



REPORT

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# HIGHER EDUCATION'S ROLE IN ADVANCING THE SDGS IN THE G20: PROGRESS & OPPORTUNITIES

**DUNCAN ROSS**  
TIMES HIGHER EDUCATION





**ONE EARTH · ONE FAMILY · ONE FUTURE**

# Overview



India's Presidency of the G20 has been informed by the theme of "Vasudhaiva Kutumbakam" of

## 1 ONE EARTH ONE FAMILY ONE FUTURE

and one of the priority areas for the G20 this year has been to accelerate progress on the SDGs.

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This is especially critical as the G20 are responsible for a significant portion of the economic output of the world. There is clearly a long way to go if the G20 are to play their full part in addressing climate change. According to a report published in 2021 "G20 countries have provided more than \$3.3tn (£2.4tn) in subsidies for fossil fuels since the Paris climate agreement"<sup>(1)</sup>.

To drive acceleration on delivery, the governments of the G20 need to successfully engage all of the potential resources that they have. One part of society is uniquely placed to support this acceleration: our higher education systems.

It is important in doing this that we recognise the full contribution that can be made by the sector. Higher education can extend beyond **SDG 4: Quality education** to have a deep impact across all 17 Sustainable Development Goals.

The core opportunities that they can support are identified through four key factors:

- **Teaching** – educating the next generation of leaders, and providing the green skills needed to prepare for a sustainable future
- **Research** – identifying the world changing theories and practical solutions that will enable us to adapt and address climate-change
- **Stewardship** – acting as guardians for the precious resources with which they are entrusted: both physical and human
- **Community leadership** – being the centres for supporting our cities and communities and leading through example

Higher education is a critical and valuable resource; one that is underutilised in our drive towards sustainability. By engaging higher education institutions, their staff and their students, governments across the G20 will find a willing and powerful partner in delivering the goals.

This report will look briefly at three aspects of progress towards the goals, and three key opportunities for leveraging the power of higher education.

# Progress within the higher education sector

In this report we will explore three aspects of progress:

- **Measurement**
- **Engagement**
- **Impact**

## Measurement

The 2030 Agenda for Sustainable Development encourages assessments by member states that are expected to “conduct regular and inclusive reviews of progress at the national and sub-national levels, which are country-led and country-driven.” These Voluntary Reviews have now been adopted more widely, with cities, and even universities developing their own reviews.

Voluntary University Reviews are a vital way that universities can self-evaluate at a detailed level. However, they do not, by themselves, allow for a systematic view of sector progress, and are resource intensive. Until wider adoption, an alternative view of progress can be achieved by other mechanisms such as rankings.

According to the UN Higher Education Sustainability Initiative working group “Rankings, ratings, and assessment (RRA) organizations have significant influence - and thus significant responsibility - to guide the academic sector.”<sup>(2)</sup>

Recognising our responsibility, in 2019 Times Higher Education launched the first edition of its Impact Rankings. These rankings were a new development in the world of higher education, not just looking at sustainability but explicitly focusing on the SDGs and how higher education could contribute towards their delivery.

The Impact Rankings are now the largest global analysis of universities and the SDGs, with 1705 institutions participating in 2023. This is rapidly approaching more traditional, research focused rankings in terms of participation, and is attracting a wider range of universities from 120 different countries.

It also provides a unique dataset that underpins this report. Although we can only look at some of the larger trends, the fuller dataset can be used by universities and governments to explore their performance and to accelerate the drive towards delivering the Goals.

The adoption, by universities, of the Impact Rankings and other similar approaches has been a positive sign of progress in delivery on the SDGs. Assessment of progress and benchmarking are vital if we are to deliver on the Goals.



## Engagement

Taken as a proxy for the commitment of the sector to the aims of the SDGs, the growth in participation in the Impact Rankings paints a very positive picture. Participation is free, but requires a significant commitment in time and energy on the part of the university. It is fair to say that participation, by itself, shows a commitment to the cause of sustainability.

Since our initial launch we have seen the number of institutions grow from 541 in 2019 to 1705 in 2023 (Figure 1).

