University of Leicester: Impacting the Global Goals by DEGREEs
Developing Education for Good with Research Excellence & Engagement
The Global Goals at Leicester

At the heart of the UK, Leicester is a leading university committed to international excellence, world-changing research and high quality, inspirational teaching. Celebrating diversity among our staff and students; widening participation in higher education; engaging with local, national and international communities – all of these are part of what we do and who we are.

The University was founded 100 years ago as a living memorial to those that gave their lives in WW1. Today that ethos of thinking global, acting local is more pertinent than ever. It is only natural then, that the University of Leicester has committed to contributing to the UN Sustainable Development Goals through their inclusion in the Social Impact Strategy and as one of the first UK HE signatories of the SDG Accord in September 2017.

This report outlines the results of a year-long mapping exercise identifying our current academic contribution to the SDGs. It also highlights our operational and engagement activities aimed at further integrating the SDGs into every day University life.

The Sustainable Development Goals

Leicester and the SDGs

Leicester’s contribution to the SDGs has been mapped using a varied methodology (see appendix). The findings presented below give a strong indication of our academic strengths and the focus of each work area.

Whilst we have a clear contribution to each goal through our teaching, research and operations, the top five Goals University of Leicester’s combined academic work contributes to are:

- **Goal 3**: Ensure healthy lives and promote well-being for all at all ages
- **Goal 9**: Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation
- **Goal 13**: Take urgent action to combat climate change and its impacts
- **Goal 16**: Promote peaceful and inclusive societies for sustainable development
- **Goal 5**: Achieve gender equality and empower all women and girls
University of Leicester: Impacting the Global Goals by DEGREES

Developing Education for Good with Research Excellence & Engagement

Large amount of public engagement activities in the College of Life Sciences

Many policies and initiatives contributing to Sustainable Cities, such as the Carbon Management Plan and Travel Plan

Teaching & Research

Student Voice

Overwhelming contribution to Good Health and Wellbeing

High amounts of teaching about Peace, Justice and Strong Institutions

Students felt there should be more opportunities for women in academia
University of Leicester

Key facts

221 acres of land across 5 sites, including residential & hospital sites

Urban site with 40% green space, including over 10,000 trees

12,544 home students
2,135 international students
1,222 EU students (31% DL)
3249 Distance Learners

71% undergraduate students and 83% postgraduates have access to SDG-related modules

19,150 total students
Example
Prof. Vostanis’s research (Psychology) focuses on the impact of trauma on child mental health, with particular focus on low-income countries.

Teaching
3 modules with direct ILOs
1305 students who could choose modules

Research
413 publications in Scopus 2012-17
8787 “cited by” in Scopus

Institution example
The University has committed to paying the Living Wage Foundation Rate since 2015

Engagement example
The Big Sleep raised over £9000 for The Bridge Homelessness to Hope as staff and students from the University of Leicester spent a night under the stars to raise awareness of homelessness.
End hunger, achieve food security and improved nutrition and promote sustainable agriculture

**Teaching**
- 2 modules with direct ILOs
- 651 students who could choose modules

**Research**
- 45 publications in Scopus 2012-17
- 1862 “cited by” in Scopus

**Example**
A large research group in the Biology Department focusses on **Genomics, and genetics for crop improvement, food security, biodiversity and genome evolution research** in order to deliver sustainability and food security from agriculture. Their work includes research, teaching and public engagement.

**Institution example**
The *Hungry for Change* food growing project at three of our sites aims to change the way students think about what they’re eating and why.

**Engagement example**
**Beeutiful Campus:** student volunteers in collaboration with Urban Buzz, Buglife planted specific flowers for pollinators to encourage more bees onto campus.
Ensure healthy lives and promote well-being for all at all ages

Teaching
- 75 modules with direct ILOs
- 3384 students who could choose modules

Research
- 5128 publications in Scopus 2012-17
- 86,601 “cited by” in Scopus

Example
Our impactful research is world-leading covering the breadth of biological sciences through to clinical specialities and health sciences.

Strong relationships with the NHS and industry enable us to draw on our novel discoveries to solve the most pressing issues in the Life Sciences. Research is thriving due to our ambitious, multi-disciplinary approach, which is underpinned by our investment in facilities and benefits from the ethnically diverse surroundings that make Leicester so special.

