publications

policy

citations

citation

impact



co-authored with low and middle-income countries

15

internationally co-authored

of plastic bottles

recycled each year

14



Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss

RESEARCH

Our **Global Development Institute's** Sustainable Forest Transitions initiative is conducting groundbreaking interdisciplinary research to better understand the role of reforestation programmes in safeguarding terrestrial ecosystems and biodiversity.

Researchers in our <u>Manchester</u> <u>Environmental Research Institute</u> work with policymakers to develop innovative approaches to sustaining and restoring ecosystems such as soils, grasslands, peatlands, green infrastructure, rivers and lakes, forests and agricultural systems.

LEARNING AND STUDENTS

Undergraduate **Zoology** students study the conservation and ecology of animals. Bioscience students take part in a **<u>Urban Biodiversity</u>** <u>field course</u>, introducing them to environmental consultancy, conservation and natural site management.

Environmental Management undergraduate and postgraduate programmes develop skills needed for ecological surveys, conservation management and environmental auditing.

PUBLIC AND CIVIC ENGAGEMENT

The <u>Manchester Museum Vivarium</u> allows the public to see conservation of live amphibians and reptiles. Our <u>iNaturalist</u> project improves our understanding of campus biodiversity by asking staff, students and the wider community to document wildlife on campus. We've also created an online, interactive campus <u>Tree Trail</u>, highlighting 50 of the 1,500 trees across Oxford Road campus.

OPERATIONS

We work with and alongside nature to preserve and promote biodiversity on campus. Our tree plan requiries the

signatory to the Nature Positive Pledge

Founding

planting of two trees for every one removed by campus developments. We've committed to increasing the quality of existing green spaces and achieving a 10% increase in <u>urban green space</u> by 2028. We are proud to be a founding signatory to the Nature Positive Pledge and the Nature Positive Universities Alliance launched at COP15.





Our researchers are at the forefront of promoting peace, justice and strong institutions.

Criminology researchers are helping to combat **modern slavery** by examining who victims are, how they became victims and what can be done to reduce its prevalence. And our **N8 policing Research Partnership** is an academic-police collaboration championing, enabling, and supporting research that tackles the challenges of 21st century policing.

LEARNING AND STUDENTS

Undergraduate students in Law and Criminology learn about justice and strong institutions through units in human rights, counter-terrorism, people trafficking and cyber-crime. We offer **master's programmes** covering areas including healthcare ethics and law, human rights, intellectual property and security, and international law.

PUBLIC AND CIVIC ENGAGEMENT

Our award-winning **Justice Hub** empowers students to apply various arms of the law to make real change in their communities. It hosts a free legal advice centre, addressing areas like family, housing, and immigration law for economically disadvantaged individuals. Within this, the **Manchester Innocence Project** (MIP) works on live criminal appeals for those asserting innocence.

OPERATIONS

Our **<u>Board of Governors</u>** holds the University to account on its performance and good governance, and oversees our strategic direction, finances, property, and overall affairs, including staff employment.

2,000

people march against gender violence each year through Reclaim the Night

16

Our policies demonstrate a zerotolerance approach to **bribery**, **corruption**, **modern slavery**, **and human trafficking**.



17





Strengthen the means of implementation and revitalise the global partnership for sustainable development

RESEARCH

We develop research partnerships with businesses of all sizes. not-forprofit organisations and regional and national government. This includes regional innovation and collaborations to enhance business productivity; UK-partnerships with the NHS and Department of Work and Pensions; and globally with multinational companies including the United Nations.

LEARNING AND STUDENTS

Our students tackle real-world SDG challenges through our **University** Living Lab. Our Student Volunteer Hub links student volunteering to the needs of over 500 charities each year. Our Students' Union has partnered with other university unions to create a **Greater** Manchester Student Assembly, to engage our Mayor on policy issues.

