World University & Impact Rankings

A perspective for India

Times Higher Education

David Watkins
Managing Director of Data Science

September 2023

More than 50 Years of Insights

To help **universities** understand their position against their mission.

To help **students** find and access the university best suited to their abilities and aspirations.

To help **higher education** deliver transformational teaching, research and innovation.

1971


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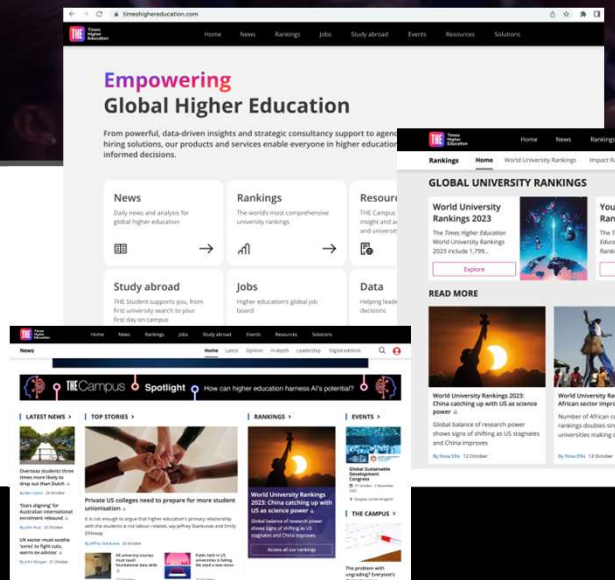
£100m grant to black colleges
Modern studies course at Sheffield

2023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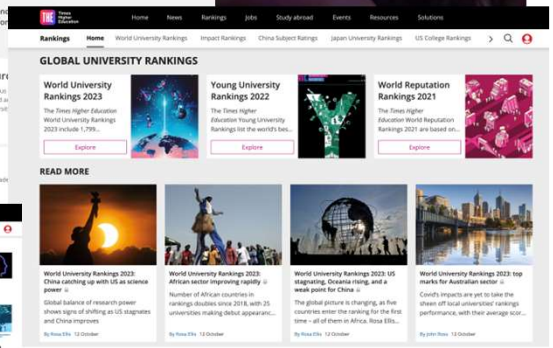
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THE Rankings

TEACHING

Focus: student satisfaction, employer reputation, graduation rate + more

Participation rules: country specific

RESEGARCH

Focus: research output, research quality, research collaboration, reputation + more

Participation rules: 1,000+ publications over 5 years, teach undergraduates across a range of subjects

IMPACT & SUSTAINABILITY

Focus: research, teaching, stewardship and outreach against the UN's 17 Sustainable Development Goals

Participation rules: all undergraduate or postgraduate higher education institutions

Participation in all of our rankings is always free

Key Points

- Times Higher Education WUR and Impact Rankins are global
- We need to ensure we can capture data worldwide and ensured it is aligned

- We recognise we are part of the answer, not the full answer to how good universities are
- Many countries have a national ranking / evaluation framework (e.g. NIRF), these should work alongside global rankings
    - *We are actively working with several governments to build or improve their national ranking/evaluation framework*

- We also recognise the influence our rankings have, and take great responsibility in:
    - Creating robust methodologies
    - Allowing universities to submit data, with minimal fuss, and ensuring they sign-off all data submitted
    - Ensuring the quality of the data and analysis in the rankings
    - Educating universities, governments, students how to use the rankings
    - Making the rankings free to enter

Impact Rankings

Sustainability in Universities

Times Higher Education


SUSTAINABLE DEVELOPMENT GOALS
1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS
SUSTAINABLE DEVELOPMENT GOALS
1.7% of GWP
25000 universities
Times Higher Education
Impact Rankings

Times Higher Education
Impact Rankings 2023

The Worlds First (2019) and Largest SDG University Ranking

1705
Universities

115
Countries

17
All 17 Goals

220K
Pieces of evidence

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

Target	Description
4.1	By 2030, ensure that all girls and boys **complete free, equitable and quality primary and secondary education** leading to relevant and effective learning outcomes
4.2	By 2030, ensure that all girls and boys have access to quality **early childhood development, care and pre-primary education** so that they are ready for primary education
4.3	By 2030, ensure equal access for all women and men to **affordable and quality technical, vocational and tertiary education**, including university
4.4	By 2030, substantially increase the number of youth and adults who have relevant **skills**, including technical and vocational skills, for **employment, decent jobs and entrepreneurship**
4.5	By 2030, eliminate **gender disparities** in education and ensure equal access to all levels of education and vocational training for the **vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations**
4.6	By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve **literacy and numeracy**
4.7	By 2030, ensure that all learners acquire the **knowledge and skills needed to promote sustainable development**, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development
4.a	Build and upgrade education facilities that are **child, disability and gender sensitive** and provide safe, non-violent, inclusive and effective learning environments for all
4.b	By 2020, substantially expand globally the number of **scholarships available to developing countries**, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries
4.c	By 2030, substantially increase the supply of **qualified teachers**, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States

World University Rankings

Worldwide measurement of research, teaching, reputation, and industry collaboration

THE World University Rankings

The world's biggest university ranking

Universities

The world's biggest university ranking

Universities submitted data	Number of countries represented
2,673	127

Bibliometrics

In partnership with ELSEVIER

Research papers	Citations
16.5m	134m

Universities Data

The world's largest data gathering exercise from universities

Data values	Data queries resolved
411,789	34,455

Academic Survey

The world's largest academic survey

Respondents	Votes	Countries
68,402	944,509	166

Timeline

2011: WUR 2.0
THE starts publishing rankings on their own Powered by Thomson Reuters (now Clarivate)

2016: WUR 2.1
THE brings the ranking production in-house. Partnership with Elsevier biblio & survey

2023: Reputation
Survey brought in-house (previously provided by Elsevier)

2024: WUR 3.0
THE introduces major methodology changes. Bibliometrics sourced from Elsevier

Prior to 2011
WUR 1.0

2016 to 2023
Several tweaks to cope with growth in rankings: kilo-authored paper fractional counting, 'orphan papers' tweak...

WUR 2024 released 27th September 2023

The data for the world University Ranking

Performance data

Universities (via THE)

Reputation data

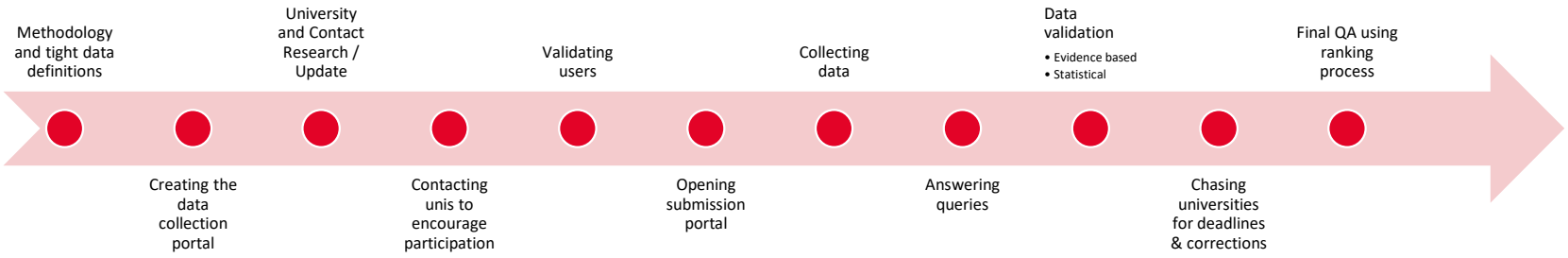
Academics (via THE)

Bibliometric data

Academics (via Elsevier)

Key building block: University performance data

- Data is collected direct from universities every year, and globally aligned
- Data is collected for the entire university, and in 11 broad subject areas
- Data is validated using statistical techniques, and verified against over 70 external datasets – more are added each year



3.1m
Quality data points

35000 customer enquires received and responded to in 2023

Key building block: Academic Survey

Key participation criteria

- Strictly invitation-only (universities cannot make nominations or supply contact lists, and individuals cannot nominate themselves for participation)
- Academics must have at least one cited research paper and have published in the last 5 years.

Survey

- Scholars are questioned at the level of their specific subject discipline and are asked to name up to 15 universities that they believe are the best in research and teaching, both in general and in their direct experience
- The survey is translated into 12 languages

Fair representation

- Results are benchmarked using UNESCO data to ensure the ranking is representative of the global distribution of scholars, both by country and subject

	2021 (Elsevier)	2022 (In house)	2023 (In house)	Ratio 2021-2023
Respondents	10,963	29,606	38,796	354%
Ranking votes	149,536	420,204	524,305	351%
Countries participating	128	159	166	130%
Response rate	1.6%	1.8%	1.8%	

Survey runs 1st November to 31st January annually

Key building block: Bibliometrics

Data comes from Elsevier's Scopus dataset

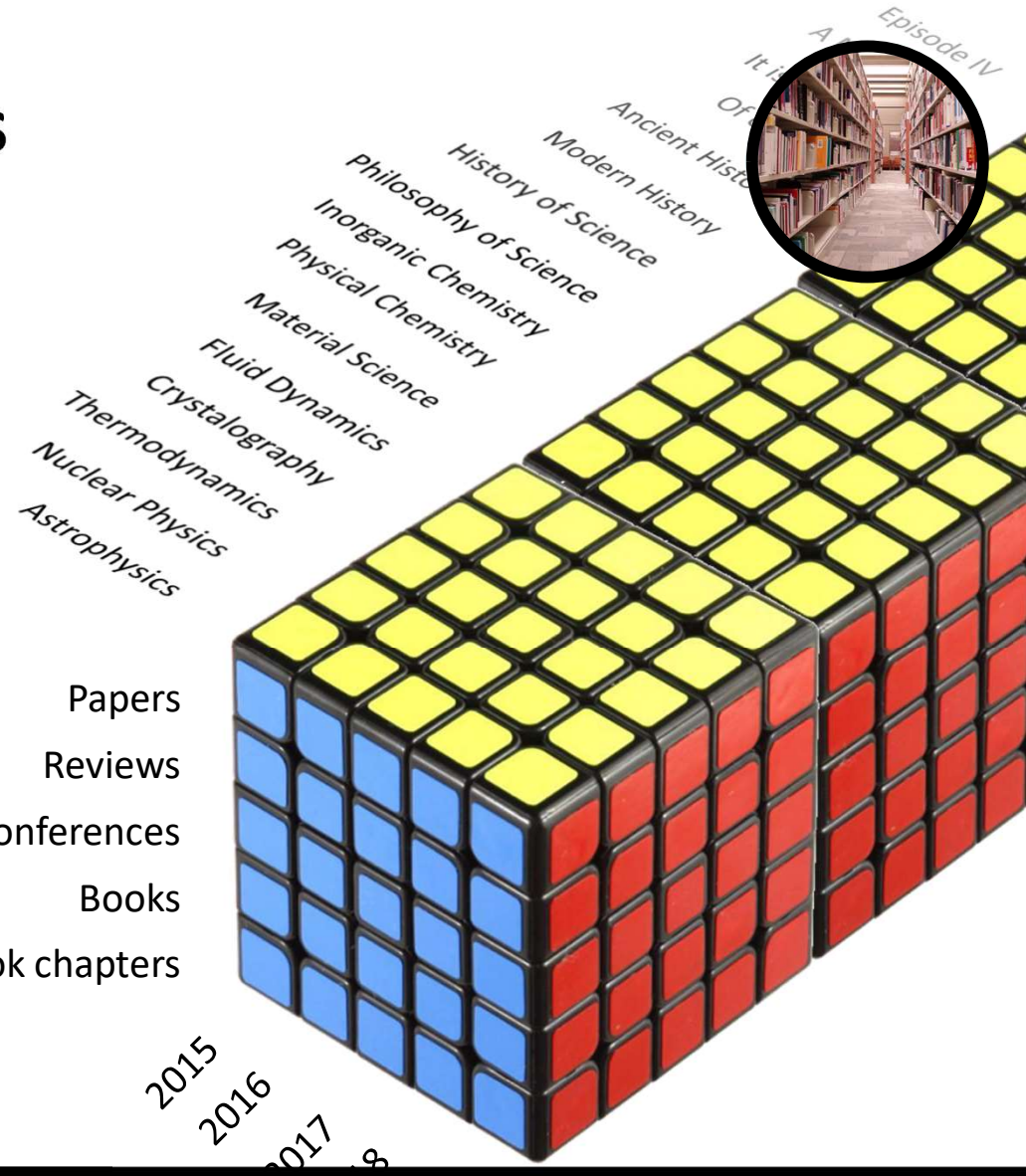
A fundamental measure is Field Weighted Citation Impact.