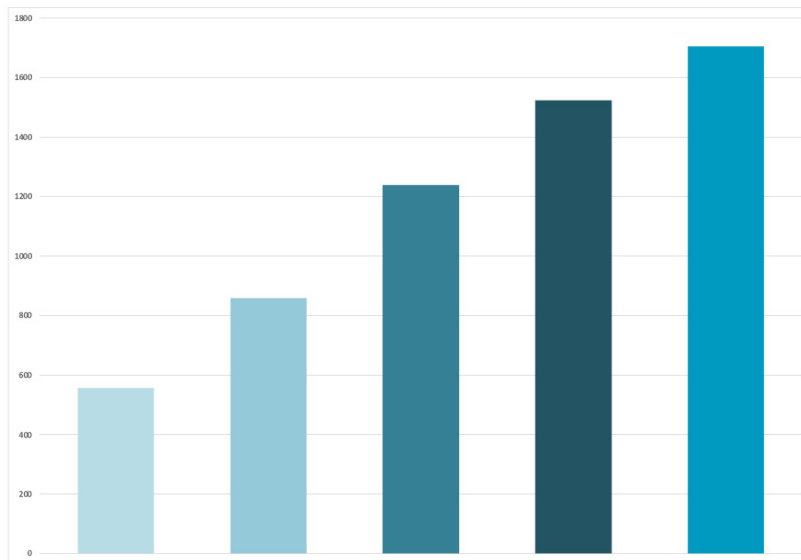
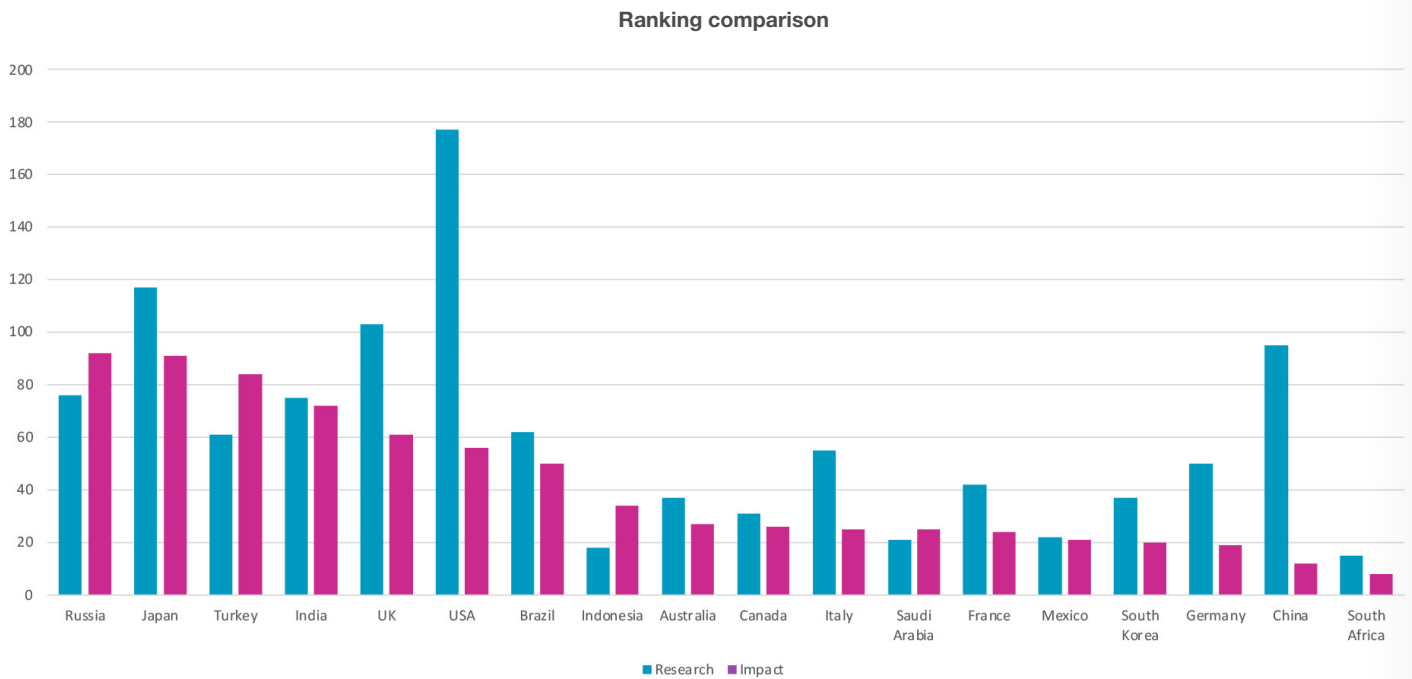


Figure 1: Growth in participation in the THE Impact Rankings 2019-2023.



Looking at the G20 we see similar levels of commitment. In total, 749 universities in the G20 participated in the THE Impact Rankings in 2023 (excluding those in countries represented by their membership of the EU alone). This gives us a statistically relevant set on which to draw conclusions about the role and focus of universities around the SDGs.



**Figure 2: Number of universities participating in each G20 country ordered by participation in the Impact Rankings. For comparison the number of universities participating in the World University Rankings are given in red.**

On a country-by-country basis we can see the reach of the Impact Rankings within the G20 (Figure 2). Three countries, Indonesia, Russia and Turkey, now have more participants in the Impact Rankings than in the more traditional and research focused World University Rankings.

When we look at the best performing universities in each of these countries (Figure 3), we can see that G20 countries are very well represented across the overall ranking. All of the top three universities are from the G20.

Country	Top Uni	Rank	Top SDG	Second SDG	Third SDG
<b>Argentina</b>	National University of Córdoba	201-300	5	3	11
<b>Australia</b>	Western Sydney University	1	5	12	15
<b>Brazil</b>	University of São Paulo	101-200	9	3	2
<b>Canada</b>	Queen's University	3	2	16	11
<b>China</b>	Shanghai University	97	9	7	8
<b>France</b>	IMT Atlantique	101-200	8	7	12
	Montpellier University	101-200	3	8	10
	Paris Sciences et Lettres – PSL Research University Paris	101-200	9	8	1
<b>Germany</b>	Free University of Berlin	101-200	12	8	13
<b>India</b>	Amrita Vishwa Vidyapeetham	52	3	4	6
<b>Indonesia</b>	University of Indonesia	20	2	1	8
<b>Italy</b>	University of Bologna	23	9	5	10
<b>Japan</b>	Hokkaido University	22	9	15	14
<b>Mexico</b>	National Autonomous University of Mexico	32	9	7	3
<b>Russia</b>	Kazan Federal University	201-300	8	16	4
	Peter the Great St Petersburg Polytechnic University	201-300	9	8	11
	RUDN University	201-300	4	8	5
<b>Saudi Arabia</b>	King Abdullah University of Science and Technology (KAUST)	101-200	14	6	7
	King Faisal University	101-200	7	1	2
	Prince Mohammad Bin Fahd University	101-200	8	10	14
<b>South Africa</b>	University of Johannesburg	46	1	8	5
<b>South Korea</b>	Yonsei University (Seoul Campus)	14	9	12	8
<b>Turkey</b>	Istanbul Technical University	58	9	8	4
<b>UK</b>	University of Manchester	2	15	12	11
<b>USA</b>	Arizona State University (Tempe)	6	15	14	6

**Figure 3: Top university in each of the G20 nations, with their rank and the university's top three SDGs.**

When we look at the rankings for each individual SDG, we see that universities from the G20 come top in thirteen of the seventeen SDGs.

