



INTERNATIONAL RANKINGS

THE POSITIONING
OF THE ITALIAN HEIs

2ND EDITION 2021

ENRICO SARTOR

International Rankings

The positioning of the Italian HEIs

This second 2021 edition is based upon the results of ARWU 2021, QS 2022, and THE 2022, all released in 2021.

The year 2021 was a landmark for a greater understanding of rankings in Italy. In December 2020 CRUI (the national association of Italian rectors) released seminal research titled "The CRUI Working Group on International Rankings: Activities, Results and Prospects 2017 - 2020". The research aimed to "increase the number of Italian universities in the international rankings, improve the ranking of national universities, coordinate communication with political bodies national average at the exit of the main global ranking, develop guidelines, and propose, officially and with a single voice, any additions and methodological changes to the ranking managers".

The Association "Italia Decide" published comprehensive research titled "Italy and its reputation: the university". The reports "offers an updated critical reading of the evaluations on the Italian university system, which emerge from the main international rankings and suggests policies to enhance our educational offer". On 19/01/2021, Italia Decide also run a webinar titled "Merits and criticalities of rankings and the importance of the reputation of universities in the globalised world".

These efforts resulted in several articles and interviews in the Italian press, and finally, the "ranking" issue hit the news properly and positively.

That said, there is still room for a research accounting also for the fluctuations of single HEIs, as well as for a comparison with other higher education systems, research we present today in the hope of adding another piece to an already fruitful discussion.

1. Introduction

This 2021 Report on the International Positioning and Recognition of the Italian University System shows the overall General rankings collected by the following three providers:

- ARWU (Academic Ranking of World Universities 2021)
[ARWU: 2021]
- QS ranking (Quacquarelli Symonds World University Ranking, 2022)
[QS: 2021]
- THE (Times Higher Education World University Rankings, 2022)
[THE: 2021]

Though other international rankings bear importance, especially if subject-specific (such as, for example, Greenometrics for environment-related indicators) or country-centred (such as USnews, a global ranking, but predominantly considered within the US), the three above-mentioned rankings are widely believed by the industry as the most relevant, quoted, and considered [Transfin: 2020].

The Italian press often overlaps different rankings, especially as far as the methodology is concerned, producing eye-catching article titles, coupled with quoted declarations of experts or academics. Here, we intend to produce a clear "where are we" sort-of snapshot, which ought to consider the evolution in years of the positioning of single HEIs, and the system as a whole. If the focus is the system, and not the single institution with its ups or downs, it becomes instantly clear that, overall, Italy can count on a top 10 worldwide academic system.

Thus, a deeper understanding of these classifications is needed, also to assist the stakeholders to better understand what rankings are, and how students, academics, policymakers, the media, business, and the civil society as a whole can make appropriate use of rankings themselves.

Rankings are more known and studied, let alone more consulted, outside Italy, than within. International degree-seeking students often turn to rankings before applying; rarely, if ever, Italian degree-seeking students do. Foreign governments grant visas and scholarships to nationals intended to study abroad according to

the ranking of the welcoming institution; instead, the Italian government hasn't yet fully focused its attention on the international relevance of rankings.

Rankings' publishing houses release yearly several charts: subject rankings, regional rankings, under 50 HEIs rankings and so forth. The most relevant of these are, though, the overall ranking ("general" or "world university rankings") which are, again, the most consulted and quoted. Our attention will therefore focus on the general rankings.

This report includes a description of the methodology adopted by the three major international rankings; a list of all ranked Italian HEIs. Further, we will provide a chart of the evolution in years of the classifications of the Italian institutions, as well as an evaluation of "where does Italy stand as a system". This, in comparison to other university-dense countries that compete internationally for the brightest minds, be they professors or students.

Bibliography Chapter 1:

ARWU, Academic Ranking of World Universities, <http://www.shanghairanking.com>.

QS, QS World University Rankings, <https://www.topuniversities.com/university-rankings/world-university-rankings/2022>.

THE, The Times Higher World University Rankings, <https://www.timeshighereducation.com/world-university-rankings>.

Transfin, "Global Education and World University Rankings 2020: How are the Best Universities in the World Picked?", <https://transfin.in/world-university-ranking-2020-best-universities-in-the-world>.

2. Methodology

Apart from peculiar cases, which are less considered internationally by the broad public (e.g., U-multirank, which is released by the European Union), rankings are published by private companies, which perform this task among other, for-profit, operations.

Like sovereign debt rating agencies, such as Standard & Poors or Moody's, which are neither public nor accountable, HEIs rankings belong to independent, private-owned companies that influence the global university landscape without – ultimately- being controlled by them.

Criticisms about how ranking methodology is composed regularly mount, especially within those university systems that feel under-represented, or indeed poorly represented, by ranking themselves, though everybody in the industry today ultimately recognises that "rankings are here to stay" [UNESCO: 2013].

Rankings are yearly forged by a combination of KPIs (Key Performance Indicators) which in turn measure one single dimension of excellence, as listed by the ranking itself, of the measured institution. Usually, that number is compared to the number scored by the top of the class in that field and is returned, in the chart, as a percentage of the latter. The sum of such KPIs makes up for the total scored by a single institution.

Overall, though with appreciable differences, all rankings measure the same set of indicators: research output, internationalisation, quality of teaching. The distinction lays in the magnitude each KPI is assigned to by different providers, as well as to minor variances that will be accounted for.

Rankings do not cover all HEIs globally: approximately, they account for 4 to 6 % of them, depending on the ranking. Though it may be an impossible task to count all universities worldwide, a decent approximation would be 20,000 [Whed: 2022]. This means that rankings ordinarily measure the performance of the best 1,5 to 5% of the whole.

It follows that if an institution is ranked, e.g., # 800 in one ranking, that also means that that institution is positioned within the top 2,5% globally.

Table 1 shows the number of HEIs each ranking measures, the subject area or field, and the number of single subjects accounted for.

It is important to notice that ARWU lists 1,000 institutions, QS 1,300, and THE 2,012. For the present research, this element will not be a major issue, since almost all Italian HEIs lay within the first 1,000 institutions in each ranking, therefore making each list (almost) perfectly comparable with the other two.

Interestingly, all three rankings are further broken down in subject areas: 5 each in ARWU and QS, 11 in THE. ARWU and QS further classify 55 and 51 subjects each, whereas THE presents no additional breakdown. This work will account for the general ranking table only.

Table 1.

Ranking	HEIs measured	Subject area/field	Subject
ARWU	1,000	1. Sciences 2. Engineering 3. Life sciences 4. Medicine 5. Social sciences	55 single subjects
QS	1,300	1. Arts & Humanities 2. Engineering & Technology 3. Life Sciences & Medicine 4. Natural Sciences 5. Social Sciences & Management	51 single subjects
THE	2,112	1. Arts & humanities 2. Business & economics 3. Clinical, pre-clinical & health 4. Computer science 5. Education 6. Engineering & technology 7. Law 8. Life sciences 9. Physical sciences 10. Psychology 11. Social sciences	No further breakdown

The following Table 2 shows the classification used by the considered rankings.

Table 2.