2,280

between 2019

and 2023

146,843

news and media

citations across

all SDGs

PUBLIC AND CIVIC ENGAGEMENT

We've develop mutually-beneficial partnerships with patients, resident groups, national and local NGOs, campaign groups, cultural organisations, think-tanks and elected officials. This includes:

- Policy@Manchester linking our knowledge and research with policy partners.
- Creative Manchester supporting partnerships with the cultural sector.
- Patient and Public Involvement and Engagement (PPIE) Public Contributor programme – drawing on the expertise of the public to advance university research and teaching.
- We hold a Platinum Watermark for the quality of our work on public and community engagement.

OPERATIONS

Platinum Watermark for public engagement

We create and participate in a

wide range of regional partnership structures to support a greener, healthier and fairer society.

- Innovation Greater Manchester a partnership of businesses, scientific, academic and local government leaders to advance innovation.
- Civic University Board a coalition of five higher education institutions and the Greater Manchester Combined Authority.
- ID Manchester a joint venture with Bruntwood SciTech to create a new innovation district.
- Health Innovation Manchester a partnership between the NHS, local councils, industry, research and academia to find and deliver innovations to frontline care.

DG publications of all UK SDG publications 1,025 21.463 patents cite policy documents our SDG cite our SDG

research

research

co-authored with low and middle-income countries

18

_64 nternationally co-authored

> of students are international

community organisations supported through student volunteering since 2020

University of Manchester Worldwide global centres

METHODOLOGY AND TIMELINES

Research metrics were identified using outputs across a total of five different calendar years of analysis (2019, 2020, 2021, 2022 and 2023). This mirrors methodologies used by global ranking organisations such as *Times Higher Education* and *QS*.

SDG publications

SDG publications were identified using the SDG specific Research Area within Elsevier SciVal (elsevier.com/en-gb/products/

scival). Elsevier's data science teams have built search queries for 16 of the 17 SDGs and augment these with a machine learning model to improve the completeness of the mapped documents to each SDG. The Times Higher Education use the Elsevier SDG mapping as part of their Impact Rankings. For example, for SDG1 - No Poverty, particular words were used to mine the titles, abstracts and authordefined keywords of publications within this dataset. These are not weighted equally by Scopus; some phrases attract a higher weighting. For example, the terms "pro-poor", "social care services" and "energy poverty" achieved the highest levels of relevancy against SDG1 using Elsevier's tf-idf (term frequencyinverse document frequency) calculation, which measures the importance of a word to a document in a collection. These SDG keywords

were applied to all 16 SDGs across the five years 2019 to 2023, mining titles, abstracts and author-defined keywords of publications. Further limits were applied to identify collaborations with LMI countries as defined by the World Bank.

News and media mentions

News and media mentions were identified using Altmetric Explorer (<u>www.altmetric.com/explorer</u>). The filters in Altmetric Explorer were as follows: My Institution only (University of Manchester); Relevant SDG; Dates: 01/01/2019 – 31/12/2023.

Internal Faculty/School/Institute analysis

SciVal was also used to identify University of Manchester SDG publications with international and LMI collaboration by internal Faculties, Schools and Research Institutes. This was a more complex data retrieval task, requiring some local work-around solutions. Faculty and School data was identified using bespoke 'Researcher Groups' created by the University of Manchester Library for internal purposes. These are based on lists of REF-eligible staff shared with our library annually. This method, which only measures REF eligible staff, does not therefore capture publications by Honorary staff, PhD students, postdocs and staff who work at affiliated NHS trusts. These are, however,

captured within the University-wide SDG analysis on the SDG publication worksheet – and accounts for disparities in total numbers across the two workbooks. In this case Publications from each researcher group (from 2019 to 2023) were exported from SciVal. These exports were then interrogated by a Python script which identified international and LMI collaboration for each individual SDG.

Research Institute information was identified using the UoM RIS – Pure. The following filters were applied within Pure to create a list of staff for each Institute: Affiliation period = current; Research beacons, institutes and platforms = x, y or z; Type = Academic. This created a list of affiliated staff which was exported to SciVal. A 'Researcher Group' was then created for each Institute and followed the same procedure as outlined above.

An alternative method of identifying relevant outputs from Pure (by identifying papers affiliated with an Institute rather than people) was also tried. However, this proved unsuccessful due to large numbers of RI-affiliated papers not being tagged as such by the authors.