# Impact of higher education

Because of their unique design, the Impact Rankings provide a broad insight into the performance of universities across each of the 17 SDGs separately as well as in the overall ranking.

We are able to explore which SDGs are seen as most important in different countries, as we allow institutions to decide for themselves which SDGs they wish to provide data for. This flexibility has demonstrated significant variations in focus both internationally, and within individual countries.

At a country level we can readily calculate the number of universities providing data for each SDG.

When we do this, we see that in seven of the G20 **SDG 3: Good health and well-being** is the most popular SDG, with six countries focusing on **SDG 4: Quality education**, and three focusing on **SDG 9: Industry, innovation and infrastructure** (Figure 4).

Most popular SDG	Countries
1	Argentina
3	Australia, Brazil, Japan, Saudi Arabia, South Africa, UK, USA
4	India, Indonesia, Italy, Mexico, Russia, Turkey
7	Germany
9	China, France, Republic of Korea
13	Canada

Figure 4: The most popular SDG in data submission to the Impact Rankings for each of the G20 countries.

However, it is worth noting that not all SDGs are equally represented across the world. In fact, SDGs 3 and 4 are the most popular (excluding **SDG 17: Partnership for the Goals**, which is mandated for participation in the overall rankings).

In some countries universities tend to provide data on a smaller number of SDGs than in others. Positively the trend has been for both more universities to join the rankings, and for universities to provide data to more SDGs.



# Impact in India and Brazil

India, as presidents of the G20 for 2023, and Brazil, as presidents of the G20 in 2024 are good countries to focus on. They provide very different examples of the varying focus of higher education in different countries.

India is demographically a much younger country than many of the G20, with only ten people aged 65 or older for every 100 people of working age. At the same time, it currently has a lower level of educational achievement than average across the world, with only 12% of the population educated to first degree level. It is also one of the members of the G20 with the lowest GDP (PPP) at \$6502 in 2020 (Figure 5).