Institution example
The Staff Health & Wellbeing Strategy provides support and advice including: active/healthy life; emotional wellbeing; health promotion; social events/clubs; benefits and rewards; and positive environment

Engagement example
The Health Matters Programme, funded by the Edith Murphy Foundation to deliver the George Davies Centre Community Engagement Project, Health Matters. We think by bringing together students, clinicians, researchers, community support groups, patients groups and the public to promote discussions and debate, community engagement can tackle our society’s biggest health challenges.
Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

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**Teaching**
- 10 modules with direct ILOs
- 3022 students who could choose modules

**Example**
The London to Leicester partnership scheme has been going over three years with 17 schools and colleges around Greater London based on student Polar3 postcodes. The L2L partners are empowered to select a student who has chosen UoL as their firm choice University to receive a University of Leicester scholarship, a travel grant of £500 to come to our Taster Conference in June and priority access to our information, advice and guidance. The scheme has proved to be extremely popular - we have seen an increase of around 60% in applications and registrations from these schools and colleges.

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**Research**
- 157 publications in Scopus 2012-17
- 748 “cited by” in Scopus

**Institution example**
The University of Leicester is a selective university with the most consistent commitment to widening participation. Unlike most selective universities we have consistently recruited the expected numbers of students from state education, low participation neighbourhoods and lower socio-economic households.

Every year we welcome thousands of children, young people, parents, carers and teachers onto campus for activities designed to promote higher education and its potential benefits. We proactively visit local schools and colleges in areas of disadvantage to help teachers raise aspirations of young children and prepare older pupils for applying to universities in the near future.

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**Engagement example**
3,343 people worldwide registered for the Concepts in Sustainable Development MOOC, a multi-disciplinary look at sustainable development and touches on topics such as complexity, entropy and inequalities. The course ran over 6 weeks with content being delivered by a series of short video lectures, articles and external resources for further learning. The course was open to the general public and was accessed through Futurelearn, which allowed a global audience. This resulted in an engaging discussion in the comments section after every step.
Dr Eugenia Caracciolo di Torella from Leicester Law School has jointly authored a report to the European Commission on the potential impact of the collaborative economy on gender equality.

The study argues that the collaborative economy has the potential to affect the principle of gender equality in many respects, and as it continues to develop, these will become more apparent. It is clearly time to acknowledge and regulate the potential impact that the collaborative economy may have on gender equality.
Example
A group of researchers from the School of Business have predicted that increased competition for water from both the public and from industry will make it likely that a privatised, market-based water system will develop, controlled by private companies.

They predict that nations will begin to sell key water sources – such as lakes, rivers and groundwater reserves – to companies. This will mean the supply of water around the world will soon resemble the market for oil and minerals
Teaching

- 2 modules with direct ILOs
- 453 students who could choose modules

Research

- 130 publications in Scopus 2012-17
- 1775 “cited by” in Scopus

The University has been awarded the triple gold Carbon Saver Standard in carbon, waste and water reductions.

Example

Dr Audrius Bagdanavicius from the Department of Engineering specialises in energy efficiency, including Thermo-mechanical energy storage systems, District Energy Networks and Energy, exergy and exergoeconomic analysis of energy conversion systems.

Dr Bagdanavicius also sits on the Social Impact Steering Group

Institution example

The University’s Carbon Management Plan demonstrates the University of Leicester’s continued commitment towards reducing carbon emissions impact against its 2004/05 baseline. By taking actions as set out in the Carbon Management Action Plan, the University continues in its aim to reduce emissions from its activities. The carbon target is specifically for Scope 1 and 2 carbon emissions. The University continues to develop its Scope 3 baseline and targets.
Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

**Teaching**
- 24 modules with direct ILOs
- 3079 students who could choose modules

**Research**
- 504 publications in Scopus 2012-17
- 3485 "cited by" in Scopus

**Institution example**
The University’s Career Development Service won an award for the ‘Best University Employability Service’

**Engagement example**
The Leicester Award is an inspirational personal development programme for all students with a wide range of activities including volunteering and professional mentoring to develop confidence, resilience and decision making skills
Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

**Teaching**
- 31 modules with direct ILOs
- 3015 students who could choose modules

**Research**
- 906 publications in Scopus 2012-17
- 10,394 “cited by” in Scopus

**Example**
The Enterprise Strategy, led by our Research Enterprise Division, prioritises ensuring that the world-class research and knowledge we generate is translated and applied, bringing improvements and benefits to business and the wider community and delivering new solutions to global challenges. We will develop more and stronger partnerships with our linked organisations and potential users of our applied research and enterprise services. This will empower us to deliver better research and enterprise across all of our disciplines.

