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Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre for Economics



IMD WORLD TALENT RANKING

2022



December 2022

IMD WORLD TALENT RANKING 2022

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Preface

We are very pleased to present the ninth edition of the IMD World Talent Ranking (WTR). We are happy to be including Bahrain in this year's edition.

The 2022 WTR is being launched in a context of continuous worldwide disruptions. While the pandemic that brought a health and an economic crisis seems to have subsided in most parts of the world, the re-emergence of geopolitical risks has introduced fresh turmoil into the international system. The economic crisis is continuing in different parts of the world and the invasion of Ukraine by Russia puts geopolitical risk at the forefront of the minds – and therefore decision-making process – of politicians and businesspeople.

Over the course of the past two years, many of us have become accustomed to the prevalence of terms such as 'remote working' and 'home office'; but suddenly companies seem to be reevaluating their policies regarding teleworking.

The 2022 WTR highlights that today's most talent-competitive economies possess the ability to develop and retain their home-grown skilled labor while providing an environment that attracts foreign skilled labor and retains both domestic and international talent.

In addition, now that we can compare our 2019 findings with those of 2022, we find pre- and post-pandemic patterns with respect to brain drain. These suggest that COVID-19 has had a profound impact on skilled individuals' decisions to leave a particular country. Faced with this crippling of talent's mobility, the economies that subsequently strengthened their quality of life as well as their commitment to environmental issues managed to boost their appeal which benefitted their talent competitiveness.

The total number of economies that the 2022 WTR assesses is 63; two economies fewer than you may have expected. The reason behind this is that the reliability of the data collected for Russia and Ukraine was limited and therefore these two economies have not been included in this year's edition.

We are eternally grateful to our many stakeholders for the support and assistance they provide: our global network of partner institutes, the IMD alumni community and our executive opinion formers who, together, offer crucial data and insights in order to complete not just our Talent Ranking, but our entire yearly offering.



Professor Arturo Bris Director IMD World Competitiveness Center

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Table of Contents

Preface	3
The IMD World Competitiveness Center	7
Partner Institutes	
Talent mobility in the post pandemic world	14
IMD World Talent Ranking 2022	
Populations greater than 20 million	
Populations less than 20 million	
GDP per capita greater than \$20,000	
GDP per capita less than \$20,000	
Europe- Middle East - Africa	
Asia - Pacific	
The Americas	
Investment and Development	
Appeal	
Readiness	
Factor Rankings - 5 years overview	
Talent Country Profiles	
The IMD World Talent Ranking methodology	
What is the IMD World Talent Ranking?	
Notes and Sources by Criteria	

Talent Country Profiles

Argentina	
Australia	
Austria	
Bahrain	
Belgium	40
Botswana	41
Brazil	
Bulgaria	
Canada	45
Chile	
China	47
Colombia	
Croatia	
Cyprus	
Czech Republic	50
Denmark	51
Estonia	52
Finland	53
France	
Germany	55
Greece	56
Hong Kong SAR	57
Hungary	
Iceland	
India	60
Indonesia	61
Ireland	62
Israel	63
Italy	64
Japan	
Jordan	
Kazakhstan	67

Korea Rep	68
Latvia	69
Lithuania	70
Luxembourg	71
Malaysia	72
Mexico	73
Mongolia	74
Netherlands	75
New Zealand	
Norway	77
Peru	
Philippines	79
Poland	
Portugal	81
Qatar	
Romania	
Saudi Arabia	
Singapore	
Slovak Republic	
Slovenia	
South Africa	
Spain	
Sweden	90
Switzerland	91
Taiwan, China	92
Thailand	93
Turkey	94
UAE	95
United Kingdom	
USA	
Venezuela	

The IMD World Competitiveness Center

For more than thirty years, the IMD World Competitiveness Center has pioneered research on how countries and companies compete to lay the foundations for sustainable value creation. The competitiveness of nations is probably one of the most significant developments in modern management and IMD is committed to leading the field. The World Competitiveness Center conducts its mission in cooperation with a network of 56 Partner Institutes worldwide to provide the government, business and academic communities with the following services:

- > Competitiveness Special Reports
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We also have the privilege of collaborating with a unique network of Partner Institutes, and other organizations, which guarantees the relevance of the data gathered.

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Talent mobility in the post pandemic world

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1. Introduction

The IMD World Talent Ranking (WTR) evaluates the capacity of an economy to develop the skills and competences of its domestic talent and, at the same time, to appeal to the international talent pool so it satisfies the local market's employment demand and enhances its overall competitiveness. work remotely fared more effectively in their responses to lockdowns. Of course, the disruptions originating from travelling restrictions and economy-wide lockdowns affected the flows (inward and outward) of skilled unternational talent pool so it satisfies the local market's employment demand and enhances its overall competitiveness.

The WTR studies 63 economies by quantifying 31 criteria that are allocated to one of three factors: The Investment & Development factor considers the domestic resources committed to cultivate homegrown talent. The Appeal factor evaluates the ability to attract and retain talent from both the international and domestic markets. And the Readiness factor quantifies the quality of the available skills and competences in the talent pool.

The ninth edition of the WTR is launched in the context of continuous worldwide disruptions. While the pandemic that brought a health and an economic crisis seems to have subsided, the re-emergence of geopolitical risks has introduced further turmoil to the international system.

During the pandemic, economies that had the technological infrastructure to allow part of the labor force to

2. Regional trends

Last five years

Figure 1 depicts the evolution of regional trends for the last five years (2018-2022). During that period, Western European economies have dominated the WTR, exhibiting a very different trajectory to that of North American economies. The latter experience a slight increase this year, exchanging second place with Eastern Asia which experienced a decline. Conversely Ex-CIS & Central Europe together with South America still lag behind with respect to other regions across the world; they struggle to sustain favorable conditions for talent retention and attraction.

work remotely fared more effectively in their responses to lockdowns. Of course, the disruptions originating from travelling restrictions and economy-wide lockdowns affected the flows (inward and outward) of skilled employees. It was expected that skilled labor would not necessarily leave their country of origin. Remote working, however, enabled skilled talent to work from different parts of the world, which allowed for a relatively sustainable access to talent. By contrast, this year we observe a shift away from working remotely because many companies are thinking twice about distance work, expecting employees to return to the workplace. How will this affect the brain drain that affected different economies in the pre-pandemic world?

In section two we will study the overall regional trends for talent competitiveness, comparing strengths with areas for improvement around the world. Section three will narrow the analysis by outlining the talent competitiveness landscape for the ten highest-ranked economies. In section four, we explore talent mobility by comparing relevant criteria for the pre-pandemic year (2019) and post pandemic 2022. Section five concludes.

2022

Figure 2 details the prevailing strength of Western European across all three factors. Eastern Asian economies follow in the Investment & Development and Readiness factors, showcasing the importance that these economies place on education and the development of local talent. The performance of Eastern Asia, in addition, benefits from a solid alignment between the talent needs of the private sector (Readiness) and the talent provided by the educational system of the countries in the area (Investment & Development). North America takes second place in the Appeal factor,

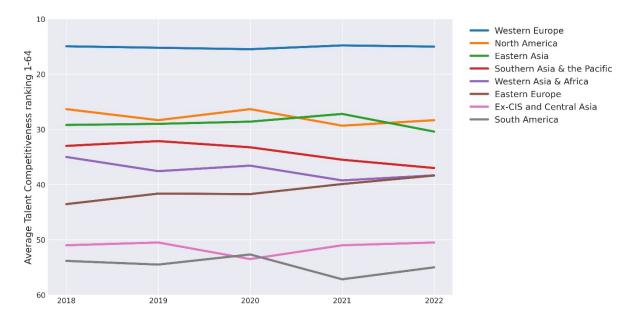
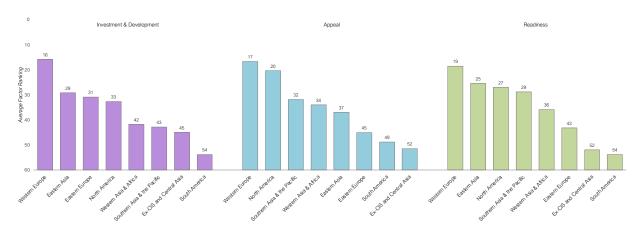


Figure 1: Evolution of average talent performance between 2018 and 2022 by subregion. Source: IMD (2022)

Figure 2: Average talent competitiveness factor ranking by region in 2022. Source: IMD (2022)



outlining the attractiveness of the USA and Canada for the international talent pool of highly skilled professionals that the region manages to retain.

The weaknesses we have discussed in previous editions of the WTR with respect to the performances of Eastern Europe and Southern Asia & the Pacific remain: Eastern European economies place a strong emphasis on education and the development of local talent (in the Investment & Development factor, it was third out of eight subregions). However, they are not able to retain that talent nor to appeal to the international talent pool for their talent needs (hence: Appeal factor, sixth; Readiness factor, sixth).

By comparison, the Southern Asia & the Pacific subregion performs below average in the development of local talent (Investment & Development factor, sixth). The

fact that the subregion manages to attract highly skilled talent from the international talent pool (Appeal, third) safeguards the skills and competences that are needed in the local job market of these economies (Readiness, fourth). Both subregions (Eastern Europe and Southern Asia & the Pacific), however, fail to balance developing and retaining their domestic talent with enticing an international talent pool. Being able to do so is a huge enable for talent competitive regions.

South America and Ex-CIS & Central Europe show the lowest performances Overall and across the three factors. The former has particularly difficult issues in terms of its local talent development and the readiness of its talent pool (Investment & Development, eight; Readiness, eighth) while the latter fails to attract overseas talent to support its economies (Appeal, eighth).

3. Top ten economies in terms of their talent competitiveness

The overall results of the 2022 WTR show a fair degree of year-to-year stability among the top 10 economies, with six out of 10 remaining in the same position. The results also highlighted the talent prowess of the Nordic countries, which occupy every place from second to sixth.

Switzerland remains in the top spot followed – in descending order – by Sweden, Iceland, Norway, Denmark then Finland. Luxembourg drops to seventh place, while Austria falls to eighth. The Netherlands and Germany remain in ninth and 10th position, respectively.

Switzerland performs robustly across all factors, ranking first in Investment & Development and in Appeal, and second in Readiness. At the indicator level, there are strengths across the board. The country reaches first place in several criteria including the effective implementation of apprenticeships, attracting foreign highly skilled personnel and the availability of finance skills and of managers with international experience. Switzerland ranks second in the prioritization of employee training by the private sector, the level of motivation of the labor force and the availability of language skills. There is, however, room for improvement which would enable the country to sustain its talent competitiveness; the quality of education as measured by pupil-teacher ratio remains relatively low, with the economy ranking 36th in the primary school indicator and 32nd in the secondary school one. In the female labor force (as a percentage of the total labor force) indicator, the country ranks 26th and in that of graduates in science, 28th. Despite ranking fourth in guality of life, in a related criterion - exposure to particle pollution – Switzerland ranks 15th.

Sweden remains in second spot by performing strongly in Appeal (second) and to a lesser extent in Readiness (sixth) and Investment & Development (seventh). It reaches its highest rank at the criteria level in the impact of brain drain and in the exposure to particle pollution, placing second in both. Other areas of strength are the availability of language skills and of competent senior managers (third in both). While in its fairness of the administration of justice Sweden ranks fourth, it reaches fifth position in the prioritization that its private sector assigns to talent attraction and retention, and in total public expenditure on education. Similarly to Switzerland, the country's position in guality of education is relatively low, ranking 23rd in the primary-school indicator and 35th in the secondary school one. The effective implementation of apprenticeship and the health infrastructure as well as attracting foreign highly skilled staff show a relatively low performance ranking 19th, 16th and 17th, respectively. Other areas of improvement include graduates in sciences (20th) and student

mobility inbound (foreign tertiary-level students per 1,000 inhabitants, 29th).

Iceland moves up to third position (from seventh) mainly due to its performance in the Investment & Development (fourth) and in Appeal (eighth). It ranks 13th in the Readiness factor. Iceland's strengths include total public expenditure on education (fourth) and expenditure per student (third) as well as the availability of skilled labor and finance skills (third in both) and the quality of life (third). In the effectiveness of university education and the availability of language skills, it ranks fourth. It also performs well in the pollution indicator (fifth), the level of worker motivation and the impact of brain drain (sixth in both). Among Iceland's weaknesses are the implementation of apprenticeships (42nd), the prioritization of employee training (35th) and the female labor force (31st). The impact of the relatively low performance in attracting highly skilled staff (34th) is felt in the availability of managers with international experience (35th). In the PISA assessment (survey of 15-year-olds), Iceland ranks 30th and more problematic for the long-term talent competitiveness of the country, in graduate in sciences, it places at 53rd.

Norway remains in fourth position overall, ranking fifth in Investment & Development, ninth in Appeal and 14th in Readiness. At the indicator level, it ranks first in the availability of skilled labor, second in the availability of finance skills, fourth in the impact of brain drain and fifth in both the total public expenditure on education per student and the pupil-teacher ratio (primary education). Norway also performs well in the implementation of apprenticeships (sixth), in the prioritization of talent attraction and retention (seventh) and the level of worker motivation (eighth). Its performance could improve in the area of the female labor force and the availability of mangers with international experience (21st in both) as well as in the PISA assessment (22nd), student mobility inbound (36th) and graduates in sciences (41st). In addition, a drop in the effectiveness of the health infrastructure (from 10th to 17th), may signal some issues of concern for the future.

Denmark also remains stable in fifth position. It ranks second in Investment & Development and eighth in Readiness but its performance in Appeal is relatively weaker at 17th. Its performance is robust in several indicators; it ranks first in the prioritization of employee training, the prioritization of talent attraction and retention, worker motivation, brain drain and the availability of skilled labor, Denmark ranks relatively well at 14th, but this represents a decline when compared to last year's fifth. Despite improving to the 34th spot (from 40th), the

country's ranking in the graduates in sciences indicator remains relatively deficient and, to a lesser extent, so does its performance in the pupil-teacher ratio for secondary school (27th).

Finland improves to the sixth spot from eighth, ranking 11th in Investment & Development, 11th in Appeal and moving up from fifth to fourth in the Readiness factor. Its overall improvement is due largely to its stronger performance in indicators including in worker motivation (fourth, up from 10th), quality of life (first, up from seventh) and the effectiveness of the health infrastructure (third, up from fourth). Its improvement is also supported by remaining in the top position in the justice, pollution and the effectives of primary and secondary education indicators, and among the top five places in the effectiveness of university education and management education (third in both). Finland's weaker performance is in attracting foreign highly skilled personnel (42nd), the quality of education (pupil-teacher ratio, 37th in secondary education and 24th in primary), student mobility inbound (22nd) and the availability of skilled labor (27th).

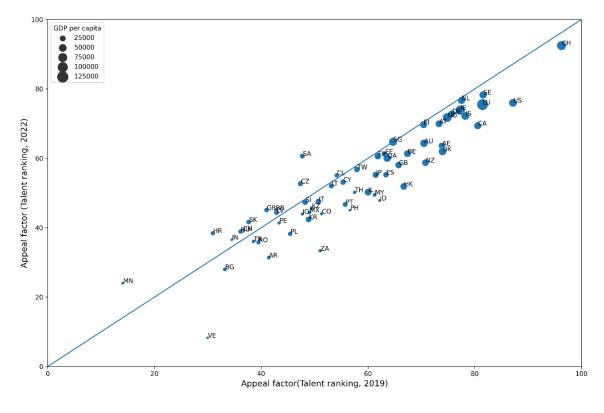
Luxembourg declines four places to seventh position dropping across all talent factors. In Investment & Development, it falls to third (from second), in Appeal to fifth (from second) and in Readiness to 25th (from 23rd). Under Investment & Development, Luxembourg experiences a sharp drop in the implementation of apprenticeships (26th from 15th) and the prioritization of employee training (29th from 11th). Within the Appeal factor, the significant declines are in worker motivation (27th from 13th), brain drain (23rd from 12th) and the fair administration of justice (21st from 10th). In the Readiness factor, the main declines are in availability of finance skills (32nd from 21st], availability of competent senior managers (45th from 37th), and in the effectiveness of university education (38th from 30th) and of management education (35th from 24th). Luxembourg's main strengths are in the total public expenditure on education per student (first), quality of education in primary school (third), attracting highly skilled staff (seventh) and the availability of language skills (sixth). Among its lowest performance are graduates in science (50th), female labor force and the availability of skilled labor (52nd in the latter two).

Austria drops to eighth position (from sixth) while remaining in sixth spot in Investment & Development, but slightly declining in Appeal to 10th (from eighth) and reading to 15th (from 14th). Under Investment & Development, Austria remains in the top spot in the health infrastructure indicator and in third place in the implementation of apprenticeship programs but declines to third (from first) in the prioritization of employee

training and to 17th (from 12th) in the quality of education in primary school. In Appeal, Austria drops in the prioritization of talent attraction and retention indicator from sixth to 13th, in worker motivation from third to ninth, in attracting overseas highly skilled staff from 18th to 22nd and in the fair implementation of justice from 17th to 23rd. In the Readiness factor, the country's strengths are in student mobility inbound (seventh) and graduates in science (eighth). The availability of skilled labor (54th) and of competent senior manager (36th), and PISA assessment (28th) are among the lowest ranking criteria for Austria in Readiness.

The Netherlands ranks ninth overall, remaining in the same position as last year. It slightly advances one spot in the Investment & Development factor to 16th and two places in Appeal to third. It drops two positions in Readiness ranking to ninth. The Netherlands' strengths include the prioritization of talent attraction and retention, attracting overseas highly skilled personnel and the effectiveness of university and management education (second in all of these indicators). Other strengths are worker motivation and the fair administration of justice (third in both) as well as the implementation of apprenticeships, the prioritization of employee training and brain drain (fifth in the three 3 indicators). Conversely, the Netherlands' performance is weaker in the quality of education criteria ranking 39th in the primary school measure and 50th in secondary school. Its lowest ranking criterion is graduates in sciences (51st).

Germany also remains in the same position (10th). It drops one place in Investment & Development and two spots in Readiness ranking 12th in both factors. In Appeal, conversely, Germany improves increasing from ninth to the seventh. In Investment & Development, despite ranking second in the implementation of apprenticeships, Germany's performance in other criteria in the factor is relatively deficient. It ranks 39th in total public expenditure on education, 32nd in pupil-teacher ratio (primary education), 38th pupil-teacher ratio (secondary education) and to a lesser extent in female labor force (28th). Its performance in Readiness is similar ranking fourth in graduates in sciences and sixth in the effectiveness of university education but reaching the 40th place in the availability of skilled labor (which represents an improvement of three positions), 31st in the availability of competent senior managers and 27th in the availability of language skills. Germany's strengths in the Appeal factor include the quality of life and the fair administration of justice (ninth in both) and the prioritization of talent attraction and retention by the private sector.