We want to calculate the average number of citations that a piece of research from an institution receives

We normalise by

- Year
- Type of publication
- Subject

Within each cell we compare a paper to the average



Key building blocks: five areas of excellence

- **Teaching**: understanding the resources and the shape of research focused teaching
- **Research Environment**: the resources and productivity of research
- **Research Quality**: the quality of research outputs
- **Industry**: the link between higher education and the economic drivers of a country
- **International Outlook**: the openness of an institution to the world of research

Overview of Changes

Changes we are making for WUR 2024

Research

- Moving to 4 bibliometrics designed to be more representative of quality output

Reputation

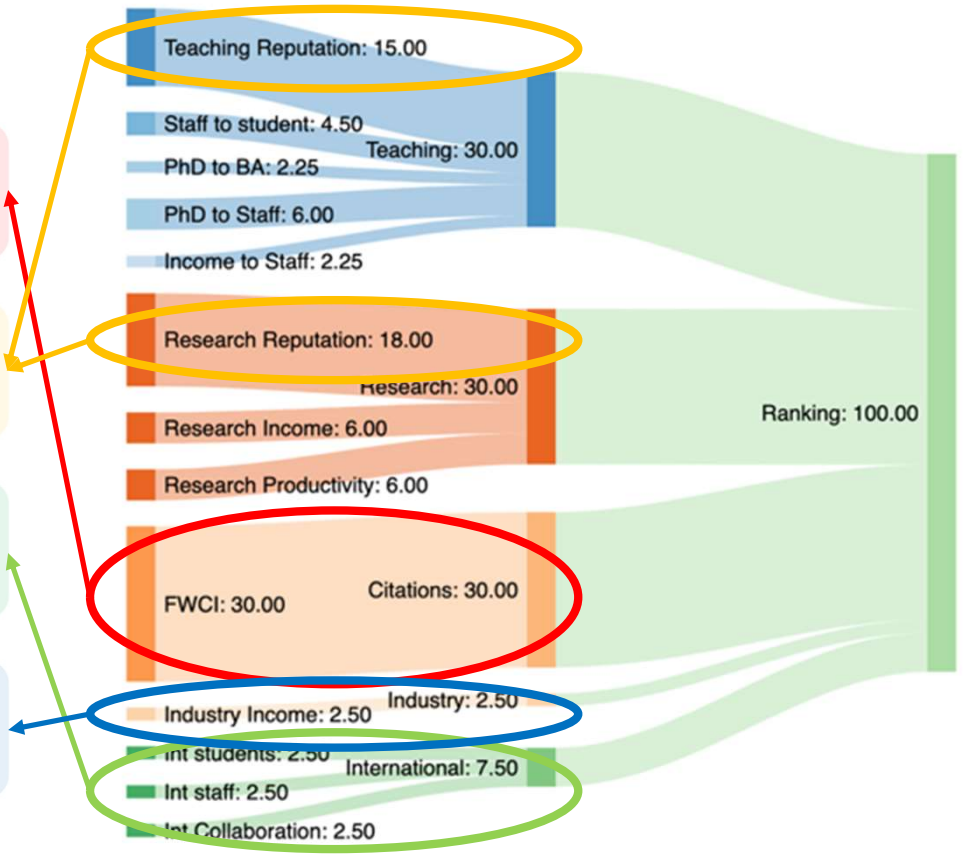
- Survey brought in-house resulting in three times as many votes

International outlook

- Adapted to have a better reflection of students, country size and diversity

Industry

- A broader recognition of technology transfer with a new patents metric



Research Quality:

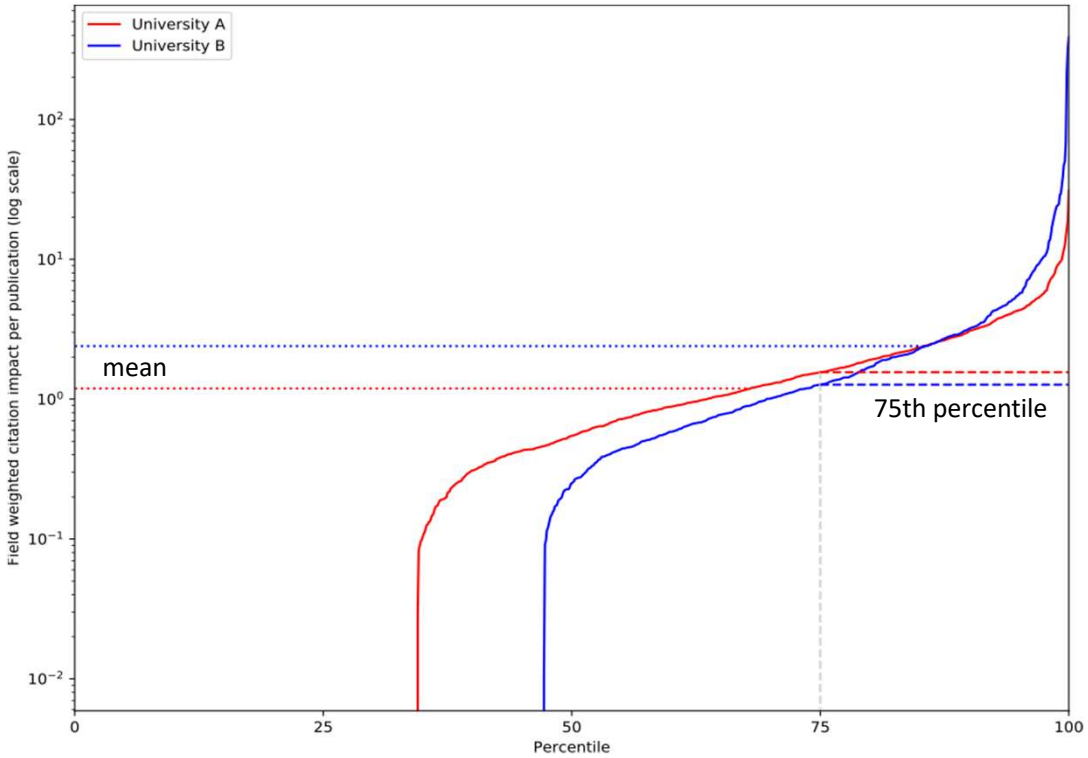
Our citations metric is 30% of the overall ranking

Having a single measure this large means it has a significant impact on the overall score

We want to have stronger citation measures, and highlight different aspects of citation performance

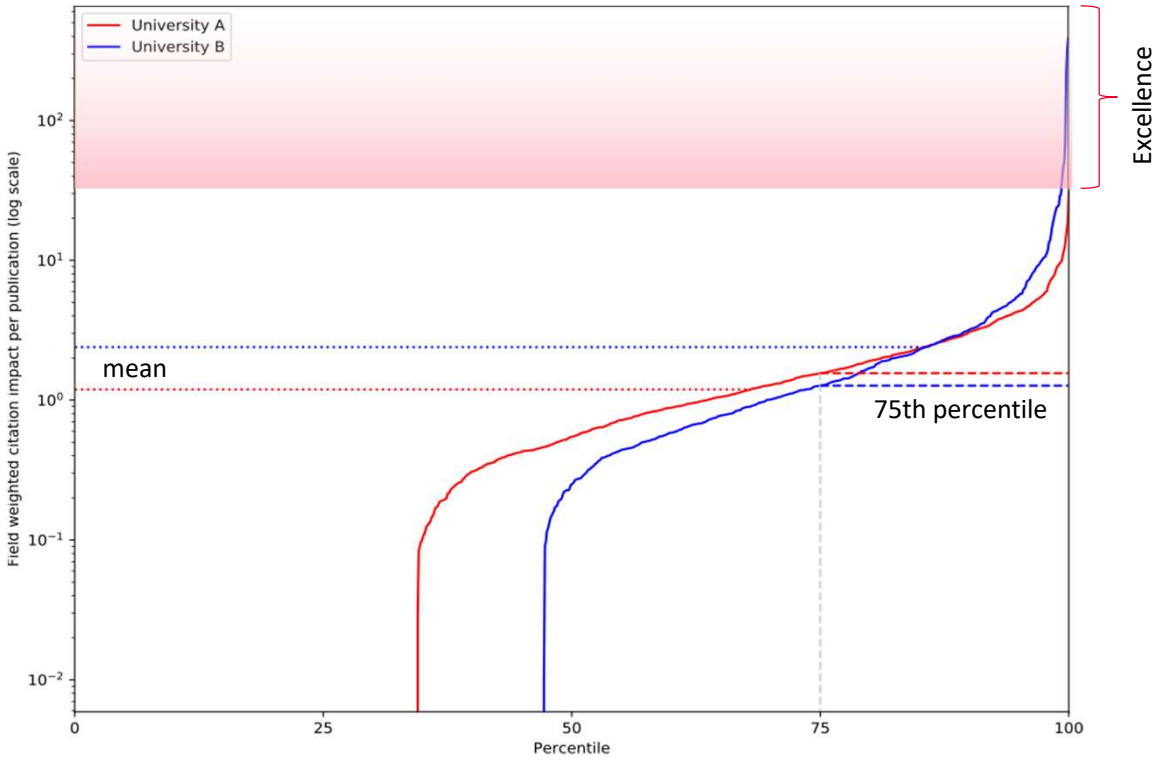
- We will continue to use Elsevier's Scopus database
- We will continue to use the current metric (FWCI), but at a lower percentage
- We will introduce three new metrics
- The pillar will be renamed Research Quality

Research Quality: Research Strength



- FWCI at the 75th percentile for all publications for a university
- Avoids extreme papers having detrimental effect
- Removes the need for some fixes we had previously
  - Kilo author papers
  - Country normalisation

Research Quality: Research Excellence



- Number of papers in the top 10% worldwide
  - Based on FWCI
  - Normalised by year, subject, and staff numbers
- Recognises the institutions contribution to the best research in each subject, and overall
- NOT the top 10% of universities papers, but the number of papers they contribute to the top 10% of research by subject

