

Contents

Introduction	3
SDG 1: Assistance to start-ups	5
SDG 2: Food security and support to farmers	s 8
SDG 3 and SDG 6: Health and clean water	10
SDG 7: A ordable and clean energy	14
SDG 17: Partnership for the goals	18
Case studies	
n An-Najah National University, Palestine n Alex Ekwueme Federal University Ndufu-Alike, Nigeria n Central Queensland University, Australia n Oklahoma State University, US n IMT Atlantique, France n Babe -Bolyai University, Romania n University of Chile, C	Chile
View from a vice-chancellor	13
View from a partner	16

Editor Rosa Ellis, acting rankings editor, *THE* Authors Emma Deraze, senior data scientist, *THE* Ellie Philpotts, rankings reporter, *THE* Sub-editor Ingrid Curl, associate editor, THE Art editors Dan Sinclair, art editor; Juliette Luton, deputy art editor THE Data source *THE* Impact Rankings 2022



By producing cutting-edge research and teaching the sustainability champions of the future, universities are at the forefront of the fight for a sustainable planet. But the challenge is a huge one and to have a substantial impact universities must look beyond the sector and partner with organisations elsewhere.

Times Higher Education's (THE's) unique Impact Ranking dataset assesses how universities are performing against each of the 17 United Nations Sustainable Development Goals (SDGs).

Universities demonstrating productive engagement with all sectors of society is key to achieving the goals defined by the UN: no significant progress can be made by any sector in isolation, and the purpose of the *THE* Impact Rankings is to recognise the role universities play in this.

For each SDG, we collect data and assess universities on several indicators. Many of these indicators look at partnership and related concepts. These encompass cooperation with institutions, collaborative work as well as various types of support o ered by universities to external organisations or people. The partners in those relationships include the non-profit and corporate sectors, other higher education institutions (HEIs), and governmental organisations at various levels.

The institutional data for these impact indicators are provided directly by universities, which opt in to take part in the exercise. They can submit data on as many of the SDGs as they are aof -





SDG 1 (NO POVERTY): ASSISTANCE TO START-UPS

THE's SDG 1 ranking table measures universities' research on poverty and their support for poor students and citizens in the local community. Two of the indicators specifically measure the support universities o er start-up businesses.

1.4.1 L _ · · · _ _ ·

This measures whether a university provides assistance in the local community through supporting the start-up of financially and socially sustainable businesses with relevant education or resources such as mentorship programmes, training workshops or access to university facilities. **1.4.2** Least whether a university provides financial assistance to the local community supporting the start-up of financially and socially sustainable businesses.

SDG 1 partnership indicators

The businesses must be sustainable, by which we mean they must have a positive social impact and provide real opportunities for the community as well as be economically sustainable in the long term.

The two indicators cover di erent types of support: the first one asks universities about material and logistical support – for example, "incubator" schemes designed to help start-up businesses. The second one concerns financial support and as such shows less take-up. Of the 769 universities participating in SDG 1, 93 per cent said they did provide the first type of support, but only 75 per cent provide financial support.

In all regions, the percentage of institutions providing financial support to start-ups is significantly lower than those that provide other types of support; this di erence is largest in South America, with almost all (99 per cent) of the 73 participating institutions answering "yes" to the first indicator, but only 67 per cent for the second indicator. The 57 participating African universities show strong widespread support, with 97 per cent and 83 per cent respectively on the two indicators.

A total of 28 countries have 10 or more institutions in the SDG 1 ranking, and hence in those two indicators. Out of those, only in two countries do less than half the institutions o er financial support to start-ups: Ukraine and @7gstitutis4oJ@7gstiturespectively)..304 304 Td[and henc(Notnly in itutdata wetutcollected befitutRussia)6.1 (')3



SDG 2 (ZERO HUNGER): FOOD SECURITY AND SUPPORT TO FARMERS

THE's SDG 2 ranking table measures universities' research on hunger, their teaching on food sustainability, and their commitment to tackling food waste and addressing hunger on campus and locally.

This measures whether universities provide local farmers and food producers with access to knowledge, skills or technology related to food security and sustainable agriculture and aquaculture.

2.5.1

2.5.2 E

This measures whether universities host events for local farmers and food producers to connect and transfer knowledge.

2.5.3 d -1 x --

This measures whether universities provide access to university facilities such as labs, technological equipment and plant stocks to local farmers and food producers to improve sustainable farming practices. Indicator definitions

Food security has become especially pertinent over the past few years. Both the pandemic and Russia's invasion of Ukraine destabilised global food supply networks, revealing the urgent need to strengthen local food produc-



SDG 3 (GOOD HEALTH AND WELL-BEING) AND SDG 6 (CLEAN WATER AND SANITATION)

Here we assess together two SDG rankings that give an indication of the geographical scope of university partnerships.