4. Rises and falls in the talent mobility landscape

The COVID-19 pandemic had and keeps having a lasting impact on the talent competitiveness of the economies tracked in this report. Results from the 2021 edition of the WTR emphasized the fact that talent competitiveness in a post-pandemic context would greatly depend upon on the level of motivation of the workforce. The boosting of that motivation goes beyond economic incentives such as remuneration and is increasingly linked to a country's quality of life, the impact of organizational leadership in cementing the motivation among members of the workforce, the competence and the international experience of business leaders. Another element that significantly contributes to worker motivation in highly talent-competitive economies includes retraining opportunities for members of staff.

The aforementioned elements continue to be the main drivers of talent competitiveness in 2022, as well. Building on these results, however, our findings this year show how these trends, paired with country-specific socio-economic developments that are explained below, are shaping the landscape of the highly ranked economies. In this context, it is particularly interesting to look at the shifts happening in the Appeal factor, which measures the ability to retain homegrown talent while complementing the needs of the economy by drawing from the international talent pool.

Figure 3 showcases the performances in the Appeal factor of the 63 economies under study in 2019 (before the pandemic started) and in 2022. Economies above the 45-degree line improved their performances in the Appeal factor in the three years. More specifically, the closer an economy is to the top-left corner of the chart, the larger its improvement has been between 2019 and 2022 values. The opposite is also true; countries closer to the bottom-right corner of the chart are those that experienced the largest decline in performance in Appeal during the same time frame. The size of the bubble captures the level of GDP per capita at purchasing power parity (PPP). The chart suggests that most of the economies under study experienced a decline in Appeal between pre and post pandemic. This supports our narrative that COVID-19 deeply impacted economies' ability to attract and retain highly skilled workers.

Furthermore, the chart shows that countries that have improved their Appeal in the early post-pandemic era are not those with the highest income levels. Saudi Arabia is the country that improved the most its Appeal between 2019 and 2022. Across different Appeal levels, we observe that several Central & Eastern European economies (Czech Republic, Croatia, Slovak Republic) as well as Mongolia also improved. Conversely, economies such as the US, Canada, the UAE, Denmark,

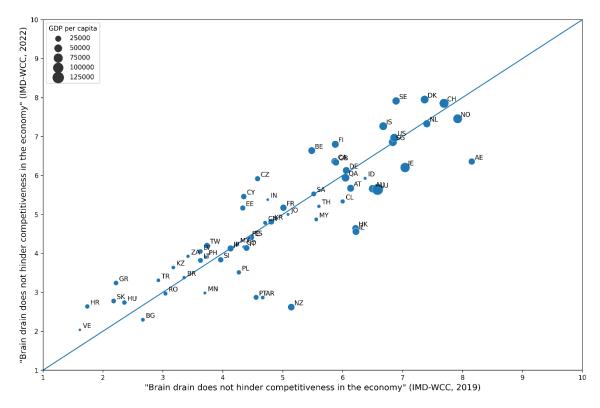


Figure 4: "Brain drain does not hinder competitiveness" (score 0-10) in 2019 – 2022. Source: IMD (2022)

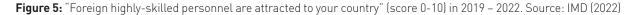
New Zealand, Hong Kong, Indonesia, South Africa and Venezuela display the largest declines.

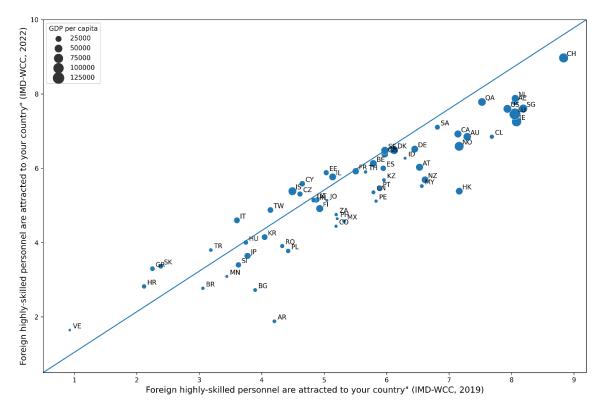
While COVID-19 represents the common thread behind these changes, each economy's evolution is affected by its locally specific socio-economic factors. In this sense, Figures 4 and 5 add color to the overall picture given by Figure 3. They follow the same structure of Figure 4, and they exhibit the evolution of "brain drain" and "brain gain" indicators respectively. The "brain drain" indicator assesses whether the degree of local, homegrown talent emigration from one economy to another represents a problem for the country's competitiveness (with zero indicating a serious brain drain issue for the economy and ten signifying an absence of issues created by brain drain). The "brain gain" indicator assesses the general level of attractiveness of a country for foreign highly skilled workers, with zero signifying low attractiveness and 10 high attractiveness.

A first observation is that the increase in Appeal that Saudi Arabia has experienced is not linked to brain drain. Other factors such as a decrease in the cost of living, an increase in quality-of-life scores and ambitious investment plans seemed to have played a bigger role in lifting Saudi Arabia's Appeal score. Improvements in the brain drain and the brain gain indicators are, however, key to explaining the rise in Appeal scores for the Czech Republic, Croatia and the Slovak Republic. All of them show clear progress in both dimensions between 2019 and 2022.

Elsewhere, brain drain and brain gain are key drivers of declines in the Appeal variable for New Zealand and the UAE, which experienced a marked increase in brain drain concerns as well as a lesser one in attracting foreign highly skilled professionals. Hong Kong exhibits major difficulties in both tackling brain drain and supporting brain gain. Other economies at the top the WTR 2022, such as Denmark, Canada and the US have improved their capacity to retain local, homegrown talent but have lost some ground in attracting new, foreign highly skilled professionals.

In sum, the pandemic has strongly impacted the landscape of talent mobility. It had a direct impact on the capacity of most of the economies under study to retain local, highly skilled personnel and to attract foreign talent, affecting in turn their Appeal levels. The talent hubs landscape is therefore bound to change.





5. Conclusions

The 2022 WTR brings forth familiar themes. Talentcompetitive economies have the ability to develop their homegrown highly skilled labor while providing an environment that is so appealing that it attracts and retains both domestic and international talent. The development of local talent depends on a strong education system as well as life-long learning opportunities provided by companies through apprenticeships, internships and employee training.

An appealing environment for talent is fostered by good remuneration, a lower level of taxes and a cheaper cost of living, together with a higher quality of life (affected, for instance, by the quality of the education system) and a fair judicial system.

The pre- and post-pandemic patterns with respect to brain drain show that COVID-19 has had a profound

impact on skilled individuals' decisions to leave a particular country. Travel constraints and country lockdowns forced skilled employees to remain in their domestic markets. Talent mobility therefore declined.

However, economies that compensated by strengthening their quality of life as well as their commitment to environmental issues, experienced some increase – however minor – with respect to attracting skilled labor.

Considering some companies' re-evaluation of remote working policies, it remains to be seen how much these trends will persist in the long-term.

IMD World Talent Ranking 2022

All data are available from the

IMD WORLD COMPETITIVENESS ONLINE

Visit our eShop:

WWW.WCCESHOP.ORG

The 2022 IMD World Talent Ranking

2022 COMPETITIVENESS RANKING

		Score		
01	Switzerland	100.00		-
02	Sweden	88.65		-
03	Iceland	85.69	7	4
04	Norway	85.08		-
05	Denmark	84.91		-
06	Finland	83.83	↗	2
07	Luxembourg	83.33	Ľ	4
08	Austria	82.87	Ľ	2
09	Netherlands	81.38		-
10	Germany	80.76		-
11	Canada	77.92	7	4
12	Singapore	77.43		-
13	Belgium	76.81		-
14	Hong Kong SAR	76.32	Ľ	3
15	Ireland	76.07	7	2
16	USA	75.70	Ľ	2
17	Estonia	72.71	7	2
18	Australia	72.28	7	2
19	Taiwan, China	71.44	Ľ	3
20	Israel	70.40	7	2
21	UAE	68.21	7	2
22	Cyprus	67.81	7	2
23	France	66.95	7	2
24	Portugal	65.19	7	2
25	Slovenia	64.37	7	2
26	Lithuania	64.09	7	3
27	Latvia	63.55	7	3
28	United Kingdom	63.19	Ľ	7
29	Czech Republic	62.92	7	8
30	Saudi Arabia	62.85	7	8

The IMD World Talent Ranking 2022 shows the overall ranking for 63 economies. The economies are ranked from the most to the least competitive, and the change from the previous year's ranking are also shown. The scores are actually indices (0-100) generated for the unique purpose of constructing graphics.

2022 COMPETITIVENESS RANKING

		Score		
31	New Zealand	62.46	Ľ	13
32	Spain	62.09		-
33	Malaysia	61.46	Ľ	5
34	Qatar	59.85	Ľ	3
35	Bahrain	58.97		-
36	Italy	58.72	Ľ	1
37	Greece	58.31	Ľ	4
38	Korea Rep.	57.69	Ľ	4
39	Kazakhstan	56.53	7	2
40	China	56.03	Ľ	4
41	Japan	54.63	Ľ	2
42	Croatia	54.09	↗	7
43	Botswana	52.38	↗	1
44	Hungary	50.06	Ľ	2
45	Thailand	49.73	Ľ	2
46	Peru	49.42	↗	16
47	Chile	49.36	7	1
48	Slovak Republic	48.60	7	4
49	Jordan	48.16	Ľ	9
50	Poland	48.11	Ľ	5
51	Indonesia	45.16	Ľ	1
52	India	42.76	7	4
53	Turkey	42.01		-
54	Philippines	41.10	7	3
55	Romania	40.01	Ľ	4
56	Argentina	37.19	Ľ	2
57	Brazil	36.70	7	3
58	Mexico	36.46	↗	1
59	Bulgaria	36.35	Ľ	1
60	South Africa	34.06	↗	3
61	Colombia	33.22	Ľ	6
62	Mongolia	26.42	Ľ	1
63	Venezuela	23.68	7	1

The 2022 IMD World Talent Rankings

Populations greater than 20 million

		Score
01	Germany	80.76
02	Canada	77.92
03	USA	75.70
04	Australia	72.28
05	Taiwan, China	71.44
06	France	66.95
07	United Kingdom	63.19
08	Saudi Arabia	62.85
09	Spain	62.09
10	Malaysia	61.46
11	Italy	58.72
12	Korea Rep.	57.69
13	China	56.03
14	Japan	54.63
15	Thailand	49.73
16	Peru	49.42
17	Poland	48.11
18	Indonesia	45.16
19	India	42.76
20	Turkey	42.01
21	Philippines	41.10
22	Argentina	37.19
23	Brazil	36.70
24	Mexico	36.46
25	South Africa	34.06
26	Colombia	33.22
27	Venezuela	23.68

Populations less than 20 million

		Score
)1	Switzerland	100.00
2	Sweden	88.65
3	Iceland	85.69
4	Norway	85.08
5	Denmark	84.91
6	Finland	83.83
7	Luxembourg	83.33
8	Austria	82.87
9	Netherlands	81.38
0	Singapore	77.43
1	Belgium	76.81
2	Hong Kong SAR	76.32
3	Ireland	76.07
4	Estonia	72.71
5	Israel	70.40
6	UAE	68.21
7	Cyprus	67.81
3	Portugal	65.19
9	Slovenia	64.37
)	Lithuania	64.09
1	Latvia	63.55
2	Czech Republic	62.92
3	New Zealand	62.46
4	Qatar	59.85
5	Bahrain	58.97
3	Greece	58.31
7	Kazakhstan	56.53
3	Croatia	54.09
9	Botswana	52.38
) (Hungary	50.06
1	Chile	49.36
2	Slovak Republic	48.60
3	Jordan	48.16
1	Romania	40.01
5	Bulgaria	36.35
6	Mongolia	26.42

Selected Breakdowns

GDP per capita greater than \$20,000

		Score
01	Switzerland	100.00
02	Sweden	88.65
03	Iceland	85.69
04	Norway	85.08
05	Denmark	84.91
06	Finland	83.83
07	Luxembourg	83.33
08	Austria	82.87
09	Netherlands	81.38
10	Germany	80.76
11	Canada	77.92
12	Singapore	77.43
13	Belgium	76.81
14	Hong Kong SAR	76.32
15	Ireland	76.07
16	USA	75.70
17	Estonia	72.71
18	Australia	72.28
19	Taiwan, China	71.44
20	Israel	70.40
21	UAE	68.21
22	Cyprus	67.81
23	France	66.95
24	Portugal	65.19
25	Slovenia	64.37
26	Lithuania	64.09
27	Latvia	63.55
28	United Kingdom	63.19
29	Czech Republic	62.92
30	Saudi Arabia	62.85
31	New Zealand	62.46
32	Spain	62.09
33	Qatar	59.85
34	Bahrain	58.97
35	Italy	58.72
36	Greece	58.31
37	Korea Rep.	57.69
38	Japan	54.63
39	Slovak Republic	48.60

GDP per capita less than \$20,000

		Score
01	Malaysia	61.46
02	Kazakhstan	56.53
03	China	56.03
04	Croatia	54.09
05	Botswana	52.38
06	Hungary	50.06
07	Thailand	49.73
08	Peru	49.42
09	Chile	49.36
10	Jordan	48.16
11	Poland	48.11
12	Indonesia	45.16
13	India	42.76
14	Turkey	42.01
15	Philippines	41.10
16	Romania	40.01
17	Argentina	37.19
18	Brazil	36.70
19	Mexico	36.46
20	Bulgaria	36.35
21	South Africa	34.06
22	Colombia	33.22
23	Mongolia	26.42
24	Venezuela	23.68

The 2022 IMD World Talent Rankings

Europe - Middle East - Africa

		Score
0.4		
01	Switzerland	100.00
02	Sweden	88.65
03	Iceland	85.69
04	Norway	85.08
05	Denmark	84.91
06	Finland	83.83
07	Luxembourg	83.33
08	Austria	82.87
09	Netherlands	81.38
10	Germany	80.76
11	Belgium	76.81
12	Ireland	76.07
13	Estonia	72.71
14	Israel	70.40
15	UAE	68.21
16	Cyprus	67.81
17	France	66.95
18	Portugal	65.19
19	Slovenia	64.37
20	Lithuania	64.09
21	Latvia	63.55
22	United Kingdom	63.19
23	Czech Republic	62.92
24	Saudi Arabia	62.85
25	Spain	62.09
26	Qatar	59.85
27	Bahrain	58.97
28	Italy	58.72
29	Greece	58.31
30	Kazakhstan	56.53
31	Croatia	54.09
32	Botswana	52.38
33	Hungary	50.06
34	Slovak Republic	48.60
35	Jordan	48.16
36	Poland	48.11
37	Turkey	42.01
38	Romania	40.01
39	Bulgaria	36.35
40	South Africa	34.06
-10	South Anica	07.00

Selected Breakdowns

Asia - Pacific

		Score
01	Singapore	77.43
02	Hong Kong SAR	76.32
03	Australia	72.28
04	Taiwan, China	71.44
05	New Zealand	62.46
06	Malaysia	61.46
07	Korea Rep.	57.69
08	China	56.03
09	Japan	54.63
10	Thailand	49.73
11	Indonesia	45.16
12	India	42.76
13	Philippines	41.10
14	Mongolia	26.42

The Americas

		Score
01	Canada	77.92
02	USA	75.70
03	Peru	49.42
04	Chile	49.36
05	Argentina	37.19
06	Brazil	36.70
07	Mexico	36.46
08	Colombia	33.22
09	Venezuela	23.68

The 2022 IMD World Talent Rankings

INVESTMENT & DEVELOPMENT

The investment in and development of home-grown talent

	Switzerland	100.00
	Denmark	92.32
	Luxembourg	92.32
	Iceland	90.81
	Norway	90.81
	,	
	Austria	87.30
	Sweden	85.73
	Israel	79.28 🗷
)	Belgium	79.18 🖌
)	Estonia	78.27 🗷
	Finland	77.95 🖌
2	Germany	74.45 🖌
3	Hong Kong SAR	71.58 🗷
-	Latvia	70.68 🗷
	USA	69.17 🖌
; ;	Netherlands	67.91
,—		
	Cyprus	67.73
3	Lithuania	66.24
)	Slovenia	66.20
)	Canada	65.43 🗷
	Australia	65.39 🗷
2	Portugal	63.26 🏸
3	Taiwan, China	62.56 🖌
	France	62.40 🖌
	Croatia	60.90
5 5		59.39
	Spain	
	Singapore	58.57 🖌
3	Italy	58.34 🗷
)	Greece	57.66
)	Kazakhstan	57.44 🏸
	Korea Rep.	57.08 🖌
	Saudi Arabia	55.97 🏸
3	New Zealand	55.74 🖌
1 1	Czech Republic	54.56
5	Botswana	54.16
<u>} </u>	Hungary	52.88
	Japan	51.73 🖌
3	Ireland	50.70 🗷
)	Malaysia	49.85 🖌
)	United Kingdom	49.00
	Poland	48.51 🖌
	China	44.87 🏸
	Slovak Republic	41.80
,	Qatar	40.70
+		
	UAE	39.07
<u> </u>	Bulgaria	38.03 🖌
	Thailand	37.35 🗷
3	Bahrain	35.81
)	Argentina	33.81 🖌
)	Chile	30.44 🖌
—	Turkey	29.92 7
	Peru	29.74
3	Indonesia	29.33
	Romania	27.83
5	Brazil	25.53 🖌
ò	South Africa	18.01 7
7	Jordan	16.79 🖌
3	Colombia	13.30
	Venezuela	13.07 🖌
) —	Mongolia	11.27
	India	6.08
2	Philippines	1.07