All other figures in this document refer to the academic year ending in 2023.

INTERNAL UNIVERSITY ANALYSIS

FACULTY / SCHOOL / INSTITUTION / CENTRE	Number of papers	Number internationally co-authored	% international co-authored	Number LMI co-authored	% International co-authored with LMIs
School of Engineering	2,739	1,705	62%	273	10%
School of Natural Sciences	1,599	1047	65%	195	12%
Faculty of Science and Engineering total	4,208	2,679	64%	451	11%
School of Biological Sciences	1,844	1,174	64% 215		12%
School of Health Sciences	2,342	959	41%	168	7%
School of Medical Sciences	2,896	2,896 1,669 58%		209	7%
Faculty of Biology, Medicine and Health total	6,432	3,525	55%	562	9%
Alliance Manchester Business School	729	435	60%	39	5%
School of Arts, Languages and Cultures	185	78	42%	10	5%
School of Environment, Education and Development	1,621	942	58%	282	17%
School of Social Sciences	1,341	679	51%	69	5%
Faculty of Humanities total	3,823	2,118	55%	398	10%
Cathie Marsh Institute for Social Research	323	140	43%	9	3%
Christabel Pankhurst Institute	39	16	16 41%		5%
Dalton Nuclear Institute	649	340	52%	53	8%
Global Development Institute	839	557	66%	257	31%
Henry Royce Institute	39	16	41%	2	5%
Humanitarian and Conflict Response Institute	156	59	38%	13	8%
Institute for Data Science & Al	1,149	546	48%	54	5%
Lydia Becker Institute	1,933	1,123	58%	141	7%
Manchester China Institute	164	98	60%	11	7%
Manchester Environmental Research Institute	2,556	1,385	54%	269	11%
Manchester Institute of Biotechnology	279	149	53%	12	4%
Manchester Institute of Innovation Research	345	227	66%	12	3%
Manchester Urban Institute	828	433	52%	86	10%
National Graphene Institute	175	136	78%	23	13%
Photon Science Institute	221	145	66%	11	5%
Productivity Institute	211	121	57%	2	1%
Sustainable Consumption Institute	207	97	47%	7	3%
Thomas Ashton Institute	699	338	48%	52	7%
Work & Equalities Institute	375	149	40%	14	4%
John Rylands Research Institute and Library	7	2	29%	0	0%
Manchester Cancer Research Centre	2,040	1,201	59%	141	7%

VOLUME AND SHARE OF RESEARCH

* Elsevier don't map research keywords against SDG 17. These figures are the total for SDGs 1–16 and show the extent of our research partnerships across all goals.

	Number of UK publications 2019-2023	Number of UoM publications 2019-2023	UoM publications as % of UK publications 2019-2023	Rank among UK universities by number of publications 2019-2023	Field- Weighted Citation Impact ¹ 2019-2023	% of Publications in top 10% journal percentiles ²	Number of UoM outputs in 2019	Number of UoM outputs in 2020	Number of UoM outputs in 2021	Number of UoM outputs in 2022	Number of UoM outputs in 2023
SDG 1: No Poverty	9,535	349	3.66%	7	1.63	39.0%	53	70	87	66	73
SDG 2: Zero Hunger	14,173	298	2.10%	22	1.9	50.5%	57	48	68	67	58
SDG 3: Good Health and Well-being	207,777	10,656	5.13%	7	2.47	42.9%	1,734	2,160	2,456	2,325	1,981
SDG 4: Quality Education	20,432	623	3.05%	7	1.54	32.8%	97	110	113	136	167
SDG 5: Gender Equality	17,355	461	2.66%	9	1.79	37.3%	71	75	105	90	120
SDG 6: Clean Water and Sanitation	12,537	501	4.00%	4	1.65	53.0%	84	86	114	110	107
SDG 7: Affordable and Clean Energy	43,456	1,799	4.14%	5	1.74	51.5%	334	339	412	385	329
SDG 8: Decent Work and Economic Growth	24,275	845	3.48%	5	2.04	46.8%	145	152	178	159	211
SDG 9: Industry, Innovation and Infrastructure	34,569	1,612	4.66%	3	2.03	51.5%	300	317	284	345	366
SDG 10: Reduced Inequality	28,578	1,026	3.59%	6	1.8	37.1%	156	141	212	221	296
SDG 11: Sustainable Cities and Communities	25,572	852	3.33%	7	1.9	51.3%	150	167	182	177	176
SDG 12: Responsible Consumption and Production	18,207	683	3.75%	2	2.44	55.4%	144	110	126	148	155
SDG 13: Climate Action	27,177	1,107	4.07%	8	2.6	61.1%	180	185	238	245	259
SDG 14: Life Below Water	11,577	190	1.64%	32	1.89	58.2%	46	31	52	37	24
SDG 15: Life on Land	17,350	309	1.78%	29	2.06	58.0%	42	51	94	57	65
SDG 16: Peace, Justice and Strong Institutions	30,010	909	3.02%	7	1.51	33.8%	182	151	181	166	229
SDG17: Partnerships for the Goals	*	*	*	*	*	*	*	*	*	*	*
All SDGs	542,580	22,220	4.10%				3,775	4,193	4,902	4,734	4,616