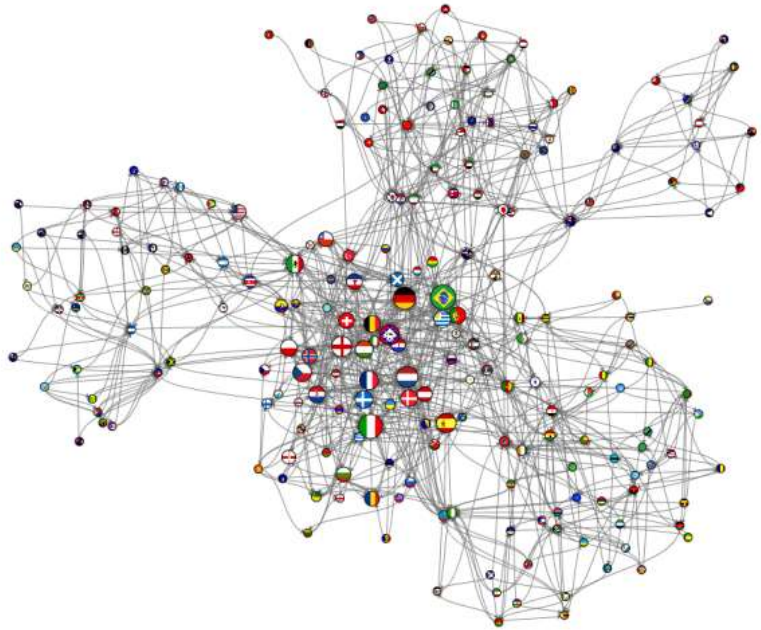
Research Quality: Research Influence

- Similar to PageRank – which was originally based on analysis of citations!

- Importance of paper is based on if it is cited by important papers
  - This requires iteration to get to a conclusion
  - Subject based
  - Unique measure

- Rewards ‘good’ self-citations whilst ignoring ‘bad’ self-citations

- Challenge for younger institutions



Teaching and Research Environment: Academic survey

The teaching and research reputation metrics are unchanged. However, we are now conducting this survey ourselves (it was previously conducted by Elsevier).

The new in-house survey attracts more than 3 times as many votes as the previous out-sourced survey, giving us far more representation, plus deeper insight as we know more about the respondents

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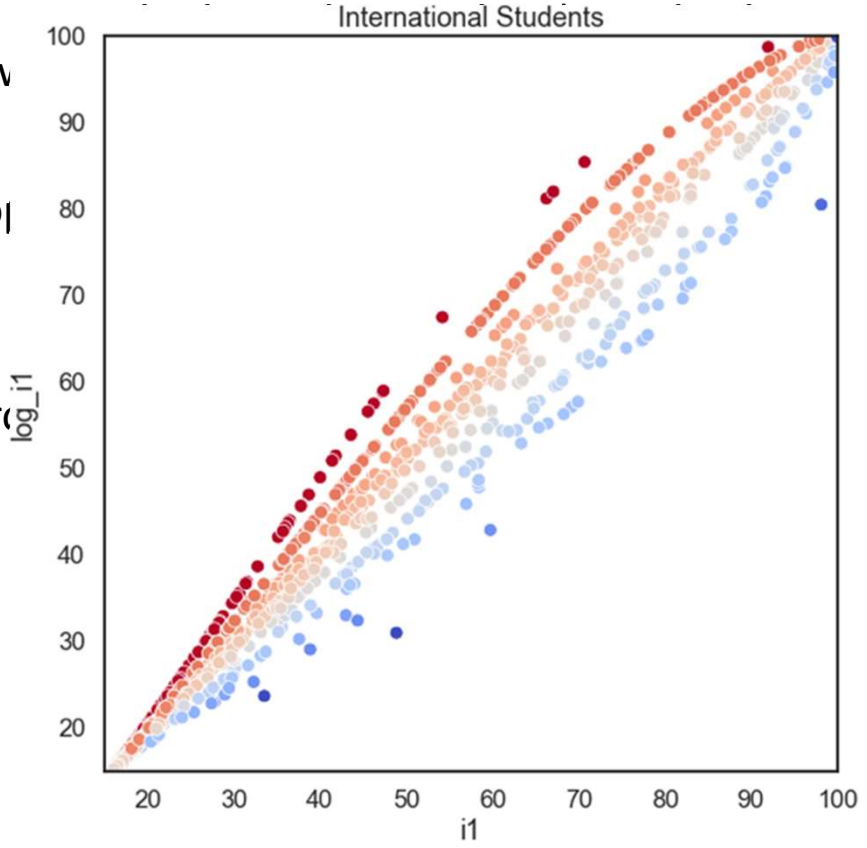
Respondents	10,963	29,606	38,796	354%
Ranking votes	149,536	420,204	524,305	351%
Countries participating	128	159	166	130%
Response rate	1.6%	1.8%	1.8%	

WUR 2024 will utilise reputation survey votes from 2022 and 2023 surveys, with more than 3.3 times as many votes in the reputation metrics compared to WUR 2022

From 2023, academics are mandated to tell us which institution they are currently at. This gives us the ability to perform deeper analysis, and to review restrictions on self-voting in the future.

International Outlook: country size

- Large countries have been disadvantaged compared to small
  that it is “easier” for staff and students in small countries to v
- The existing metrics will be normalised to account for the po
  - Proportion of international students
  - Proportion of international staff
  - Proportion of publications with at least one co-author fr



Industry: Patents

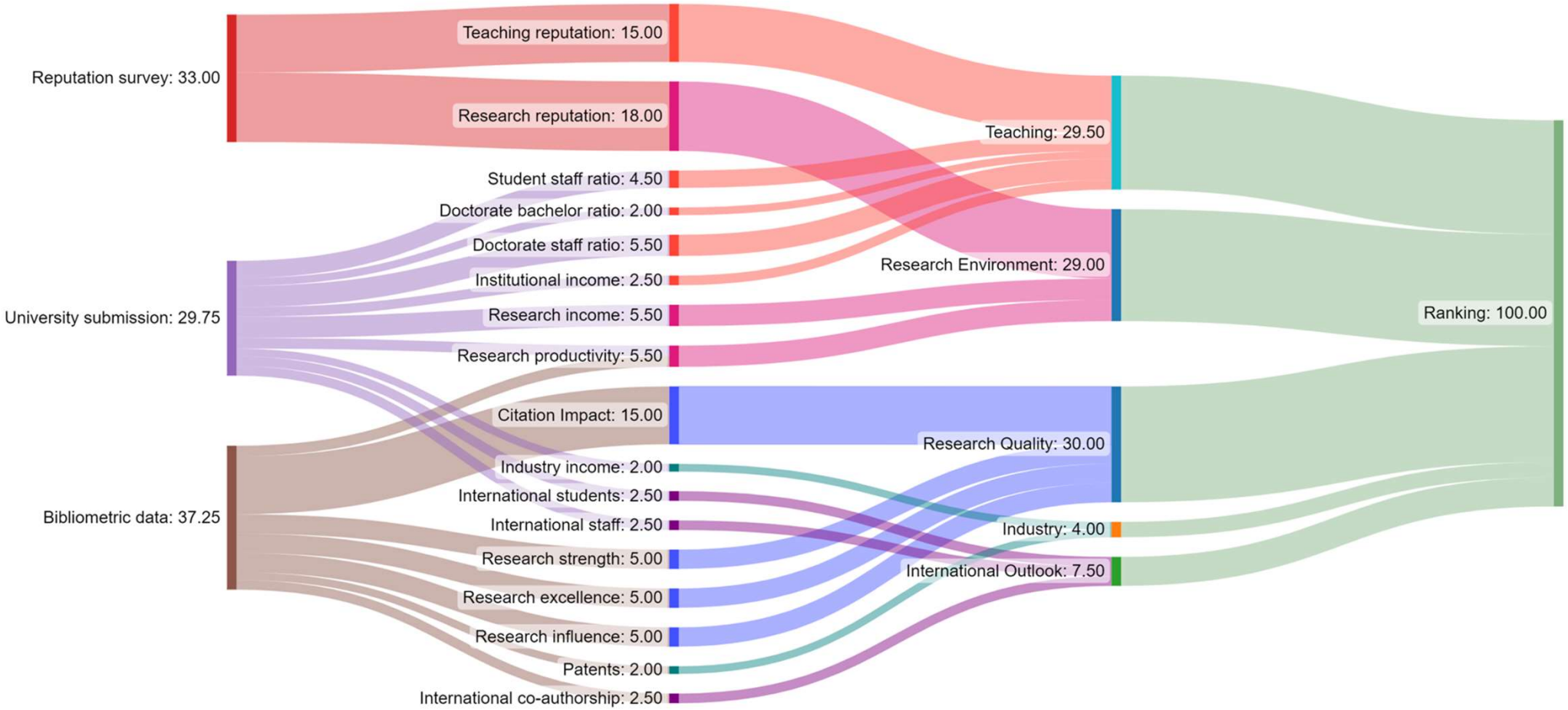
- The extent to which universities are supporting their national economies through technology transfer is an area that deserves greater recognition. We will be introducing an additional measure.

- Directly measures research output, specifically how much an institution's research is cited by patents. This is similar to one that we already use within the THE Impact Rankings (in SDG 9: Industry, Innovation and Infrastructure).

- This measure is subject weighted to avoid penalising universities producing research in fields low in patents.

- This is a count of patents, normalised by staff numbers.

Putting it all together



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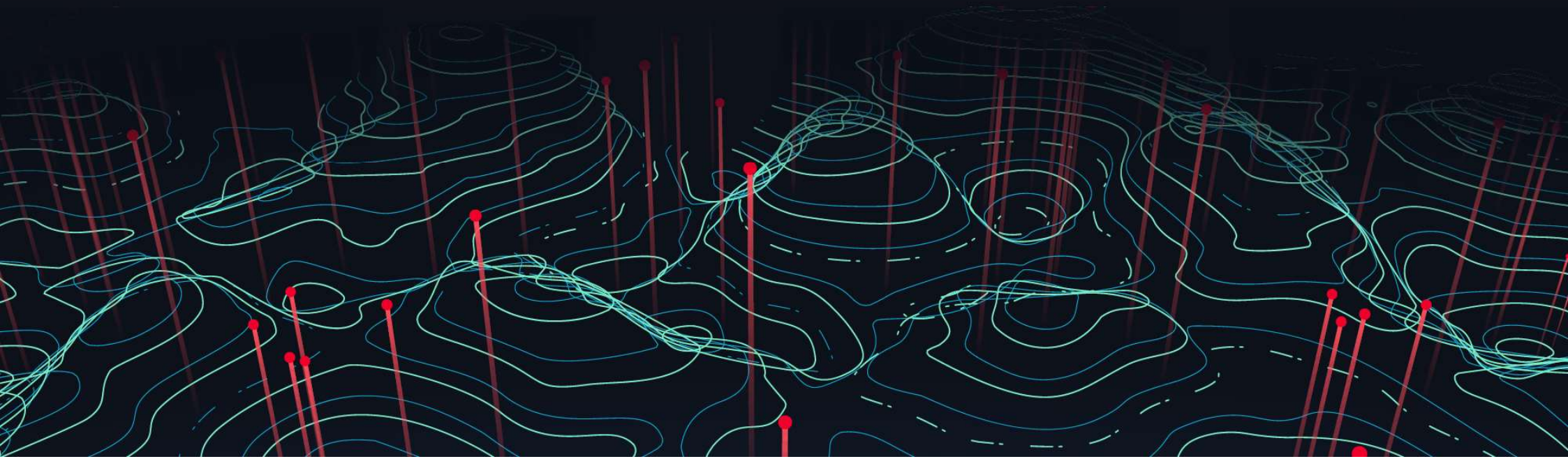
India Analysis