Selected Breakdowns

APPEAL

The extent to which a country taps into the overseas talent pool

		Score
01	Switzerland	92.50
02	Sweden	78.29 7 1
03	Netherlands	76.70 🗷 2
04	USA	75.99 🗷 2
05	Luxembourg	75.48 🖌 3
06	Ireland	73.91 🗷 1
07	Germany	72.87 🗷 2
08	Iceland	72.22 🗷 2
09	Norway	71.75 🖌 5
10	Austria	69.96 🖌 2
11	Finland	69.71
12	Canada	69.39 7 1
13	Singapore	64.76 7 2
14	Australia	64.33 7 5
15	UAE	63.63 🖌 3
16	Bahrain	63.26
17	Denmark	62.01 7 1
18		
10	Belgium	
	Estonia	61.25 7 1
20	Saudi Arabia	60.64 7 1
21	France	60.59
22	Qatar	60.10 7 3
23	New Zealand	58.74 🖌 🤤
24	United Kingdom	58.07 🖌 8
25	Taiwan, China	56.79 🖌 3
26	Spain	55.26 🗹 2
27	Japan	55.25
28	Chile	55.09 🖌 5
29	Cyprus	53.14 🖌 1
30	Czech Republic	52.68 🗷 1
31	Lithuania	52.05 🗷 1
32	Hong Kong SAR	51.89 🖌 6
33	Israel	50.24 7 7
34	Thailand	50.20 🖌 3
35	Malaysia	49.45 🖌 6
36	Botswana	48.33 7 12
37	Indonesia	47.84
38	Italy	47.53
39	Slovenia	47.34 🖌 3
40	Portugal	46.69 🖌 1
41	Kazakhstan	45.62 2
42	Greece	45.09 2
43	Philippines	45.07 -
44	Brazil	45.05 7 2 44.38 2 1
45	Mexico	
46	Latvia	44.33 7 3
4/	Colombia	<u>44.01</u> 2 5
48	Jordan	43.96 ∠ 14
49	Korea Rep.	42.39 🖌 8
50	Slovak Republic	41.63 7 2
51	Peru	41.38 🗹 1
52	China	39.08 🖌 1
53	Hungary	38.90
54	Croatia	38.42 7 4
55	Poland	38.23 🖌 1
56	India	36.54 🗷 1
57	Turkey	36.06 🖌 1
58	Romania	35.76 🖌 1
59	South Africa	33.35 🗷 3
60	Argentina	31.38 🖌 1
00	3	
61	Bulgaria	28.00 -
	Bulgaria Mongolia	28.00 24.02

READINESS

The availability of skills and competencies in the talent pool

	Singapore	Score 85.30
	Switzerland	83.85
_	Hong Kong SAR	81.85
-	Finland	80.18
-	Ireland	79.94
_	Sweden	
_	UAE	78.29
	Denmark	76.73
	Netherlands	75.88
	Canada	75.29
	Taiwan, China	71.33
	Germany	71.29
	lceland	70.40
	Norway	69.82
	Austria	67.71
	Belgium	66.24
	Australia	63.46
	India	62.02
	Portugal	61.96
	Malaysia	61.44
	China	60.49
	Jordan	60.08
	Cyprus	58.90
	United Kingdom	58.85
	Luxembourg	58.59
	USA	58.27
	Israel	58.02
	Czech Republic	57.87
	Slovenia	55.92
	Qatar	55.09
	Estonia	54.96
	France	54.20
	Bahrain	54.18
	Peru	53.51
	Philippines	53.50
	Latvia	51.99
	Lithuania	50.33
_	Korea Rep.	49.94
	New Zealand	49.25
	Greece	48.54
	Saudi Arabia	48.31
	Spain	47.97
	Italy	46.64
	Kazakhstan	42.88
	Mexico	41.33
	Croatia	39.30
	Chile	38.92
	Slovak Republic	38.74
	Thailand	37.99
	Turkey	36.42
	Hungary	34.74
	Indonesia	34.64
	Poland	33.96
	Japan	33.26
	Romania	32.81
	Botswana	31.01
	South Africa	27.18
	Venezuela	26.05
	Argentina	22.73
	Mongolia	20.31
_	Bulgaria	19.37
_	Colombia	18.71
_	Brazil	15.87

OVERALL

	2018	2019	020	021	2022
Argentina	47	∾ 48	47	∾ 54	≈
Australia	14	16	13	20	18
Austria	04	04	06	06	08
Bahrain	-	-	-	-	35
Belgium	11	14	16	13	13
Botswana	-	-	-	44	43
Brazil	58	61	59	60	57
Bulgaria	57	52	55	58	59
Canada	06	13	08	15	11
Chile	43	46	41	48	47
China	39	42	40	36	40
Colombia	60	54	58	55	61
Croatia	54	53	53	49	42
Cyprus	15 37	21 39	17 39	24 37	22 29
Czech Republic Denmark	02	02	02	05	29
Estonia	28	27	19	19	17
Finland	07	08	13	08	06
France	25	25	28	25	23
Germany	10	11	11	10	10
Greece	44	40	37	33	37
Hong Kong SAR	18	15	14	11	14
Hungary	49	45	50	42	44
Iceland	16	07	04	07	03
India	53	59	62	56	52
Indonesia	45	41	45	50	51
Ireland	21	18	18	17	15
Israel	19	19	22	22	20
Italy	32	36	36	35	36
Japan	29	35	38	39	41
Jordan	41	51	49	40	49
Kazakhstan	40	38 33	44	41 34	39
Korea Rep. Latvia	33 35	33	31 33	30	38 27
Lithuania	36	28	27	29	26
Luxembourg	09	05	03	03	07
Malaysia	22	22	25	28	33
Mexico	61	60	56	59	58
Mongolia	62	63	63	61	62
Netherlands	05	09	10	09	09
New Zealand	20	17	21	18	31
Norway	03	06	07	04	04
Peru	52	56	51	62	46
Philippines	55	49	48	57	54
Poland	38	37	35	45	50
Portugal	17	23	26	26	24
Qatar Remania	24	26	29	31	34
Romania Saudi Arabia	56	55 29	57 34	51	55
Saudi Arabia Singapore	34 13	10	09	38 12	30 12
Slovak Republic	59	57	61	52	48
Slovenia	30	31	30	27	25
South Africa	50	50	52	63	60
Spain	31	32	32	32	32
Sweden	08	03	05	02	02
Switzerland	01	01	01	01	01
Taiwan, China	27	20	20	16	19
Thailand	42	43	43	43	45
Turkey	51	58	46	53	53
UAE	26	30	24	23	21
United Kingdom	23	24	23	21	28
USA	12	12	15	14	16
Venezuela	63	62	60	64	63

5 YEARS OVERVIEW

INVESTMENT & DEVELOPMENT

Λ	D	D		Λ	
A		Γ.	C .	А	_

DEVE	LUPI	MENI		
2018	2019	2020	2021	2022
53	43	43	47	49
26	34	18	22	21
02	04	06	06	06
-	-	-	-	48
08	09	08	08	09
-	-	-	38	35
49	52	56	54	55
45	46	45	45	46
19	26	19	24	20
55	50	48	46	50
40	42	42	43	42
60	60	58	58	58
39	36	32	34	25
05	08	14	15	17
38	40	40	41	34
01	01	02	03	02
16	21	10	12	10
06	10	12	10	11
21	23	27	21	24
10	11	11	11	12
29	37	30	29	29
31	20	23	14	13
41	33	35	32	36
12	06	04	04	04
63	63	63	64	61
51	51	52	53	53
42	44	39	39	38
14	17	09	09	08
33	31	33	31	28
23	30	36	36	37
50	57	60	56	57
30	39	41	42	30
20	19	28	28	31
11	12	15	16	14
13	14	13	18	18
18	05	03	02	03
17	32	34	33	39
61	62	62	63	63
57	59	59	59	60
15	16	16	17	16
32	29	29	27	33
03	03	05	05	05
52	55	54	61	52
62	61	61	62	62
24	27	24	35	41
07	13	24	25	22
44	41	44	25 44	44
44 54		53	44 55	54
54 35	54 28	37		
35	28	-	37	32
-	25	21	23	27
47	47	49	48	43
27	22	20	19	19
56	56 25	21	60	56
36	35	31	30	26
09	07	07	07	07
04	02	01	01	01
25	24	25	20	23
46	49	51	51	47
58	58	46	52	51
59	53	55	50	45
37	38	38	40	40
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28 48	15 48	17 50	13 57	15 59

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48	50	52	59	60
19	15	16	19	14
13	13	11	08	10
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16	17	17	17	18
-	_	_	48	36
53	49	45	46	44
			61	61
58	58	57		
03	05	03	13	12
30	34	30	23	28
51	55	56	51	52
45	36	37	42	47
60	61	61	58	54
27	33	24	28	29
35	45	48	45	30
07	11	08	18	17
33	23	19	20	19
21	16	15	11	11
22	25	25	21	21
06	09	09	09	07
54	51	50	33	42
	18	18		32
			26	
59	56	58	53	53
20	06	06	10	08
44	57	55	57	56
34	24	32	37	37
11	08	12	07	06
23	28	34	40	33
36	38	42	38	38
28	26	27	27	27
39	44	43	34	48
49	39	47	39	41
41	41	36	41	49
52	48	51	49	46
46	35	35	32	31
04	04	05	02	05
26	27	29	29	35
43	40	38	44	45
62	63	63	55	62
10	07	07	05	03
17	14	13	14	23
12	10	10	04	09
47	47	44	50	51
38	31	31	43	43
40	46	49	54	55
29	32	33	30	40
08	21	21	25	22
55	52	53	47	58
31	43	39	35	20
15	20	22	15	13
56	54	54	52	50
			36	
42	42	41		39
37	37	40	62	59
25	22	23	24	26
09	03	04	03	02
01	01	01	01	01
32	29	26	22	25
24	30	28	31	34
50	53	46	56	57
05	12	14	12	15
18	19	20	16	24
02	02	02	06	04
63	62	59	64	63

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	2022	2021	2020	2019	2018
Argentina	59	56	51	52	44
Australia	17	24	04	05	06
Austria	15	14	12	10	18
Bahrain	33	-	-	-	-
Belgium	16	15	22	24	14
Botswana	56	51		-	-
Brazil	63	64	63	62	61
Bulgaria	61	62	57	55	58
Canada	10	16	07	15	05
Canada Chile	47	58	48	46	35
China	21	22	26	31	32
Colombia	62	57	60	53	59
Croatia	46	54	62	60	62
	23	30	14	32	26
Creat Danublia				_	-
Czech Republic	28	38	37	39	36
Denmark	08	08	06	06	08
Estonia	31	29	32	35	31
Finland	04	05	10	03	07
France	32	31	35	29	28
Germany	12	10	13	14	21
Greece	40	37	36	44	47
Hong Kong SAR	03	01	02	04	09
Hungary	51	46	59	57	53
Iceland	13	17	16	18	19
India	18	27	25	25	30
Indonesia	52	50	46	42	49
Ireland	05	11	09	08	12
Israel	27	34	28	19	16
Italy	43	39	39	37	33
Japan	54	48	54	49	41
Jordan	22	18	42	54	25
Kazakhstan	44	43	50	38	42
Korea Rep.	38	36	29	34	34
Latvia	36	33	40	40	43
Lithuania	37	32	34	33	45
Luxembourg	25	23	19	17	11
Malaysia	20	21	18	16	24
Mexico	45	52	38	47	54
Mongolia	60	60	56	63	55
Netherlands	09	07	08	07	03
New Zealand	39	20	23	11	13
Norway	14	12	20	21	10
Peru	34	61	53	58	57
Philippines	35	47	33	26	37
Poland	53	45	44	45	39
Portugal	19	25	24	27	22
Qatar	30	19	21	20	20
Romania	55	49	55	50	52
Saudi Arabia	41	42	30	22	38
Singapore	01	02	01	01	02
Slovak Republic	48	53	61	59	60
Slovenia	29	26	31	30	29
South Africa	57	59	52	48	51
Spain	42	41	43	41	40
Sweden	06	04	11	09	15
Switzerland	00	04	05	03	01
Taiwan, China	11	03	15	12	27
Thailand	49	40	45	43	50
				_	48
Turkey	50	55	41	56	
	07	06	03	13	04
UAE	24				
United Kingdom	24	13	17	23	17
	24 26 58	28 63	17 27 58	23 28 61	23 63

Talent Country Profiles

All data are available from the

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OVERALL PERFORMANCE (63 countries)



	INVESTMENT & DEVELOPMENT		Value	e 2	022 Rank
	Total public expenditure on education	Percentage of GDP	5.0	%	30
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,330	US\$	53
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	13.17	ratio	25
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	18.08	ratio	53
	Apprenticeships	are sufficiently implemented	4.30	Survey [010]	50
\triangleright	Employee training	is a high priority in companies	4.45	Survey [010]	62
	Female labor force	Percentage of total labor force	42.84	%	45
	Health infrastructure	meets the needs of society	3.91	Survey [010]	52

APPEAL		Value	. 2	2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	60.30	index	7
Attracting and retaining talents	is a priority in companies	5.04	Survey [010]	61
Worker motivation	in companies is high	4.06	Survey [010]	61
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	2.87	Survey [010]	57
Quality of life	is high	3.52	Survey [010]	61
Foreign highly-skilled personnel	are attracted to your country's business environment	1.88	Survey [010]	62
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	12,539	US\$	46
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	37,849	US\$	59
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	1.75	%	10
▷ Justice	is fairly administered	1.79	Survey [010]	62
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	13.85	micrograms	26

	READINESS		Value	2	2022 Rank
	Labor force growth	Percentage change	-0.24	%	44
	Skilled labor	is readily available	4.39	Survey [010]	46
	Finance skills	are readily available	5.16	Survey [010]	49
	International experience	of senior managers is generally significant	4.67	Survey [010]	52
	Competent senior managers	are readily available	4.42	Survey [010]	48
\triangleright	Primary and secondary education	meets the needs of a competitive economy	3.06	Survey [010]	62
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	14.15	%	60
	University education	meets the needs of a competitive economy	5.18	Survey [010]	47
	Management education	meets the needs of the business community	5.85	Survey [010]	44
	Language skills	are meeting the needs of enterprises	4.64	Survey [010]	54
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.68	number	33
	Educational assessment - PISA	PISA survey of 15-year olds	395	Average	54

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OVERALL PERFORMANCE (63 countries)



	INVESTMENT & DEVELOPMENT		Value	20	022 Rank
	Total public expenditure on education	Percentage of GDP	5.8	%	17
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	10,602	US\$	17
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	14.84	ratio	31
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.89	ratio	30
\triangleright	Apprenticeships	are sufficiently implemented	4.48	Survey [010]	49
	Employee training	is a high priority in companies	5.55	Survey [010]	44
	Female labor force	Percentage of total labor force	47.44	%	12
	Health infrastructure	meets the needs of society	6.92	Survey [010]	25

APPEAL		Value	. 2	2022 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	88.70	index	49
Attracting and retaining talents	is a priority in companies	7.70	Survey [010]] 14
Worker motivation	in companies is high	5.96	Survey [010]	31
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.66	Survey [010]	22
Quality of life	is high	9.02	Survey [010]	8
Foreign highly-skilled personnel	are attracted to your country's business environment	6.85	Survey [010]	12
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	46,494	US\$	10
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	156,674	US\$	35
▷ Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	11.76	%	55
▶ Justice	is fairly administered	8.46	Survey [010]	6
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	6.75	micrograms	7

	READINESS		Value	20	22 Rank
	Labor force growth	Percentage change	0.31	%	38
	Skilled labor	is readily available	4.60	Survey [010]	42
	Finance skills	are readily available	6.56	Survey [010]	24
\triangleright	International experience	of senior managers is generally significant	4.89	Survey [010]	49
	Competent senior managers	are readily available	5.46	Survey [010]	32
	Primary and secondary education	meets the needs of a competitive economy	7.60	Survey [010]	15
\triangleright	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	20.55	%	44
	University education	meets the needs of a competitive economy	7.58	Survey [010]	15
	Management education	meets the needs of the business community	7.06	Survey [010]	17
	Language skills	are meeting the needs of enterprises	6.24	Survey [010]	36
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	17.84	number	2
	Educational assessment - PISA	PISA survey of 15-year olds	499	Average	20

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OVERALL PERFORMANCE (63 countries)



INVESTMENT & DEVELOPMENT		Value	20	022 Rank
Total public expenditure on education	Percentage of GDP	5.1	%	29
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	12,636	US\$	9
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	12.15	ratio	17
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	9.16	ratio	6
Apprenticeships	are sufficiently implemented	7.78	Survey [010]	3
Employee training	is a high priority in companies	7.67	Survey [010]	3
Female labor force	Percentage of total labor force	46.82	%	24
Health infrastructure	meets the needs of society	8.89	Survey [010]	1

	APPEAL		Value		2022 Rank
\triangleright	Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	87.10	index	46
	Attracting and retaining talents	is a priority in companies	7.75	Survey [010]] 13
	Worker motivation	in companies is high	7.31	Survey [010]] 9
	Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.67	Survey [010]] 21
	Quality of life	is high	9.75	Survey [010]] 2
	Foreign highly-skilled personnel	are attracted to your country's business environment	6.03	Survey [010]] 22
	Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	46,305	US\$	12
	Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	275,520	US\$	7
\triangleright	Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	9.21	%	47
	Justice	is fairly administered	6.60	Survey [010]] 23
	Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	12.22	micrograms	22

	READINESS		Value	2	022 Rank
\triangleright	Labor force growth	Percentage change	1.09	%	28
\triangleright	Skilled labor	is readily available	3.95	Survey [010]	54
	Finance skills	are readily available	6.36	Survey [010]	28
	International experience	of senior managers is generally significant	5.67	Survey [010]	28
\triangleright	Competent senior managers	are readily available	5.18	Survey [010]	36
	Primary and secondary education	meets the needs of a competitive economy	7.53	Survey [010]	16
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	30.57	%	8
	University education	meets the needs of a competitive economy	7.70	Survey [010]	13
	Management education	meets the needs of the business community	7.10	Survey [010]	16
	Language skills	are meeting the needs of enterprises	7.12	Survey [010]	25
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	8.51	number	7
	Educational assessment - PISA	PISA survey of 15-year olds	491	Average	28

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OVERALL PERFORMANCE (63 countries)



INVESTMENT & DEVELOPMENT

	INVESTMENT & DEVELOPMENT		Value	2022 Rank
\triangleright	Total public expenditure on education	Percentage of GDP	2.6	% 61
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	2,960	US\$ 43
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	12.00	ratio 11
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	10.00	ratio 14
	Apprenticeships	are sufficiently implemented	5.26	Survey [010] 31
	Employee training	is a high priority in companies	6.32	Survey [010] 25
\triangleright	Female labor force	Percentage of total labor force	26.49	% 58
	Health infrastructure	meets the needs of society	7.79	Survey [010] 12

APPEAL		Value	2	2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	78.00	index	33
Attracting and retaining talents	is a priority in companies	6.79	Survey [010] 33
Worker motivation	in companies is high	6.06	Survey [010] 28
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.26	Survey [010] 14
Quality of life	is high	8.06	Survey [010	18
Foreign highly-skilled personnel	are attracted to your country's business environment	7.37	Survey [010] 8
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	29,081	US\$	25
 Remuneration of management 	Total base salary plus bonuses and long-term incentives, US\$	291,693	US\$	5
 Collected personal income tax 	On profits, income and capital gains, as a percentage of GDP	0.00	%	1
Justice	is fairly administered	7.82	Survey [010	13
> Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	58.66	micrograms	60

