

MANCHESTER  
1824

The University of Manchester



THE UNIVERSITY OF MANCHESTER  
SUSTAINABLE DEVELOPMENT GOALS

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SUSTAINABLE  
DEVELOPMENT  
GOALS



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THE UNIVERSITY  
IMPACT  
RANKINGS

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MANCHESTER DAY  
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# SUSTAINABLE DEVELOPMENT GOALS





## THE UNIVERSITY OF MANCHESTER SUSTAINABLE DEVELOPMENT GOALS

# INTRODUCTION

The United Nations' 17 Sustainable Development Goals (SDGs) are our world's call to action on the most pressing challenges and opportunities facing humanity and the natural world. With their unique role in creating and sharing knowledge, universities have a direct role in addressing the challenges set out in *Transforming our world: the 2030 Agenda for Sustainable Development*.

As one of the world's leading research institutions and the UK's only university to have social responsibility as a core goal, The University of Manchester is playing a leading role in tackling the SDGs in four ways: research impact, learning and students, public engagement activity and responsible campus operations.

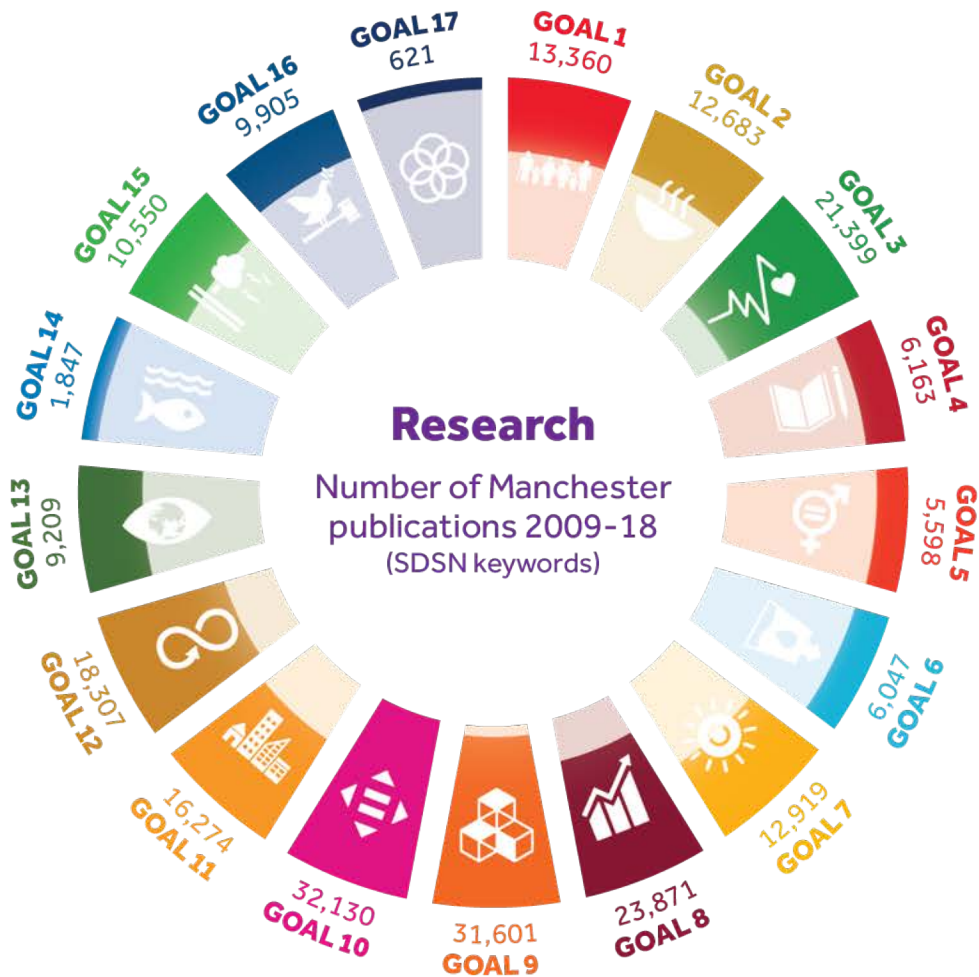
The quality and scale of our impact against the SDGs has been ranked first in Europe and third in the world in the 2019 *Times Higher Education University Impact Rankings*. We've also championed sustainable development through higher education as a key signatory to the international SDG Accord which commits ourselves to transparent reporting and goal-setting through publications like this.