Ranking numbers for India, by year of release

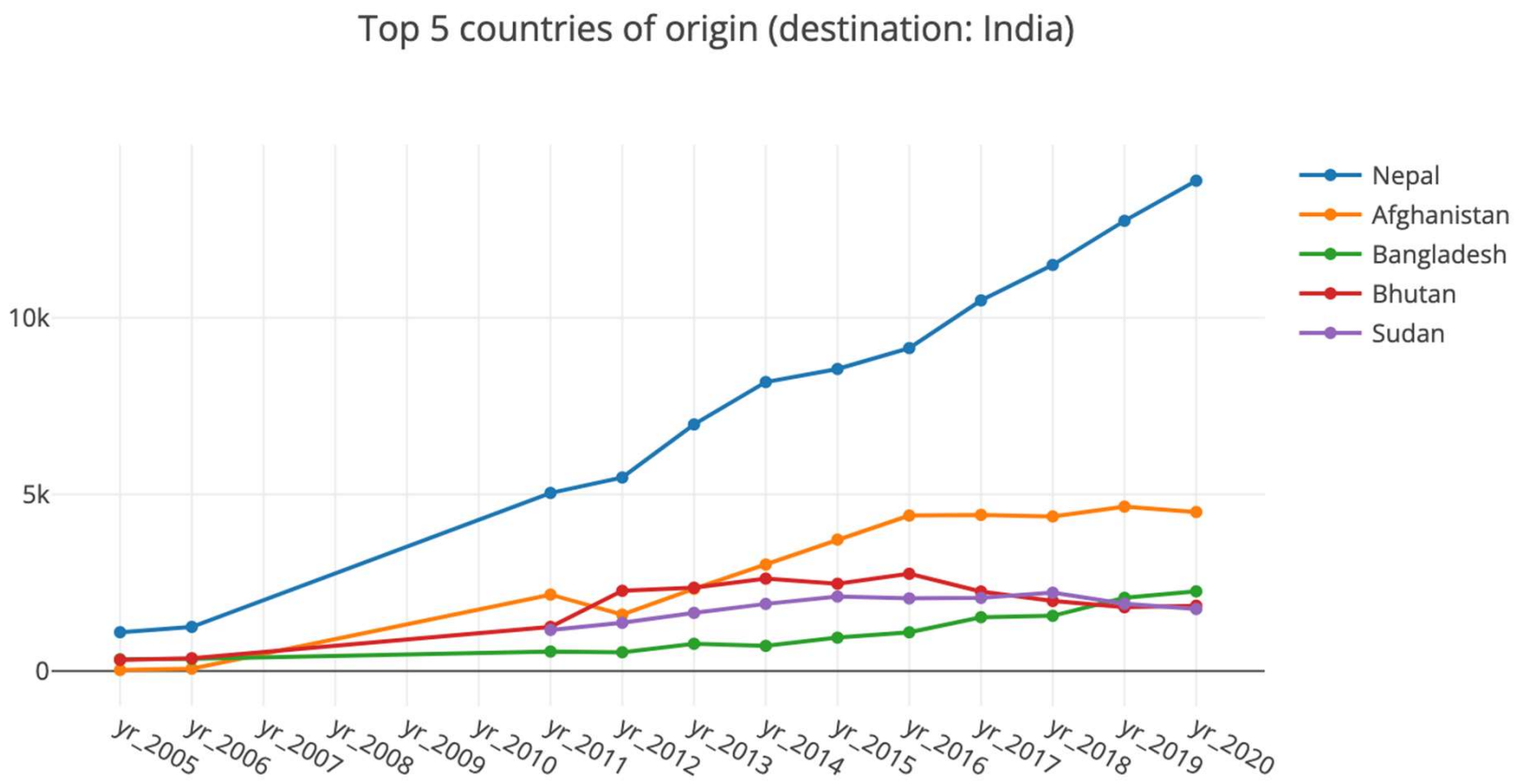
India	2018	2019	2020	2021	2022	2023
Impact	-	13	26	49	61	66
Reputation	1	-	3	4	3	4
WUR	49	56	63	71	75	91

The World	2018	2019	2020	2021	2022	2023
Impact	-	467	768	1117	1410	1591
Reputation	105	101	214	202	211	204
WUR	1258	1397	1526	1662	1799	1904

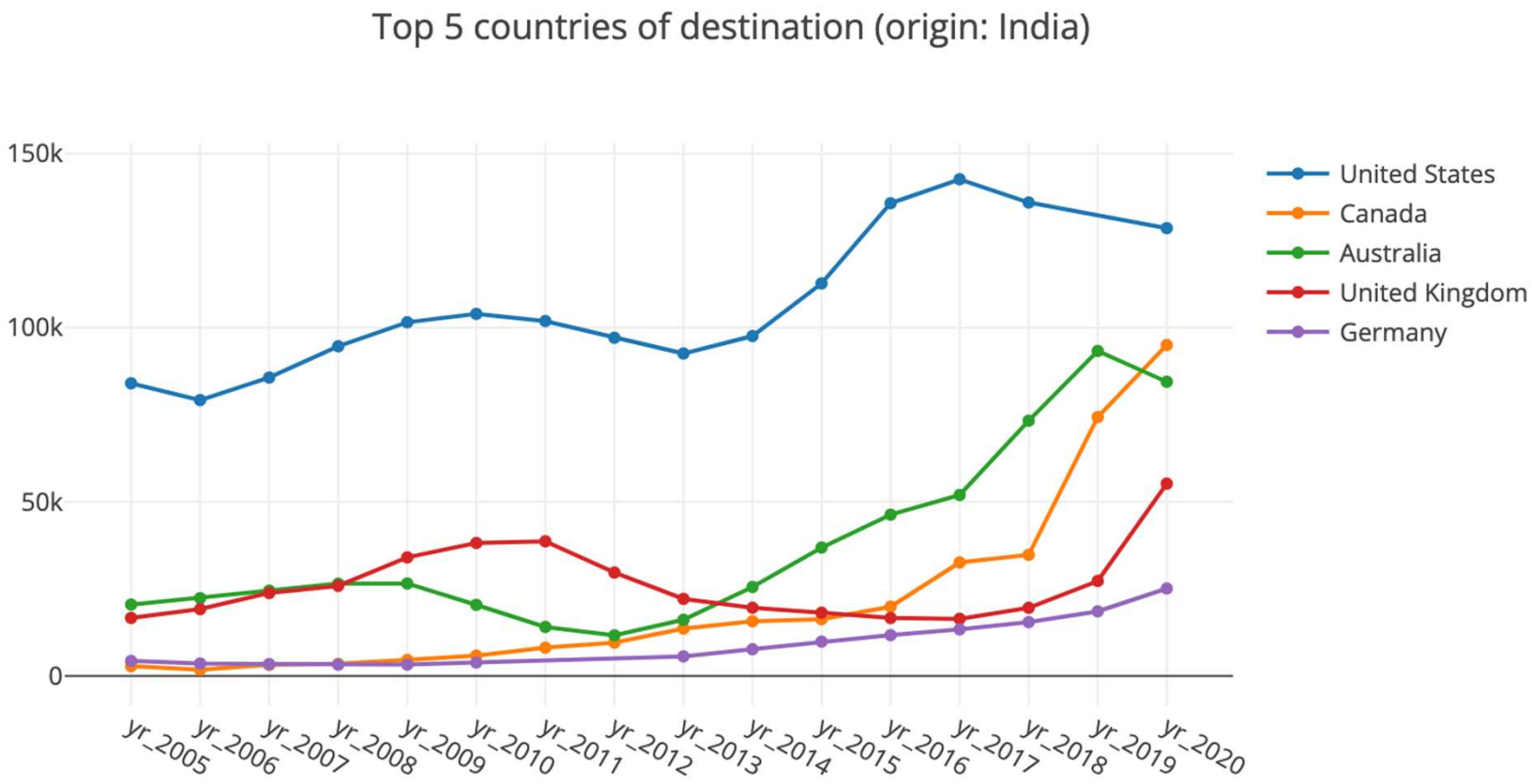
Impact and WUR are showing the number of universities ranked Overall; Reputation: ranked in the top 200.
WUR values refer to the ranking released in that year e.g. 2023 refer to WUR2024.

World University Rankings methodology
Reputation Rankings methodology
Impact Rankings methodology