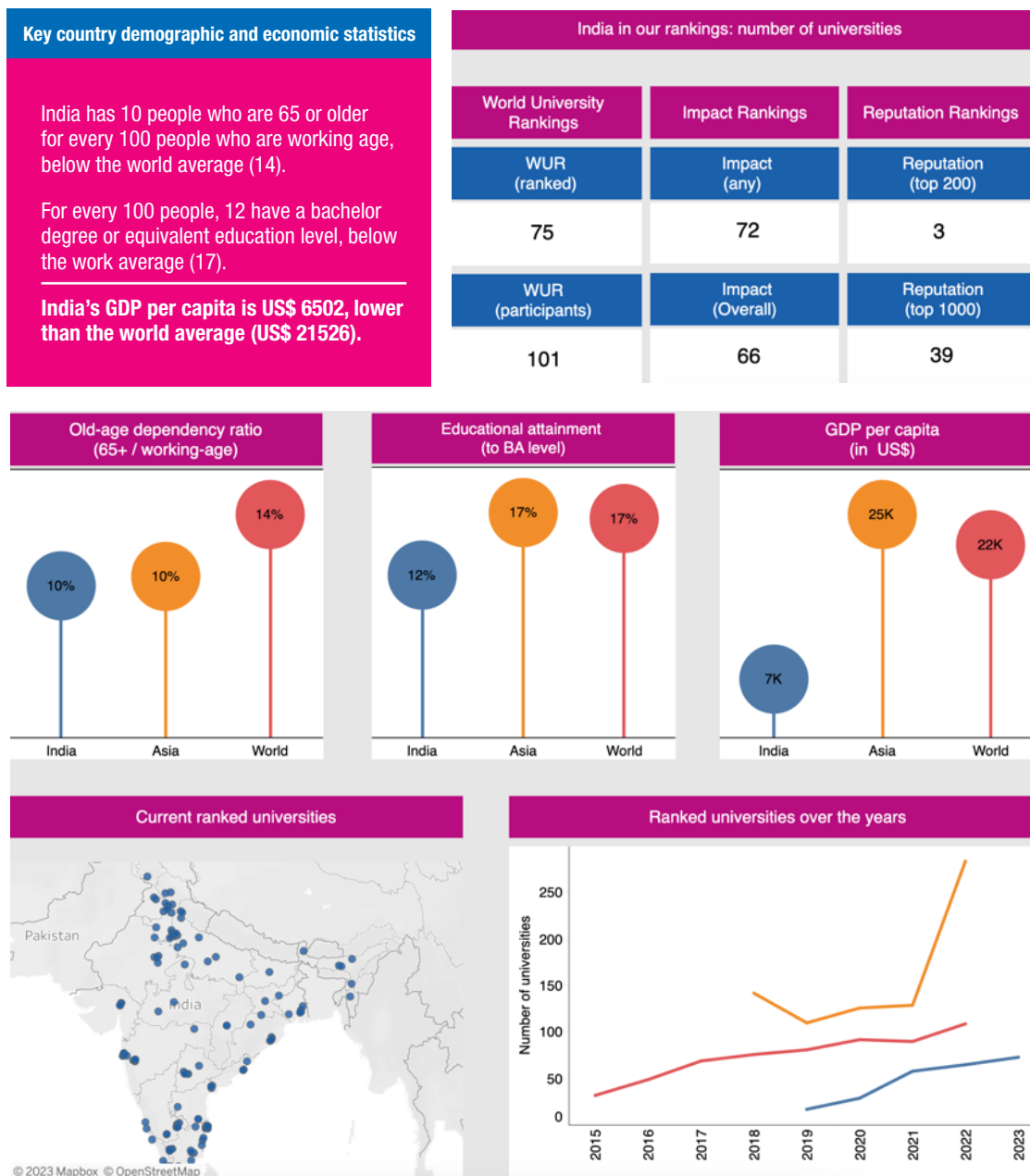
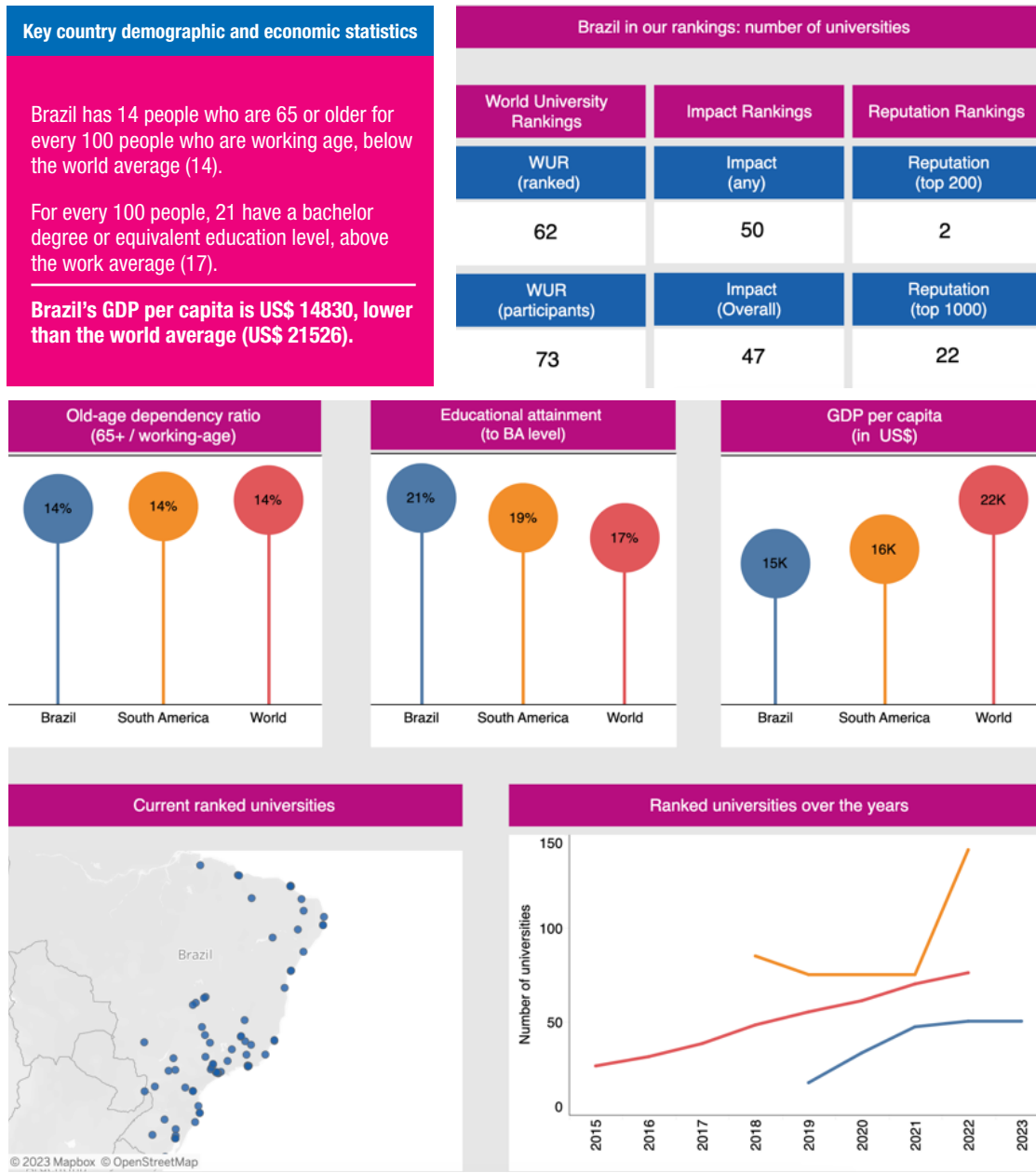


Figure 5: Key statistical information for India.