READINESS

REA	DINESS		Value	e 20	22 Rank
⊳ Labo	or force growth	Percentage change	-4.40	%	62
Skill	ed labor	is readily available	6.56	Survey [010]	5
Fina	nce skills	are readily available	7.44	Survey [010]	7
► Inter	national experience	of senior managers is generally significant	7.09	Survey [010]	7
► Com	petent senior managers	are readily available	7.04	Survey [010]	4
Prim	nary and secondary education	meets the needs of a competitive economy	7.50	Survey [010]	17
⊳ Grad	luates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	15.49	%	58
Univ	ersity education	meets the needs of a competitive economy	7.10	Survey [010]	25
Mana	agement education	meets the needs of the business community	7.00	Survey [010]	19
Lang	juage skills	are meeting the needs of enterprises	8.24	Survey [010]	11
Stud	ent mobility inbound	Foreign tertiary-level students per 1000 inhabitants	4.21	number	23
Educ	cational assessment - PISA	PISA survey of 15-year olds	-	Average	-

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OVERALL PERFORMANCE (63 countries)



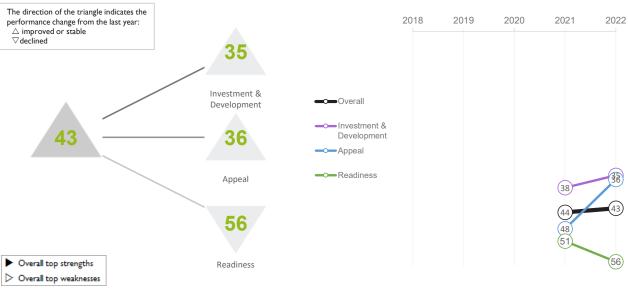
	INVESTMENT & DEVELOPMENT		Value	e 20	022 Rank
	Total public expenditure on education	Percentage of GDP	6.6	%	8
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	11,461	US\$	12
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	12.46	ratio	19
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	9.16	ratio	7
\triangleright	Apprenticeships	are sufficiently implemented	5.02	Survey [010]	36
	Employee training	is a high priority in companies	6.38	Survey [010]	22
	Female labor force	Percentage of total labor force	43.61	%	43
	Health infrastructure	meets the needs of society	8.13	Survey [010]	9

APPEAL		Value	e 2	2022 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	82.20	index	40
Attracting and retaining talents	is a priority in companies	7.36	Survey [010]	23
Worker motivation	in companies is high	6.17	Survey [010]	24
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.64	Survey [010]	10
Quality of life	is high	7.91	Survey [010]	22
Foreign highly-skilled personnel	are attracted to your country's business environment	6.13	Survey [010]	20
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	38,108	US\$	18
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	254,449	US\$	12
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	11.77	%	56
Justice	is fairly administered	6.17	Survey [010]	28
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	12.73	micrograms	24

	READINESS		Value	e 20	122 Rank
\triangleright	Labor force growth	Percentage change	0.93	%	31
	Skilled labor	is readily available	6.35	Survey [010]	11
	Finance skills	are readily available	6.64	Survey [010]	23
	International experience	of senior managers is generally significant	6.64	Survey [010]	12
	Competent senior managers	are readily available	6.64	Survey [010]	12
	Primary and secondary education	meets the needs of a competitive economy	7.70	Survey [010]	12
\triangleright	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	17.58	%	54
	University education	meets the needs of a competitive economy	7.96	Survey [010]	9
	Management education	meets the needs of the business community	7.23	Survey [010]	14
	Language skills	are meeting the needs of enterprises	8.09	Survey [010]	13
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	4.71	number	17
	Educational assessment - PISA	PISA survey of 15-year olds	500	Average	19

SWANA

OVERALL PERFORMANCE (63 countries)

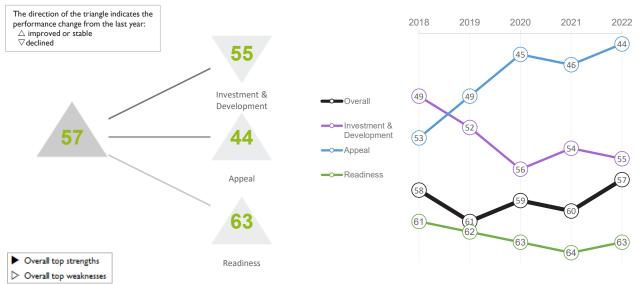


	INVESTMENT & DEVELOPMENT		Value	e 2	2022 Rank
	Total public expenditure on education	Percentage of GDP	8.7	%	1
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	2,124	US\$	46
\triangleright	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	25.63	ratio	59
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.88	ratio	29
	Apprenticeships	are sufficiently implemented	4.17	Survey [010]	51
\triangleright	Employee training	is a high priority in companies	4.62	Survey [010]	57
	Female labor force	Percentage of total labor force	51.70	%	1
	Health infrastructure	meets the needs of society	4.36	Survey [010]	48

APPEAL		Value	. 2	2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	46.10	index	1
Attracting and retaining talents	is a priority in companies	5.38	Survey [010]	58
▷ Worker motivation	in companies is high	3.83	Survey [010]	63
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.03	Survey [010]	17
Quality of life	is high	4.62	Survey [010]	52
Foreign highly-skilled personnel	are attracted to your country's business environment	6.03	Survey [010]	21
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	10,680	US\$	53
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	-	US\$	-
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	5.89	%	34
Justice	is fairly administered	5.87	Survey [010]	33
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	25.33	micrograms	50

	READINESS		Value	e 202	22 Rank
	Labor force growth	Percentage change	-0.30	%	45
	Skilled labor	is readily available	4.92	Survey [010]	38
\triangleright	Finance skills	are readily available	4.72	Survey [010]	57
	International experience	of senior managers is generally significant	4.98	Survey [010]	45
	Competent senior managers	are readily available	5.10	Survey [010]	37
	Primary and secondary education	meets the needs of a competitive economy	4.62	Survey [010]	48
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	18.51	%	52
	University education	meets the needs of a competitive economy	5.12	Survey [010]	48
	Management education	meets the needs of the business community	5.18	Survey [010]	50
	Language skills	are meeting the needs of enterprises	6.03	Survey [010]	39
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.50	number	53
	Educational assessment - PISA	PISA survey of 15-year olds	-	Average	-

OVERALL PERFORMANCE (63 countries)



INVESTMENT & DEVELOPMENT		Value	e :	2022 Rank
Total public expenditure on education	Percentage of GDP	6.8	%	7
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,866	US\$	48
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	23.63	ratio	55
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	24.07	ratio	58
Apprenticeships	are sufficiently implemented	4.64	Survey [010] 47
Employee training	is a high priority in companies	5.44	Survey [010] 45
Female labor force	Percentage of total labor force	43.83	%	42
Health infrastructure	meets the needs of society	3.86	Survey [010] 54

APPEAL		Value	e 2	2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	56.00	index	5
Attracting and retaining talents	is a priority in companies	6.58	Survey [010]	39
Worker motivation	in companies is high	5.28	Survey [010]	43
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.38	Survey [010]	51
Quality of life	is high	3.94	Survey [010]	59
Foreign highly-skilled personnel	are attracted to your country's business environment	2.77	Survey [010]	60
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	15,916	US\$	37
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	93,850	US\$	49
 Collected personal income tax 	On profits, income and capital gains, as a percentage of GDP	3.04	%	21
Justice	is fairly administered	2.87	Survey [010]	56
 Exposure to particle pollution 	Mean population exposure to PM2.5, Micrograms per cubic metre	11.67	micrograms	19

NEADINESS

READINESS		Value	20	022 Rank
Labor force growth	Percentage change	6.02	%	5
Skilled labor	is readily available	3.72	Survey [010]	58
Finance skills	are readily available	4.76	Survey [010]	54
▷ International experience	of senior managers is generally significant	4.06	Survey [010]	62
Competent senior managers	are readily available	3.77	Survey [010]	58
Primary and secondary education	meets the needs of a competitive economy	2.36	Survey [010]	63
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	17.50	%	55
University education	meets the needs of a competitive economy	3.72	Survey [010]	62
Management education	meets the needs of the business community	3.93	Survey [010]	63
▷ Language skills	are meeting the needs of enterprises	2.68	Survey [010]	63
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.11	number	58
Educational assessment - PISA	PISA survey of 15-year olds	400	Average	53

ARIA

OVERALL PERFORMANCE (63 countries)



INVESTMENT & DEVELOPMENT

	INVESTMENT & DEVELOPMENT		Value	e 2	2022 Rank
	Total public expenditure on education	Percentage of GDP	4.0	%	48
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	2,392	US\$	45
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	11.12	ratio	9
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.69	ratio	28
\triangleright	Apprenticeships	are sufficiently implemented	2.62	Survey [010]	63
	Employee training	is a high priority in companies	4.52	Survey [010]	59
	Female labor force	Percentage of total labor force	43.97	%	41
	Health infrastructure	meets the needs of society	3.41	Survey [010]	57

	APPEAL		Value	e :	2022 Rank
	Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	61.50	index	8
\triangleright	Attracting and retaining talents	is a priority in companies	4.95	Survey [010] 62
	Worker motivation	in companies is high	4.10	Survey [010] 60
\triangleright	Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	2.30	Survey [010] 62
	Quality of life	is high	3.70	Survey [010] 60
	Foreign highly-skilled personnel	are attracted to your country's business environment	2.72	Survey [010] 61
	Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	9,351	US\$	54
	Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	48,022	US\$	57
	Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	3.51	%	25
	Justice	is fairly administered	3.17	Survey [010] 55
	Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	19.93	micrograms	43

READINESS

	READINESS		Value	e 20)22 Rank
	Labor force growth	Percentage change	-1.30	%	57
	Skilled labor	is readily available	3.28	Survey [010]	60
\triangleright	Finance skills	are readily available	3.51	Survey [010]	63
	International experience	of senior managers is generally significant	4.52	Survey [010]	56
	Competent senior managers	are readily available	3.67	Survey [010]	59
	Primary and secondary education	meets the needs of a competitive economy	3.70	Survey [010]	57
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	19.51	%	47
	University education	meets the needs of a competitive economy	4.10	Survey [010]	61
\triangleright	Management education	meets the needs of the business community	4.03	Survey [010]	62
	Language skills	are meeting the needs of enterprises	5.87	Survey [010]	40
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.53	number	35
	Educational assessment - PISA	PISA survey of 15-year olds	427	Average	45

OVERALL PERFORMANCE (63 countries)



INVES	MENT & DEVELOPMENT		Value	2022 Rank
⊳ Total pu	olic expenditure on education	Percentage of GDP	4.9	% 34
Total pu	olic exp. on education per student	Spending per enrolled pupil/student, all levels	11,394	US\$ 13
⊳ Pupil-tea	acher ratio (primary education)	Ratio of students to teaching staff	16.35	ratio 42
Pupil-tea	acher ratio (secondary education)	Ratio of students to teaching staff	13.25	ratio 44
Apprenti	ceships	are sufficiently implemented	5.85	Survey [010] 15
Employe	e training	is a high priority in companies	7.06	Survey [010] 10
Female	abor force	Percentage of total labor force	47.05	% 18
Health in	frastructure	meets the needs of society	6.86	Survey [010] 26

APPEAL		Value	e 2	2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	74.80	index	27
Attracting and retaining talents	is a priority in companies	7.49	Survey [010]	20
Worker motivation	in companies is high	6.46	Survey [010]] 17
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.36	Survey [010]] 11
Quality of life	is high	8.03	Survey [010]	20
Foreign highly-skilled personnel	are attracted to your country's business environment	6.92	Survey [010]] 11
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	46,489	US\$	11
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	201,383	US\$	21
> Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	11.91	%	57
Justice	is fairly administered	7.27	Survey [010]] 19
 Exposure to particle pollution 	Mean population exposure to PM2.5, Micrograms per cubic metre	7.09	micrograms	8

	READINESS		Value	2	022 Rank
\triangleright	Labor force growth	Percentage change	0.87	%	32
	Skilled labor	is readily available	6.23	Survey [010]	16
	Finance skills	are readily available	6.78	Survey [010]	17
	International experience	of senior managers is generally significant	5.85	Survey [010]	22
	Competent senior managers	are readily available	6.68	Survey [010]	11
	Primary and secondary education	meets the needs of a competitive economy	7.82	Survey [010]	11
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	25.71	%	27
	University education	meets the needs of a competitive economy	7.72	Survey [010]	12
	Management education	meets the needs of the business community	7.75	Survey [010]	8
	Language skills	are meeting the needs of enterprises	7.62	Survey [010]	18
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	8.56	number	6
	Educational assessment - PISA	PISA survey of 15-year olds	517	Average	7

OVERALL PERFORMANCE (63 countries)



INVESTMENT & DEVELOPMENT

	INVESTMENT & DEVELOPMENT		Value	2	022 Rank
	Total public expenditure on education	Percentage of GDP	5.5	%	20
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	3,138	US\$	42
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	18.63	ratio	51
\triangleright	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	19.77	ratio	54
	Apprenticeships	are sufficiently implemented	4.85	Survey [010]	40
\triangleright	Employee training	is a high priority in companies	4.74	Survey [010]	56
	Female labor force	Percentage of total labor force	41.38	%	49
	Health infrastructure	meets the needs of society	4.36	Survey [010]	47

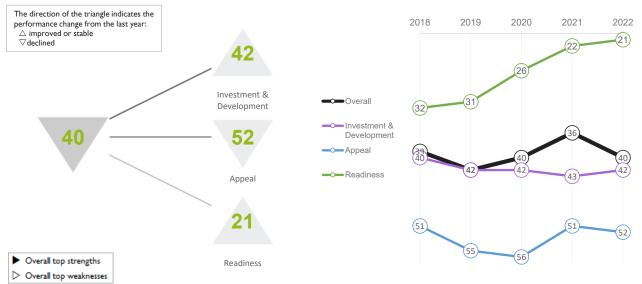
APPEAL		Value	:	2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	71.70	index	23
Attracting and retaining talents	is a priority in companies	6.36	Survey [010]] 44
Worker motivation	in companies is high	5.31	Survey [010]] 41
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.33	Survey [010]] 27
Quality of life	is high	6.24	Survey [010]] 39
Foreign highly-skilled personnel	are attracted to your country's business environment	6.85	Survey [010]] 12
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	23,844	US\$	30
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	180,102	US\$	26
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	1.98	%	12
Justice	is fairly administered	5.37	Survey [010]] 37
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	23.68	micrograms	49

READINESS

	READINESS		Value	e 20)22 Rank
	Labor force growth	Percentage change	3.42	%	9
	Skilled labor	is readily available	4.30	Survey [010]	48
	Finance skills	are readily available	6.00	Survey [010]	36
	International experience	of senior managers is generally significant	6.00	Survey [010]	18
	Competent senior managers	are readily available	5.21	Survey [010]	35
\triangleright	Primary and secondary education	meets the needs of a competitive economy	4.12	Survey [010]	52
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	21.41	%	40
	University education	meets the needs of a competitive economy	5.61	Survey [010]	43
	Management education	meets the needs of the business community	6.57	Survey [010]	32
\triangleright	Language skills	are meeting the needs of enterprises	3.52	Survey [010]	60
\triangleright	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.66	number	51
	Educational assessment - PISA	PISA survey of 15-year olds	438	Average	41

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OVERALL PERFORMANCE (63 countries)



INVESTMENT & DEVELOPMENT		Value	2	022 Rank
▷ Total public expenditure on education	Percentage of GDP	3.6	%	53
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,799	US\$	50
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	16.28	ratio	40
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	13.42	ratio	46
Apprenticeships	are sufficiently implemented	5.51	Survey [010]	25
Employee training	is a high priority in companies	7.01	Survey [010]	11
Female labor force	Percentage of total labor force	44.53	%	39
Health infrastructure	meets the needs of society	6.51	Survey [010]	30

APPEAL		Value	e 2	2022 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	108.90	index	57
Attracting and retaining talents	is a priority in companies	7.03	Survey [010]	29
 Worker motivation 	in companies is high	7.18	Survey [010]] 10
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.78	Survey [010]	34
Quality of life	is high	6.95	Survey [010]	33
Foreign highly-skilled personnel	are attracted to your country's business environment	5.35	Survey [010]	35
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	11,684	US\$	49
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	152,385	US\$	36
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	1.14	%	6
Justice	is fairly administered	6.07	Survey [010]	30
▷ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	47.73	micrograms	59

READINESS		Valu	e 202	2 Rank
▷ Labor force growth	Percentage change	-0.75	%	51
Skilled labor	is readily available	6.49	Survey [010]	9
Finance skills	are readily available	7.09	Survey [010]	10
International experience	of senior managers is generally significant	4.94	Survey [010]	47
Competent senior managers	are readily available	6.00	Survey [010]	26
Primary and secondary education	meets the needs of a competitive economy	8.20	Survey [010]	7
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	-	%	-
University education	meets the needs of a competitive economy	7.38	Survey [010]	18
Management education	meets the needs of the business community	6.90	Survey [010]	23
Language skills	are meeting the needs of enterprises	6.23	Survey [010]	37
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.16	number	56
Educational assessment - PISA	PISA survey of 15-year olds	579	Average	1

IRIA

OVERALL PERFORMANCE (63 countries)



INVESTMENT & DEVELOPMENT

	INVESTMENT & DEVELOPMENT		Value	e 2	022 Rank
	Total public expenditure on education	Percentage of GDP	5.0	%	33
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,005	US\$	55
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	23.77	ratio	56
\triangleright	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	26.09	ratio	60
	Apprenticeships	are sufficiently implemented	5.60	Survey [010]	24
	Employee training	is a high priority in companies	5.74	Survey [010]	41
	Female labor force	Percentage of total labor force	41.06	%	50
	Health infrastructure	meets the needs of society	3.50	Survey [010]	56

APPEAL		Value	. :	2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	55.00	index	4
Attracting and retaining talents	is a priority in companies	5.60	Survey [010] 56
Worker motivation	in companies is high	4.88	Survey [010] 54
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.17	Survey [010] 41
Quality of life	is high	4.17	Survey [010] 56
Foreign highly-skilled personnel	are attracted to your country's business environment	4.44	Survey [010] 48
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	12,241	US\$	48
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	128,854	US\$	40
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	1.30	%	7
Justice	is fairly administered	3.21	Survey [010] 54
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	22.53	micrograms	47

READINESS

	READINESS		Value	e 20	022 Rank
\triangleright	Labor force growth	Percentage change	-1.82	%	58
	Skilled labor	is readily available	4.88	Survey [010]	39
	Finance skills	are readily available	5.35	Survey [010]	47
	International experience	of senior managers is generally significant	4.75	Survey [010]	51
	Competent senior managers	are readily available	4.24	Survey [010]	51
	Primary and secondary education	meets the needs of a competitive economy	3.91	Survey [010]	54
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	23.52	%	31
	University education	meets the needs of a competitive economy	4.52	Survey [010]	57
\triangleright	Management education	meets the needs of the business community	4.67	Survey [010]	58
\triangleright	Language skills	are meeting the needs of enterprises	3.30	Survey [010]	61
\triangleright	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.10	number	59
	Educational assessment - PISA	PISA survey of 15-year olds	406	Average	50