Student migration trends (UNESCO data), details

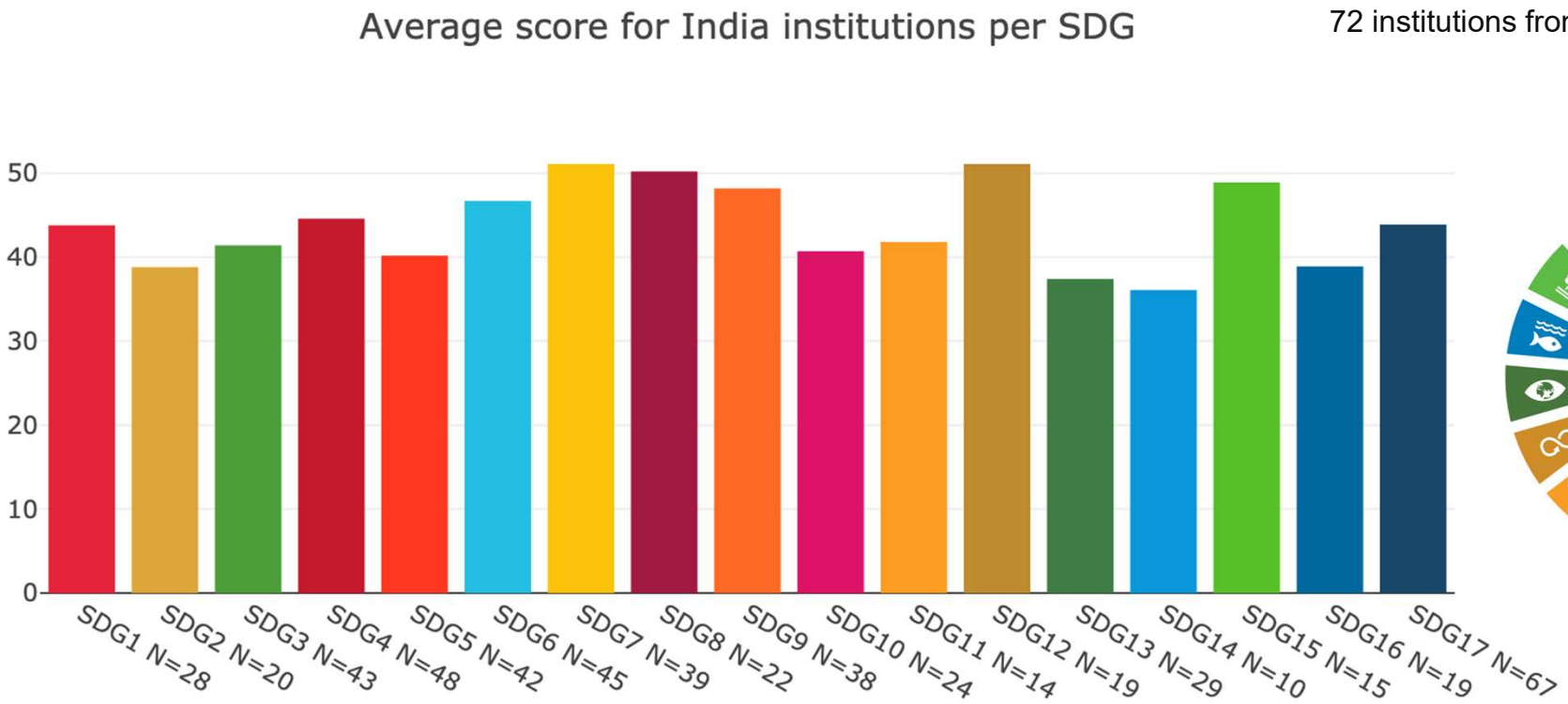


Student migration trends (UNESCO data), details



Average score for India institutions per SDG

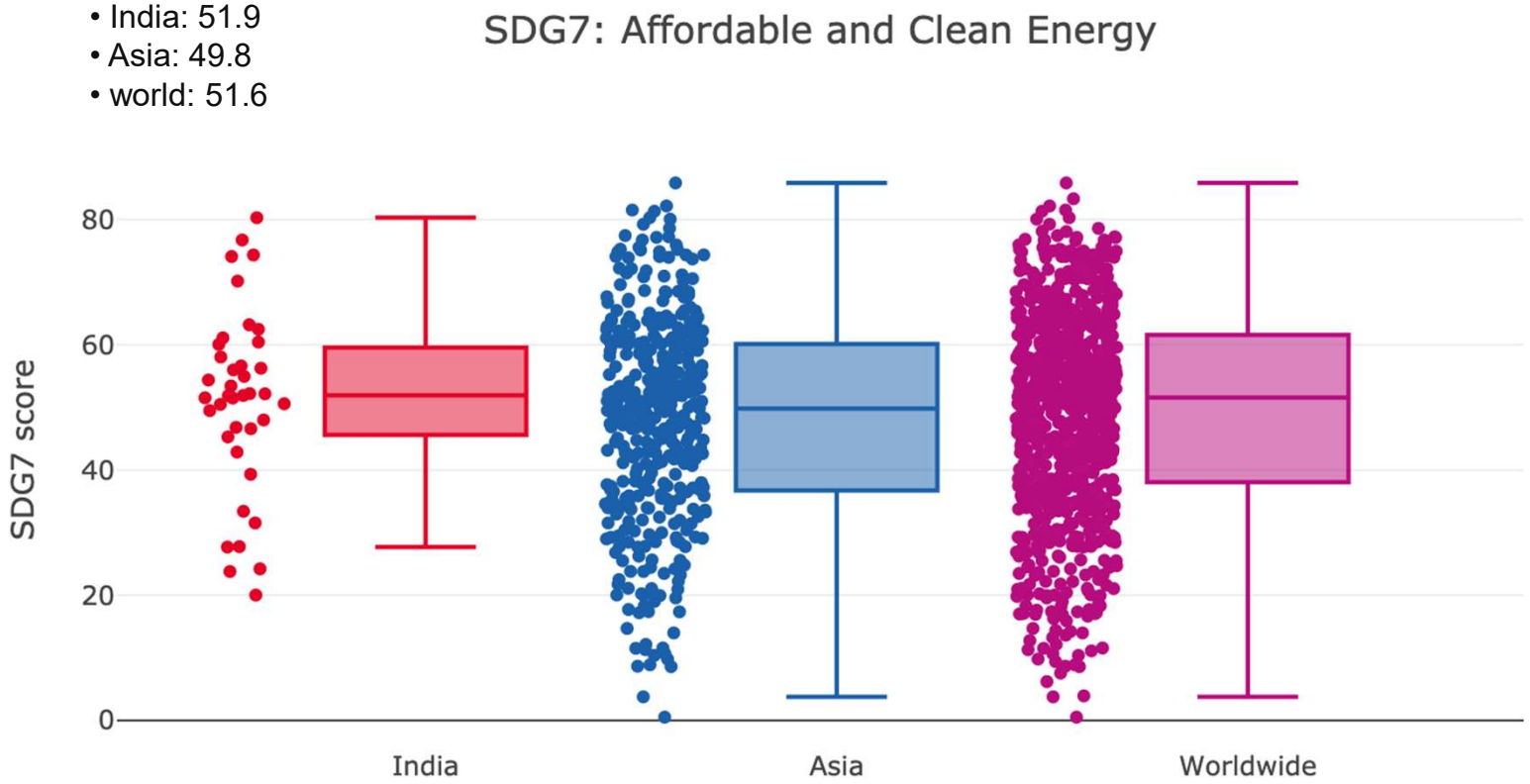
There are a total of 1705 institutions ranked, from 115 countries.
72 institutions from India participated.



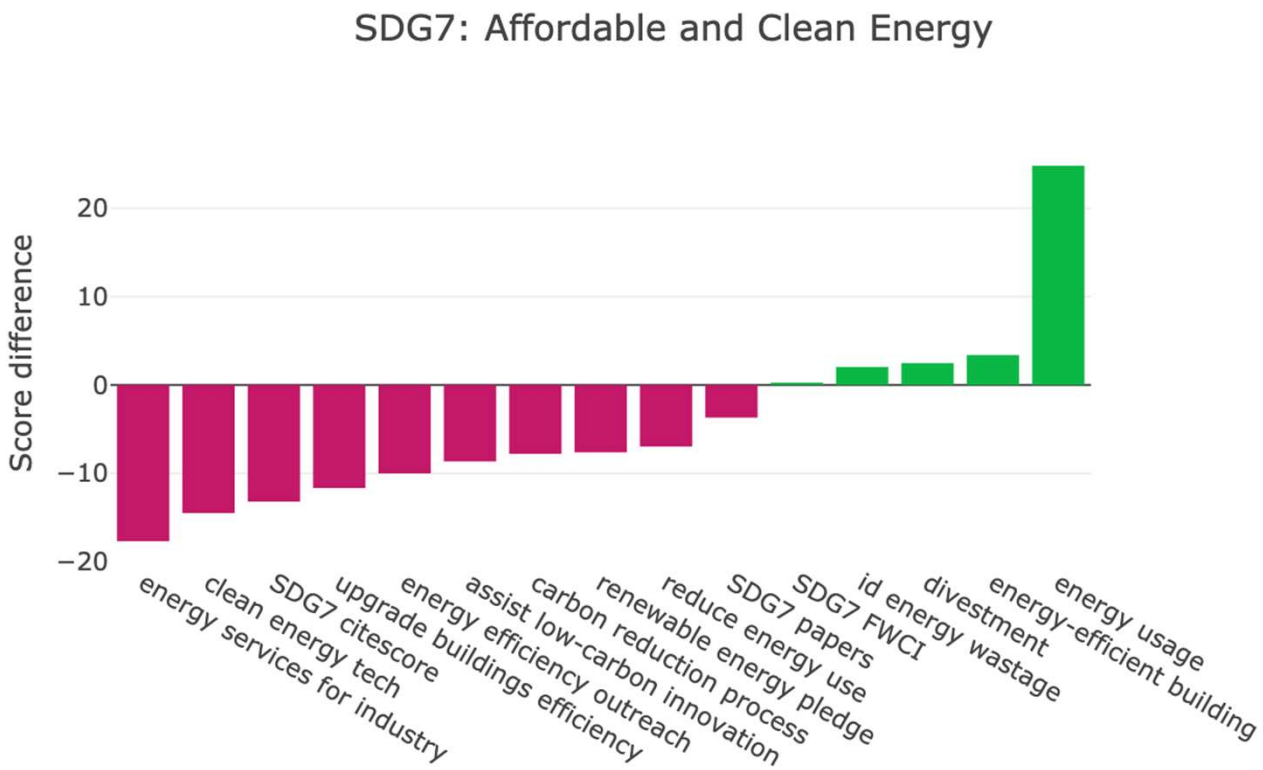
"N=x" indicates the number of institutions ranked in each SDG.
There are 5 institutions in the top100 in SDG7 (average score 51.1).

India vs Asia vs worldwide, SDG7 (39 institutions)