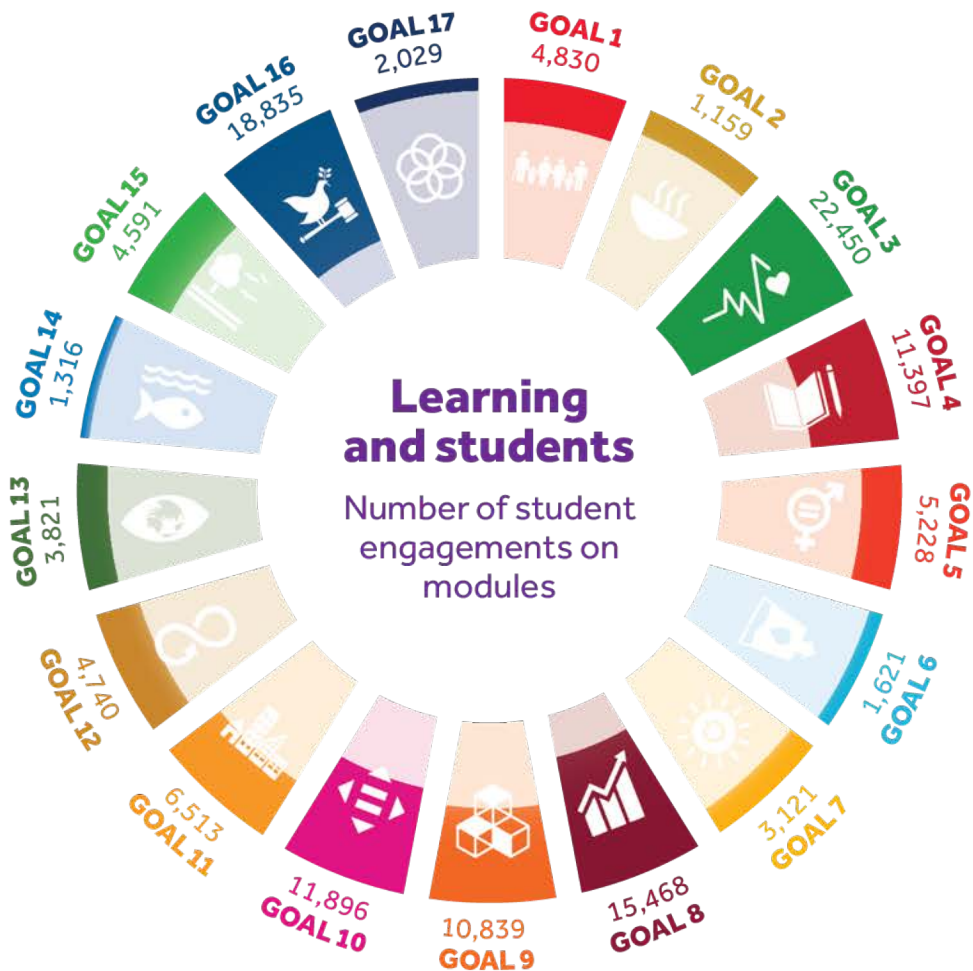
This report is aimed at a wide range of local, national and international audiences across the public, private, NGO, policy and education sectors. We hope it stimulates further ideas, actions and collaboration opportunities and partnerships so that, together, we can play a full role in tackling the world's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

Dr Julian Skyrme  
Director of Social Responsibility  
The University of Manchester