ARWU		QS		THE	
Quality of education: 30%		Faculty/student ratio: 20%		Teaching: 30%	
Alumni winning Nobel Prizes of Field Medals	10%	Faculty/student ratio	20%	Staff to student ratio	4,5%
Staff winning Nobel Prizes of Field Medals	20%			Reputation	15%
				Doctorate to bachelor ratio	2,25%
				Doctorate awarded to Academic Staff Ratio	6%
				Institutional income	2,25%
Quality of faculty / research: 60%		Research / citations: 20%		Research / citations: 60%	
Researchers cited in 21 broad subject categories	20%	Research citation by faculty in 5 years	20%	Reputation	18%
Paper published in "Nature" and "Science"	20%			Research income	6%
Paper indexed in SCI and SSCI	20%			Research productivity	6%
				Citations	30%
		Reputation: 50%			
		Academic reputation	40%		
		Employer reputation	10%		
		International outlook: 10%		International outlook: 7,5%	
		International faculty ratio	5%	International/domestic student ratio	2,5%
		International student ratio	5%	International/domestic staff ratio	2,5%
				International collaboration	2,5%
Other: 10%				Other: 2,5%	
Per capita academic performance of the institution	10%			Industry income (knowledge transfer)	2,5%

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- ARWU is composed of published, searchable, and objective data, and therefore the possibilities to scale it are only confined to the single HEI's ability to scale individually such indicators. Either one HEI's researcher obtains a Nobel Prize, or not; either one HEI's professor publishes in Nature, or they do not. Combined, research- or research-output KPIs count here for 90% of the ranking. It follows that research-intensive universities are better equipped to perform within ARWU, that "is noted for its methodology and influence, its heavy weighting towards more traditional measures of research excellence makes it difficult for high-performing yet younger, smaller or less well-known institutes to get a look-in" [Natureindex: 2019]. One tentative explanation about why Italian HEIs perform (relatively) well in ARWU, it that Italy does not differentiate between research and teaching universities, and thus –basically- all universities are research universities and, as such, produce a certain amount of research output that ARWU recognises.
 - QS is made up of two halves which weigh exactly 50 % each. The first is objectively measured and accounts for the faculty/student ratio (an indicator of quality), research citations, and the percentage of international students and faculty.

The second part, often perceived a more scalable, is the reputation index, made up of the academic reputation and employer reputation KPIs. Yearly, QS gathers both at the end of a process that sees institutions playing both a passive and active role when reached by QS's questionnaire: they can nominate colleagues, and be nominated by them. It follows that the activity, or the proactivity, of the institution, plays here a fundamental role.
 - THE is the ranking that best prizes the teaching component, a reason why it is often associated with the Anglo-American way to deliver tertiary education, i.e. via seminars, lectures, tutorials, and so forth. The teaching reputation part is heavily considered (15%), whereas the whole of the research section values a full 60% of the ranking itself.

Among the three, THE is the ranking listing the highest number of Italian institutions (53 in 2022, of which 51 in the first 1,000).

Bibliography Chapter 2:

Natureindex, "World University Rankings: explained", <https://www.natureindex.com/news-blog/world-university-rankings-explainer-times-higher-education-arwu-shanghai-qs-quacquarelli-symonds>, visited 02.12.2020.

UNESCO, "University rankings are here to stay – so how can we improve them?", http://www.unesco.org/new/en/media-services/single-view/news/university_rankings_are_here_to_stay_so_how_can_we_impro.

IAU Whed, "The world of higher education at your fingertips", <https://www.whed.net/home.php>.

3. General rankings: summary table

Table 3 reports the 66 Italian HEIs listed in the latest edition available of the three general rankings, 8 more than in 2020. This does not mean that all 66 are classified in each ranking, but still this is a remarkable result anyway. The Italian Ministry of University (MUR, 2021) lists "97 HEIs, of which 67 are state universities". This means that 68% of Italian recognised universities find some form of representation at least in one of the three major international rankings.

Since each of the three rankings reports a different number 1 for Italy, and they all rank different universities even within Italy, this work arbitrarily considers the first Institution listed in ARWU as the cornerstone to list all Italian institutions in all three rankings.

The three rankings list universities differently. ARWU lists with ordinal numbers the first 100 positions only. Beyond that, HEIs are grouped by 50s down to the 200th position, and then by hundreds.

QS lists with ordinal numbers the first 500 HEIs; from 501 to 600, by groups of tens; from 601 to 800, by groups of 50; from 801 to 1,000, in a single group of 200. The 2022 edition (released in 2021) introduces two new groupings: a 1001-1,200 class, and a 1,200 + class. The first is made up of 200 institutions, the second of 150 universities.

THE lists with ordinal numbers the first 200 HEIs; from 201 to 400, by groups of 50s; from 401 to 600, by groups of 100s; from 601 to 800, and from 801 to 1,000, by two single groups of 200. Further, there is a group of 200 between 1,001 and 1,200; 300 universities are listed under the label "1,201+", and another 612 under the not better-specified label "reporter", making the overall sum 2,112.

We are then assisting to a broadening of databases of ranked universities, at least by THE and QS.

As a general caveat to reading the tables presented in this study, one should pay attention to the positioning of an institution within its band. If a university is positioned within, for example, the 151-200 group, it is not automatically known which exact position the institution holds: it may be 153, 184, or 200.

Table # 3 lists all Italian HEIs ranked in the last edition available.

Table 3.

	UNIVERSITY	ARWU 2021	QS 2022	THE 2022
1	Sapienza University of Rome	151-200	171	197
2	University of Milan	151-200	316	301-350
3	University of Padua	151-200	242	201-250
4	University of Pisa	151-200	388	401-500
5	Polytechnic University of Milan	201-300	142	351-400
6	University of Bologna	201-300	166	172
7	University of Florence	201-300	451	401-500
8	University of Turin	201-300	485	401-500
9	University of Milano-Bicocca	301-400	450	301-350
10	University of Naples Federico II	301-400	424	401-500
11	Catholic University of the Sacred Heart	401-500	551-560	-
12	Scuola Normale Superiore - Pisa	401-500	-	197
13	University of Bari Aldo Moro	401-500	801-1000	501-600
14	University of Catania	401-500	-	-
15	University of Genoa	401-500	601-650	401-500
16	University of Pavia	401-500	561-570	351-400
17	University of Perugia	401-500	751-800	501-600
18	University of Trento	401-500	440	351-400
19	Vita Salute San Raffaele University	401-500	390	201-250
20	Humanitas University	501-600	-	Reporter
21	Marche Polytechnic University	501-600	-	-
22	Polytechnic University of Turin	501-600	334	601-800
23	University of Ferrara	501-600	801-1000	401-500
24	University of Palermo	501-600	801-1000	601-800
25	University of Parma	501-600	801-1000	601-800
26	University of Rome Tor Vergata	501-600	494	301-350
27	University of Salerno	501-600	801-1000	401-500
28	University of Siena	501-600	601-650	601-800
29	University of Verona	501-600	801-1000	401-500
30	Bocconi University	601-700	-	-
31	University of Modena and Reggio Emilia	601-700	701-750	401-500
32	University of Trieste	601-700	561-700	501-600
33	University of Udine	601-700	-	-
34	University of Brescia	701-800	751-800	351-400
35	G d'Annunzio University of Chieti-Pescara	701-800	-	-
36	University of Calabria	701-800	1001-1200	601-800
37	University of Campania Luigi Vanvitelli	701-800	-	-
38	University of Messina	701-800	-	501-600

39	University of Salento	701-800	-	801-1000
40	International School for Advanced Studies	801-900	-	-
41	Tuscia University	801-900	-	501-600
42	University of Cagliari	801-900	-	-
43	University of L'Aquila	801-900	-	501-600
44	University of Urbino Carlo Bo	801-900	-	501-600
45	University of Insubria	901-1000	-	-
46	Free University of Bozen	-	651-700	401-500
47	Polytechnic of Bari	-	701-750	501-600
48	University of Udine	-	801-1000	601-800
49	Marche Polytechnic University	-	801-1000	601-800
50	University of Catania	-	801-1000	601-800
51	Ca' Foscari University of Venice	-	801-1000	601-800
52	Parthenope University of Naples	-	801-1000	601-800
53	University of Rome III	-	801-1000	601-800
54	University of Bergamo	-	1201+	601-800
55	University of Messina	-	801-1000	-
56	Tuscia University	-	1001-1200	-
57	University of Urbino Carlo Bo	-	-	501-600
58	University of Chieti-Pescara D'Annunzio	-	-	601-800
59	University of Insubria	-	-	401-500
60	University of Sassari	-	-	501-600
61	University of Foggia	-	-	801-1000
62	Sant'Anna School of Advanced Studies Pisa	-	-	201-250
63	University of Camerino	-	-	501-600
64	University of Sannio	-	-	501-600
65	University of Eastern Piedmont	-	-	801-1000
66	University of Macerata	-	-	Reporter

- Of the 66 universities ranked in table # 3, only 4 are private, and all are Milan-based: Vita-Salute San Raffaele, Bocconi, Catholic University of the Sacred Heart, and Humanitas. A new entry this year, the Free University of Bozen, though being recognised by the Italian Ministry of University (MUR), is a private initiative publicly funded. This list does not include other important Italian private institutions (e.g., LUISS of Rome) nor, obviously, the non-ranked public institutions.
- Many of the top-scorers HEIs perform well, with comparable results, in all three rankings. Sapienza, for example, is 151-200 in ARWU, 171 in QS, and 197 in THE.
- The # 1 of the chart is different in each of the three rankings: Sapienza is # 1 in ARWU, Milan Polytechnic is # 1 in QS, and Bologna is # 1 in THE.