**Figure 6: Key statistical information for Brazil.**

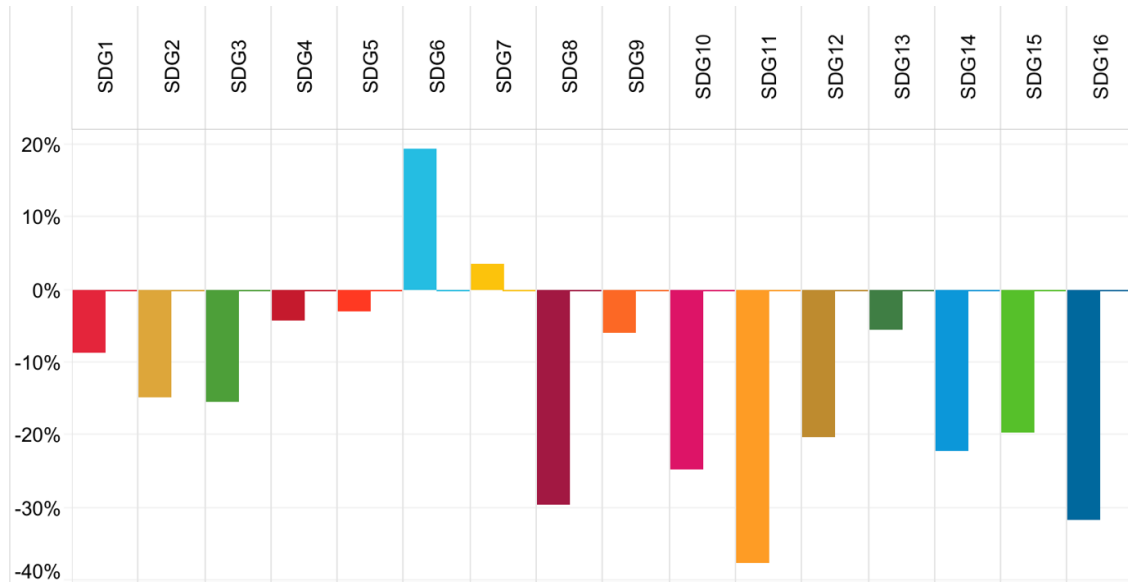
Brazil has a higher old-age dependency at 14% - in line with global averages, and also has a higher level of educational achievement. It's GDP (PPP) is more than double that of India at \$14830 in 2020 (Figure 6).

Both countries have seen a steady rise in the number of universities providing data for the Impact Rankings, but the universities in each country have provided data for (on average) different SDGs.

To account for the underlying distribution of submissions we can use the distribution across all G20 countries as our baseline, and measure how much more universities in India and Brazil submit to an SDG than the G20 average.

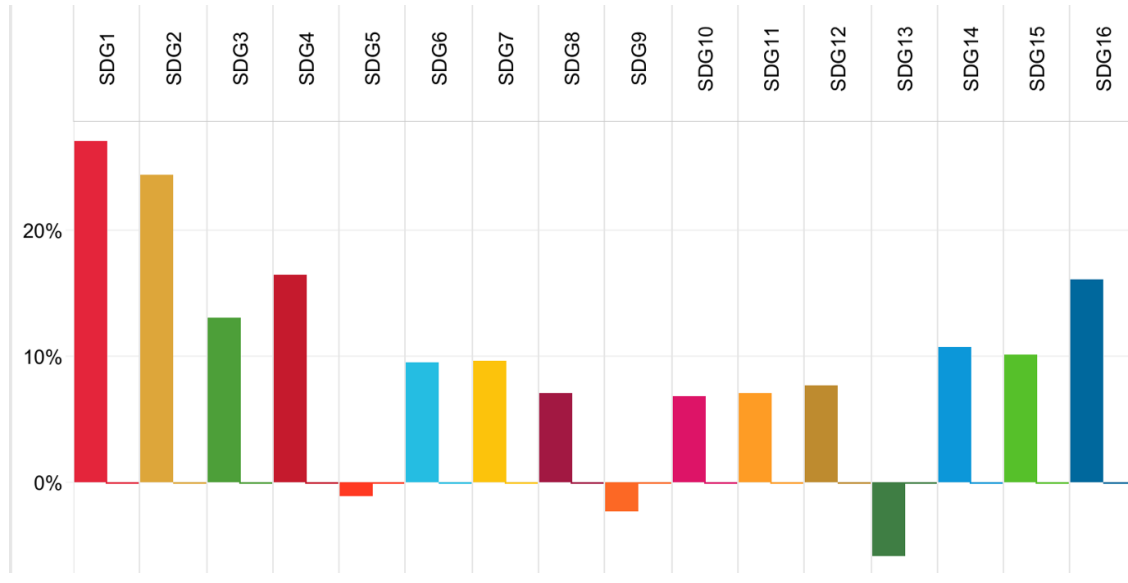
When we do this we see striking differences between countries.

In India there is a tendency for universities to provide data for fewer SDGs than for the G20 as a whole. In this diagram we can see that only **SDG 6: Clean Water and sanitation**, and **SDG 7: Clean and affordable energy** are above the average for G20 nations (Figure 7).



**Figure 7: Submission by universities across India by SDG, compared to the G20 distribution. SDG 17 is not included as it is mandatory for inclusion in the overall ranking.**

In Brazil, in contrast, we see many more universities providing data, with 13 out of 16 SDGs being present above the G20 average. The focus on **SDG 1: No poverty** and **SDG 2: Zero hunger** is especially notable, and a distinguishing feature of Brazil’s participation (Figure 8).



**Figure 8: Submission by universities across Brazil by SDG, compared to the G20 distribution. SDG 17 is not included as it is mandatory for inclusion in the overall ranking.**

These analyses help us to understand the demand within countries for delivery of specific SDGs, but it is also important to understand relative performance.

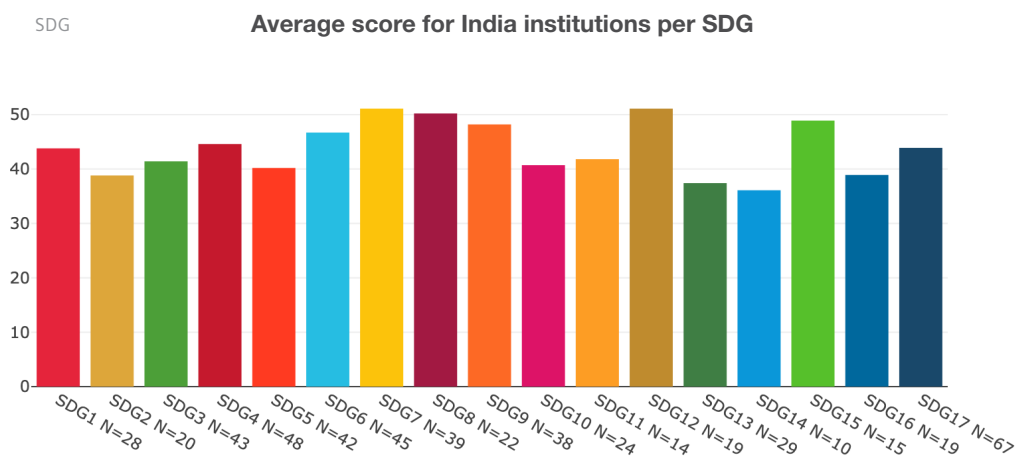


Figure 9: Average performance of Indian universities by SDG.