**Institution example**
**Library LED Project**
When a group of students analysed lighting in a number of main campus rooms, they presented the University with a proposal to save thousands of pounds and hundreds of tonnes of CO2. This led to a large scheme including a £1.3M project to replace lighting in the library that saved a fantastic 93% in energy costs.

**Engagement example**
The Leicester Innovation Hub is a £5.1m programme invested in by the University of Leicester and the European Regional Development Fund (ERDF) and is a long term strategic University project. Leicester Innovation Hub is the ‘front door’ to launching great ideas and also provides a dedicated incubation and innovation space, making it easier for companies to utilise innovation support, expertise and facilities.
Example

The Leicester Migration Network brings together a dynamic group of migration scholars from a range of fields across the University. This group explores migratory phenomena in all their complexity, ranging from traditional cross-border movements to new forms of transnational flows and exchanges.

The Leicester Migration Network was co-founded in 2012 by Dr Leah Bassel, Associate Professor in the School of Media, Communication and Sociology.

Institution example

We are proud to be recognised as a top 100 employer in Stonewall’s Workplace Equality Index, which showcases the most inclusive UK workplaces for lesbian, gay, bi and trans staff.

We have been a Stonewall Diversity Champion since 2013.

Engagement example

The Unit for DICE promotes diversity, inclusion and community engagement within the University of Leicester and on a local and national level.

DICE, in the School of Media, Communication and Sociology, is at the very heart of debates about promoting inclusion and making positive benefits out of diversity.

This prioritises promoting an audible public voice by acting as a hub for intelligent debate, routinely connecting community members, practitioners and policy makers to leading academics on campus and local and national media outlets.
The Air Quality Group provide creative solutions to tomorrow’s air quality challenges, informing and enabling intelligent decisions grounded in world class research.

Institution example
We have already met our waste management 2020 targets:

- Achieve 50% on-site segregation of waste for recycling (by weight) – current rate 55%
- Achieve 95% diversion from landfill (by weight) – current rate 97%

Engagement example
Leicester Matters event brought together the local community and academics and business to identify local ideas for future cooperation such as bad air quality, hate crime, plastic pollution and lack of green spaces.
Ensure sustainable consumption and production patterns

**Teaching**
- **34** modules with direct ILOs
- **5153** students who could choose modules

**Research**
- **449** publications in Scopus 2012-17
- **5973** “cited by” in Scopus

**Institution example**
*The Sustainable Procurement Guidance* provides a menu of sustainability risk mitigations and added value options for including in tenders/contracts, including in relation to demand management and product efficiency, as is relevant and proportionate to the contract in question.

**Engagement example**
*The Ethical Investment Policy* commits the University to investing our endowment funds on a responsible basis, taking into account the concerns of the Social Impact Strategy.

In addition, the University has allocated 11% of the endowment funds to impact investments across the themes of resource efficiency, clean energy, financial services, healthcare and education.
Take urgent action to combat climate change and its impacts*

**Teaching**
- 19 modules with direct ILOs
- 5976 students who could choose modules

**Research**
- 897 publications in Scopus 2012-17
- 17,419 “cited by” in Scopus

**Example**
The Centre for Landscape & Climate Research is pursuing research excellence through discovery science and applied research with industrial partners. Our research develops Earth Observation methods addressing environmental problems of the land and vegetation.

**Research themes:**
- Earth Observation Data Science, using high-performance computing and cloud computing for the analysis of big satellite datasets;
- Human/environment interactions, understanding the drivers and consequences of land use change, fire disturbance, deforestation and forest degradation;
- Water and carbon cycle interactions, using Earth Observation to initialise, constrain and validate land surface and hydrological models

**Institution example**
We have built the UK’s largest non-residential project built to the ultra-energy efficient Passivhaus standard.