- Some top-positioned HEIs are present in one ranking only, noticeably Scuola Sant'Anna of Pisa is # 201-250 in THE and is not listed by the other two. Other examples are the Marche Polytechnic University and Bocconi.
- The level reached by the same institution within the three rankings may vary a great deal: for example, Bari Aldo Moro is 401-500 in ARWU, 801-1,000 in THE, and 501-600 in QS.

On its website (MUR, 2021) the Italian Ministry of University and Research lists 67 public universities in Italy. That list, then, represents the official starting point to gauge the percentage of Italian HEIs that gain representation in international rankings.

Table 4 shows how Italian HEIs distribute numerically within the three rankings.

Table 4.

edition	HEIs ranked	3 rankings	ARWU				QS				THE			
			ARWU Total	ARWU + THE	ARWU + QS	ARWU only	QS Total	QS + ARWU	QS + THE	QS only	THE Total	THE + ARWU	THE + QS	THE only
2021	66	28	45	7	2	5	41	2	9	2	53	7	9	10
2020	58	28	46	9	3	6	36	9	3	1	49	9	3	7
Δ	8	0	-1	-2	-1	-1	5	-7	6	1	4	-2	6	3
%	13,8	-	-2,2	-22,2	-50	-20	13,9	-77,7	200	100	8,2	22,2	100	42,8

- In 2021, 66 Italian HEIs are listed in the three rankings, vs 58 in 2020 (+8, or 13,8% more).
- The number of Italian HEIs that obtain the triple representation is 28, as in 2020. Fewer Italian HEIs (42,4%) gain a triple representation.
- Except for ARWU, where Italy loses one represented institution, the Country grows in QS (+5) and THE (+4), thus consolidating the overall trend seen in the previous years.

Table 5 illustrates the incidence of HEIs represented in the last available ranking (minus the number of private HEIs listed there) vs. the total (67) of HEIs listed by the Ministry of Education and University.

Table 5.

Year	Italian public HEIs (MIUR)	Listed in ARWU (2020) minus private HEIs	%	Listed in QS (2021) minus private HEIs	%	Listed in THE (2021) minus private HEIs	%
2021	67	(45-4) = 41	61%	(41-3) = 38	57%	(53-3) = 50	75%
2020	67	(46-4) = 42	63%	(36-2) = 34	51%	(52-2) = 50	75%
Δ	-	- 1	-2%	4	+6%	-	-

The number of public institutions listed by MUR is stable at 67. Losing one ranked HEI, ARWU conversely loses 2% of representation in this peculiar chart.

Though rankings do list some private institutions, they do not list all public institutions.

As a whole, the system looks globally well represented, with THE listing three-quarters of existing Italian public HEIs. In turn, this means that three-quarters of the existing Italian HEIs are included within the top 6% of the World, according to THE.

Bibliography Chapter 3:

MUR, "Istituzioni universitarie accreditate, "<https://www.miur.gov.it/istituzioni-universitarie-accreditate>"

4. ARWU

The ARWU ranking is released by ShanghaiRanking Consultancy, a Shanghai-based independent organisation dedicated to research on higher education intelligence and consultation.

ARWU is the most "technical" of the three rankings accounted for, as it is based on "non-interpretable" data, whose sources are available to anyone c/o ARWU's (or others') website.

Table 6 reports the 2021 full chart available. The data represent the percentage of the top scorer in a given category. Since the top scorer for ARWU always scores 100 (e.g., Harvard is 100% for publications), this means that the reported number represents the portion of excellence each HEI scores.

Table 6.

N	UNIVERSITY	ARWU 2021	ALUMNI (10%)	AWARD (20%)	Hi-Ci (20%)	N&S (20%)	PUB (20%)	PCP (10%)
1	Sapienza University of Rome	151-200	9.2	12.9	7.3	13.5	54.0	20.3
2	University of Milan	151-200	16.0	0	12.6	10.4	53.2	23.9
3	University of Padua	151-200	0	0	12.6	14.3	54.8	24.0
4	University of Pisa	151-200	20.0	22.3	10.3	6.6	41.8	24.5
5	Polytechnic University of Milan	201-300	5.3	14.4	7.3	7.8	36.9	19.7
6	University of Bologna	201-300	0	0	14.6	8.6	52.3	20.3
7	University of Florence	201-300	0	0	14.6	7.1	43.7	22.0
8	University of Turin	201-300	13.1	0	14.6	9.0	46.7	22.8
9	University of Milano-Bicocca	301-400	0	0	14.6	6.9	36.3	26.4
10	University of Naples Federico II	301-400	0	0	0.0	9.4	51.7	21.0
11	Catholic University of the Sacred Heart	401-500	0	0	10.3	2.9	36.8	24.2
12	Scuola Normale Superiore - Pisa	401-500	16.0	0	0	3.2	16.5	54.3
13	University of Bari	401-500	0	0	10.3	4.7	34.7	21.0
14	University of Catania	401-500	0	0	12.6	4.5	32.7	20.5
15	University of Genoa	401-500	0	0	7.3	5.5	36.6	20.8
16	University of Pavia	401-500	0	0	10.3	4.7	34.3	23.8
17	University of Perugia	401-500	0	0	10.3	5.8	31.1	21.4
18	University of Trento	401-500	0	0	10.3	6.4	30.2	23.5
19	Vita-Salute San Raffaele University	401-500	0	0	12.6	4.5	22.4	38.8
20	Humanitas University	501-600	0	0	10.3	3.5	15.7	40.3
21	Marche Polytechnic University	501-600	0	0	10.3	4.4	24.1	21.4

22	Polytechnic University of Turin	501-600	0	0	0	7.4	31.7	19.4
23	University of Ferrara	501-600	0	0	7.3	6.8	26.2	21.1
24	University of Palermo	501-600	0	0	7.3	3.5	31.9	17.6
25	University of Parma	501-600	0	0	12.6	3.6	27.6	19.8
26	University of Roma - Tor Vergata	501-600	0	0	0	5.4	36.4	20.4
27	University of Salerno	501-600	0	0	7.3	3.4	28.5	18.8
28	University of Siena	501-600	0	0	7.3	4.0	26.9	21.2
29	University of Verona	501-600	0	0	7.3	4.0	28.9	21.9
30	Bocconi University	601-700	0	0	7.3	0	18.2	23.7
31	University of Modena and R. Emilia	601-700	0	0	0	4.7	29.2	19.6
32	University of Trieste	601-700	0	0	0	7.3	26.6	21.6
33	University of Udine	601-700	0	0	7.3	4.3	22.9	18.6
34	Brescia University	701-800	0	0	0	4.2	26.9	21.2
35	G. d'Annunzio U. of Chieti-Pescara	701-800	0	0	0	4.0	24.6	18.6
36	University of Calabria	701-800	0	0	7.3	0	23.2	18.6
37	University of Campania Luigi Vanvitelli	701-800	0	0	0	1.4	29.3	21.2
38	University of Messina	701-800	0	0	0	2.5	27.1	17.5
39	University of Salento	701-800	0	0	7.3	3.2	21.2	19.7
40	International School for Adv. Studies	801-900	0	0	0	3.8	16.1	31.8
41	Tuscia University	801-900	0	0	7.3	2.0	16.2	19.6
42	University of Cagliari	801-900	0	0	0	1.4	26.7	17.5
43	University of L'Aquila	801-900	0	0	0	3.5	22.4	18.9
44	University of Urbino	801-900	0	0	7.3	5.4	14.6	21.4
45	University of Insubria	901-1000	0	0	0	3.8	20.1	19.8

- The performance of Italian HEIs looks weakened by the scores of the first two indicators (alumni and award), which combined value 30% of the whole index. As in Autumn 2021, Sapienza's Prof. Giorgio Parisi was awarded a Nobel Prize in Physics, probably that university will climb ARWU's 2022 edition.
- Highly cited researchers is not a strength.
- Nature & Science can be commented as "average", without noticeable champions, though it is evident that this indicator underrepresents the production in peculiar areas, such for example, the humanities.
- Publications look the healthiest of the indicators, a sign that the average Italian scientific production is world-class.
- PCP measures the weighted first five indicators, divided by the number of FTE (Full Time Equivalent) staff. So again the weight of the first two KPIs damages this last indicator, coupled with the chronic understaff situation of most Italian HEIs.