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OVERALL PERFORMANCE (63 countries)



INVESTMENT & DEVELOPMENT		Value	e 2022	2 Rank
Total public expenditure on education	Percentage of GDP	5.4	%	22
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	4,125	US\$	38
 Pupil-teacher ratio (primary education) 	Ratio of students to teaching staff	10.10	ratio	4
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	8.07	ratio	1
▷ Apprenticeships	are sufficiently implemented	3.58	Survey [010]	58
Employee training	is a high priority in companies	5.20	Survey [010]	49
Female labor force	Percentage of total labor force	46.13	%	30
Health infrastructure	meets the needs of society	4.79	Survey [010]	45

-	APPEAL		Value	2	2022 Rank
	Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	67.30	index	18
A	Attracting and retaining talents	is a priority in companies	6.52	Survey [010]] 42
٧	Worker motivation	in companies is high	5.05	Survey [010]] 49
\triangleright E	Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	2.64	Survey [010]] 60
C	Quality of life	is high	5.82	Survey [010]] 41
\triangleright F	Foreign highly-skilled personnel	are attracted to your country's business environment	2.82	Survey [010]] 59
F	Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	14,350	US\$	41
F	Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	87,775	US\$	51
C	Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	3.68	%	26
J	Justice	is fairly administered	3.58	Survey [010]] 52
E	Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	18.23	micrograms	36

	READINESS		Valu	e 21	022 Rank
	Labor force growth	Percentage change	1.35	%	26
\triangleright	Skilled labor	is readily available	3.73	Survey [010]	57
	Finance skills	are readily available	4.73	Survey [010]	56
\triangleright	International experience	of senior managers is generally significant	4.39	Survey [010]	57
	Competent senior managers	are readily available	3.91	Survey [010]	55
	Primary and secondary education	meets the needs of a competitive economy	4.97	Survey [010]	47
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	28.49	%	13
	University education	meets the needs of a competitive economy	5.06	Survey [010]	49
	Management education	meets the needs of the business community	4.97	Survey [010]	53
	Language skills	are meeting the needs of enterprises	7.12	Survey [010]	26
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.18	number	48
	Educational assessment - PISA	PISA survey of 15-year olds	472	Average	35

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OVERALL PERFORMANCE (63 countries)



INVESTMENT & DEVELOPMENT		Value	20	022 Rank
Total public expenditure on education	Percentage of GDP	5.8	%	15
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	7,470	US\$	27
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	12.30	ratio	18
 Pupil-teacher ratio (secondary education) 	Ratio of students to teaching staff	9.05	ratio	5
Apprenticeships	are sufficiently implemented	4.75	Survey [010]	44
Employee training	is a high priority in companies	5.17	Survey [010]	51
Female labor force	Percentage of total labor force	47.11	%	16
Health infrastructure	meets the needs of society	6.30	Survey [010]	32

APPEAL		Value	e 2	2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	64.90	index	13
Attracting and retaining talents	is a priority in companies	5.75	Survey [010]] 54
▷ Worker motivation	in companies is high	5.08	Survey [010]] 47
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.46	Survey [010]] 25
Quality of life	is high	7.92	Survey [010]] 21
Foreign highly-skilled personnel	are attracted to your country's business environment	5.58	Survey [010]] 30
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	27,374	US\$	27
Dash Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	85,236	US\$	53
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	3.20	%	24
Justice	is fairly administered	5.25	Survey [010]] 38
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	15.79	micrograms	29

- F	READINESS		Value	e 20	22 Rank
► L	_abor force growth	Percentage change	3.21	%	10
S	Skilled labor	is readily available	5.25	Survey [010]	34
F	Finance skills	are readily available	6.83	Survey [010]	15
1	nternational experience	of senior managers is generally significant	5.54	Survey [010]	34
(Competent senior managers	are readily available	5.29	Survey [010]	34
F	Primary and secondary education	meets the needs of a competitive economy	6.85	Survey [010]	23
\triangleright 0	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	13.11	%	61
ι	University education	meets the needs of a competitive economy	7.21	Survey [010]	22
١	Management education	meets the needs of the business community	6.58	Survey [010]	30
Þ	_anguage skills	are meeting the needs of enterprises	8.21	Survey [010]	12
▶ 9	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	16.21	number	3
E	Educational assessment - PISA	PISA survey of 15-year olds	438	Average	40

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OVERALL PERFORMANCE (63 countries)



	INVESTMENT & DEVELOPMENT		Value	e 2	2022 Rank
	Total public expenditure on education	Percentage of GDP	5.1	%	28
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	5,895	US\$	32
\triangleright	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	18.04	ratio	48
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.44	ratio	22
\triangleright	Apprenticeships	are sufficiently implemented	4.73	Survey [010]	46
	Employee training	is a high priority in companies	6.21	Survey [010]	31
	Female labor force	Percentage of total labor force	44.80	%	36
	Health infrastructure	meets the needs of society	7.47	Survey [010]] 18

APPEAL		Value	e :	2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	75.20	index	28
Attracting and retaining talents	is a priority in companies	7.18	Survey [010] 26
 Worker motivation 	in companies is high	6.29	Survey [010] 22
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.92	Survey [010] 20
Quality of life	is high	7.76	Survey [010] 26
Foreign highly-skilled personnel	are attracted to your country's business environment	5.31	Survey [010	36
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	15,563	US\$	38
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	106,454	US\$	45
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	4.65	%	29
Justice	is fairly administered	6.29	Survey [010] 27
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	16.97	micrograms	34

	READINESS		Value	e 2	022 Rank
\triangleright	Labor force growth	Percentage change	0.11	%	40
	Skilled labor	is readily available	5.10	Survey [010]	35
	Finance skills	are readily available	5.76	Survey [010]	40
	International experience	of senior managers is generally significant	5.84	Survey [010]	23
\triangleright	Competent senior managers	are readily available	5.02	Survey [010]	41
	Primary and secondary education	meets the needs of a competitive economy	6.78	Survey [010]	25
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	25.88	%	25
	University education	meets the needs of a competitive economy	6.78	Survey [010]	28
	Management education	meets the needs of the business community	6.86	Survey [010]	25
	Language skills	are meeting the needs of enterprises	6.45	Survey [010]	30
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	4.46	number	19
	Educational assessment - PISA	PISA survey of 15-year olds	495	Average	23

ENMARK

OVERALL PERFORMANCE (63 countries)



INVESTMENT & DEVELOPMENT		Value	e 2	2022 Rank
Total public expenditure on education	Percentage of GDP	6.4	%	10
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	15,477	US\$	6
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	12.09	ratio	14
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.67	ratio	27
Apprenticeships	are sufficiently implemented	7.06	Survey [010]	4
Employee training	is a high priority in companies	8.10	Survey [010]	1
Female labor force	Percentage of total labor force	47.06	%	17
Health infrastructure	meets the needs of society	8.42	Survey [010]	5

APPEAL		Value	e 2	2022 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	96.60	index	52
Attracting and retaining talents	is a priority in companies	8.59	Survey [010]	1
 Worker motivation 	in companies is high	8.26	Survey [010]	1
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	7.95	Survey [010]	1
Quality of life	is high	9.64	Survey [010]	5
Foreign highly-skilled personnel	are attracted to your country's business environment	6.49	Survey [010]	16
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	58,896	US\$	5
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	217,395	US\$	17
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	25.24	%	62
Justice	is fairly administered	8.95	Survey [010]	2
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	9.78	micrograms	12

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	READINESS		Value	e 20)22 Rank
\triangleright	Labor force growth	Percentage change	0.73	%	34
	Skilled labor	is readily available	6.28	Survey [010]	14
	Finance skills	are readily available	7.44	Survey [010]	8
	International experience	of senior managers is generally significant	6.77	Survey [010]	11
	Competent senior managers	are readily available	7.31	Survey [010]	1
	Primary and secondary education	meets the needs of a competitive economy	8.47	Survey [010]	3
\triangleright	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	23.01	%	34
	University education	meets the needs of a competitive economy	8.34	Survey [010]	5
	Management education	meets the needs of the business community	8.13	Survey [010]	4
	Language skills	are meeting the needs of enterprises	8.86	Survey [010]	5
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	5.41	number	13
	Educational assessment - PISA	PISA survey of 15-year olds	501	Average	17

ESTONIA

OVERALL PERFORMANCE (63 countries)



INVESTMENT & DEVELOPMENT		Value	e 2	2022 Rank
Total public expenditure on education	Percentage of GDP	6.6	%	9
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	8,886	US\$	23
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	12.54	ratio	21
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.41	ratio	36
Apprenticeships	are sufficiently implemented	5.67	Survey [010]	20
Employee training	is a high priority in companies	7.24	Survey [010]	8
Female labor force	Percentage of total labor force	49.02	%	6
Health infrastructure	meets the needs of society	6.76	Survey [010]	27

APPEAL		Value	2	022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	68.30	index	19
Attracting and retaining talents	is a priority in companies	7.61	Survey [010]	15
Worker motivation	in companies is high	6.42	Survey [010]	20
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.16	Survey [010]	30
Quality of life	is high	6.90	Survey [010]	34
Foreign highly-skilled personnel	are attracted to your country's business environment	5.88	Survey [010]	26
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	15,532	US\$	39
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	98,070	US\$	48
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	6.16	%	38
Justice	is fairly administered	7.52	Survey [010]	16
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	5.95	micrograms	3

	READINESS		Value	e 20	122 Rank
\triangleright	Labor force growth	Percentage change	-1.22	%	55
\triangleright	Skilled labor	is readily available	3.27	Survey [010]	61
\triangleright	Finance skills	are readily available	4.51	Survey [010]	60
	International experience	of senior managers is generally significant	5.45	Survey [010]	37
\triangleright	Competent senior managers	are readily available	4.21	Survey [010]	53
	Primary and secondary education	meets the needs of a competitive economy	7.61	Survey [010]	14
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	27.48	%	18
	University education	meets the needs of a competitive economy	7.33	Survey [010]	19
	Management education	meets the needs of the business community	6.94	Survey [010]	20
	Language skills	are meeting the needs of enterprises	7.22	Survey [010]	22
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	4.15	number	24
	Educational assessment - PISA	PISA survey of 15-year olds	526	Average	4

OVERALL PERFORMANCE (63 countries)



INVESTMENT & DEVELOPMENT		Value	e 20	22 Rank
Total public expenditure on education	Percentage of GDP	5.8	%	16
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	11,195	US\$	14
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	13.11	ratio	24
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.63	ratio	37
Apprenticeships	are sufficiently implemented	5.94	Survey [010]	12
Employee training	is a high priority in companies	7.09	Survey [010]	9
Female labor force	Percentage of total labor force	47.79	%	10
Health infrastructure	meets the needs of society	8.63	Survey [010]	3

APPEAL		Value	e 2	2022 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	81.50	index	38
Attracting and retaining talents	is a priority in companies	7.54	Survey [010]] 17
Worker motivation	in companies is high	7.60	Survey [010]] 4
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.80	Survey [010]	9
Quality of life	is high	9.77	Survey [010]] 1
▷ Foreign highly-skilled personnel	are attracted to your country's business environment	4.91	Survey [010]	42
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	40,528	US\$	16
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	177,937	US\$	28
▷ Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	12.55	%	60
► Justice	is fairly administered	9.37	Survey [010]] 1
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	5.64	micrograms	1

READINESS		Valu	e 201	22 Rank
Labor force growth	Percentage change	2.29	%	17
Skilled labor	is readily available	5.77	Survey [010]	27
Finance skills	are readily available	7.09	Survey [010]	11
International experience	of senior managers is generally significant	6.51	Survey [010]	15
Competent senior managers	are readily available	6.46	Survey [010]	16
 Primary and secondary education 	meets the needs of a competitive economy	9.09	Survey [010]	1
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	27.94	%	16
University education	meets the needs of a competitive economy	8.63	Survey [010]	3
 Management education 	meets the needs of the business community	8.23	Survey [010]	3
Language skills	are meeting the needs of enterprises	8.34	Survey [010]	9
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	4.27	number	22
Educational assessment - PISA	PISA survey of 15-year olds	516	Average	9

Ę \mathcal{A} **OVERALL PERFORMANCE (63 countries)**



	INVESTMENT & DEVELOPMENT		Value	. 2	2022 Rank
	Total public expenditure on education	Percentage of GDP	5.5	%	21
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	9,227	US\$	21
\triangleright	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	18.42	ratio	50
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	13.07	ratio	43
	Apprenticeships	are sufficiently implemented	5.27	Survey [010]	30
	Employee training	is a high priority in companies	6.55	Survey [010]] 17
	Female labor force	Percentage of total labor force	48.88	%	7
	Health infrastructure	meets the needs of society	7.05	Survey [010]	24

APPEAL		Value	2	022 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	88.20	index	48
Attracting and retaining talents	is a priority in companies	7.78	Survey [010]	12
Worker motivation	in companies is high	5.29	Survey [010]	42
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.17	Survey [010]	29
Quality of life	is high	8.18	Survey [010]	17
Foreign highly-skilled personnel	are attracted to your country's business environment	5.92	Survey [010]	24
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	37,845	US\$	19
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	257,540	US\$	10
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	9.56	%	49
Justice	is fairly administered	6.57	Survey [010]	24
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	11.37	micrograms	18

	READINESS		Value	20)22 Rank
	Labor force growth	Percentage change	2.55	%	15
\triangleright	Skilled labor	is readily available	4.19	Survey [010]	49
	Finance skills	are readily available	6.20	Survey [010]	33
	International experience	of senior managers is generally significant	5.14	Survey [010]	42
	Competent senior managers	are readily available	5.03	Survey [010]	40
	Primary and secondary education	meets the needs of a competitive economy	5.94	Survey [010]	39
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	25.89	%	24
	University education	meets the needs of a competitive economy	6.27	Survey [010]	37
	Management education	meets the needs of the business community	6.57	Survey [010]	33
\triangleright	Language skills	are meeting the needs of enterprises	4.41	Survey [010]	55
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	3.74	number	27
	Educational assessment - PISA	PISA survey of 15-year olds	494	Average	25

Talent Ranking 2022

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OVERALL PERFORMANCE (63 countries)



	INVESTMENT & DEVELOPMENT		Value	2	2022 Rank
\triangleright	Total public expenditure on education	Percentage of GDP	4.7	%	39
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	10,936	US\$	15
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	14.86	ratio	32
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.64	ratio	38
	Apprenticeships	are sufficiently implemented	8.23	Survey [010]	2
	Employee training	is a high priority in companies	7.60	Survey [010]	4
	Female labor force	Percentage of total labor force	46.57	%	28
	Health infrastructure	meets the needs of society	7.84	Survey [010]	11

APPEAL		Value	9	2022 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	82.50	index	41
Attracting and retaining talents	is a priority in companies	7.81	Survey [010] 11
Worker motivation	in companies is high	6.83	Survey [010] 13
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.13	Survey [010] 16
Quality of life	is high	9.01	Survey [010] 9
Foreign highly-skilled personnel	are attracted to your country's business environment	6.52	Survey [010] 15
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	46,639	US\$	9
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	303,570	US\$	3
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	10.36	%	51
Justice	is fairly administered	8.08	Survey [010] 9
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	11.93	micrograms	20

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F	READINESS		Value	20	22 Rank
\triangleright L	abor force growth	Percentage change	-1.11	%	53
⊳s	killed labor	is readily available	4.74	Survey [010]	40
F	inance skills	are readily available	6.70	Survey [010]	21
Ir	nternational experience	of senior managers is generally significant	6.52	Survey [010]	14
С	ompetent senior managers	are readily available	5.56	Survey [010]	31
Ρ	rimary and secondary education	meets the needs of a competitive economy	8.00	Survey [010]	8
► G	raduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	35.82	%	4
► U	niversity education	meets the needs of a competitive economy	8.24	Survey [010]	6
Ν	lanagement education	meets the needs of the business community	7.27	Survey [010]	12
L	anguage skills	are meeting the needs of enterprises	7.05	Survey [010]	27
S	tudent mobility inbound	Foreign tertiary-level students per 1000 inhabitants	4.43	number	20
E	ducational assessment - PISA	PISA survey of 15-year olds	500	Average	18

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INVESTMENT & DEVELOPMENT		Value	e 20	022 Rank
Total public expenditure on education	Percentage of GDP	4.5	%	44
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	3,575	US\$	41
 Pupil-teacher ratio (primary education) 	Ratio of students to teaching staff	8.37	ratio	1
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	8.54	ratio	3
Apprenticeships	are sufficiently implemented	4.59	Survey [010]	48
Employee training	is a high priority in companies	4.96	Survey [010]	54
Female labor force	Percentage of total labor force	44.41	%	40
Health infrastructure	meets the needs of society	4.96	Survey [010]	42

APPEAL		Value	e 2	2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	70.60	index	21
Attracting and retaining talents	is a priority in companies	6.31	Survey [010]] 45
▷ Worker motivation	in companies is high	5.01	Survey [010]] 51
▷ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.24	Survey [010]] 53
Quality of life	is high	6.23	Survey [010]] 40
▷ Foreign highly-skilled personnel	are attracted to your country's business environment	3.30	Survey [010]] 57
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	20,159	US\$	34
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	178,793	US\$	27
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	6.00	%	35
Justice	is fairly administered	4.20	Survey [010]] 48
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	14.32	micrograms	27

	READINESS		Value	e 20	122 Rank
\triangleright	Labor force growth	Percentage change	-0.59	%	48
	Skilled labor	is readily available	5.57	Survey [010]	31
	Finance skills	are readily available	6.17	Survey [010]	34
	International experience	of senior managers is generally significant	5.30	Survey [010]	39
	Competent senior managers	are readily available	4.90	Survey [010]	43
	Primary and secondary education	meets the needs of a competitive economy	5.83	Survey [010]	40
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	27.42	%	19
	University education	meets the needs of a competitive economy	5.69	Survey [010]	42
	Management education	meets the needs of the business community	5.83	Survey [010]	45
	Language skills	are meeting the needs of enterprises	7.71	Survey [010]	16
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.09	number	41
	Educational assessment - PISA	PISA survey of 15-year olds	453	Average	39

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OVERALL PERFORMANCE (63 countries)



	INVESTMENT & DEVELOPMENT		Value	20	022 Rank
\triangleright	Total public expenditure on education	Percentage of GDP	4.6	%	40
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	13,230	US\$	8
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	12.87	ratio	22
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	10.90	ratio	18
	Apprenticeships	are sufficiently implemented	5.24	Survey [010]	32
	Employee training	is a high priority in companies	6.20	Survey [010]	32
	Female labor force	Percentage of total labor force	50.31	%	2
	Health infrastructure	meets the needs of society	6.22	Survey [010]	33