Median for:
- India: 51.9
- Asia: 49.8
- world: 51.6

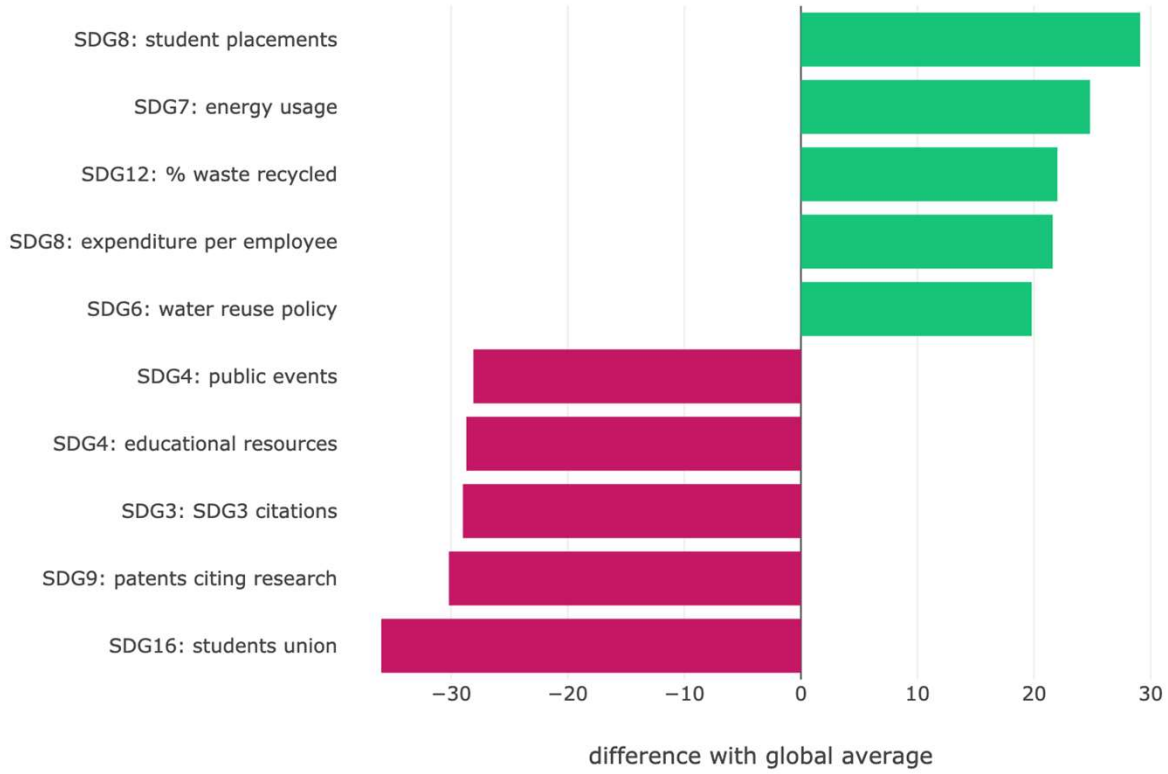


Indicators performance vs worldwide scores, SDG7



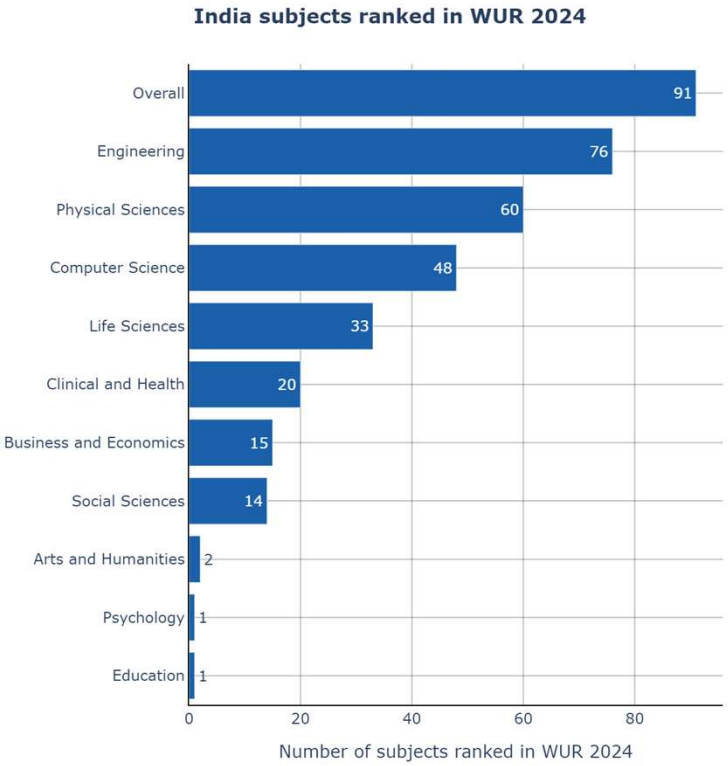
Difference between the average scores for India vs the world; can be positive (green) or negative (red).

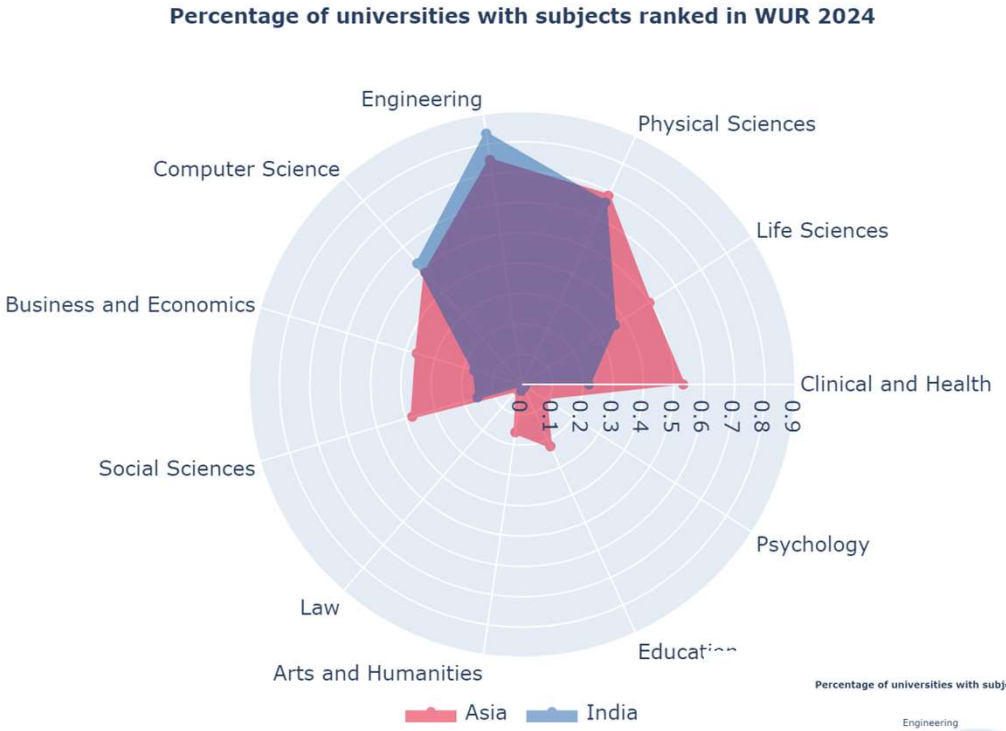
5 highest and 5 lowest performing indicators



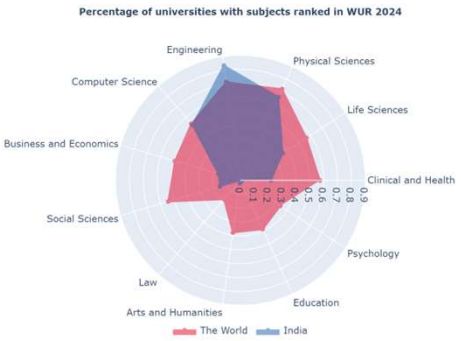
Difference between average indicator scores for India vs the world; can be positive (green) or negative (red).
Only shows the 5 indicators with the largest positive difference and the 5 with the largest negative difference.

India vs Asia WUR 2024 subjects analysis

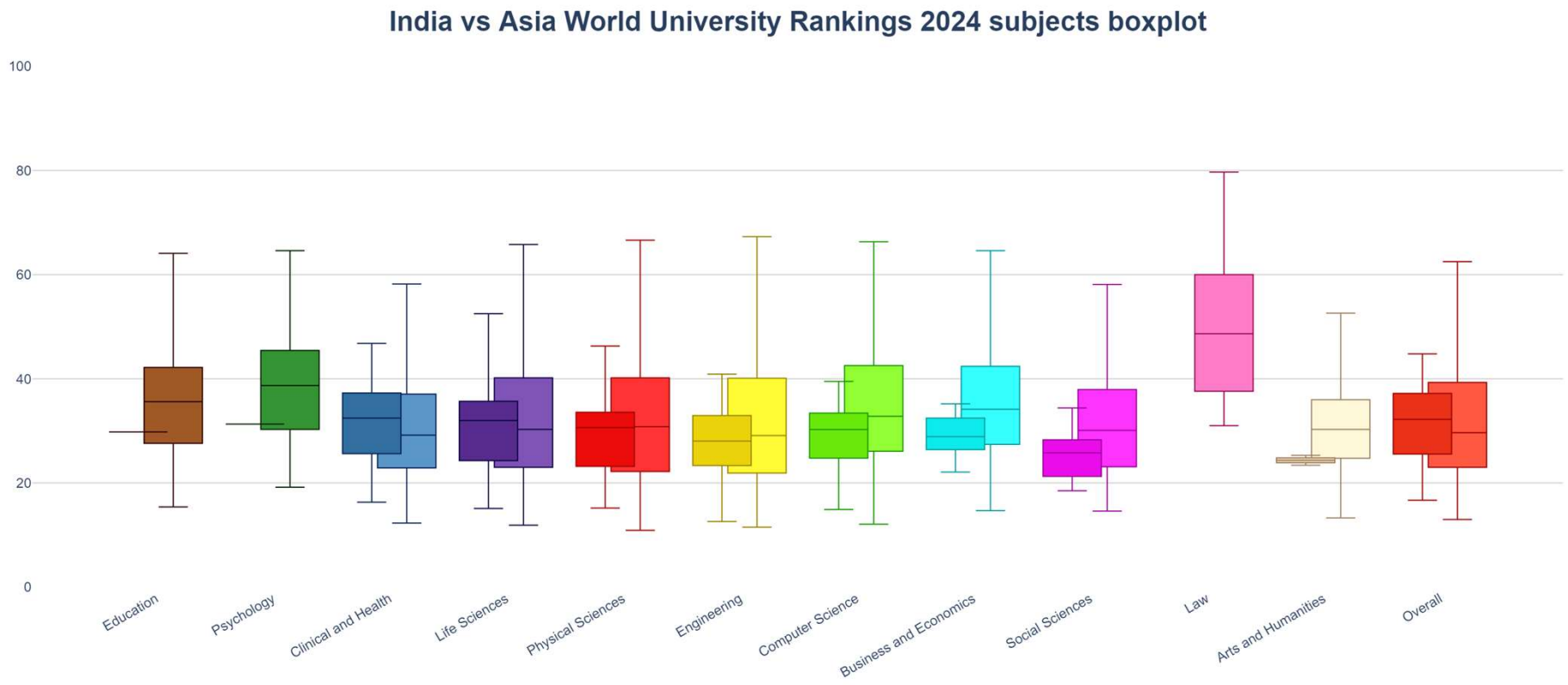




Across India, Engineering was the most frequently ranked subject in 2024 where it was ranked for 76 universities. Education was the least frequently ranked subject in 2024 with just 1 universities ranked.