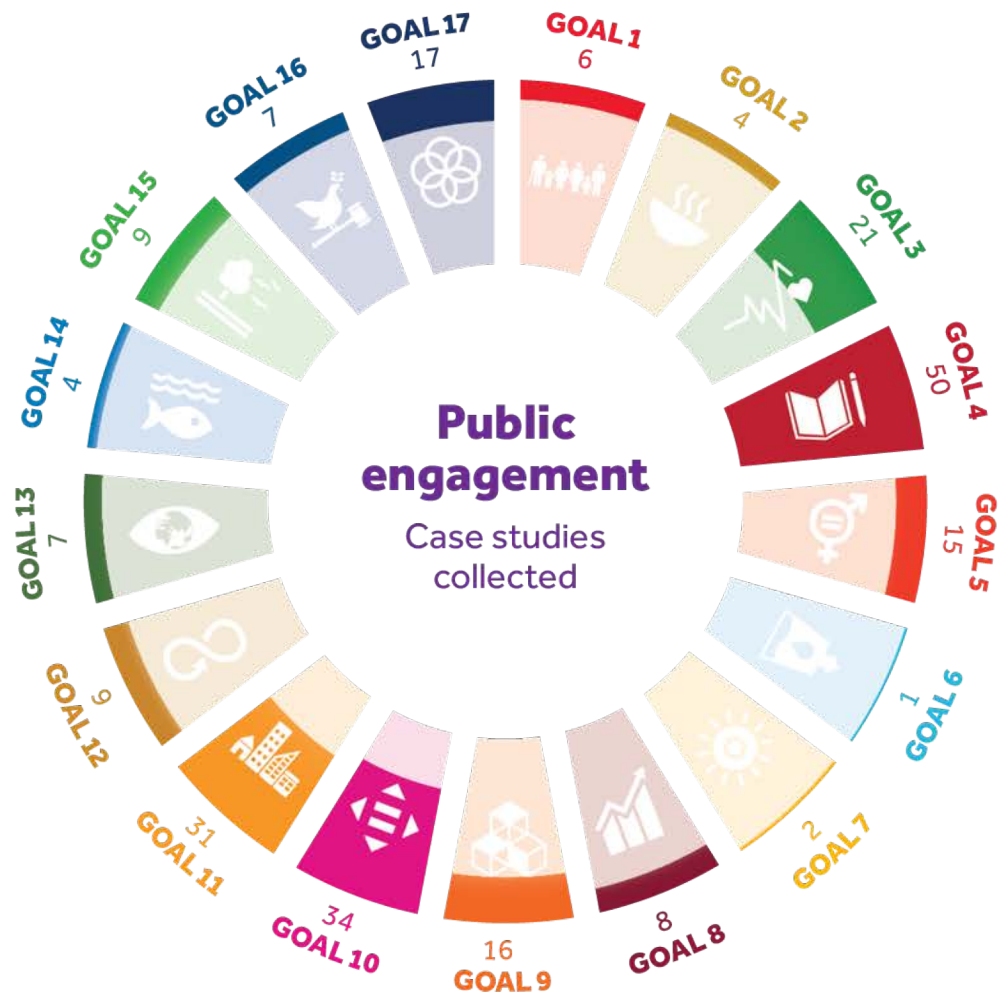
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# 1,574

International co-authored papers  
(41% of SDG papers)

---

# 498

International co-authored papers  
from low and middle income (LMI)  
countries  
(13% of SDG papers)

(Based on 3,828 publications with  
Elsevier SDG keywords 2009-18)



Make cities inclusive, safe, resilient and sustainable

## RESEARCH

### Age-friendly cities

By 2030, at least a quarter of city dwellers will be aged 60 or over. Researchers at our [Manchester Institute for Collaborative Research on Ageing](#) trained a group of 18 older residents, aged between 58 and 74, as co-researchers who then conducted 68 interviews across Manchester with older people who were experiencing social exclusion, poverty, or health problems. This research has influenced policies for improving the quality of life for older people in urban communities, particularly those traditionally marginalised across previous policy and research.

### Climate Resilient Cities and Infrastructure

Our [Manchester Urban Institute](#) (MUI) aims to realise more inclusive cities that are economically, environmentally and socially sustainable through its research, training and engagement. MUI's expertise is focused into five key themes: resilience, sustainability, energy, spatial inequality and urban governance. As part of the [Climate Resilient Cities and Infrastructure](#) project, our researchers worked with partners from eight European countries to develop tools to make cities more resilient to extreme weather and climate change. A key output from the project was the [European Climate Risk Typology](#), which provides policymakers, researchers and citizens with the opportunity to visualise and compare climate risk in European cities.