Table 7 illustrates the performance of the Italian HEIs c/o ARWU over the last three available editions.

Table 7.

UNIVERSITY	ARWU 2019	ARWU 2020	Variation 2019→2020	ARWU 2021	Variation 2020→2021
Sapienza University of Rome	151-200	151-200	=	151-200	=
University of Milan	151-200	151-200	=	151-200	=
University of Padua	201-300	201-300	=	151-200	▲
University of Pisa	151-200	151-200	=	151-200	=
Polytechnic University of Milan	201-300	201-300	=	201-300	=
University of Bologna	201-300	201-300	=	201-300	=
University of Florence	201-300	301-400	▼	201-300	▲
University of Turin	201-300	201-300	=	201-300	=
University of Milano-Bicocca	401-500	301-400	▲	301-400	=
University of Naples Federico II	301-400	301-400	=	301-400	=
Catholic U. of the Sacred Heart	401-500	601-700	▼	401-500	▲
Scuola Normale Superiore - Pisa	401-500	401-500	=	401-500	=
University of Bari Aldo Moro	501-600	401-500	▲	401-500	=
University of Catania	601-700	401-500	▲	401-500	=
University of Genoa	401-500	501-600	▼	401-500	=
University of Pavia	301-400	401-500	▼	401-500	=
University of Perugia	401-500	401-500	=	401-500	=
University of Trento	401-500	401-500	=	401-500	=
Vita-Salute San Raffaele U. Milan	501-600	401-500	▲	401-500	=
Humanitas University Milan	501-600	601-700	▼	501-600	▲
Marche Polytechnic University	801-900	801-900	=	501-600	▲
Polytechnic University of Turin	501-600	601-700	▼	501-600	▲
University of Ferrara	501-600	501-600	=	501-600	=
University of Palermo	601-700	501-600	▼	501-600	=
University of Parma	601-700	501-600	▲	501-600	=
University of Roma - Tor Vergata	501-600	501-600	=	501-600	=
University of Salerno	701-800	601-700	▲	501-600	▲
University of Siena	501-600	601-700	▼	501-600	▲
University of Verona	501-600	501-600	=	501-600	=
Bocconi University	-	501-600	new	601-700	▼
U. of Modena and Reggio Emilia	701-800	701-800	=	601-700	▲
University of Trieste	601-700	601-700	=	601-700	=
University of Udine	801-900	801-900	=	601-700	▲
University of Brescia	601-700	701-800	▼	701-800	=

U. of Chieti-Pescara D'Annunzio	901-1000	801-900	▼	701-800	▲
University of Calabria	801-900	801-900	=	701-800	▲
U. of Campania Luigi Vanvitelli	701-800	701-800	=	701-800	=
University of Messina	801-900	801-900	=	701-800	▲
University of Salento	901-1000	701-800	▲	701-800	=
Int'l School for Advanced Studies	601-700	701-800	▼	801-900	▼
Tuscia University	701-800	801-900	▼	801-900	=
University of Cagliari	801-900	801-900	=	801-900	=
University of L'Aquila	601-700	701-800	▼	801-900	▼
University of Urbino Carlo Bo	801-900	701-800	▲	801-900	▼
University of Insubria	901-1000	901-1000	=	901-1000	=
University of Eastern Piedmont	-	701-800	new	701-800	out

- ARWU lists 45 Italian institutions in its 2021 edition, 46 in 2020 as well as in 2019: they were 47 in 2018. The Country lost two ranked institutions in the last three years. The trend is slightly negative.
- The best-performing Italian institution, Sapienza of Roma, is # 151-200 in the ARWU 2021 edition.
- In 2021, 28 institutions (62% of total) confirmed last year's position. 13 HEIs (28%) gained one or more positions, 4 (9%) lost one or more positions, and there has been one exit, no new entries. Overall, then, the system as a whole gained ground in quality and lost in quantity.

5. QS

QS (Quacquarelli-Symonds) is a UK-based company that provides services to students and higher education institutions.

QS is the more "popular" and quoted ranking, also due to the brand "QS" which is widely known within the industry thanks to the services provided: market insights, a worldwide fair circuit, and events among others.

In its 2022 edition, QS ranks 300 more HEIs. The overall number of HEIs ranked is now 1,300, vs 2021's 1,000.

Table 8.

	UNIVERSITY	QS 2022	OVERALL SCORE	ACADEMIC REP. (40%)	EMPLOYER REP. (10%)	FACULTY STUD. (20%)	CITATIONS FACULTY (20%)	INT. FAC. (5%)	INT. STUD. (5 %)
1	Politecnico di Milano	142	52,5	66,1	81,0	5,1	59,3	40,9	55,2
2	University of Bologna	166=	47,7	77,5	46,6	3,8	51,8	4,7	10,3
3	Sapienza University of Rome	171	47,2	76,5	38,4	4,2	55,9	1,4	10,0
4	Università di Padova	242=	39,2	55,7	30,9	9,9	55,8	3,3	6,4
5	University of Milan	316	33,5	49,7	17,4	6,2	49,9	2,9	7,7
6	Politecnico di Torino	334=	32,2	34,7	50,4	2,6	52,4	1,5	40,5
7	University of Pisa	388=	28,7	40,5	16,5	7,8	44,1	2,0	4,9
8	Università Vita-Salute San Raffaele	390	28,6	3,2	1,5	99,3	34,5	1,9	4,0
9	University of Naples - Federico II	424=	27,1	32,5	14,6	5,1	57,1	1,2	1,1
10	University of Trento	440=	26,3	24,9	10,1	16,6	54,8	13,3	5,9
11	University of Milano-Bicocca	450	25,9	19,5	10,7	1,5	81,2	N/A	7,8
12	University of Florence	451=	25,8	32,5	7,3	6,0	48,2	2,7	19,9
13	University of Turin	485=	24,5	34,2	7,9	3,5	42,9	2,3	10,8
14	The University of Rome "Tor Vergata"	494=	24,1	30,7	14,6	6,0	37,7	2,1	28,9
15	Università Cattolica del Sacro Cuore	551-560	N/A	22,0	31,3	39,7	6,5	2,0	9,0
16	Università degli Studi di Pavia	561-570	N/A	20,6	6,8	6,6	51,6	2,2	13,6
17	University of Genoa	601-650	N/A	15,8	4,7	9,8	47,7	1,6	15,7
18	University of Siena	601-650	N/A	11,7	3,2	10,4	55,6	1,4	21,8
19	Free University of Bozen-Bolzano	651-700	N/A	4,0	2,0	11,7	37,3	87,3	30,1
20	University of Trieste	651-700	N/A	11,7	4,0	5,4	55,8	2,2	10,2
21	Politecnico di Bari	701-750	N/A	5,1	4,7	8,4	59,1	1,9	9,3
22	University of Modena and R. Emilia	701-750	N/A	8,7	3,8	2,3	61,5	1,1	5,4
23	Università degli Studi di Perugia	751-800	N/A	8,0	2,2	4,1	53,7	2,4	6,8
24	University of Brescia	751-800	N/A	3,9	2,2	6,0	59,8	1,5	13,9