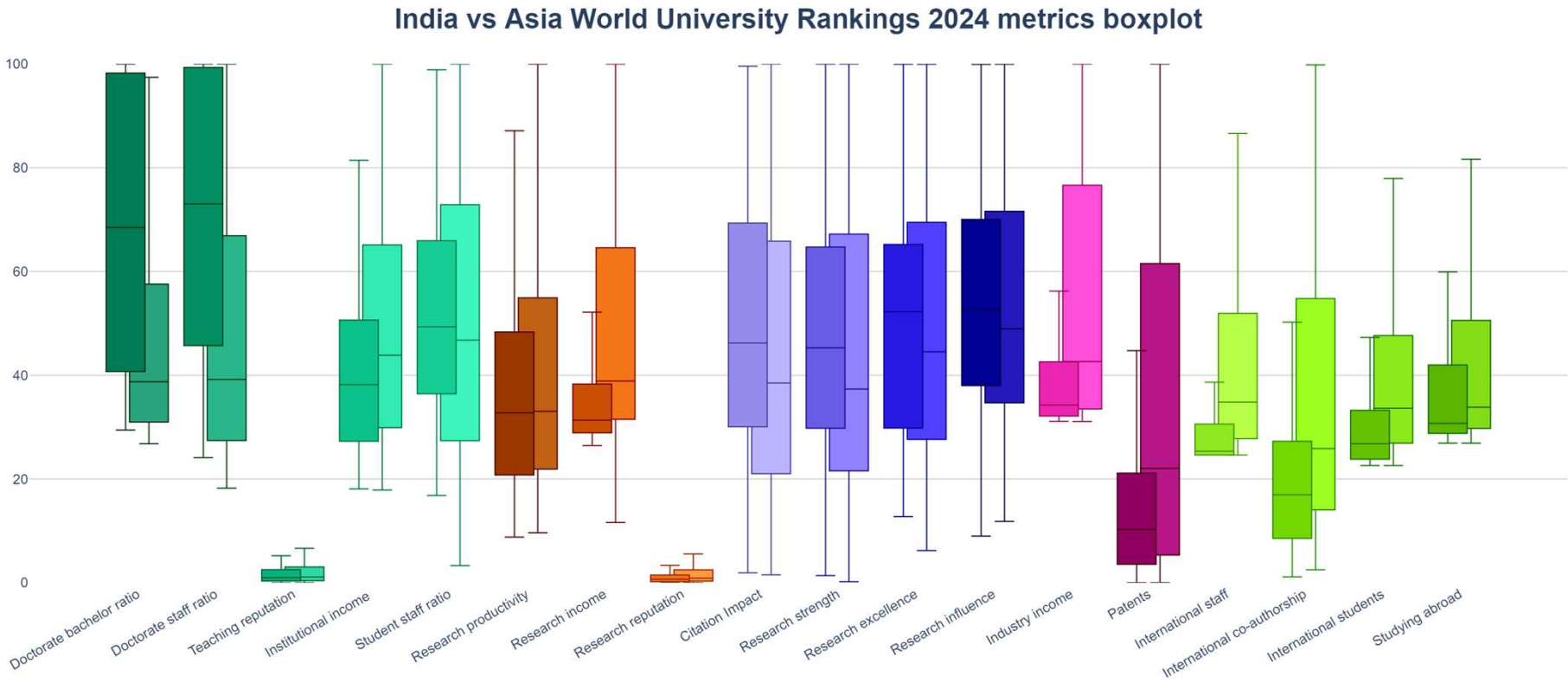


India vs Asia WUR 2024 subjects comparison



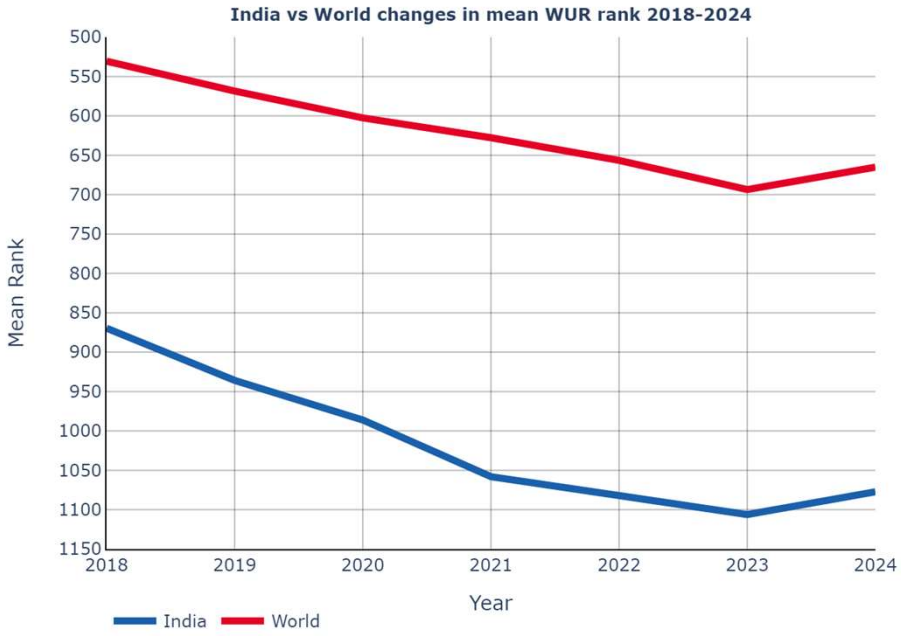
The boxes for India are on the left, the boxes for Asia are on the right

India vs Asia WUR 2024 metrics comparison

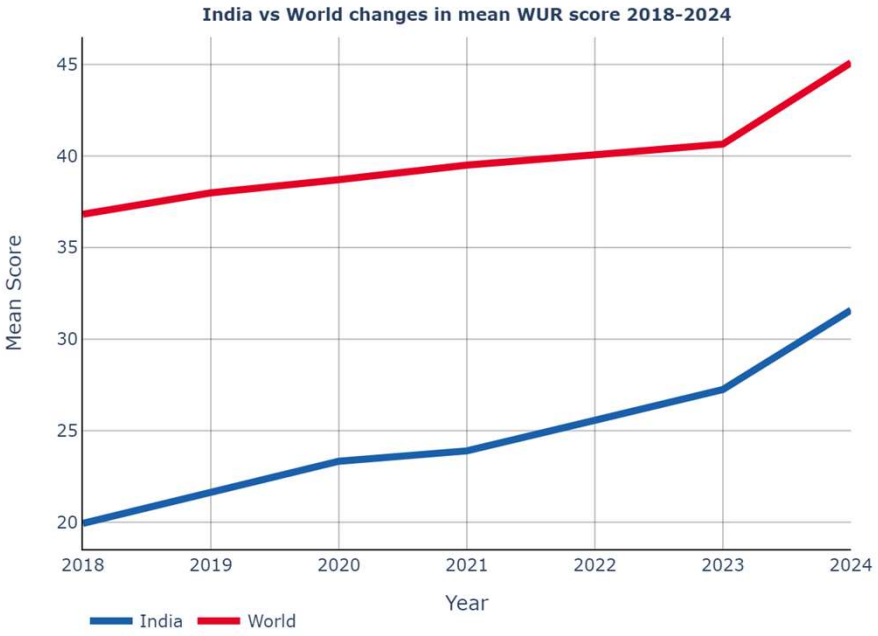


The boxes for India are on the left, the boxes for Asia are on the right

India vs World 2018-2024 Overall WUR changes

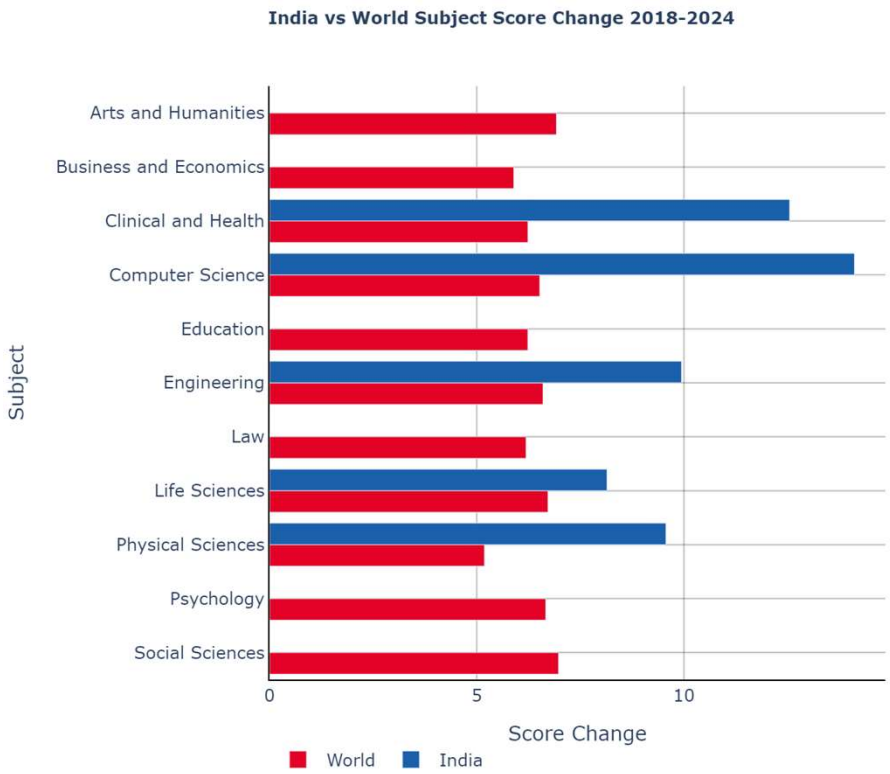


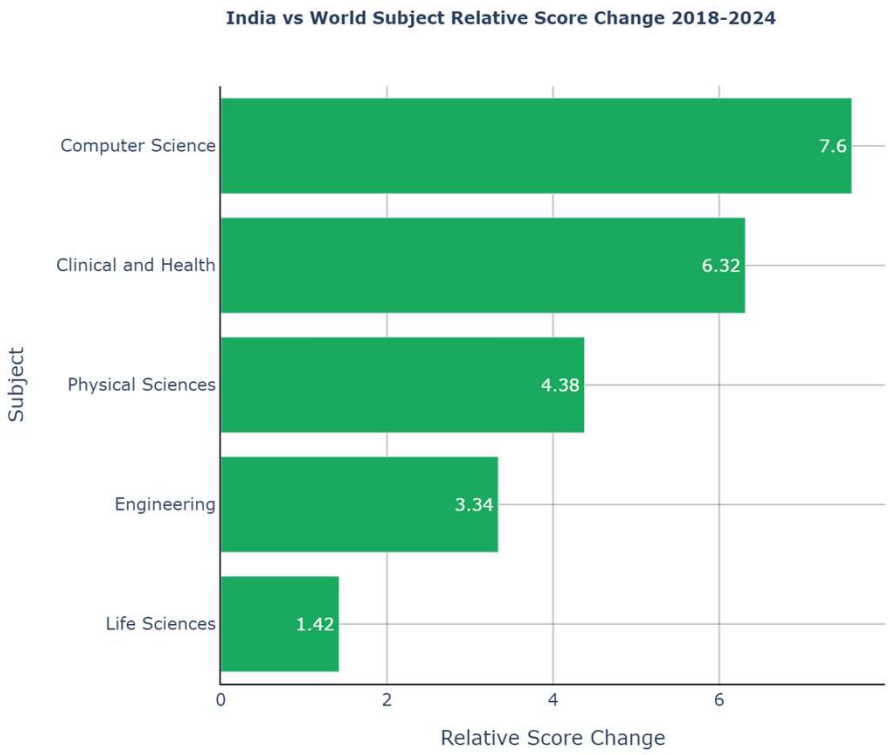
The WUR rank for India has decreased by an average of 208 between 2018 and 2024, World decreased by an average of 135. Note that the number of universities in WUR has risen from 1103 in 2018 to 1904 in 2024.



The WUR Score for India has increased by an average of 11.7 between 2018 and 2024, World has increased by an average of 8.3 during the same period.