We can see that in India the strongest performing SDGs (on average) do not match the most popular: demand and performance are out of step (Figure 9). We also see a similar picture in Brazil (Figure 10).

This is not to say that there aren't some superbly strong universities in both countries addressing these key areas - Amrita Vishwa Vidyapeetham is = 24th in SDG 6, for example.

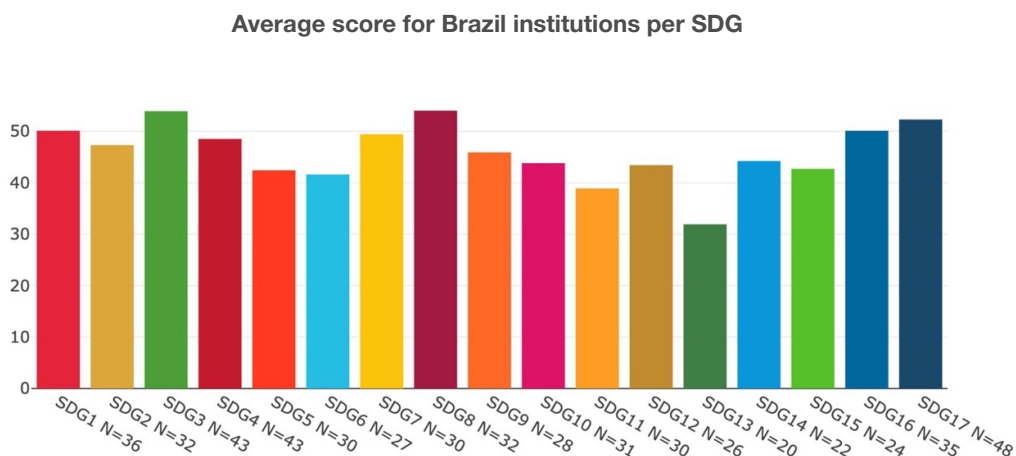
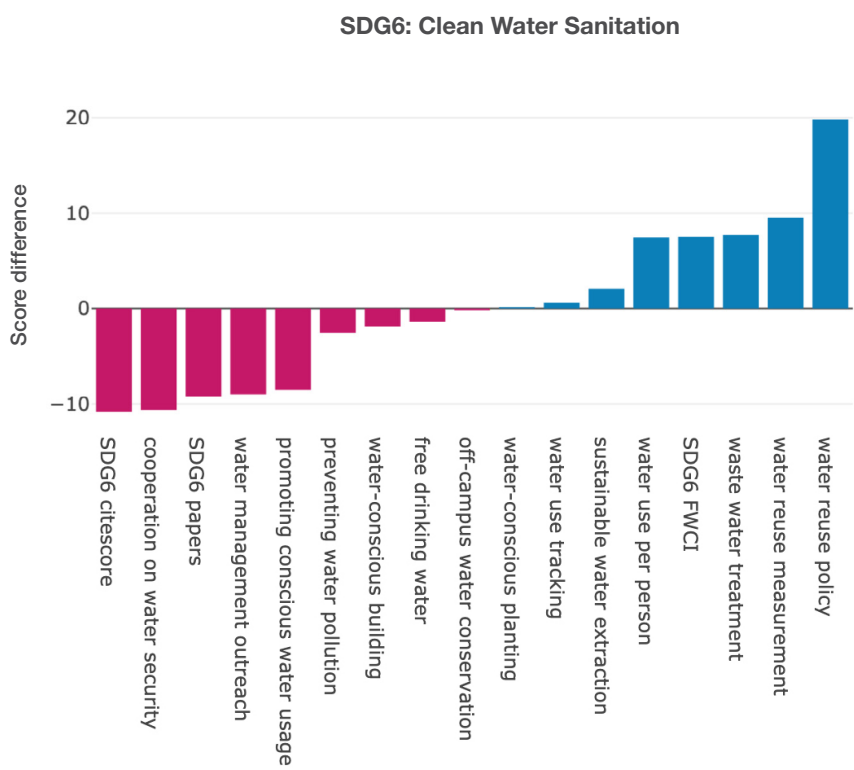


Figure 10: Average performance of Brazilian universities by SDG.

It is when we look at the average differences in the individual measurements within the SDG that we can begin to understand why there is this gap (Figure 11). Looking at **SDG 6: Clean water and sanitation** in India we see that two of the measurements where performance lags the global average are related to research – CiteScore (the proportion of papers in the strongest academic journals), and the number of papers produced. Both of these measures relate directly to the ability to do effective research and are associated with significant expenditure that may not always be available to Indian institutions.

Areas where Indian universities out-perform the global average are often in the much more practical arena: water reuse, and awareness of the usage of water. Although in traditional measurement systems these activities may be seen as less important, in the context of sustainability they are vital.