25	Ca' Foscari University of Venice	801-1000	N/A	18,0	18,1	4,3	12,9	17,2	10,0
26	Catania University	801-1000	N/A	11,8	3,6	5,2	31,9	1,3	1,5
27	Università degli Studi di Ferrara	801-1000	N/A	5,7	2,7	3,0	52,2	1,3	5,2
28	Università degli Studi di Udine	801-1000	N/A	6,9	3,8	11,2	28,7	1,7	5,1
29	Università degli Studi Roma Tre	801-1000	N/A	16,7	6,8	2,3	17,6	3,2	5,4
30	Università Politecnica delle Marche	801-1000	N/A	5,1	2,7	11,3	48,5	1,7	4,9
31	University of Bari	801-1000	N/A	11,9	3,5	4,9	29,4	1,8	2,1
32	University of Messina	801-1000	N/A	7,0	1,9	12,7	30,5	1,1	2,8
33	University of Naples Parthenope	801-1000	N/A	3,2	1,9	4,0	40,7	1,2	2,2
34	University of Palermo	801-1000	N/A	9,9	2,4	6,9	29,1	1,2	2,1
35	University of Parma	801-1000	N/A	9,4	3,2	2,9	36,3	1,2	7,5
36	University of Salerno	801-1000	N/A	7,6	2,4	4,9	35,8	1,3	2,1
37	Verona University	801-1000	N/A	8,7	5,9	6,1	32,1	1,8	4,8
38	U. "G. d'Annunzio" Chieti Pescara	1001-1200	N/A	3,2	1,2	3,7	23,5	1,6	3,5
39	University of Tuscia	1001-1200	N/A	3,1	1,0	8,1	24,4	3,4	5,1
40	University of Calabria	1001-1200	N/A	5,0	1,8	3,3	28,7	2,5	3,6
41	Università degli Studi di Bergamo	1201+	N/A	4,7	2,8	3,9	5,2	5,9	7,8

- Starting from the 2022 edition, QS has granted access to all info, and not the top positions only. This does not apply to the "overall score" KPI, which is available for the first 500 positions only.
- QS 2022 lists 41 Italian HEIs (37 top 1,000). They were 40 (36) in 2021, and 35 (34) in 2020. Gradually, QS lists more Italian HEIs.
- The best-performing Italian institution, Polytechnic University of Milan, is ranked at # 142 in the QS 2022 edition, down 5 positions from 2021.
- The "academic reputation" KPI, where available, shows relevant discrepancies among HEIs, ranging from a very high 77.5 (Bologna) to a 3.1 (University of Tuscia). Being the distinct most significant indicator, considering how it is calculated, it perhaps may represent the central area of investment Italian HEIs may be willing to consider.
- The same consideration applies to the "employer reputation" KPI.
- The "faculty/student" ratio is traditionally a weakness for Italian HEIs. Given the Italian rigid faculty enrolment pipeline, a hardly scalable indicator, too. Private HEIs (see for example Vita-San Raffaele) often perform better than public HEIs in this indicator.
- Though the "international faculty" KPI is at least partially scalable (one can always hire international teachers), Italian HEIs seem not to take advantage of this possibility. The noticeable exceptions are the Free University of Bozen, the Milan Polytechnic and Ca' Foscari University of Venice.

Table 9 shows the performance of the Italian HEIs in QS in the last four editions.

Table 9.

UNIVERSITY	QS 2019	QS 2020	Variation 19 → 20	QS 2021	Variation 20→21	QS 2022	Variation 21→22
Politecnico di Milano	156	149	▲	137	▲	142	▼
University of Bologna	180	177	▲	160	▲	166=	▼
Sapienza U. of Rome	217	203	▲	171	▲	171	=
University of Padua	249	234	▲	216	▲	242=	▼
University of Milan	325	302	▲	301	▲	316	▼
Politecnico di Torino	387	348	▲	308	▲	334=	▼
University of Pisa	422	389	▲	383	▲	388=	▼
U. Vita-Salute San Raffaele	472	424	▲	392	▲	390	▲
U. of Naples - Federico II	-	-	-	392	new	424=	▼
University of Trento	426	389	▲	403	▼	440=	▼
University of Milano-Bicocca	601-650	591-600	▲	521-530	▲	450	▲
University of Florence	511-520	448	▲	432	▼	450	▼
University of Turin	571-580	541-550	▲	521-530	▲	485=	▲
U. of Rome "Tor Vergata"	511-520	511-520	=	511-520	=	494=	▲
U. Cattolica del Sacro Cuore	491	501-510	▼	511-520	▼	551-560	▼
University of Pavia	581-590	581-590	=	601-650	▼	561-570	▲
University of Genoa	701-750	651-700	▲	651-700	=	601-650	▲
University of Siena	701-750	701-750	=	651-700	▲	601-650	▲
Free U. of Bozen-Bolzano	-	-	-	601-650	new	651-700	▼
University of Trieste	701-750	701-750	=	701-750	=	651-700	▲
Politecnico di Bari	-	801-1000	new	751-800	▲	701-750	▲
U. of Modena and R. Emilia	751-800	751-800	=	751-800	=	701-750	▲
University of Palermo	751-800	801-1000	▼	801-1000	=	701-750	▼

University of Parma	751-800	751-800	=	751-800	=	701-750	▲
University of Perugia	751-800	751-800	=	751-800	=	751-800	=
University of Brescia	701-750	751-800	▼	751-800	=	751-800	=
Ca' Foscari U. of Venice	751-800	751-800	=	751-800	=	801-1000	▼
Catania University	751-800	801-1000	▼	801-1000	=	801-1000	=
University of Ferrara	701-750	801-1000	▼	801-1000	=	801-1000	=
University of Udine	-	751-800	new	801-1000	=	801-1000	=
U. degli studi Roma Tre	-	751-800	new	801-1000	=	801-1000	=
U. Politecnica delle Marche	-	-	-	801-1000	new	801-1000	=
University of Bari	751-800	801-1000	▼	801-1000	=	801-1000	
University of Messina	-	-	-	-	-	801-1000	new
U. of Naples Parthenope	-	-	-	-	-	801-1000	new
University of Salerno	-	801-1000	new	801-1000	=	801-1000	=
Verona University	751-800	801-1000	▼	801-1000	=	801-1000	=
U. "G. d'Annunzio" Chieti Pescara	-	-	-	-	-	1001-1200	new
University of Tuscia	-	-	-	-	-	1001-1200	new
University of Calabria	-	-	-	801-1000	new	1001-1200	▼
U. of Bergamo	-	-	-	-	-	1201+	new

- In its 2022 edition, QS lists 41 Italian institutions, 5 more than in the 2021's. Though being the ranking that lists the smallest amount of Italian HEIs, over the years that number is growing nonetheless.
- No Italian HEI listed in 2021 is out of the ranking in 2022.
- In 2022, 12 HEIs went up, 14 down, 0 out, 5 new, and 10 maintained positions. Therefore, the system as a whole looks even. Top 10 QS ranked Italian institutions lost overall positions, though, as one gained, one was even, and 8 lost positions. Italy's top institutions are losing competitiveness in QS.

6. Times Higher Education (THE)

Times Higher Education (THE) is a weekly magazine associated with the British “The Times” newspaper, reporting on news related to higher education. THE yearly releases its general ranking (World University Rankings – WUR), as well as other rankings.

Among the three considered by this report, the Times Higher Education ranking is the one reporting more Italian HEIs overall; all data are available on the website, and the benchmark with other systems is easily accessible via cumulated data.

Table 10 reports the 2022 edition.

Table 10.