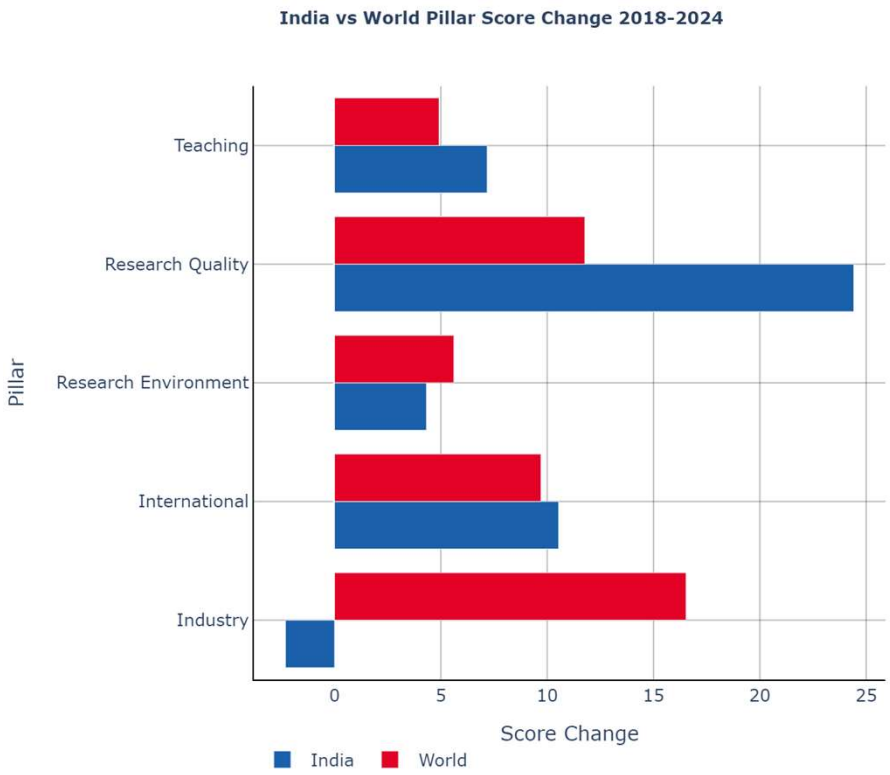
India vs World 2018-2024 Subject changes

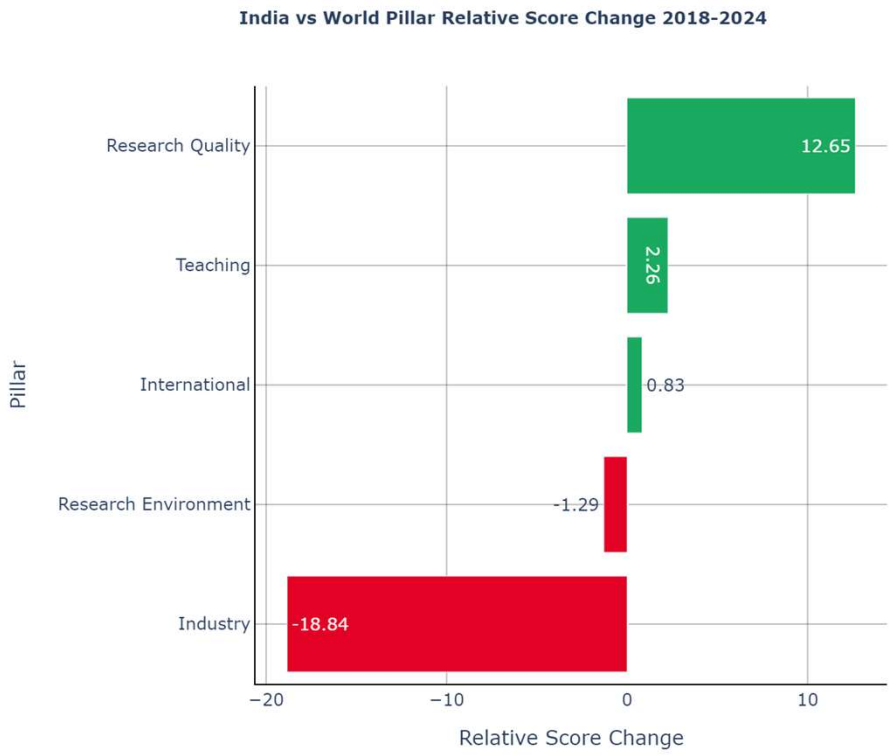




Between the years 2018 and 2024 India has improved in the Computer Science, Clinical and Health, Physical Sciences, Engineering, Life Sciences subjects in comparison with World, but has dropped in none

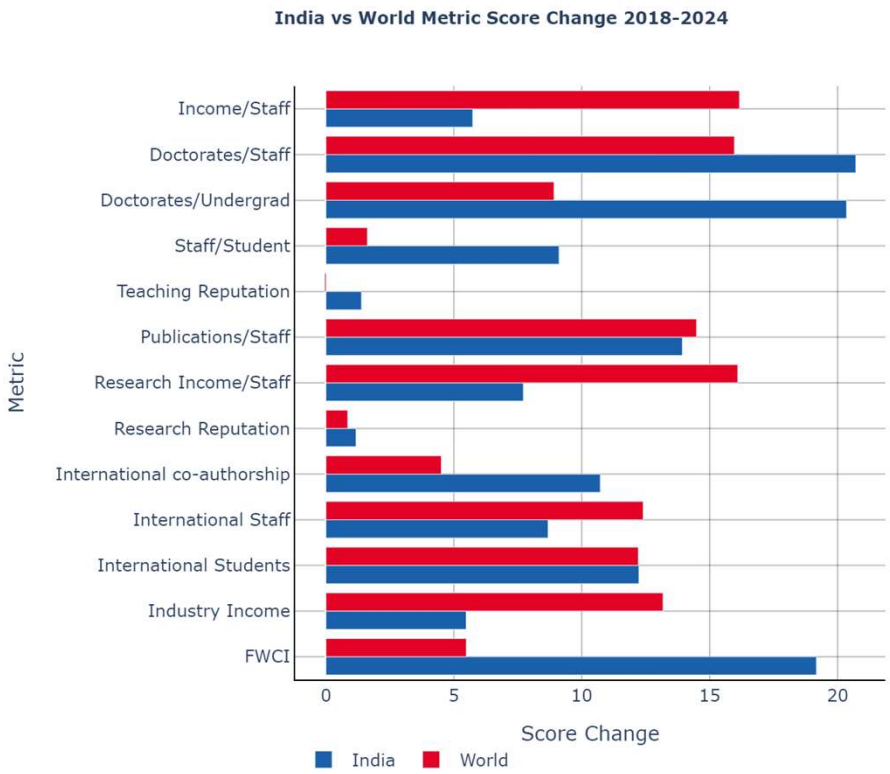
India vs World 2018-2024 Pillar changes

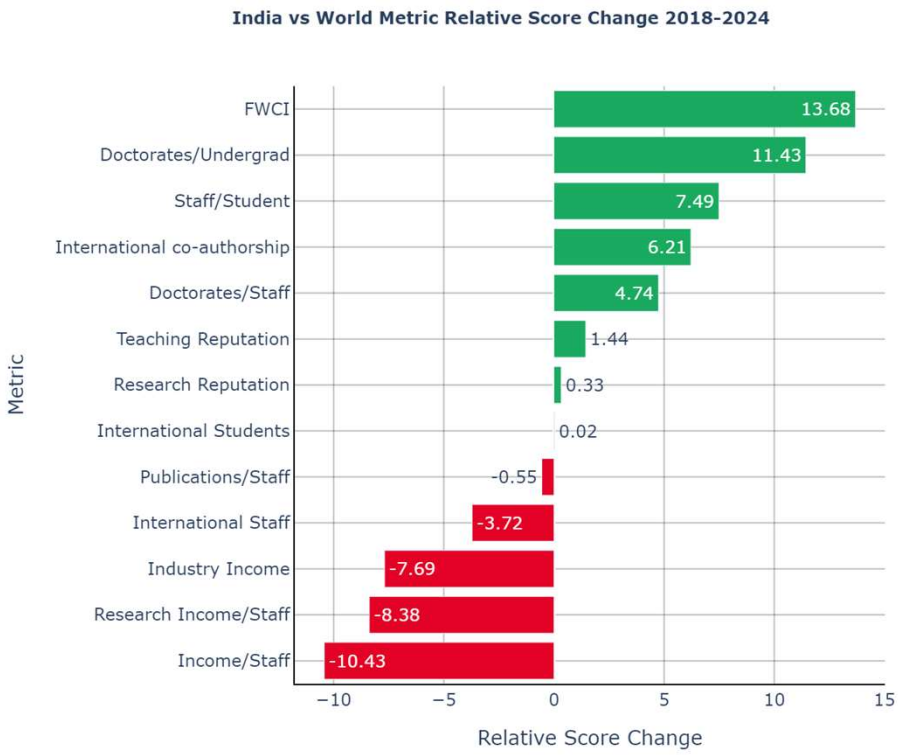




Between the years 2018 and 2024 India has improved in the Research Quality, Teaching, International pillars in comparison with World, but has dropped in Industry, Research Environment

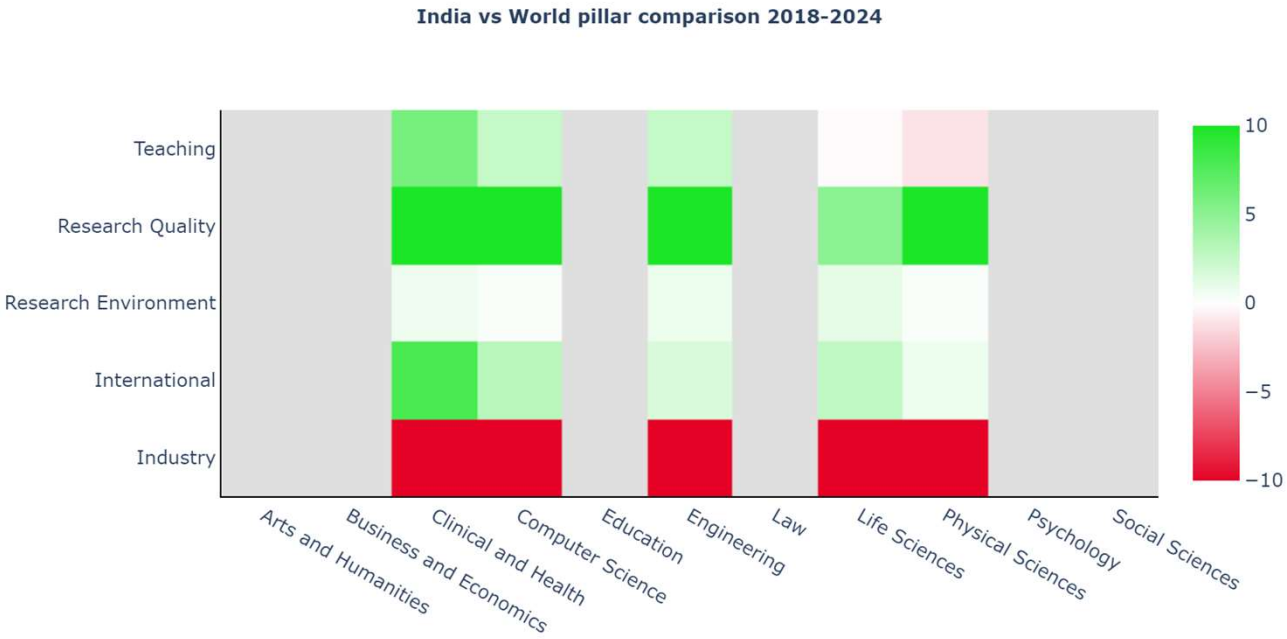
India vs World 2018-2024 Metric changes





Between the years 2018 and 2024 India has improved in the FWCI, Doctorates/Undergrad, Staff/Student, International co-authorship, Doctorates/Staff, Teaching Reputation, Research Reputation, International Students metrics in comparison with World, but has dropped in Income/Staff, Research Income/Staff, Industry Income, International Staff, Publications/Staff

India vs World 2018-2024 Heatmap of changes



High Growth Areas

Computer Science - Research Quality
Engineering - Research Quality
Physical Sciences - Research Quality
Clinical and Health - Research Quality
Clinical and Health - International

Low Growth Areas

Computer Science - Industry
Engineering - Industry
Clinical and Health - Industry
Life Sciences - Industry
Physical Sciences - Industry

The heatmap shows the relative change in scores from 2018 to 2024 for India compared to World.
Green squares represent a relative increase in score for India

Thank you

david.watkins@timeshighereducation.com
https://www.linkedin.com/in/davidjwatkins/

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