### Research in numbers: SDG 11

**16,274**  
publications  
2009-18

**3.74%** of all UK  
publications  
2009-18  
(Based on SDG1 keywords)

**216**  
Citation impact  
based on international  
benchmark of 100

**53**  
Research outputs  
**3.84%**  
National contribution  
(Based on Elsevier methodology)



## PUBLIC ENGAGEMENT

### Age-friendly culture

[Manchester Museum](#) and the [Whitworth](#) are two of our University's public-facing cultural institutions that support more sustainable communities by engaging with people of all ages across our city-region. Together with our researchers, their [public engagement work](#) has been instrumental in Manchester's status as the UK's first World Health Organization Age-Friendly city. The Whitworth's exhibition '[Danger! Men at Work](#)' was co-curated with older male residents in a local care home. And our Manchester Museum will soon open the world's first Centre for Age-Friendly Culture, to act as a beacon for the role of arts and culture in ageing well. At the other end of the age-spectrum our Whitworth gallery has organised a child-led exhibition '[We are 11](#)' and puts on regular '[Art Baby](#)' sessions for new-borns and their parents and grandparents.

### Multilingual Manchester

Manchester is one of Europe's most linguistically diverse cities. Our award-winning [Multilingual Manchester](#) initiative connects the University – our research and our students – with the opportunities and challenges associated with local language diversity. Students and staff undertake projects with local mainstream schools, supplementary schools, hospitals, city councils and residents to map out, celebrate and engage people with language diversity.

## LEARNING AND STUDENTS

### Study programmes

As tomorrow's professionals, students at Manchester are learning how to make cities inclusive, safe, resilient and sustainable. For example, [undergraduate Environmental Management](#) students and master's students in our Global Development Institute explore the challenges in creating green infrastructure in cities that is resilient to climate change.

### Sustainability challenge

On their second day at university, as part of our wider [Steffy](#) initiative, all 8,000 first-year students can take part in an [interactive event](#) facilitated by more than 230 staff. Working in groups, students consider the challenges arising from constructing a new university campus in the fictional city of [Mancaster](#), analysing costs and carbon whilst paying attention to the needs of the local community. Over the last three years, 24,143 students have taken part in the challenge, which has



helped them to understand the complexities of environmental, social and economic dilemmas in a realistic setting.

### Biko Bikes

[Biko Bikes](#) is a student-led project which promotes cycling and contributes to a more sustainable Manchester by offering affordable bike rental and teaching students about bike maintenance.

### Student Action

[Student Action](#) is our largest student-led volunteering group. It runs a range of volunteering projects connected to sustainable cities such as supporting refugees and asylum seekers to improve their English, hosting soup kitchens in the city centre for the homeless, cleaning up local parks and organising weekly socials for elderly and disadvantaged community members.

## OPERATIONS



We've partnered with Nationwide Cycling Academy to provide over **600 discounted second hand bikes** to students.

We received a ['Champion of Champions' award from Transport for Greater Manchester](#) for inspiring thousands of staff and students to opt for more sustainable journeys to work.

To encourage **low-carbon travel**, we offer:

- discounts on parking permits for low-carbon vehicles;
- a car share scheme;
- interest free loans for public transport annual season tickets and staff can buy discounted monthly and weekly tickets on campus.

Our bicycle users' group, [UMBUG](#), is one of the largest in the country with over 1,000 members.

[UMRun](#), our run-commute group, is the first to be established outside of London.

Over the past five years cycling and walking has increased by **7%** and student public transport use reached **45%**, reducing the University's carbon emissions for commuter travel by **35%**. **26%** of staff and **46%** of students now use active modes of travel.





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

### RESEARCH

#### Microplastics in UK rivers

In the first study of its kind, our geographers found that UK rivers are heavily contaminated with microplastics and that microplastics from urban river channels are a major contributor to the pollution problem in oceans. Microplastics enter river systems from a variety of industrial and domestic sources. These particles pollute the environment and pose a threat to ecosystems. Our researchers surveyed river sediments from 40 sites across Greater Manchester and found that the River Tame at Denton had the highest levels of microplastics recorded anywhere in the world. This research is leading to calls for much tighter regulations on waste flowing into urban waterways.

#### Determining oceanic fish survival

More than 400 'dead zones' exist in oceans and seas worldwide. These are areas where aquatic life is limited or completely absent, largely because there isn't enough oxygen to support it. In recent years, these zones have been increasing, often due to human input of nutrients into the water, which encourages plant growth. Our biologists are examining fish in harsh environments in order to understand why fish stocks dwindle in polluted marine environments with low oxygen levels.