	UNIVERSITY	THE 2022	OVERALL SCORE	TEACHING (30%)	RESEARCH (30%)	CITATIONS (30%)	INDUSTRY INCOME (2.5%)	INTL OUTLOOK (7.50%)
1	University of Bologna	172	55.8	49.8	36.9	82.7	45.3	52.1
2	Sapienza University of Rome	197	54.0	51.5	41.7	70.9	55.9	44.3
3	Scuola Normale Superiore di Pisa	197	54.0	56.5	38.6	67.8	36.9	55.4
4	University of Padua	201–250	50.4–53.9	41.3	33.8	80.3	40.9	49.4
5	Sant’Anna School of Advanced Studies – Pisa	201–250	50.4–53.9	46.4	40.6	70.5	89.2	57.8
6	Vita-Salute San Raffaele University	201–250	50.4–53.9	37.6	22.5	98.6	36.0	42.8
7	University of Milan	301–350	46.1–48.0	32.7	29.7	82.6	39.8	43.5
8	University of Milan-Bicocca	301–350	46.1–48.0	27.5	24.2	91.8	39.2	45.4
9	University of Rome II – Tor Vergata	301–350	46.1–48.0	38.2	27.4	68.5	48.4	62.1
10	University of Brescia	351–400	44.1–46.0	24.6	18.1	93.9	39.6	44.7
11	University of Pavia	351–400	44.1–46.0	36.8	28.1	72.4	46.5	46.7
12	Politecnico di Milano	351–400	44.1–46.0	34.4	39.2	57.8	80.1	60.8
13	University of Trento	351–400	44.1–46.0	30.2	32.5	69.5	43.1	56.6
14	University of Ferrara	401–500	40.9–44.0	31.0	22.3	71.0	41.4	44.6
15	University of Florence	401–500	40.9–44.0	33.3	28.3	66.8	44.7	46.1
16	Free University of Bozen-Bolzano	401–500	40.9–44.0	20.9	16.8	77.8	36.5	76.7
17	University of Genoa	401–500	40.9–44.0	35.4	25.5	65.1	45.3	44.8
18	University of Insubria	401–500	40.9–44.0	19.3	21.6	90.7	36.7	41.1
19	University of Modena and Reggio Emilia	401–500	40.9–44.0	30.8	22.8	72.4	49.0	38.9
20	University of Naples Federico II	401–500	40.9–44.0	32.5	26.0	76.7	41.4	32.3
21	University of Pisa	401–500	40.9–44.0	28.1	28.0	70.6	41.8	41.3
22	University of Salerno	401–500	40.9–44.0	17.9	22.4	85.1	37.8	35.2
23	University of Turin	401–500	40.9–44.0	22.3	27.8	76.4	43.8	41.8

24	Verona University	401–500	40.9–44.0	29.2	22.7	76.1	45.8	42.4
25	University of Camerino	501–600	38.1–40.8	21.8	15.6	73.5	46.1	48.9
26	University of L'Aquila	501–600	38.1–40.8	31.4	23.5	66.6	43.8	34.8
27	University of Bari Aldo Moro	501–600	38.1–40.8	18.1	20.5	81.2	35.9	33.2
28	University of Messina	501–600	38.1–40.8	29.1	23.3	68.1	36.6	31.4
29	University of Perugia	501–600	38.1–40.8	21.4	17.9	77.2	43.1	48.3
30	Polytechnic University of Bari	501–600	38.1–40.8	17.3	22.2	79.2	55.5	34.6
31	University of Sannio	501–600	38.1–40.8	18.7	17.4	81.1	54.1	29.5
32	University of Sassari	501–600	38.1–40.8	28.4	26.8	65.8	37.9	38.1
33	University of Trieste	501–600	38.1–40.8	30.1	24.2	66.2	36.9	47.8
34	University of Tuscia	501–600	38.1–40.8	18.2	17.8	85.2	38.8	37.2
35	University of Urbino Carlo Bo	501–600	38.1–40.8	16.0	16.3	78.7	41.3	50.4
36	University of Bergamo	601–800	32.0–37.9	18.8	21.9	55.4	40.3	35.3
37	Ca' Foscari University of Venice	601–800	32.0–37.9	33.7	27.3	33.5	40.9	58.8
38	University of Calabria	601–800	32.0–37.9	16.2	17.6	62.3	35.5	38.2
39	University of Catania	601–800	32.0–37.9	25.0	19.7	70.4	36.1	31.4
40	Gabriele d'Annunzio University	601–800	32.0–37.9	15.0	16.6	72.7	36.1	38.7
41	Marche Polytechnic University	601–800	32.0–37.9	20.8	21.4	67.7	43.8	32.8
42	University of Palermo	601–800	32.0–37.9	17.3	20.1	60.1	35.5	31.4
43	University of Parma	601–800	32.0–37.9	18.7	21.6	69.8	40.9	37.7
44	Parthenope University of Naples	601–800	32.0–37.9	20.6	19.0	69.1	36.7	26.9
45	Polytechnic University of Turin	601–800	32.0–37.9	24.7	27.2	56.5	52.7	51.2
46	University of Rome III	601–800	32.0–37.9	23.6	22.4	48.0	40.8	41.5
47	University of Siena	601–800	32.0–37.9	21.6	23.5	62.8	39.3	43.6
48	University of Udine	601–800	32.0–37.9	22.3	17.3	69.0	39.4	39.8
49	Amedeo Avogadro University of Eastern Piedmont	801–1000	27.2–31.9	13.5	21.1	57.4	34.9	40.8
50	University of Foggia	801–1000	27.2–31.9	16.9	20.9	53.7	38.0	25.7
51	University of Salento	801–1000	27.2–31.9	23.2	19.3	52.1	36.9	28.5
52	Humanitas University	Reporter	n/a	n/a	n/a	n/a	n/a	n/a
53	University of Macerata	Reporter	n/a	n/a	n/a	n/a	n/a	n/a

- THE 2022 lists 53 Italian HEIs (51 top 1,000). They were 49 (0) in 2021, and 45 (0) in 2020. Over the years, more Italian HEIs are listed by THE.
- The best-performing Italian institution, the University of Bologna, is ranked at # 172 in the THE 2022 edition, gaining 5 positions from 2021.
- Though the "research" indicators look in general not fully performant, the "citations" KPI looks healthy nonetheless.
- Industry income is regularly set below the 50% threshold for nearly all the monitored HEIs.
- Overall, the international KPIs look healthier than some years ago, though only a few HEIs set themselves over the 50% threshold.

Table 11 compares the performance of the Italian HEIs c/o THE over the last four available editions.

Table 11.

	UNIVERSITY	THE 2019	THE 2020	Variation 19→20	THE 2021	Variation 20→21	THE 2022	Variation 21→22
1	University of Bologna	180	168	▲	167	▲	172	▼
2	Sapienza University of Rome	251-300	251-300	=	201-250	▲	197	▲
3	Scuola Normale S. di Pisa	161	152	▲	181	=	197	▲
4	University of Padua	201-250	201-250	=	251-300	▼	201-250	▲
5	Sant'Anna School of Advanced Studies – Pisa	153	149	▲	170	▼	201-250	▼
6	Vita-Salute San Raffaele U.	201-250	201-250	=	251-300	▼	201-250	▲
7	University of Milan	301-350	301-350	=	351-400	▼	301-350	▲
8	University of Milan-Bicocca	401-500	401-500	=	351-400	▲	301-350	▲
9	U. of Rome II – Tor Vergata	401-500	501-600	▼	401-500	▼	301-350	▲
10	University of Brescia	-	501-600	new	401-500	▲	351-400	▲
11	University of Pavia	401-500	401-500	=	401-500	=	351-400	▲
12	Polytechnic of Milan	301-350	301-350	=	351-400	▼	351-400	
13	University of Trento	251-300	301-350	▼	301-350	=	351-400	▼
14	University of Ferrara	401-500	401-500	=	501-600	▼	401-500	▲
15	University of Florence	401-500	351-400	▲	401-500	▼	401-500	=
16	Free U. of Bozen-Bolzano	351-400	401-500	▼	401-500	=	401-500	=
17	University of Genoa	401-500	401-500	=	401-500	=	401-500	=
18	University of Insubria	-	501-600	new	501-600	=	401-500	▲
19	U. of Modena and R. Emilia	351-400	401-500	▼	401-500	=	401-500	=
20	U. of Naples Federico II	301-350	351-400	=	401-500	▼	401-500	=
21	University of Pisa	301-350	351-400	=	401-500	▼	401-500	=
22	University of Salerno	351-400	351-400	=	401-500	▼	401-500	=
23	University of Turin	401-500	401-500	=	401-500	=	401-500	=
24	Verona University	401-500	401-500	=	401-500	=	401-500	=
25	University of Camerino	-	-	-	-	-	501-600	new
26	University of L'Aquila	-	501-600	new	501-600	=	501-600	=
27	University of Bari Aldo Moro	401-500	401-500	=	401-500	=	501-600	▼
28	University of Messina	-	-	-	501-600	new	501-600	=
29	University of Perugia	351-400	-	out	-	-	501-600	new
30	Polytechnic University of Bari	401-500	401-500	=	401-500	=	501-600	▼
31	University of Sannio	-	-	-	401-500	new	501-600	▼
32	University of Sassari	601-800	601-800	=	501-600	▲	501-600	=
33	University of Trieste	401-500	401-500	=	501-600	▼	501-600	=
34	University of Tuscia	-	-	-	501-600	new	501-600	=