**Figure 11: Average performance of Indian universities within SDG 6 compared to global average.**

We identify three clear opportunities in this report:

- Building more relevant research bases
- Identifying appropriate cooperation
- Developing stronger government and higher education linkages

## Relevant Research

In the introduction we identified four key areas where higher education is able to support the delivery of the Goals. The second of those, and one that we assess throughout the Impact Rankings was research.

When thinking about the work done by higher education in sustainability it is important to understand biases in the overall picture when it comes to research.

The SDGs are not all equivalent in terms of the volume of research that is performed (Figure 12). When looking at the total volumes of research published across all institutions within Elsevier's Scopus dataset, we see that **SDG 3: Good health and well-being** is, once again, the most popular.

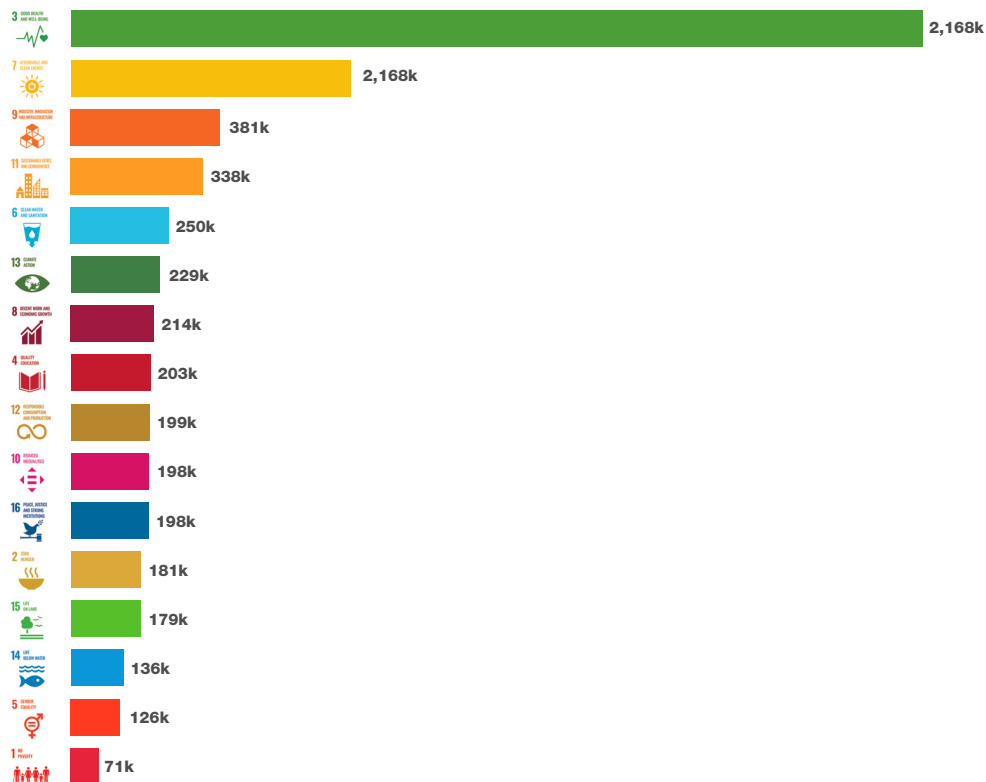


Figure 12: Number of research outputs categorised by SDG in the Scopus database (image courtesy of Elsevier).

This is partially explained by the type and frequency of publication in subjects like medicine that are associated with SDG 3. This can be contrasted to the social science research that might be more relevant to **SDG 16: Peace, justice and strong institutions**, or **SDG 1: No poverty**. Social science research is typically published in book form, with slower and lower outputs.

Nevertheless, there is a compelling case for additional research to be undertaken in SDGs with lower academic output. It is also critical to note that this is not just a challenge for universities, it is a challenge to governments and other funders.

It also requires us to consider that the nations with the greatest need for effective and impactful research in these SDGs may not be the ones with the largest financial ability to fund the research.

## Partnerships for the Goals

A second key mechanism for accelerating the goals are the opportunities for partnership that higher education provides. This is recognised in **SDG 17: Partnership for the goals**. As the United Nations describes it there is a need to “Strengthen the means of implementation and revitalize the global partnership for sustainable development.”

Not only are universities well placed to do this, but they also relate directly to target **17.6 Knowledge sharing and cooperation for access to science, technology and innovation**.

Universities have the capacity and knowledge to extend this knowledge sharing across sectors, as well as across international boundaries. One of the key challenges is how to target this work in order to make the most of limited resources. This is an area where the Impact Rankings can give guidance.

## Demand vs performance

As we saw above, it is possible to identify from our data which SDGs are most popular for universities in each G20 country. From evaluating the responses from universities, we are confident that universities are choosing these SDGs based on their own areas of expertise and focus, and that these, in turn, are driven by local needs. Universities reflect the needs of society and match their efforts accordingly.

The variation between countries, and within countries is a good indicator of the potential areas of demand for action (Figure 13).

This is a powerful insight that can be combined with local and national knowledge to support the development of concrete sustainability strategies.














	Top SDG	Second SDG	Third SDG
Australia			
Brazil			
Canada			
China			
France			
Germany			
India			
Indonesia			
Italy			
Japan			
Mexico			
Russia			
Saudi Arabia			
South Africa			
South Korea			
Turkey			
UK			
USA			

Figure 13: The SDGs where universities provided most data, normalised by the average distribution, as a proxy for need. Argentina is excluded due to low participation numbers.



However, we can also see from the analysis of performance that demand and performance are not perfectly balanced. Demand shows that more universities are working on the challenges provided by certain SDGs; it does not show that they necessarily have the strongest global performance.

This provides a key opportunity: for institutions to reach out to others in order to build cooperative research, and to deepen ties.