APPEAL		Value	e 2	2022 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	126.30	index	60
Attracting and retaining talents	is a priority in companies	6.76	Survey [010]	34
Worker motivation	in companies is high	7.07	Survey [010]	11
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.64	Survey [010]	35
▷ Quality of life	is high	6.42	Survey [010]	37
Foreign highly-skilled personnel	are attracted to your country's business environment	5.38	Survey [010]	33
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	32,983	US\$	22
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	285,857	US\$	6
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	3.04	%	22
Justice	is fairly administered	7.44	Survey [010]	17
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	19.00	micrograms	39

	READINESS		Value	e 20	22 Rank
\triangleright	Labor force growth	Percentage change	-1.23	%	56
	Skilled labor	is readily available	5.80	Survey [010]	24
	Finance skills	are readily available	7.41	Survey [010]	9
	International experience	of senior managers is generally significant	7.05	Survey [010]	10
	Competent senior managers	are readily available	6.53	Survey [010]	15
	Primary and secondary education	meets the needs of a competitive economy	6.95	Survey [010]	21
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	41.11	%	1
	University education	meets the needs of a competitive economy	7.46	Survey [010]	17
	Management education	meets the needs of the business community	7.02	Survey [010]	18
	Language skills	are meeting the needs of enterprises	6.68	Survey [010]	29
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	6.32	number	11
	Educational assessment - PISA	PISA survey of 15-year olds	531	Average	3

HUNGARY

OVERALL PERFORMANCE (63 countries)



INVESTMENT & DEVELOPMENT		Value	20	022 Rank
Total public expenditure on education	Percentage of GDP	4.8	%	37
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	4,032	US\$	40
 Pupil-teacher ratio (primary education) 	Ratio of students to teaching staff	9.96	ratio	2
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.48	ratio	23
Apprenticeships	are sufficiently implemented	3.87	Survey [010]	55
Employee training	is a high priority in companies	5.11	Survey [010]	52
Female labor force	Percentage of total labor force	46.65	%	27
Health infrastructure	meets the needs of society	4.04	Survey [010]	50

4	APPEAL		Value	e 2	2022 Rank
	Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	62.40	index	11
A	Attracting and retaining talents	is a priority in companies	6.11	Survey [010]	48
V	Vorker motivation	in companies is high	4.68	Survey [010]	55
Þ	Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	2.74	Survey [010]	59
C	Quality of life	is high	5.28	Survey [010]	48
F	Foreign highly-skilled personnel	are attracted to your country's business environment	4.00	Survey [010]	50
F	Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	12,322	US\$	47
F	Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	81,100	US\$	55
C	Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	5.29	%	32
J	lustice	is fairly administered	5.04	Survey [010]	40
E	Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	16.60	micrograms	33

	READINESS		Value	2	022 Rank
	Labor force growth	Percentage change	2.64	%	14
\triangleright	Skilled labor	is readily available	3.42	Survey [010]	59
	Finance skills	are readily available	5.22	Survey [010]	48
	International experience	of senior managers is generally significant	5.21	Survey [010]	41
\triangleright	Competent senior managers	are readily available	3.57	Survey [010]	60
	Primary and secondary education	meets the needs of a competitive economy	4.44	Survey [010]	49
\triangleright	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	15.50	%	57
	University education	meets the needs of a competitive economy	5.03	Survey [010]	51
	Management education	meets the needs of the business community	5.10	Survey [010]	52
\triangleright	Language skills	are meeting the needs of enterprises	4.00	Survey [010]	58
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	3.93	number	25
	Educational assessment - PISA	PISA survey of 15-year olds	479	Average	32

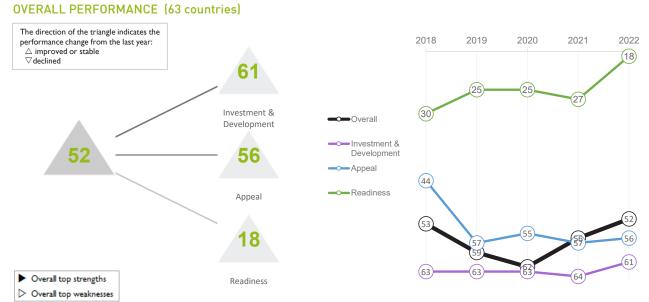
OVERALL PERFORMANCE (63 countries)



	INVESTMENT & DEVELOPMENT		Value	e 2	2022 Rank
	Total public expenditure on education	Percentage of GDP	7.8	%	4
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	16,711	US\$	3
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	10.46	ratio	8
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	9.95	ratio	13
\triangleright	Apprenticeships	are sufficiently implemented	4.81	Survey [010]	42
	Employee training	is a high priority in companies	6.06	Survey [010]	35
	Female labor force	Percentage of total labor force	46.11	%	31
	Health infrastructure	meets the needs of society	7.19	Survey [010]	23

	APPEAL		Value	2	022 Rank
	Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	-	index	-
	Attracting and retaining talents	is a priority in companies	7.91	Survey [010]	8
	Worker motivation	in companies is high	7.54	Survey [010]	6
	Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	7.26	Survey [010]	6
	Quality of life	is high	9.71	Survey [010]	3
	Foreign highly-skilled personnel	are attracted to your country's business environment	5.38	Survey [010]	34
	Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	75,088	US\$	2
\triangleright	Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	87,701	US\$	52
\triangleright	Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	15.34	%	61
	Justice	is fairly administered	7.86	Survey [010]	11
	Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	6.37	micrograms	5

	READINESS		Value	e 202	22 Rank
	Labor force growth	Percentage change	3.07	%	11
	Skilled labor	is readily available	6.78	Survey [010]	3
	Finance skills	are readily available	7.62	Survey [010]	3
\triangleright	International experience	of senior managers is generally significant	5.54	Survey [010]	35
	Competent senior managers	are readily available	6.72	Survey [010]	10
	Primary and secondary education	meets the needs of a competitive economy	8.32	Survey [010]	6
\triangleright	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	18.17	%	53
	University education	meets the needs of a competitive economy	8.49	Survey [010]	4
	Management education	meets the needs of the business community	7.86	Survey [010]	6
	Language skills	are meeting the needs of enterprises	8.87	Survey [010]	4
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	4.49	number	18
	Educational assessment - PISA	PISA survey of 15-year olds	481	Average	30



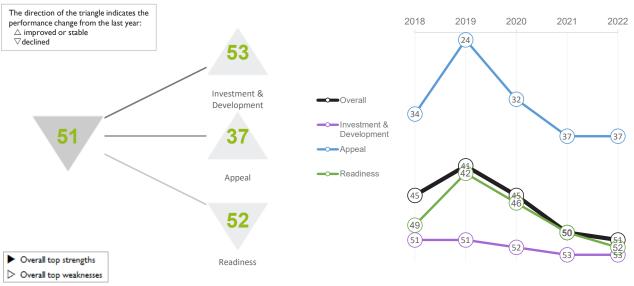
	INVESTMENT & DEVELOPMENT		Value	2	2022 Rank
	Total public expenditure on education	Percentage of GDP	4.9	%	35
\triangleright	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	381	US\$	61
\triangleright	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	26.46	ratio	60
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	20.36	ratio	56
	Apprenticeships	are sufficiently implemented	5.82	Survey [010]	17
	Employee training	is a high priority in companies	6.29	Survey [010]	27
\triangleright	Female labor force	Percentage of total labor force	23.02	%	60
	Health infrastructure	meets the needs of society	5.18	Survey [010]	41

APPEAL		Value	2	022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	77.30	index	30
Attracting and retaining talents	is a priority in companies	7.22	Survey [010]	25
Worker motivation	in companies is high	6.45	Survey [010]	18
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.38	Survey [010]	26
Quality of life	is high	5.47	Survey [010]	46
Foreign highly-skilled personnel	are attracted to your country's business environment	5.10	Survey [010]	41
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	6,508	US\$	57
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	103,745	US\$	46
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	2.50	%	16
Justice	is fairly administered	6.11	Survey [010]	29
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	83.30	micrograms	63

	READINESS		Value	e 202	22 Rank
	Labor force growth	Percentage change	1.82	%	21
	Skilled labor	is readily available	6.52	Survey [010]	7
	Finance skills	are readily available	7.47	Survey [010]	6
	International experience	of senior managers is generally significant	5.78	Survey [010]	25
	Competent senior managers	are readily available	6.60	Survey [010]	14
	Primary and secondary education	meets the needs of a competitive economy	6.13	Survey [010]	34
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	33.71	%	5
	University education	meets the needs of a competitive economy	6.55	Survey [010]	31
►	Management education	meets the needs of the business community	7.24	Survey [010]	13
	Language skills	are meeting the needs of enterprises	7.31	Survey [010]	21
\triangleright	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.04	number	60
	Educational assessment - PISA	PISA survey of 15-year olds	-	Average	-

DONESIA

OVERALL PERFORMANCE (63 countries)



INVESTMENT & DEVELOPMENT

	INVESTMENT & DEVELOPMENT		Value	e 2	2022 Rank
\triangleright	Total public expenditure on education	Percentage of GDP	3.3	%	56
\triangleright	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	454	US\$	60
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	15.95	ratio	38
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	16.84	ratio	51
	Apprenticeships	are sufficiently implemented	5.80	Survey [010]	18
	Employee training	is a high priority in companies	6.53	Survey [010]	18
	Female labor force	Percentage of total labor force	36.20	%	55
	Health infrastructure	meets the needs of society	5.65	Survey [010]	37

APPEAL		Value	e 2	2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	72.20	index	24
Attracting and retaining talents	is a priority in companies	6.74	Survey [010]	35
 Worker motivation 	in companies is high	6.67	Survey [010]	14
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.93	Survey [010]	19
Quality of life	is high	5.70	Survey [010]	43
Foreign highly-skilled personnel	are attracted to your country's business environment	6.27	Survey [010]	19
\triangleright Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	5,788	US\$	59
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	84,341	US\$	54
 Collected personal income tax 	On profits, income and capital gains, as a percentage of GDP	2.74	%	19
Justice	is fairly administered	4.47	Survey [010]	46
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	19.67	micrograms	42

READINESS

READINESS		Value	e 20	22 Rank
Labor force growth	Percentage change	1.40	%	25
Skilled labor	is readily available	5.80	Survey [010]	25
Finance skills	are readily available	5.90	Survey [010]	37
International experience	of senior managers is generally significant	5.65	Survey [010]	29
Competent senior managers	are readily available	6.12	Survey [010]	23
Primary and secondary education	meets the needs of a competitive economy	6.05	Survey [010]	38
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	20.16	%	45
University education	meets the needs of a competitive economy	6.00	Survey [010]	39
Management education	meets the needs of the business community	6.07	Survey [010]	40
Language skills	are meeting the needs of enterprises	5.78	Survey [010]	41
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.03	number	61
Educational assessment - PISA	PISA survey of 15-year olds	382	Average	56

-IR

OVERALL PERFORMANCE (63 countries)



	INVESTMENT & DEVELOPMENT		Value	2	022 Rank
\triangleright	Total public expenditure on education	Percentage of GDP	3.1	%	58
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	9,456	US\$	20
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	14.94	ratio	33
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.89	ratio	39
\triangleright	Apprenticeships	are sufficiently implemented	5.10	Survey [010]	35
	Employee training	is a high priority in companies	6.58	Survey [010]	15
	Female labor force	Percentage of total labor force	46.98	%	19
\triangleright	Health infrastructure	meets the needs of society	4.64	Survey [010]	46

APPEAL		Value	. 2	2022 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	86.80	index	45
Attracting and retaining talents	is a priority in companies	8.24	Survey [010]] 3
Worker motivation	in companies is high	6.95	Survey [010]] 12
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.20	Survey [010]] 15
Quality of life	is high	7.83	Survey [010]	25
Foreign highly-skilled personnel	are attracted to your country's business environment	7.25	Survey [010]] 9
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	46,792	US\$	8
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	210,279	US\$	18
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	6.61	%	40
Justice	is fairly administered	7.42	Survey [010]] 18
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	7.85	micrograms	10

READINESS		Value	e 202	22 Rank
Labor force growth	Percentage change	8.85	%	2
Skilled labor	is readily available	5.83	Survey [010]	22
Finance skills	are readily available	6.71	Survey [010]	19
International experience	of senior managers is generally significant	6.58	Survey [010]	13
Competent senior managers	are readily available	6.92	Survey [010]	7
Primary and secondary education	meets the needs of a competitive economy	7.15	Survey [010]	19
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	26.41	%	22
University education	meets the needs of a competitive economy	7.25	Survey [010]	21
Management education	meets the needs of the business community	6.75	Survey [010]	27
Language skills	are meeting the needs of enterprises	6.27	Survey [010]	34
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	4.85	number	15
Educational assessment - PISA	PISA survey of 15-year olds	505	Average	11

ISRA

OVERALL PERFORMANCE (63 countries)

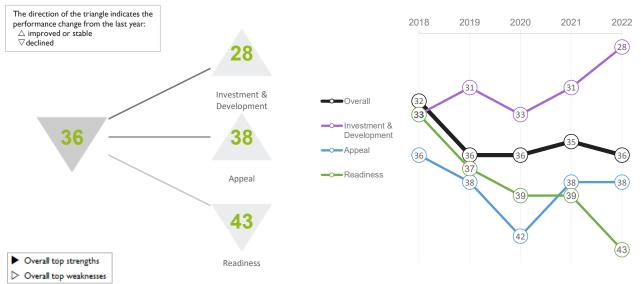


INVESTMENT & DEVELOPMENT		Value	e 2	022 Rank
Total public expenditure on education	Percentage of GDP	7.1	%	6
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	10,246	US\$	18
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	14.97	ratio	34
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	10.40	ratio	17
Apprenticeships	are sufficiently implemented	6.05	Survey [010]	11
Employee training	is a high priority in companies	6.05	Survey [010]	36
Female labor force	Percentage of total labor force	48.33	%	9
Health infrastructure	meets the needs of society	7.35	Survey [010]	20

	APPEAL		Value		2022 Rank
\triangleright	Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	99.50	index	53
	Attracting and retaining talents	is a priority in companies	6.88	Survey [010]] 31
	Worker motivation	in companies is high	6.42	Survey [010]] 19
	Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.56	Survey [010]] 36
	Quality of life	is high	7.72	Survey [010]] 27
	Foreign highly-skilled personnel	are attracted to your country's business environment	5.77	Survey [010]] 27
	Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	35,783	US\$	21
	Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	181,516	US\$	25
\triangleright	Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	6.58	%	39
	Justice	is fairly administered	6.00	Survey [010]] 32
\triangleright	Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	19.42	micrograms	41

	READINESS		Value	20	22 Rank
	Labor force growth	Percentage change	1.83	%	20
	Skilled labor	is readily available	6.05	Survey [010]	20
	Finance skills	are readily available	6.47	Survey [010]	26
	International experience	of senior managers is generally significant	5.81	Survey [010]	24
	Competent senior managers	are readily available	6.79	Survey [010]	9
	Primary and secondary education	meets the needs of a competitive economy	6.33	Survey [010]	31
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	26.92	%	21
	University education	meets the needs of a competitive economy	7.12	Survey [010]	24
	Management education	meets the needs of the business community	6.28	Survey [010]	36
	Language skills	are meeting the needs of enterprises	6.28	Survey [010]	33
\triangleright	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.43	number	47
\triangleright	Educational assessment - PISA	PISA survey of 15-year olds	465	Average	37

OVERALL PERFORMANCE (63 countries)



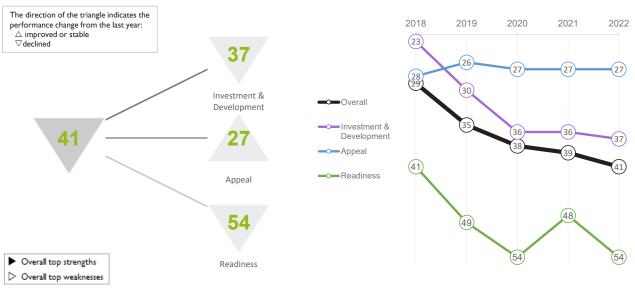
INVESTMENT & DEVELOPMENT		Value	e 2	2022 Rank
Total public expenditure on education	Percentage of GDP	4.3	%	46
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	7,431	US\$	28
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	11.19	ratio	10
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	10.40	ratio	16
Apprenticeships	are sufficiently implemented	4.99	Survey [010]	37
Employee training	is a high priority in companies	5.29	Survey [010]	48
Female labor force	Percentage of total labor force	42.70	%	46
Health infrastructure	meets the needs of society	7.22	Survey [010]	22

APPEAL		Value	2	2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	87.60	index	47
Attracting and retaining talents	is a priority in companies	6.44	Survey [010]	43
Worker motivation	in companies is high	5.82	Survey [010]	33
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.14	Survey [010]	42
Quality of life	is high	7.89	Survey [010]	24
Foreign highly-skilled personnel	are attracted to your country's business environment	4.60	Survey [010]	46
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	32,932	US\$	23
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	256,104	US\$	11
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	11.51	%	54
Justice	is fairly administered	4.09	Survey [010]	49
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	15.85	micrograms	30

	READINESS		Value	2	022 Rank
\triangleright	Labor force growth	Percentage change	-1.16	%	54
	Skilled labor	is readily available	5.77	Survey [010]	28
	Finance skills	are readily available	6.25	Survey [010]	31
\triangleright	International experience	of senior managers is generally significant	4.83	Survey [010]	50
	Competent senior managers	are readily available	5.93	Survey [010]	28
	Primary and secondary education	meets the needs of a competitive economy	6.97	Survey [010]	20
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	22.68	%	36
	University education	meets the needs of a competitive economy	7.03	Survey [010]	26
	Management education	meets the needs of the business community	6.57	Survey [010]	31
	Language skills	are meeting the needs of enterprises	5.40	Survey [010]	46
\triangleright	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.98	number	49
	Educational assessment - PISA	PISA survey of 15-year olds	477	Average	33

JAPAN

OVERALL PERFORMANCE (63 countries)