35	University of Urbino Carlo Bo	401-500	401-500	=	501-600	▼	501-600	=
36	University of Bergamo	501-600	601-800	▼	601-800	=	601-800	=
37	Ca' Foscari U. of Venice	601-800	601-800	=	601-800	=	601-800	=
38	University of Calabria	401-500	601-800	▼	601-800	=	601-800	=
39	University of Catania	501-600	501-600	=	501-600	=	601-800	▼
40	Gabriele d'Annunzio U.	-	-	-	601-800	new	601-800	=
41	Marche Polytechnic University	401-500	501-600	▼	601-800	▼	601-800	=
42	University of Palermo	501-600	601-800	▼	601-800	=	601-800	=
43	University of Parma	501-600	601-800	▼	601-800	=	601-800	=
44	Parthenope U. of Naples	-	-	-	601-800	new	601-800	=
45	Polytechnic U. of Turin	401-500	501-600	▼	501-600	=	601-800	▼
46	University of Rome III	401-500	501-600	▼	601-800	▼	601-800	=
47	University of Siena	351-400	401-500	▼	401-500	=	601-800	▼
48	University of Udine	501-600	501-600	=	601-800	▼	601-800	=
49	U. of Eastern Piedmont	-	601-800	new	601-800	=	801-1000	▼
50	University of Foggia	-	-	-	801-1000	new	801-1000	=
51	University of Salento	501-600	601-800	▼	601-800	=	801-1000	▼
52	Humanitas University	-	-	-	-	-	Reporter	-
53	University of Macerata	-	-	-	-	-	Reporter	-

- In its 2022 edition, THE lists 53 Italian institutions, 1 more than in the 2021's.
- Out of the three major rankings, THE hosts the higher number of Italian institutions.
- In the 2022 edition, there have been 2 new entries, 0 exits, 11 upward movers, 11 downward movers, 27 HEIs that confirmed their position, and 2 “reporter” rankings.
- 8 universities in Italy's top 10 moved upwards, 2 moved downwards.
- The system as a whole gained both representation and overall quality.

7. The system

This section will draw upon three different sets of data for each of the three rankings. For each ranking, only the first 1,000 positions will be considered.

- The positioning of the Italian university system within a broader chart reporting the top 20 World University national systems;
- The evolution, over the last 4 years, of the positioning of Italian HEIs within each of the three rankings;
- A comparison with Italy's European "competitors".

7.1 ARWU by country (top 20 countries)

Table 12 illustrates the 20 top national university systems, as ranked by ARWU. The criteria adopted in this chart is “quality”, i.e. systems with more top 100 institutions are ranked first.

Table 12.

ARWU 2021 POSITION	ARWU 2021 COUNTRY	Top100	Δ	101-200	Δ	201-300	Δ	301-400	Δ	401-500	Δ	501-1000	Δ	Total	Δ
1	United States	40	-1	22	-2	26	-3	20	=	18	-1	71	-2	197	-10
2	U. Kingdom	8	=	13	1	5	-1	8	=	5	3	27	-3	66	1
3	China + HK + Macau	7	1	21	1	11	-3	18	-2	16	-8	117	28	190	18
4	Australia	7	=	1	=	8	1	6	-1	2	1	9	-2	33	-1
5	Switzerland	5	=	2	=	0	=	0	=	0	-1	3	2	10	1
6	France	4	-1	4	1	3	-1	4	=	2	1	13	=	30	=
7	Germany	4	=	6	=	10	1	4	-1	5	-1	23	4	52	3
8	Canada	4	=	4	-1	4	1	6	2	2	-1	8	-1	28	2
9	Netherlands	3	-1	6	1	1	-2	1	1	1	-1	1	=	13	-2
10	Japan	3	=	4	=	2	1	1	-1	2	-1	27	-1	39	-1
11	Sweden	3	=	2	=	2	1	1	-2	3	1	2	-1	13	-1
12	Israel	3	2	1	-2	0	=	0	=	2	=	1	=	7	=
13	Belgium	2	=	2	=	2	1	1	-1	0	=	1	=	8	=
14	Denmark	2	=	0	-1	1	1	2	=	0	=	1	=	6	=
15	Singapore	2	=	0	=	0	=	0	=	0	=	2	=	4	=

16	Norway	1	=	1	=	0	=	1	=	0	=	3	1	6	
17	Russia	1	=	1	1	0	=	1	=	1	=	3		7	-1
18	Finland	1	=	0	=	0	=	2	1	1	=	3	2	7	-1
19	Italy	0	=	4	1	4	=	2	-1	9	2	26	-3	45	-1
20	Saudi Arabia	0	=	2	=	1	=	0	=	1	=	2	2	6	2

- Considering the numerical consistency of HEIs placed in the top 1,000 positions in ARWU, the Italian system is the 5th in the World.
- Overall, Italy is positioned 19th in the World as far as quality is concerned, the same position as in 2020. Italy places more institutions in lower positions if compared to other university systems (e.g.: with only 13 HEIs ranked, but with 3 of those in the top 100, the Netherlands is 9th globally).
- Therefore, the numerical consistency is comparable to even bigger, and wealthier, countries, such as Japan or Germany, whereas Italy fails to place HEIs in top positions, an exercise where sometimes smaller countries perform better.

Tables 13 reports the evolution of this statistic in ARWU over the last 4 years.

Table 13.

ARWU Italy- Year	Top 100	101-200	201-300	301-400	401-500	501-1000	Total
2021	0	4	4	2	9	26	45
2020	0	3	4	6	11	28	46
2019	0	3	5	5	11	19	43
2018	0	1	5	5	11	19	41

The number of Italian institutions ranked by ARWU has been growing over the last 4 years, moving from 41 in 2018, to 45 in 2021. In 2021, the Country lost one position, down from 46 to 45.

Table 14 lists both the chart position of the Italian HEI system ("quality") and the chart position reached by the sum of Italian HEIs in a given ranking ("quantity"), regardless of the position of the single institution.

Table 14.

ARWU Italy - Year	Total HEIs	World position - quality -	World position - quantity -
2021	45	19	5
2020	46	19	5
2019	43	19	5
2018	41	19	5

- Overall, as far as quality is concerned Italy has retained the 19th position globally over the last 4 ARWU editions.
- Overall, Italy can count, over the years, of the 5th global most consistent fleet of ARWU indexed universities, after the US, UK, China, and Germany.

7.2 QS by country (top 20 countries + Italy)

Table 15 reports the top 20 countries listed by QS in 2022. Positions beyond # 1000 will not be considered.

Table 15.

QS 2021 POSITION	QS 2021 COUNTRY	Top100	Δ	101-200	Δ	201-300	Δ	301-400	Δ	401-500	Δ	501-1000	Δ	Total	Δ
1	United States	28	1	17	-1	13	-1	13	1	16	1	64	-1	151	=
2	U. Kingdom	17	-1	9	1	8	=	9	-1	6	1	32	-3	81	-3
3	China + HK + Macau	11	=	1	=	8	2	6	-1	7	=	29	3	62	4
4	Australia	7	=	5	1	5	-1	4	=	5	=	10	=	36	=
5	South Korea	6	=	1	=	2	=	2	=	5	1	14	=	30	1
6	Japan	5	=	3	-2	3	2	3	1	2	=	23	-2	39	-1
7	France	4	1	1	-1	3	-2	1	-2	1	=	14	14	24	-4
8	Germany	3	=	8	-1	4	=	8	1	8	1	14	-1	45	=
9	Canada	3	=	5	1	5	=	1	-1	3	=	10	1	27	1
10	Switzerland	3	=	4	=	1	=	0	=	1	=	1	=	10	=
11	Netherlands	2	=	7	=	3	=	1	=	0	=	0	=	13	=
12	Sweden	2	=	4	1	0	-1	2	=	0	=	0	=	8	=

13	Denmark	2	1	1	-1	0	=	2	=	0	=	0	=	5	=
14	Singapore	2	=	0	=	0	=	0	=	0	=	1	=	3	=
15	Malaysia	1	=	4	=	0		2		1		10	-2	18	-2
16	Belgium	1	1	2	-1	3	1	0	=	2	=	1	=	9	=
17	New Zealand	1	=	1	=	3	=	2	=	1	=	0	=	8	=
18	Taiwan	1	=	1	=	2	-2	2	=	4	=	4	=	14	-2
19	Russia	1	=	0	=	5	-1	9	3	2	-2	18	7	35	7
20	Argentina	1	=	0	=	0	=	2	1	2	=	9	1	14	2
21	Italy	0	=	3	=	1	=	6	2	4	2	23	-2	37	2

- The Italian system, as a whole, is the 6th in the World as far as numerical consistency of its HEIs, as ranked in QS. Italy thus gained one position (to Australia), from the 2020 ranking.
- Overall, though, Italy is positioned 21st in the World as far as quality is concerned, as Italy places more institutions in lower positions if compared to other university systems.