¹ With baseline = 1.00 for citation impact of all publications worldwide in this SDG

² By CiteScore Percentage

IMPACT OF SDG RESEARCH

* Elsevier don't map research keywords against SDG 17. These figures are the total for SDGs 1–16 and show the extent of our research partnerships across all goals.

	% of Scholarly output cited by policy	Number of policy documents citing UoM publications using in this SDG 2019-2023	Number of patents citing UoM publications in this SDG 2019- 2023	Number of news and media citations in this SDG [via Altmetric]	Number of countries represented by non-UK co-authors 2019-2023	Number of countries represented by low and middle income country co-authors 2019-2023	Number of UoM papers in this SDG with international co-authors 2019-2023	% of UoM papers in this SDG with international co-authors 2019-2023	Number of UoM papers in this SDG with low or lower-middle income country co-authors 2019-2023	% of UoM papers in this SDG with low or lower-middle income country co-authors 2019-2023
SDG 1: No Poverty	28.70%	323	0	937	85	23	187	53.58%	62	17.76%
SDG 2: Zero Hunger	19.50%	241	0	4402	133	36	193	64.77%	64	21.47%
SDG 3: Good Health and Well-being	7.80%	9562	607	77584	179	66	6488	60.89%	1106	10.34%
SDG 4: Quality Education	12.00%	150	1	7323	94	29	240	38.52%	40	6.42%
SDG 5: Gender Equality	19.50%	233	0	1077	104	33	203	44.03%	50	10.85%
SDG 6: Clean Water and Sanitation	14.20%	160	6	693	85	28	354	70.66%	118	23.55%
SDG 7: Affordable and Clean Energy	6.40%	341	82	7067	109	31	1221	67.87%	213	11.84%
SDG 8: Decent Work and Economic Growth	31.50%	820	4	2368	90	24	503	59.53%	107	12.66%
SDG 9: Industry, Innovation and Infrastructure	13.80%	663	49	1016	101	26	1020	63.28%	169	10.48%
SDG 10: Reduced Inequality	27.00%	622	1	7948	125	40	467	45.52%	106	10.33%
SDG 11: Sustainable Cities and Communities	15.10%	5886	229	3884	90	29	509	59.74%	111	13.03%
SDG 12: Responsible Consumption and Production	21.60%	424	15	2442	90	24	416	60.91%	100	14.64%
SDG 13: Climate Action	29.60%	1378	26	13597	105	34	740	66.85%	133	12.01%
SDG 14: Life Below Water	15.80%	107	4	386	63	11	143	75.26%	33	17.37%
SDG 15: Life on Land	15.90%	171	1	2986	100	33	211	68.28%	69	22.33%
SDG 16: Peace, Justice and Strong Institutions	18.70%	382	0	13133	97	28	358	39.38%	62	6.82%
SDG17: Partnerships for the Goals	*	*	*	*	*	*	*	*	*	*
All SDGs		21,463	1,025	146,843			13,253		2,543	

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