THE's SDG 3 ranking measures universities' research on the key conditions and diseases that have a disproportionate impact on health outcomes across the world, their support for healthcare professions, and the health of students and sta (it is not a general measure of a university's medical teaching and research).

Our SDG 6 ranking focuses on universities' research related to water, their water usage and their commitment to ensuring good water management in the wider community.

3.3.1 C"

This measures whether universities have current collaborations with local, national or global health institutions to improve health and well-being outcomes.

6.5.5 C This measures whether universities cooperate with local, regional, national or global governments on water security.

As part of the SDG 3 (Good health and well-being) ranking, we assess universities' collaborations with health institutions. Those collaborations can have di erent geographical scopes: local, national or global.

We define local as within the same town or city as one of the universities' campuses; national as working with a nationwide institution or organisation such as a governmental department or national NGO or business; and global as working with institutions or organisations that operate globally or have global influence, such as the European Union, the United Nations or the World Health Organisation.

This geographical detail is also something we collect as part of the SDG 6 (Clean water and sanitation) indicator about cooperation on water security. Here institutions can also be involved in regional cooperation.

In both indicators, we see that the wider the scope, the fewer universities participate in initiatives – ie, universities are much more likely to be working

Indicators definition

with organisations in their local area than organisations with national or global influence.

Across the 1,101 universities that provided data for SDG 1 and the 635 that provided data for SDG 6, there is a clear decrease in the percentage that answered "yes" as the geographical scope broadened: from 92 per cent for local health collaborations to 66 per cent for global; and from 73 per cent for local water security cooperation to 43 per cent for global.

Indicator	Local	Regional	National	Global
Collaborations with health institutions	92%	n/a	82%	66%
Cooperation on water security	73%	67 %	62 %	43%

 Percentage of universities participating in collaborations at di erent geographical scopes

The above numbers show that there is more national and global collaboration on health than water security. This di erence could be due partly to the nature of the organisations cooperated with (there are more global health institutions than water-focused ones), but also to the topic of those collabora-

alth is inherently a global issue, while water security might be more





View from a vice-chancellor: Judith Petts, vice-chancellor at Plymouth University, and former commissioner on the higher education and further education climate commission, representing Universities UK

Plymouth University has a broad array of partnerships with various types of organisations. Its vice-chancellor Judith Petts says that "research in sustainability areas, particularly areas of climate, environment and marine, is almost always dependent on partnership working because they're very complex, global challenges."

It's often thought that the partnering stage happens towards the end of the process, when the research is translated into business, equipment or new ways of working, Petts says, but actually the process often works better when partners are involved at the earlier stage when the problem is being identified and scoped out.

When partners are engaged in the initial research it can sometimes be on a low level such as via funding one PhD student or one project. An example of this at Plymouth is its connection to Princess Yachts, a company that makes high-end yachts.

The company is based entirely in Plymouth and frequently hires engineering graduates from the university. The partnership was developed when it had a problem that needed solving. With several manufacturing sites across Plymouth, it was moving products across sites. "They realised that they generate huge amounts of potential waste in doing this, because they're wrapping everything in cardboard and wood and crates, and it's moving around from one manufacturing site to another." To solve the problem the company funded a PhD student to run a project looking at the cost-benefit analysis and waste minimisation with the aim of making the system more sustainable.

It's about building a relationship, Petts says, not just asking a business to put some money into a project. "One of the critical elements in that stage is the development of trust and confidence in the way that you work together," she says.

"Some of our best partnerships started with just a small project that the company wanted a student to help with, or perhaps a PhD studentship to have a look at a little more complex problem. And then you lead to much larger and more long-term partnership working, where strategically you're bidding together for funding and opportunities, etc."

Other types of partnerships at Plymouth involve working

with much smaller organisations. As a coastal university, one of Plymouth's specialist areas is offshore wind. In that space there are several very small companies operating in new technology areas. "They will tend to work very closely, but almost on a one-to-one basis as opposed to having a corporate strategic partnership," she says.

Forming partnerships with small organisations can be tricky, Petts says, as they often lack the resources to navigate working with a university. "That's when it becomes the university's role to be out there and offering services, almost on the basis of trying to find those very small companies."

One way they make contact with small organisations at Plymouth is a project called Low Carbon Devon which lets companies bid for some staff or student time to tackle a sustainable development problem.