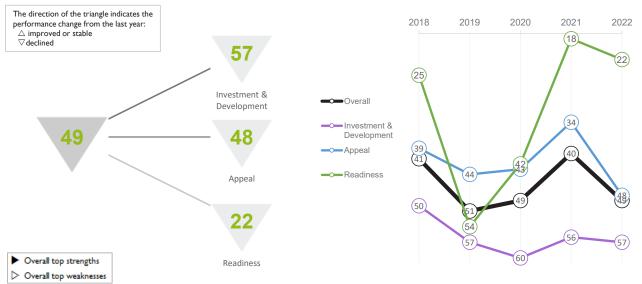
INVESTMENT & DEVELOPMENT		Value	e 2022	Rank
Total public expenditure on education	Percentage of GDP	3.4	%	54
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	7,984	US\$	25
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	15.62	ratio	37
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.02	ratio	33
Apprenticeships	are sufficiently implemented	5.62	Survey [010]	22
Employee training	is a high priority in companies	6.22	Survey [010]	30
Female labor force	Percentage of total labor force	44.59	%	38
Health infrastructure	meets the needs of society	6.49	Survey [010]	31

APPEAL		Value	e 2	2022 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	116.90	index	59
Attracting and retaining talents	is a priority in companies	8.13	Survey [010]] 4
Worker motivation	in companies is high	5.84	Survey [010]	32
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.13	Survey [010]	43
Quality of life	is high	7.35	Survey [010]	30
Foreign highly-skilled personnel	are attracted to your country's business environment	3.64	Survey [010]	54
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	45,806	US\$	14
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	269,256	US\$	8
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	6.01	%	36
▶ Justice	is fairly administered	7.64	Survey [010]] 14
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	13.65	micrograms	25

	READINESS		Value	20	022 Rank
	Labor force growth	Percentage change	0.07	%	42
	Skilled labor	is readily available	5.03	Survey [010]	36
	Finance skills	are readily available	5.62	Survey [010]	43
\triangleright	International experience	of senior managers is generally significant	3.01	Survey [010]	63
\triangleright	Competent senior managers	are readily available	3.50	Survey [010]	61
	Primary and secondary education	meets the needs of a competitive economy	6.11	Survey [010]	36
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	21.77	%	39
	University education	meets the needs of a competitive economy	4.38	Survey [010]	59
\triangleright	Management education	meets the needs of the business community	4.18	Survey [010]	60
\triangleright	Language skills	are meeting the needs of enterprises	3.11	Survey [010]	62
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.61	number	46
	Educational assessment - PISA	PISA survey of 15-year olds	520	Average	5

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OVERALL PERFORMANCE (63 countries)



	INVESTMENT & DEVELOPMENT		Value	e 2022 Rank
\triangleright	Total public expenditure on education	Percentage of GDP	3.0	% 60
\triangleright	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	548	US\$ 59
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	17.22	ratio 46
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	13.32	ratio 45
	Apprenticeships	are sufficiently implemented	5.85	Survey [010] 16
	Employee training	is a high priority in companies	5.85	Survey [010] 39
\triangleright	Female labor force	Percentage of total labor force	20.57	% 62
	Health infrastructure	meets the needs of society	6.08	Survey [010] 34

APPEAL		Value	2	2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	74.40	index	26
Attracting and retaining talents	is a priority in companies	5.85	Survey [010]	53
Worker motivation	in companies is high	5.60	Survey [010]	38
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.00	Survey [010]	31
Quality of life	is high	5.59	Survey [010]	45
Foreign highly-skilled personnel	are attracted to your country's business environment	5.13	Survey [010]	39
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	-	US\$	-
> Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	52,902	US\$	56
 Collected personal income tax 	On profits, income and capital gains, as a percentage of GDP	0.85	%	5
Justice	is fairly administered	5.44	Survey [010]	35
> Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	30.13	micrograms	55

READINESS		Value 202	22 Rank
Labor force growth	Percentage change	3.73 %	7
Skilled labor	is readily available	6.29 Survey [010]	13
Finance skills	are readily available	6.49 Survey [010]	25
International experience	of senior managers is generally significant	6.17 Survey [010]	16
Competent senior managers	are readily available	6.40 Survey [010]	17
Primary and secondary education	meets the needs of a competitive economy	6.12 Survey [010]	35
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	28.42 %	14
University education	meets the needs of a competitive economy	6.38 Survey [010]	33
Management education	meets the needs of the business community	6.19 Survey [010]	38
Language skills	are meeting the needs of enterprises	6.29 Survey [010]	32
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	3.67 number	28
Educational assessment - PISA	PISA survey of 15-year olds	416 Average	47

KAZAKHSTAN

OVERALL PERFORMANCE (63 countries)



	INVESTMENT & DEVELOPMENT		Value	e 2	2022 Rank
	Total public expenditure on education	Percentage of GDP	4.8	%	36
\triangleright	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,538	US\$	51
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	16.80	ratio	44
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	8.28	ratio	2
	Apprenticeships	are sufficiently implemented	5.60	Survey [010]	23
	Employee training	is a high priority in companies	6.66	Survey [010]	13
	Female labor force	Percentage of total labor force	48.61	%	8
	Health infrastructure	meets the needs of society	4.92	Survey [010]	43

APPEAL		Value	e 2	2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	50.90	index	2
Attracting and retaining talents	is a priority in companies	6.64	Survey [010]	37
Worker motivation	in companies is high	5.80	Survey [010]	34
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.64	Survey [010]	49
▷ Quality of life	is high	5.11	Survey [010]	51
Foreign highly-skilled personnel	are attracted to your country's business environment	5.68	Survey [010]	29
▷ Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	6,244	US\$	58
▷ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	16,000	US\$	61
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	1.32	%	8
Justice	is fairly administered	4.96	Survey [010]	43
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	21.05	micrograms	45

READINESS		Value	e 20)22 Rank
Labor force growth	Percentage change	0.83	%	33
Skilled labor	is readily available	5.82	Survey [010]	23
Finance skills	are readily available	6.74	Survey [010]	18
International experience	of senior managers is generally significant	5.58	Survey [010]	32
Competent senior managers	are readily available	6.05	Survey [010]	24
Primary and secondary education	meets the needs of a competitive economy	5.41	Survey [010]	46
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	24.06	%	29
University education	meets the needs of a competitive economy	5.04	Survey [010]	50
Management education	meets the needs of the business community	5.44	Survey [010]	48
Language skills	are meeting the needs of enterprises	5.29	Survey [010]	47
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.17	number	39
Educational assessment - PISA	PISA survey of 15-year olds	402	Average	51

OREA REP.





INVESTMENT & DEVELOPMENT		Value	e 2	2022 Rank
Total public expenditure on education	Percentage of GDP	4.7	%	38
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	7,950	US\$	26
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	16.31	ratio	41
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.89	ratio	31
Apprenticeships	are sufficiently implemented	5.64	Survey [010]	21
Employee training	is a high priority in companies	6.10	Survey [010]	34
Female labor force	Percentage of total labor force	43.04	%	44
Health infrastructure	meets the needs of society	7.66	Survey [010]	14

APPEAL		Value	e 2	2022 Rank
> Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	104.60	index	55
 Attracting and retaining talents 	is a priority in companies	7.54	Survey [010]] 18
> Worker motivation	in companies is high	4.94	Survey [010]	52
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.81	Survey [010]	33
Quality of life	is high	6.44	Survey [010]	36
Foreign highly-skilled personnel	are attracted to your country's business environment	4.15	Survey [010]	49
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	24,963	US\$	29
 Remuneration of management 	Total base salary plus bonuses and long-term incentives, US\$	237,687	US\$	16
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	5.24	%	31
Justice	is fairly administered	4.98	Survey [010]	42
> Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	27.45	micrograms	53

	READINESS		Value	2	022 Rank
	Labor force growth	Percentage change	1.06	%	29
	Skilled labor	is readily available	4.58	Survey [010]	43
	Finance skills	are readily available	5.60	Survey [010]	44
\triangleright	International experience	of senior managers is generally significant	4.32	Survey [010]	59
\triangleright	Competent senior managers	are readily available	3.85	Survey [010]	56
	Primary and secondary education	meets the needs of a competitive economy	6.06	Survey [010]	37
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	30.18	%	9
	University education	meets the needs of a competitive economy	5.21	Survey [010]	46
	Management education	meets the needs of the business community	5.60	Survey [010]	46
	Language skills	are meeting the needs of enterprises	5.60	Survey [010]	45
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.15	number	40
	Educational assessment - PISA	PISA survey of 15-year olds	520	Average	6

OVERALL PERFORMANCE (63 countries)



INVESTMENT & DEVELOPMENT		Value	e 2	2022 Rank
Total public expenditure on education	Percentage of GDP	5.9	%	12
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	4,971	US\$	36
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	12.11	ratio	16
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	10.37	ratio	15
Apprenticeships	are sufficiently implemented	5.86	Survey [010]	13
Employee training	is a high priority in companies	6.38	Survey [010]	23
Female labor force	Percentage of total labor force	49.51	%	4
Health infrastructure	meets the needs of society	5.29	Survey [010]	40

	APPEAL		Value	2	2022 Rank
(Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	74.20	index	25
A	Attracting and retaining talents	is a priority in companies	6.52	Survey [010] 41
\	Norker motivation	in companies is high	6.00	Survey [010] 30
E	Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.05	Survey [010] 44
\triangleright	Quality of life	is high	5.37	Survey [010] 47
F	Foreign highly-skilled personnel	are attracted to your country's business environment	5.14	Survey [010] 38
\triangleright	Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	11,431	US\$	52
\triangleright	Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	99,037	US\$	47
(Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	6.13	%	37
-	Justice	is fairly administered	5.43	Survey [010] 36
E	Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	12.71	micrograms	23

	READINESS		Value	e 202	22 Rank
\triangleright	Labor force growth	Percentage change	-3.82	%	61
	Skilled labor	is readily available	6.15	Survey [010]	18
	Finance skills	are readily available	6.67	Survey [010]	22
	International experience	of senior managers is generally significant	5.95	Survey [010]	20
	Competent senior managers	are readily available	6.00	Survey [010]	26
	Primary and secondary education	meets the needs of a competitive economy	6.33	Survey [010]	29
\triangleright	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	19.33	%	49
	University education	meets the needs of a competitive economy	6.29	Survey [010]	36
	Management education	meets the needs of the business community	6.67	Survey [010]	28
	Language skills	are meeting the needs of enterprises	7.14	Survey [010]	24
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	5.32	number	14
	Educational assessment - PISA	PISA survey of 15-year olds	487	Average	29

IUANIA

OVERALL PERFORMANCE (63 countries)



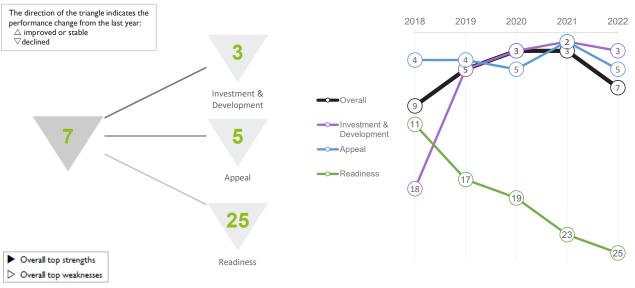
INVESTMENT & DEVELOPMENT		Value	e 2	2022 Rank
Total public expenditure on education	Percentage of GDP	5.2	%	27
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	5,147	US\$	35
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	14.20	ratio	30
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	9.78	ratio	12
Apprenticeships	are sufficiently implemented	6.15	Survey [010]	10
Employee training	is a high priority in companies	6.42	Survey [010]	21
Female labor force	Percentage of total labor force	49.50	%	5
Health infrastructure	meets the needs of society	5.45	Survey [010]	39

APPEAL		Value	2	022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	67.10	index	17
Attracting and retaining talents	is a priority in companies	7.57	Survey [010]	16
Worker motivation	in companies is high	6.12	Survey [010]	25
▷ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.82	Survey [010]	48
Quality of life	is high	7.18	Survey [010]	31
Foreign highly-skilled personnel	are attracted to your country's business environment	5.15	Survey [010]	37
▷ Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	11,666	US\$	50
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	112,304	US\$	44
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	7.10	%	42
Justice	is fairly administered	6.03	Survey [010]	31
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	10.47	micrograms	17

READINESS		Valu	e 20	022 Rank
▷ Labor force growth	Percentage change	-0.72	%	50
▷ Skilled labor	is readily available	4.31	Survey [010]	47
▷ Finance skills	are readily available	5.36	Survey [010]	46
International experience	of senior managers is generally significant	6.03	Survey [010]	17
Competent senior managers	are readily available	5.35	Survey [010]	33
Primary and secondary education	meets the needs of a competitive economy	6.33	Survey [010]	29
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	26.03	%	23
University education	meets the needs of a competitive economy	6.33	Survey [010]	34
Management education	meets the needs of the business community	6.06	Survey [010]	41
Language skills	are meeting the needs of enterprises	7.57	Survey [010]	19
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.35	number	37
Educational assessment - PISA	PISA survey of 15-year olds	480	Average	31

XEMBOURG

OVERALL PERFORMANCE (63 countries)



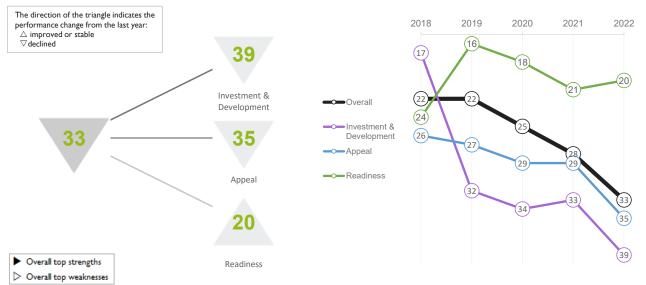
	INVESTMENT & DEVELOPMENT		Value	e 20	022 Rank
	Total public expenditure on education	Percentage of GDP	5.0	%	32
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	31,339	US\$	1
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	9.97	ratio	3
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	9.24	ratio	8
	Apprenticeships	are sufficiently implemented	5.51	Survey [010]	26
\triangleright	Employee training	is a high priority in companies	6.26	Survey [010]	29
	Female labor force	Percentage of total labor force	39.51	%	52
	Health infrastructure	meets the needs of society	7.74	Survey [010]	13

	APPEAL			. :	2022 Rank	
	Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	80.30	index	36	
	Attracting and retaining talents	is a priority in companies	7.82	Survey [010] 10	
	Worker motivation	in companies is high	6.08	Survey [010] 27	
	Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.64	Survey [010] 23	
	Quality of life	is high	8.62	Survey [010] 10	
	Foreign highly-skilled personnel	are attracted to your country's business environment	7.46	Survey [010] 7	
	Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	64,767	US\$	3	
	Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	263,271	US\$	9	
\triangleright	Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	9.73	%	50	
	Justice	is fairly administered	6.85	Survey [010] 21	
	Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	10.09	micrograms	16	

	READINESS		Value	202	22 Rank
	Labor force growth	Percentage change	2.83	%	13
\triangleright	Skilled labor	is readily available	4.05	Survey [010]	52
	Finance skills	are readily available	6.24	Survey [010]	32
	International experience	of senior managers is generally significant	7.05	Survey [010]	8
\triangleright	Competent senior managers	are readily available	4.87	Survey [010]	45
	Primary and secondary education	meets the needs of a competitive economy	6.51	Survey [010]	27
\triangleright	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	19.24	%	50
	University education	meets the needs of a competitive economy	6.26	Survey [010]	38
	Management education	meets the needs of the business community	6.49	Survey [010]	35
	Language skills	are meeting the needs of enterprises	8.64	Survey [010]	6
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	5.75	number	12
	Educational assessment - PISA	PISA survey of 15-year olds	477	Average	34

AYSIA

OVERALL PERFORMANCE (63 countries)



	INVESTMENT & DEVELOPMENT		Value	e 2	022 Rank
	Total public expenditure on education	Percentage of GDP	4.5	%	43
\triangleright	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,932	US\$	47
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	12.03	ratio	12
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.04	ratio	20
	Apprenticeships	are sufficiently implemented	5.21	Survey [010]	33
	Employee training	is a high priority in companies	5.83	Survey [010]	40
\triangleright	Female labor force	Percentage of total labor force	39.02	%	54
	Health infrastructure	meets the needs of society	6.71	Survey [010]	28

	APPEAL		Value	e 2	2022 Rank
	Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	65.00	index	14
\triangleright	Attracting and retaining talents	is a priority in companies	6.22	Survey [010]] 46
	Worker motivation	in companies is high	5.31	Survey [010]] 40
	Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.87	Survey [010]] 32
\triangleright	Quality of life	is high	5.62	Survey [010]] 44
	Foreign highly-skilled personnel	are attracted to your country's business environment	5.52	Survey [010]] 31
	Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	13,564	US\$	42
	Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	117,688	US\$	43
	Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	2.75	%	20
	Justice	is fairly administered	5.07	Survey [010]] 39
	Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	16.55	micrograms	32

	READINESS		Value	20	022 Rank
	Labor force growth	Percentage change	3.03	%	12
	Skilled labor	is readily available	5.74	Survey [010]	29
	Finance skills	are readily available	5.89	Survey [010]	38
	International experience	of senior managers is generally significant	5.62	Survey [010]	31
	Competent senior managers	are readily available	5.83	Survey [010]	29
	Primary and secondary education	meets the needs of a competitive economy	5.67	Survey [010]	42
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	38.90	%	2
	University education	meets the needs of a competitive economy	5.88	Survey [010]	40
	Management education	meets the needs of the business community	5.87	Survey [010]	43
	Language skills	are meeting the needs of enterprises	6.27	Survey [010]	35
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.74	number	32
\triangleright	Educational assessment - PISA	PISA survey of 15-year olds	431	Average	43

OVERALL PERFORMANCE (63 countries)



	INVESTMENT & DEVELOPMENT		Value	2	022 Rank
	Total public expenditure on education	Percentage of GDP	3.3	%	55
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	958	US\$	56
\triangleright	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	24.27	ratio	57
\triangleright	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	26.87	ratio	61
	Apprenticeships	are sufficiently implemented	5.11	Survey [010]	34
	Employee training	is a high priority in companies	5.57	Survey [010]	43
	Female labor force	Percentage of total labor force	39.49	%	53
\triangleright	Health infrastructure	meets the needs of society	2.86	Survey [010]	59

APPEAL		Value	2	2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	65.00	index	14
Attracting and retaining talents	is a priority in companies	5.65	Survey [010]	55
Worker motivation	in companies is high	5.76	Survey [010]	36
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.22	Survey [010]	39
Quality of life	is high	5.11	Survey [010]	50
Foreign highly-skilled personnel	are attracted to your country's business environment	4.57	Survey [010]	47
\triangleright Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	7,429	US\$	56
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	200,980	US\$	22
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	3.77	%	28
▷ Justice	is fairly administered	2.49	Survey [010]	58
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	20.11	micrograms	44