The new £42m building includes a 1.6km-long ground-to-air heat exchanger, inter-slab cooling and a highly insulated and airtight building envelope.

The building brings together the schools of medicine, health sciences and psychology under a single roof and has achieved a DEC ‘A’ rating in its first recorded year, demonstrating its very low carbon emissions to help the university achieve its ambition to be recognised for ‘environmental and sustainability excellence’
Conserve and sustainably use the oceans, seas and marine resources for sustainable development

**Teaching**
- 18 modules with direct ILOs
- 3889 students who could choose modules

**Research**
- 418 publications in Scopus 2012-17
- 4706 “cited by” in Scopus

**Engagement example**

The River Monster Project is a city-wide collaboration where plastic waste from the River Soar has been collected and made into a Loch Ness style monster to illustrate the problem of plastic pollution in the city.

As well as providing volunteers, academics from the University are researching the impact of plastics on water quality.
Example

Raising awareness of and reducing the climate impact of land uses on peat soils. Professor Susan Page, Department of Geography

Professor Page’s research includes a particular emphasis on the impacts of land-use change and fire on the carbon cycle of tropical peatlands. By developing engagement opportunities with external organisations and businesses, her expertise has been crucial to science-based approaches to peatland management that, when implemented, support the mitigation and management of peat carbon and greenhouse gas emissions.

Institution example

With 88 acres of green space hosting a plethora of species, the University’s Biodiversity Action Plan seeks not only to ‘do no harm’ but also instigate projects and strategies that make a positive contribution for all life on our sites.
The Leicester Hate Crime Project is Britain’s biggest ever study of hate crime victimisation—uncovering new insights into the nature and forms of these acts and their impact upon victims, families and wider communities.
Strengthen the means of implementation and revitalize the global partnership for sustainable development

Teaching

14 modules with direct ILOs (all PG)

3064 students who could choose modules

Research

279 publications in Scopus 2012-17

6773 “cited by” in Scopus

Institution example

Leicester was one of the first UK HE institutions to sign the SDG Accord, the University and College Sector’s Collective Response to the SDGs

Engagement example

As one of the first UK institutions to embrace the SDGs strategically and to develop rigorous mapping of our activities, the University has run several webinars and sector workshops to assist other HE institutions in their SDG journeys
Methodology

Data were collected at the end of the 2017/18 academic year in four categories; teaching, research, strategy & operations and community & public engagement. Due to data constraints, only teaching and research results have been fully reported here.

Work will continue to improve data collection and methodology design to improve our reporting for future years.

Teaching

As part of a wider Curriculum Transformation (CT) project, an audit was carried out to identify existing sustainability-related teaching and opportunities to incorporate more ESD within the curriculum. Intended learning outcomes (ILO’s) were specifically used to identify what students should know or be able to do by the end of the module. The ILOs had to engage with any of the United Nations Sustainable Development Goals or with our transferable skills network (TSF).

Modules have been identified that contain teaching relating to the UN’s 17 SDGs – both core and optional modules. We have only been able to use the ILO’s as a reference to see whether the module contains the SDGs and, as they are brief, it is hard to ascertain which specific ones they contain. For example, when the environmental issues are mentioned we assumed that SDGs 13, 14 and 15 are included but this could include elements of renewable energy etc.

Research

Mapping the institution’s research was difficult as there is no current or standardised method to capture all the related research. Firstly, lists of keywords relating to the 17 different SDGs were created using keywords and query codes from Aurora Network¹ and from Monash University and SDSN Australia/Pacific² as reference. The aim was to use these keywords to match words in publication titles through the use of Excel, however this proved to be very difficult so we changed our method.

Research publications from the last 5 years (2013-2018) were mapped using query codes, including keywords relating to each SDG, to search for keywords within publication titles, abstract and keywords in the Scopus online database. Some lists had to be adapted during the exercise, as some keywords had different meanings for different subjects (e.g. for SDG11 (Sustainable Cities) “transport” was used when searching for transport systems research, however transport can be used in other contexts, such as the transport of molecules around the body.

¹ Aurora Network – Initial Query Codes - SDG Analysis: bibliometric of reference
² Monash University and SDSN Australia/Pacific – Compiled keywords for SDG mapping