Table 16 reports the evolution of this statistic in QS over the last 4 years.

Table 16.

QS Italy- Year	Top 100	101-200	201-300	301-400	401-500	501-1000	Total
2022	0	3	1	6	4	23	37
2021	0	3	1	4	2	25	35
2020	0	3	3	4	2	22	34
2019	0	4	2	2	4	18	30

The number of Italian institutions ranked by QS has been growing over the last 4 years, moving from 30 in 2018, to 37 in 2021.

Table 17 lists both the chart position of the Italian HEI system ("quality") and the chart position reached by the sum of Italian HEIs in a given ranking ("quantity") in QS, regardless of the position of the single institution.

Table 17.

QS Italy - Year	Total HEIs	World position - quality -	World position - quantity -
2022	37	21	6
2021	35	21	7
2020	34	21	7
2019	30	22	8

- The relevant news in QS 2022 ranking is that Italy climbs on the 6th position worldwide as far as the “quantity” indicator is concerned, bypassing Australia. In 2020, Italy overcome France to gain the 7th position worldwide.
- In QS the country is still outside the top 20, being placed at the 21st position. From 2020 to 2021, the system gained one overall quality position, moving from 22nd to 21st globally.
- The novelty about the performance of the Italian HEIs in QS happened in the 2020 edition when 4 new Italian institutions (+ 13%) made it to the ranking. This of course accounts for the balance between entering and exiting HEIs. In the 2021 edition, a further HEI was added (+ 3%). Overall, it can be sustained that QS World University Rankings gradually welcomed more Italian HEIs in its rankings.

7.3 THE by country (top 20 countries)

Table 18 reports the top 20 countries listed by THE in 2022. Positions beyond # 1000 will not be considered.

Table 18.

THE 2022 POSITION	THE 2022 COUNTRY	Top100	Δ	101-200	Δ	201-300	Δ	301-400	Δ	401-500	Δ	501-1000	Δ	Total	Δ
1	United States	38	1	19	-3	19	-3	21	3	12	-7	60	5	169	-4
2	U. Kingdom	11	=	17	1	9	1	10	1	12	=	34	=	93	3
3	China + HK + Macau	9	=	5	2	5	2	5	-3	8	1	48	-8	80	-6

4	Germany	7	=	15	1	18	8	8	1	5	2	6	-1	59	11
5	Netherlands	7	=	3	-1	3	1	0	=	0	=	0	=	13	=
6	Australia	6	=	6	=	10	=	4	-3	3	=	8	1	37	-2
7	Canada	5	=	2	-1	7	1	2	=	1	-1	14	3	31	2
8	Switzerland	3	-1	4	1	0	-1	2	1	1	-1	0	=	10	-1
9	France	3	=	2	=	1	-2	6	1	5	1	14	-2	31	-2
10	South Korea	2	=	4	-1	3	2	1	=	0	=	9	-3	19	-2
11	Belgium	2	1	2	-1	2	=	2	=	0	=	1	1	9	1
12	Denmark	2	1	1	1	3	=	2	2	0	=	1	=	9	2
13	Singapore	2	=	0	=	0	=	0	=	0	=	0	=	2	=
14	Japan	2	=	0	=	1	=	1	-3	2	-1	19	=	25	-8
15	Sweden	1	=	4	=	3	1	2	-1	1	=	1	=	12	=
16	Italy	0	=	3	=	3	=	7	3	11	-5	27	=	51	1
17	Spain	0	=	3	=	1	=	1	=	3	1	23	=	31	-5
18	New Zealand	0	=	1	=	2	=	0	=	1	=	4	=	8	=
19	Taiwan	0	-1	1	1	1	1	3	1	0	-2	6	-7	11	-7
20	Russia	0	=	1	=	1	-1	2	1	2	1-	12	3	18	2

- The Italian system, as a whole, is the 5th in the World as far as the numerical consistency of HEIs in THE, losing one position to Germany that increased its ranked institutions by 11.
- Overall, though, Italy is positioned 16th in the World as far as quality is concerned, one position up from THE 2021.

Tables 19 reports the evolution of this statistic in THE over the last 4 years.

Table 19.

THE Italy- Year	Top 100	101-200	201-300	301-400	401-500	501-1000	Total
2022	0	3	3	7	11	26	50
2021	0	3	3	4	16	23	49
2020	0	3	3	6	13	16	41
2019	0	3	3	6	13	16	41

- Italy grew numerically over the three THE editions surveyed: from 43 HEIs in 2019 to 45 in 2020, to 49 in 2021, to 50 in 2022.
- If compared to the other countries ranked, Italy continues to grow: in the 2021 edition, the country ranked 4th worldwide for the top 1,000 HEIs, after the US, UK, China and Germany, but before Japan, France, and other relevant countries.

Table 20 lists both the chart position of the Italian HEI system ("quality") and the chart position reached by the sum of Italian HEIs in a given ranking ("quantity") in THE, regardless of the position of the single institution.

Table 20.

THE Italy - Year	Total HEIs	World position - quality -	World position - quantity -
2011	49	16	5
2021	49	17	4
2020	45	17	5
2019	43	17	6

8. Summary table

The last section accounts for the cumulative data of the three major rankings over the last 2 years. This exercise makes KPIs legible for those who are interested in checking out how the system as a whole is moving.

Table 21 reports the top 1,000 HEIs for each ranking, sub-divided by classes. In addition, KPIs from tables 13, 14, 16, 17, 19, and 20 are reported here.

Table 21.

RANKING	Top100	Δ	101-200	Δ	201-300	Δ	301-400	Δ	401-500	Δ	501-1000	Δ	Total	Δ	World position QUALITY	Δ	World position QUANTITY	Δ
ARWU 2021	0	=	4	1	4	=	2	-1	9	2	26	-3	45	-1	19	=	5	=
ARWU 2020	0		3		4		3		7		29		46		19		5	
QS 2022	0		3		1		6	2	4	2	23	-2	37	2	21	=	6	1
QS 2021	0		3		1		4		2		25		35		21		7	
THE 2022	0	=	3	=	3	=	7	3	11	-5	27	1	51	-1	16	1	5	-1
THE 2021	0		3		3		4		16		26		52		17		4	
ITALY 2021	0	=	10	1	8	=	15	4	24	-1	76	-4	133	0	56	-1	16	=
ITALY 2020	0		9		8		11		25		80		133		57		16	

- Italy is gaining in quantity in QS, but losing in ARWU and THE. Overall, one top 1,000 positions are lost.

Worldwide, Italy gains one position in QS, loses one in THE, and is stable in ARWU;

- Italy is gaining in quality in THE, and is stable in ARWU and in QS.
- Worldwide, Italy gains one position in THE, and is stable in ARWU and QS;
- From 2020 to 2021, the number of 101-200 institutions is bigger by 1, the number of 201-300 institutions is stable, the number of 301-400 is bigger by 4, the number of 401-500 is smaller by 1, the number of 501-1,000 institutions is smaller by 4.

Therefore, Italian HEIs are, generally, better ranked in 2021 than they were in 2020.