The work isn't over once the university has struck up a partnership, however. "You have to have a mechanism in-house for maintaining a system of engagement with those companies over long time periods because of course they won't have a question every year that they want answering." To assist with this, 10 years ago the university set up a network which now has about 10,000 companies in it. They engage with around 1,000 of them each year.

To build in partnership working throughout the university involves including it in the strategic plan, Petts says, and considering it in every aspect of university life, including hiring. "You need academics who are interested in an outcome."

When it comes to partnership working, "the most successful academics are the ones who do multiple things. They give advice to government committees, they sometimes sit on government committees, they are involved in company engagement, they're involved in thinking about the next element of the research project. And they're always thinking strategically about what else needs to be done."



SDG 7 (AFFORDABLE AND CLEAN ENERGY): VARIOUS PARTNERSHIPS

THE's SDG 7 ranking measures universities' research related to energy, their energy use and policies, and their commitment to promoting energy e ciency in the wider community.



In the SDG 7 ranking, we consider three possible partners: **industry**, **government** and **start-ups**. In all cases we ask universities about their involvement in partnerships that aim to increase clean energy, whether that be through helping partners assess their energy e ciency or draft policies that target this specific area of sustainability.

Of the 706 universities that participated in our SDG 7 ranking, 83 per cent provide energy-e ciency services to industry and almost the same proportion (84 per cent) work with government to inform relevant policy, while 76 per cent assist innovative start-ups.



At the regional level, North America is the exception in seeing a much greater number of universities participate in policy dialogue (91 per cent) than both industry services (81 per cent) and assistance to low-carbon innovation (76 per cent). This pattern is stronger in the US than in Canada.

In most countries, institutions are more likely to be involved in policy development with governments and to assist industry with energy e ciency than to be involved in energy innovation projects. The exception is France, where 79 per cent contribute to policy development, 86 per cent work with industry, and 93 per cent work on low carbon innovation (based on 14 participating universities).

Indonesia shows similar numbers to the US: out of its 21 participating universities, 95 per cent are involved in policy advice, but only 81 per cent, and 76 per cent in industry, support and innovation assistance.







THE



Working with regional NGOs and government for SDG policy (17.2.1) had a very high response rate, with 100 per cent "yes" response in 18 of the 38 countries in which 10 or more universities are ranked. The country doing the least work in this area is Japan, with only 71 per cent of universities carrying out this work, followed by the United States (86 per cent), Poland (87 per cent) and Brazil (88 per cent).

When it comes to participation in cross-sectoral dialogue about the SDGs, more than half (22 of 38) of countries had a 100 per cent yes rate from universities, although, again, Japan had the lowest rate at 79 per cent.

Fewer countries had a 100 per cent yes rate for data gathering for the SDGs (17.2.3). This may reflect the fact that data collection infrastructure di ers by country and university involvement may be less vital in countries with other systems set up.

Canada, Malaysia, South Korea, Philippines, Jordan, China, Ireland and France all had 100 per cent yes responses.

The country with the lowest rate was Ukraine at 66 per cent, followed by Japan (71 per cent) and Brazil (73 per cent).



 Figure 7. Percentage of universities per type of collaboration



In Romania, the Babeş-Bolyai University of Cluj-Napoca (UBB)'s Research Centre for Sustainable Development (CCDD) partnered with the government to improve awareness of sustainable development within the country's public authorities and local communities. The project started in 2020 and is due to end in 2030.

University researchers had already built a database tracking regions of Romania against 90 sustainable development indicators. Building on this, they worked with the Department for Sustainable Development within the Romanian government to develop a Sustainable Development Goal (SDG) Index.

The purpose of the index is to evaluate the municipalities, cities and counties of Romania against the objectives of the National Sustainable Development Strategy of Romania 2030. The index creates colourful maps so that users can visualise the level of progress for each region. It also

monitors progress and formulates interventions. The university's lead on the project, Professor Jozsef Benedek, explained the novel aspects of the partnership: "We mix the classical data sources and SDG measurement techniques with nonconventional or progressive data sources and measurement techniques, represented by big data, data from satellite images, respectively remote sensing and



The University of Chile collaborated with the Chilean Society of Soil Science (SChCS), the Geological Society of Chile, the College of Geologists and the NGO Sustainable Soil to propose legislation on a General Land Law.

Chile is one of the few members of the Organisation for Economic Cooperation and Development (OECD) that does not have legislation on its soil. As a result, soil in Chile does not have a legal regulation that protects it as an essential natural resource for the sustenance of humanity