This cooperation can help to reduce the economic inequalities that are evident in the world of higher education as well as the broader world.

For example, universities and policy makers in Mexico and Turkey with their focus on **SDG 1: Zero poverty** could look to universities from other G20 countries as well as their own for inspiration (Figure 14).

Of course, this cooperation should not be limited to institutions within the G20. A key goal of SDG 17 is partnerships that reach out to lower income countries.

## Government and higher education linkages

The final area of opportunity is in building more effective links between governments and higher education, not just those limited to the education departments (and equivalent bodies).

Within **SDG 16: Peace, justice and strong institutions** we seek to explore these linkages. However all too often it is challenging to adequately identify when governments are listening to experts.

There are two related concepts here: governments and universities should ensure that they are communicating effectively to ensure that the exchange of information is as strong as is possible. They should also be clearer about evidencing the contributions of universities to the policy debate.

And finally, universities provide a clear opportunity to listen to the voice of students themselves. Our future leaders are being educated in our universities, and although they can have messages that can be uncomfortable to hear, it is vital that we do.

1	University of Johannesburg 📍 South Africa <a href="#">Explore</a>	92.0	91.8
2	University of Indonesia 📍 Indonesia <a href="#">Explore</a>	89.0	94.4
3	Western University 📍 Canada <a href="#">Explore</a>	88.0	95.8
4	King Mongkut's University of Technology Thonburi 📍 Thailand	87.3	82.2–88.2
5	BRAC University 📍 Bangladesh	86.5	72.7–76.7
6	University of Montreal 📍 Canada <a href="#">Explore</a>	86.1	91.9
7	University of Manchester 📍 United Kingdom <a href="#">Explore</a>	85.0	97.5
8	Universiti Sains Malaysia 📍 Malaysia	84.9	96.9
9	IPB University 📍 Indonesia	84.4	82.2–88.2
10	Arizona State University (Tempe) 📍 United States <a href="#">Explore</a>	83.9	96.5

**Figure 14: The top 10 institutions in SDG 1, include seven from the G20.**

## Conclusion

The G20 have the ability to use their influence to significantly accelerate progress on the Sustainable Development Goals, but to maximise their impact they should draw on the experience and insight of their higher education sectors.

In particular we recommend that they recognise the significant strides that higher education institutions have made in measuring their own progress, committing to a sustainable future, and generating practical, real-world impact.

The key opportunities that can be leveraged to assist governments are equally clear: better focused research, relevant partnerships to deliver change, and stronger and more effective links between governments and universities.



**We all have a choice. We can create transformational action that will safeguard the living conditions for future generations. Or we can continue with our business as usual and fail.”**

**GRETA THUNBERG** <sup>(3)</sup>

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## About the author

Duncan Ross is the Chief Data Officer at Times Higher Education where he oversees a team that generates university rankings and related data products. In 2019 he launched the THE Impact Rankings, the first global university rankings that focus on delivery of the UN SDGs.

He started his career in data mining, and in 2013 co-founded DataKind UK, a not for profit that supports UK charities to make the most of the value of data.

In 2022 he was announced as one of DataIQ's 100 Most Influential People in Data, and has been shortlisted for Data for Good Champion in 2023. He is a member of the UN HESI working group on Rankings, Ratings and Assessments.

He was an invited speaker at the C20 Education & Digital Transformation Summit in 2023.



### Footnotes:

- (1) The Guardian, 20/07/2021: 'Reckless': G20 states subsidised fossil fuels by \$3tn since 2015, says report.
- (2) <https://sdgs.un.org/HESI/rankings-ratings-and-assessment>
- (3) Greta Thunberg at the World Economic Forum, 2019.

# The Impact Rankings Methodology

The Times Higher Education Impact Rankings consist of a set of rankings for each SDG, plus an overall ranking.

Universities have to actively choose to participate, which by itself is an indicator of a commitment to sustainability. Participation is free, although we acknowledge the significant time and effort taken to provide data.

For each SDG, the methodology asks universities to provide data and evidence for

a series of questions that are designed to align with the Targets and Indicators defined by the United Nations.

Universities can choose which SDGs they wish to provide data for.

As well the rankings for each individual SDG, also generates one overall ranking, taking the university's score for **SDG 17: Partnership for the Goals** and the scores for the university's three performing SDGs.

## Participation in the 2024 Impact Rankings

THE welcomes and encourages higher education institutions' participation in the THE Impact Rankings.

The Impact Rankings have been developed to showcase the powerful work of universities across their communities and the wider world, demonstrating the vital role of universities in helping achieve the United Nations' Sustainable Development Goals (SDGs). The increasing interest from universities in participating to the Impact Rankings has demonstrated the eagerness and capability of higher education institutions in sustainability field for the last five cycles. The *THE* Data Collection Portal will open for institutions from the **18 September** until **10 November 2023**.

- See the results of the 2023 Impact Rankings: [www.timeshighereducation.com/impactrankings](http://www.timeshighereducation.com/impactrankings)
- For detailed insights of Impact Rankings 2023 and more click here: [www.timeshighereducation.com/digital-editions/impact-rankings-2023-digital-edition](http://www.timeshighereducation.com/digital-editions/impact-rankings-2023-digital-edition)
- See the full 2024 Impact Rankings methodology [here](#).

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**The THE Impact Rankings should be celebrated for providing a more level playing field that allows a much broader range of universities the opportunity to demonstrate the positive impact they make beyond the traditional rankings.”**

**TANIA RHODES-TAYLOR,**  
(FORMER) VICE-PRINCIPAL EXTERNAL  
RELATIONS, UNIVERSITY OF SYDNEY