#### Research in numbers: SDG 14

**1,847**  
publications  
2009-18

**2.36%** of all UK  
publications  
2009-18  
(based on SDSN keywords)

**146**  
Citation impact  
based on international  
benchmark of 100

**71**  
Research outputs  
**1.90%**  
National contribution  
(based on Elsevier methodology)

### PUBLIC ENGAGEMENT

#### What is in your river?

Our Department of Earth and Environmental Sciences has delivered public engagement activities to increase awareness of life below water and promote cleaner rivers. Community volunteers have been trained to act as River Guardians, who are able to identify living organisms in local streams. The project helped to promote awareness of ecology and inclusiveness through citizen science engagements.

### LEARNING AND STUDENTS

#### Study programmes

More than 3 billion people depend on marine and coastal biodiversity for their livelihoods and we want to prepare our students for the realities of working within this sector, and arm them with the knowledge and skills to develop solutions that will help us manage this vital resource.

The Geography course unit Environmental Pollution covers water, soil and air pollution, the associated impacts and issues and the strategies used to prevent and control them.

Zoology and other Bioscience students can study Biodiversity and Ecology, and have the option to take several units on conservation biology and marine biology. This includes a field course in Marine

Biology, which examines organisms living on shores and the seabed.

At a master's level, our Pollution and Environmental Control degree prepares students for a career in environmental management or resource conservation. Students explore the social, economic and engineering elements of environmental protection for both water and land-based ecosystems.

#### Marine and Conservation Programme

Our students can volunteer on a Marine and Conservation Programme run by one of the volunteer hubs' international partners, Travelteer. The programme aims to rehabilitate and conserve the environment and marine life in Sri Lanka.

### OPERATIONS

We're committed to eliminating avoidable single-use plastic by 2022.

All our fish appear on the **Marine Conservation Society** approved list, meaning that any fish deemed at most risk of extinction are not caught to avoid overfishing.

We offer discounts for staff and students who use **reusable** cups for hot drinks and soups in campus outlets and halls of residence.

We sell only **recyclable** PET plastic bottles.



In 2018, **2038 reusable mugs** were used **20,074** times saving the equivalent of **388.43kg** of wasted disposable cups.

Our Chancellor's Hotel avoids the waste of around **15,000** plastic bottles and **48,000** bathroom amenity bottles each year through using reusable alternatives.



# THE UNIVERSITY IMPACT RANKINGS

INAUGURAL PARTICIPANT



**1<sup>st</sup>**in the UK  
overall**1<sup>st</sup>**in Europe  
overall**3<sup>rd</sup>**in the world  
overall**1<sup>st</sup>**in the world for SDG17:  
Partnerships for  
the Goals**6<sup>th</sup>**in the world for SDG3:  
Good health and  
well-being**7<sup>th</sup>**in the world for SDG11:  
Sustainable cities and  
communities**8<sup>th</sup>**in the world for  
SDG12: Responsible  
consumption and  
production**11<sup>th</sup>**in the world for  
SDG11: Reduced  
inequalities*Times Higher Education University  
Impact Rankings based on the SDGs*UK  
RANKINGWORLD  
RANKING

Overall ranking

1

3

SDG 17 – Partnerships for the Goals

1

1

SDG 3 – Good health and well-being

2

6

SDG 11 – Sustainable cities and communities

1

7

SDG 12 – Responsible consumption/production

5

8

SDG 10 – Reduced inequalities

1

11

SDG 9 – Industry, innovation infrastructure

4

31

SDG 5 – Gender equality

6

40

SDG 13 – Climate action

7

40

SDG 16 – Peace, justice and strong institutions

11

51

SDG 8 – Decent work and economic growth

14

84

SDG 4 – Quality education

7

87



< University College for  
Interdisciplinary Learning

< Units

✓ 2019/20 semester 1

Are We Alone

Becoming an Inspirational  
Individual

Climate Change and Society

Communicating with  
Confidence

**Creating a Sustainable World**

Essential Enterprise

# Creating a Sustainable World: 21st Century Challenges and the Sustainable Development Goals

## Course Unit Code

UCIL20311 (10 credits)

UCIL20411 (20 credits)

## Course Unit Details

- Level 2
- 10 & 20 Credits
- School of Environment, Education and Development

## Overview



## Register now

✉ [Email us with your name and student ID to register for this unit](#)

## Useful downloads

[UCIL unit guide](#)

[UCIL unit selection guide](#)

# The world is much better; The world is awful; The world can be much better

## If today was still like the past:

Child deaths per year  
if we still had the global child  
mortality rate of 1800 [43%].

60.6 million child deaths

*The world is much better* – 55 million more children would die this year if we still suffered the poor health of the past.

## The world today:

Child deaths per year at today's  
global child mortality rate [3.9%].

5.5 million child deaths

*The world is awful* – 5.5 million children die every year; on average 15,000 every day.

*The world can be much better* – 5 million fewer children would die this year if globally we achieved the living conditions that are already in the best-off places today.

## If today's world was like today's best places:

Child deaths per year if all regions  
achieved the current child mortality  
rate of the European Union [0.41%].

577,000 child deaths

Child deaths refer to children younger than 5 years. 'Current' refers to the latest available data which is from 2017. The country with the lowest child mortality rate is Iceland [0.21%].

Data source: World Development Indicators for global births and deaths in 2017. The estimate for the global child mortality rate in 1800 [43%] is based on the work by Gapminder.

This is a visualization from [OurWorldinData.org](https://OurWorldinData.org), where you find data and research on how the world is changing.

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# MANCHESTER DAY OF ACTION

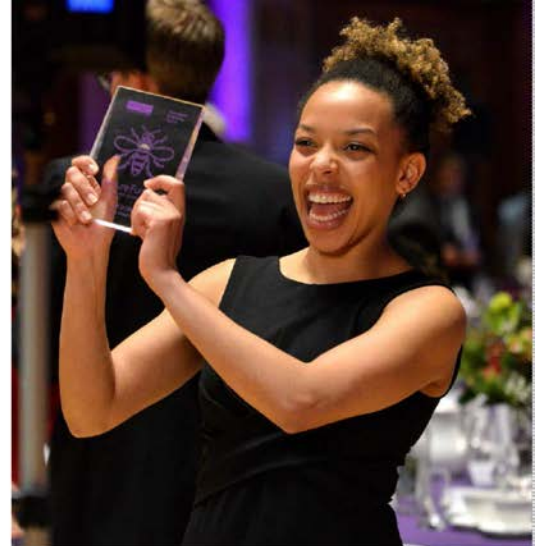




# WHAT NEXT?

**This report is part of a much wider aim to play our full part in meeting the SDGs. Here's what else we're doing.**

- **New University vision and strategic plan:** as part of the redevelopment of our vision and strategic plan during 2018/19, we're embedding our work to address the SDGs as a key theme.
- **Leadership and communications:** we will use our role as a pioneer of social responsibility among universities to raise awareness of the role of higher education in addressing the SDGs through publications, videos, conferences, exhibitions and events.
- **Cultural engagement:** our University's Manchester Museum, Whitworth gallery, Jodrell Bank Discovery Centre and John Rylands Library engage with 1.3 million members of the public each year. We will use these civic spaces to engage the public in understanding and addressing the SDGs.
- **University College for Interdisciplinary Learning SDG Module:** we're pioneering the development of a fully online, interdisciplinary credit-bearing unit, Creating a Sustainable World: 21st Century Challenges and the Sustainable Development Goals, that will be open to all our undergraduate students.
- **Research, teaching, engagement and processes:** we're working with our staff and students to foster greater internal awareness of the SDGs and ensure that contributions by our community are visible to all.
- **Alumni engagement:** we have 480,000 alumni in more than 190 countries. We'll engage these valuable members of our community to understand and take action against the SDGs.
- **Global University Rankings:** we will promote awareness of the SDGs in higher education by participating in global measures of performance such as the *Times Higher Education* University Impact Rankings and influence their development.



- **Ethical Grand Challenges:** this programme opens up opportunities for students to address the SDGs through Sustainability, Social Justice and Workplace Ethics Challenges open to all 27,500 undergraduate students. The SDGs are being embedded into this programme.
- **10,000 Actions:** our 10,000 Actions platform gamifies positive environmental and social action and is open to all 12,695 of our staff. We're now linking these actions to the relevant SDGs and plan to expand its scope to include our students.