READINESS		Value	e 20	22 Rank
Labor force growth	Percentage change	5.16	%	6
Skilled labor	is readily available	5.48	Survey [010]	33
Finance skills	are readily available	5.65	Survey [010]	42
International experience	of senior managers is generally significant	5.52	Survey [010]	36
Competent senior managers	are readily available	5.07	Survey [010]	38
Primary and secondary education	meets the needs of a competitive economy	3.94	Survey [010]	53
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	25.82	%	26
University education	meets the needs of a competitive economy	5.59	Survey [010]	45
Management education	meets the needs of the business community	5.57	Survey [010]	47
Language skills	are meeting the needs of enterprises	4.85	Survey [010]	51
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.34	number	55
Educational assessment - PISA	PISA survey of 15-year olds	416	Average	46

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OVERALL PERFORMANCE (63 countries)



	INVESTMENT & DEVELOPMENT		Value	e :	2022 Rank
	Total public expenditure on education	Percentage of GDP	4.4	%	45
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	626	US\$	58
\triangleright	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	31.92	ratio	62
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	20.00	ratio	55
	Apprenticeships	are sufficiently implemented	4.11	Survey [010] 53
	Employee training	is a high priority in companies	6.57	Survey [010] 16
	Female labor force	Percentage of total labor force	46.27	%	29
	Health infrastructure	meets the needs of society	2.28	Survey [010] 62

	APPEAL		Value	. 2	2022 Rank
	Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	-	index	-
	Attracting and retaining talents	is a priority in companies	7.05	Survey [010]	28
	Worker motivation	in companies is high	4.21	Survey [010]	59
	Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	2.98	Survey [010]	54
\triangleright	Quality of life	is high	2.32	Survey [010]	62
	Foreign highly-skilled personnel	are attracted to your country's business environment	3.09	Survey [010]	58
	Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	-	US\$	-
\triangleright	Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	5,295	US\$	62
	· Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	2.29	%	13
	Justice	is fairly administered	2.07	Survey [010]	61
	Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	42.29	micrograms	57

	READINESS		Valu	e 202	22 Rank
	Labor force growth	Percentage change	-1.93	%	59
	Skilled labor	is readily available	2.80	Survey [010]	62
	Finance skills	are readily available	3.67	Survey [010]	62
	International experience	of senior managers is generally significant	4.07	Survey [010]	61
\triangleright	Competent senior managers	are readily available	3.21	Survey [010]	63
	Primary and secondary education	meets the needs of a competitive economy	3.44	Survey [010]	59
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	23.15	%	33
\triangleright	University education	meets the needs of a competitive economy	3.12	Survey [010]	63
	Management education	meets the needs of the business community	4.04	Survey [010]	61
	Language skills	are meeting the needs of enterprises	4.84	Survey [010]	52
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.69	number	50
	Educational assessment - PISA	PISA survey of 15-year olds	-	Average	-

ERLANDS

OVERALL PERFORMANCE (63 countries)



	INVESTMENT & DEVELOPMENT		Value	e 2	2022 Rank
	Total public expenditure on education	Percentage of GDP	5.3	%	25
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	11,531	US\$	11
\triangleright	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	16.28	ratio	39
\triangleright	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	16.66	ratio	50
	Apprenticeships	are sufficiently implemented	6.79	Survey [010]	5
	Employee training	is a high priority in companies	7.47	Survey [010]	5
	Female labor force	Percentage of total labor force	46.88	%	23
	Health infrastructure	meets the needs of society	8.21	Survey [010]	7

APPEAL		Value	e 2	2022 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	85.80	index	43
Attracting and retaining talents	is a priority in companies	8.24	Survey [010]	2
Worker motivation	in companies is high	7.69	Survey [010]	3
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	7.33	Survey [010]	5
Quality of life	is high	9.29	Survey [010]	6
Foreign highly-skilled personnel	are attracted to your country's business environment	7.88	Survey [010]	2
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	46,077	US\$	13
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	244,812	US\$	13
▷ Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	9.07	%	46
Justice	is fairly administered	8.78	Survey [010]	3
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	12.03	micrograms	21

READINESS		Value	e 202	22 Rank
Labor force growth	Percentage change	0.44	%	36
Skilled labor	is readily available	6.17	Survey [010]	17
Finance skills	are readily available	7.57	Survey [010]	5
International experience	of senior managers is generally significant	7.14	Survey [010]	6
Competent senior managers	are readily available	6.97	Survey [010]	6
Primary and secondary education	meets the needs of a competitive economy	8.38	Survey [010]	5
▷ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	18.83	%	51
University education	meets the needs of a competitive economy	8.66	Survey [010]	2
Management education	meets the needs of the business community	8.31	Survey [010]	2
Language skills	are meeting the needs of enterprises	9.06	Survey [010]	1
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	7.17	number	9
Educational assessment - PISA	PISA survey of 15-year olds	502	Average	16

EW ZEALAND

OVERALL PERFORMANCE (63 countries)



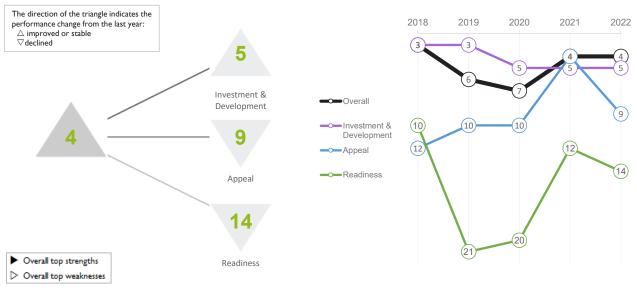
INVESTMENT & DEVELOPMENT		Value	e 2	2022 Rank
Total public expenditure on education	Percentage of GDP	5.9	%	13
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	8,954	US\$	22
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	16.42	ratio	43
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	14.53	ratio	48
Apprenticeships	are sufficiently implemented	4.82	Survey [010]] 41
Employee training	is a high priority in companies	5.58	Survey [010]] 42
Female labor force	Percentage of total labor force	47.36	%	13
Health infrastructure	meets the needs of society	4.34	Survey [010]] 49
	Total public expenditure on education Total public exp. on education per student Pupil-teacher ratio (primary education) Pupil-teacher ratio (secondary education) Apprenticeships Employee training Female labor force	Total public expenditure on educationPercentage of GDPTotal public exp. on education per studentSpending per enrolled pupil/student, all levelsPupil-teacher ratio (primary education)Ratio of students to teaching staffPupil-teacher ratio (secondary education)Ratio of students to teaching staffApprenticeshipsare sufficiently implementedEmployee trainingis a high priority in companiesFemale labor forcePercentage of total labor force	Total public expenditure on educationPercentage of GDP5.9Total public exp. on education per studentSpending per enrolled pupil/student, all levels8,954Pupil-teacher ratio (primary education)Ratio of students to teaching staff16.42Pupil-teacher ratio (secondary education)Ratio of students to teaching staff14.53Apprenticeshipsare sufficiently implemented4.82Employee trainingis a high priority in companies5.58Female labor forcePercentage of total labor force47.36	Total public expenditure on educationPercentage of GDP5.9%Total public exp. on education per studentSpending per enrolled pupil/student, all levels8,954US\$Pupil-teacher ratio (primary education)Ratio of students to teaching staff16.42ratioPupil-teacher ratio (secondary education)Ratio of students to teaching staff14.53ratioApprenticeshipsare sufficiently implemented4.82Survey [010Employee trainingis a high priority in companies5.58Survey [010Female labor forcePercentage of total labor force47.36%

APPEAL		Value	e 2	2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	78.40	index	34
Attracting and retaining talents	is a priority in companies	7.89	Survey [010]	9
Worker motivation	in companies is high	5.63	Survey [010]	37
▷ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	2.62	Survey [010]	61
Quality of life	is high	7.91	Survey [010]	23
Foreign highly-skilled personnel	are attracted to your country's business environment	5.69	Survey [010]	28
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	40,586	US\$	15
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	160,434	US\$	32
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	12.33	%	58
▶ Justice	is fairly administered	7.83	Survey [010]	12
 Exposure to particle pollution 	Mean population exposure to PM2.5, Micrograms per cubic metre	6.05	micrograms	4

	READINESS		Value	20)22 Rank
	Labor force growth	Percentage change	1.53	%	24
\triangleright	Skilled labor	is readily available	2.70	Survey [010]	63
	Finance skills	are readily available	5.04	Survey [010]	51
\triangleright	International experience	of senior managers is generally significant	4.37	Survey [010]	58
\triangleright	Competent senior managers	are readily available	4.00	Survey [010]	54
	Primary and secondary education	meets the needs of a competitive economy	5.75	Survey [010]	41
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	23.63	%	30
	University education	meets the needs of a competitive economy	6.70	Survey [010]	30
	Management education	meets the needs of the business community	5.89	Survey [010]	42
	Language skills	are meeting the needs of enterprises	5.61	Survey [010]	44
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	8.59	number	5
	Educational assessment - PISA	PISA survey of 15-year olds	503	Average	14

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OVERALL PERFORMANCE (63 countries)



INVESTMENT & DEVELOPMENT		Value	e 20	022 Rank
Total public expenditure on education	Percentage of GDP	5.9	%	14
► Total public exp. on education per student	Spending per enrolled pupil/student, all levels	15,480	US\$	5
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	10.14	ratio	5
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	9.61	ratio	11
Apprenticeships	are sufficiently implemented	6.73	Survey [010]	6
Employee training	is a high priority in companies	7.00	Survey [010]	12
Female labor force	Percentage of total labor force	46.97	%	21
Health infrastructure	meets the needs of society	7.50	Survey [010]	17

APPEAL		Value		2022 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	81.70	index	39
Attracting and retaining talents	is a priority in companies	7.95	Survey [010]] 7
Worker motivation	in companies is high	7.32	Survey [010]	8
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	7.45	Survey [010]] 4
Quality of life	is high	8.47	Survey [010]	12
Foreign highly-skilled personnel	are attracted to your country's business environment	6.59	Survey [010]] 14
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	53,497	US\$	6
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	136,174	US\$	39
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	11.27	%	53
Justice	is fairly administered	8.14	Survey [010]] 7
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	6.67	micrograms	6

	READINESS		Value	202	2 Rank
	Labor force growth	Percentage change	3.42	%	8
	Skilled labor	is readily available	6.82	Survey [010]	1
	Finance skills	are readily available	7.77	Survey [010]	2
	International experience	of senior managers is generally significant	5.91	Survey [010]	21
	Competent senior managers	are readily available	6.36	Survey [010]	18
	Primary and secondary education	meets the needs of a competitive economy	7.45	Survey [010]	18
\triangleright	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	21.23	%	41
	University education	meets the needs of a competitive economy	8.05	Survey [010]	8
	Management education	meets the needs of the business community	7.16	Survey [010]	15
	Language skills	are meeting the needs of enterprises	8.05	Survey [010]	14
\triangleright	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.39	number	36
	Educational assessment - PISA	PISA survey of 15-year olds	497	Average	22

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OVERALL PERFORMANCE (63 countries)



	INVESTMENT & DEVELOPMENT		Value		2022 Rank
	Total public expenditure on education	Percentage of GDP	4.1	%	47
\triangleright	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	837	US\$	57
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	18.23	ratio	49
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	13.78	ratio	47
	Apprenticeships	are sufficiently implemented	4.99	Survey [010]	38
	Employee training	is a high priority in companies	4.98	Survey [010]	53
	Female labor force	Percentage of total labor force	42.34	%	48
\triangleright	Health infrastructure	meets the needs of society	2.56	Survey [010]	60

APPEAL		Value	2	2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	65.70	index	16
Attracting and retaining talents	is a priority in companies	4.92	Survey [010]	63
Worker motivation	in companies is high	5.10	Survey [010]	46
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.40	Survey [010]	38
Quality of life	is high	4.37	Survey [010]	55
Foreign highly-skilled personnel	are attracted to your country's business environment	5.12	Survey [010]	40
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	13,359	US\$	43
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	163,911	US\$	30
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	1.42	%	9
▷ Justice	is fairly administered	2.47	Survey [010]	59
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	31.06	micrograms	56

	READINESS		Value	e 202	22 Rank
	Labor force growth	Percentage change	12.80	%	1
	Skilled labor	is readily available	4.56	Survey [010]	44
	Finance skills	are readily available	4.88	Survey [010]	52
	International experience	of senior managers is generally significant	5.33	Survey [010]	38
	Competent senior managers	are readily available	4.21	Survey [010]	52
\triangleright	Primary and secondary education	meets the needs of a competitive economy	3.36	Survey [010]	60
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	29.64	%	10
	University education	meets the needs of a competitive economy	4.67	Survey [010]	55
	Management education	meets the needs of the business community	4.86	Survey [010]	55
	Language skills	are meeting the needs of enterprises	4.37	Survey [010]	57
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	-	number	-
	Educational assessment - PISA	PISA survey of 15-year olds	402	Average	52

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OVERALL PERFORMANCE (63 countries)



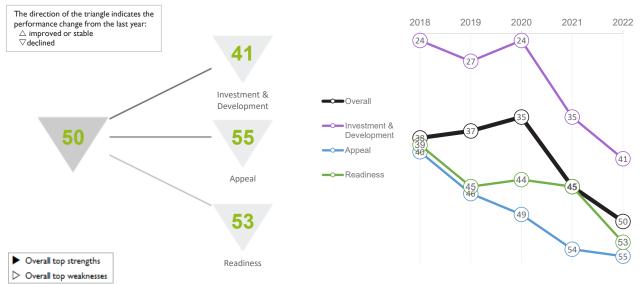
	INVESTMENT & DEVELOPMENT		Value	20	22 Rank
\triangleright	Total public expenditure on education	Percentage of GDP	3.1	%	59
\triangleright	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	361	US\$	62
\triangleright	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	25.19	ratio	58
\triangleright	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	24.64	ratio	59
	Apprenticeships	are sufficiently implemented	4.15	Survey [010]	52
	Employee training	is a high priority in companies	5.89	Survey [010]	38
	Female labor force	Percentage of total labor force	40.26	%	51
	Health infrastructure	meets the needs of society	4.02	Survey [010]	51

APPEAL		Value		2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	77.30	index	30
Attracting and retaining talents	is a priority in companies	6.68	Survey [010] 36
Worker motivation	in companies is high	5.77	Survey [010] 35
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.91	Survey [010) 46
Quality of life	is high	5.14	Survey [010)] 49
Foreign highly-skilled personnel	are attracted to your country's business environment	4.64	Survey [010)] 45
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	12,791	US\$	44
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	159,418	US\$	33
 Collected personal income tax 	On profits, income and capital gains, as a percentage of GDP	2.45	%	15
Justice	is fairly administered	3.71	Survey [010	j 50
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	18.79	micrograms	38

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READINESS		Value	202	22 Rank
Labor force growth	Percentage change	8.67	%	3
Skilled labor	is readily available	6.80	Survey [010]	2
Finance skills	are readily available	6.34	Survey [010]	29
International experience	of senior managers is generally significant	5.64	Survey [010]	30
Competent senior managers	are readily available	6.18	Survey [010]	20
Primary and secondary education	meets the needs of a competitive economy	5.51	Survey [010]	45
 Graduates in Sciences 	% of graduates in ICT, Engineering, Math & Natural Sciences	28.28	%	15
University education	meets the needs of a competitive economy	6.47	Survey [010]	32
Management education	meets the needs of the business community	6.65	Survey [010]	29
Language skills	are meeting the needs of enterprises	7.20	Survey [010]	23
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.11	number	57
Educational assessment - PISA	PISA survey of 15-year olds	350	Average	57

OVERALL PERFORMANCE (63 countries)



INVESTMENT & DEVELOPMENT		Value	2	2022 Rank
Total public expenditure on education	Percentage of GDP	5.2	%	26
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	4,033	US\$	39
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	10.19	ratio	6
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.15	ratio	21
▷ Apprenticeships	are sufficiently implemented	3.23	Survey [010]	60
▷ Employee training	is a high priority in companies	4.51	Survey [010]	60
Female labor force	Percentage of total labor force	45.22	%	34
Dash Health infrastructure	meets the needs of society	2.53	Survey [010]	61

APPEAL		Value	. 2	2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	61.70	index	9
Attracting and retaining talents	is a priority in companies	5.14	Survey [010]	60
Worker motivation	in companies is high	5.19	Survey [010]] 45
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.51	Survey [010]	50
Quality of life	is high	4.48	Survey [010]	54
Foreign highly-skilled personnel	are attracted to your country's business environment	3.77	Survey [010]	53
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	18,898	US\$	35
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	145,948	US\$	37
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	5.18	%	30
Justice	is fairly administered	2.41	Survey [010]	60
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	22.77	micrograms	48

	READINESS		Value	e 202	22 Rank
►	Labor force growth	Percentage change	1.63	%	22
	Skilled labor	is readily available	3.75	Survey [010]	56
\triangleright	Finance skills	are readily available	4.46	Survey [010]	61
	International experience	of senior managers is generally significant	4.53	Survey [010]	54
	Competent senior managers	are readily available	4.31	Survey [010]	50
	Primary and secondary education	meets the needs of a competitive economy	3.82	Survey [010]	55
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	19.45	%	48
	University education	meets the needs of a competitive economy	4.33	Survey [010]	60
	Management education	meets the needs of the business community	4.87	Survey [010]	54
	Language skills	are meeting the needs of enterprises	5.16	Survey [010]	48
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.62	number	45
►	Educational assessment - PISA	PISA survey of 15-year olds	513	Average	10

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OVERALL PERFORMANCE (63 countries)



	INVESTMENT & DEVELOPMENT		Value	e 2	022 Rank
	Total public expenditure on education	Percentage of GDP	5.0	%	31
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	5,774	US\$	33
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	12.07	ratio	13
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	8.84	ratio	4
	Apprenticeships	are sufficiently implemented	4.74	Survey [010]	45
\triangleright	Employee training	is a high priority in companies	4.48	Survey [010]	61
	Female labor force	Percentage of total labor force	49.70	%	3
	Health infrastructure	meets the needs of society	6.68	Survey [010]	29

	APPEAL		Value	:	2022 Rank
	Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	76.80	index	29
\triangleright	Attracting and retaining talents	is a priority in companies	5.97	Survey [010	51
\triangleright	Worker motivation	in companies is high	4.94	Survey [010	53
\triangleright	Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	2.87	Survey [010] 56
	Quality of life	is high	7.39	Survey [010] 29
	Foreign highly-skilled personnel	are attracted to your country's business environment	5.45	Survey [010] 32
	Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	21,500	US\$	33
	Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	157,932	US\$	34
	Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	7.00	%	41
\triangleright	Justice	is fairly administered	2.65	Survey [010] 57
	Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	8.18	micrograms	11

READINESS		Value	e 202	22 Rank
Labor force growth	Percentage change	2.32	%	16
Skilled labor	is readily available	5.55	Survey [010]	32
Finance skills	are readily available	5.38	Survey [010]	45
International experience	of senior managers is generally significant	4.94	Survey [010]	48
Competent senior managers	are readily available	4.48	Survey [010]	47
Primary and secondary education	meets the needs of a competitive economy	6.29	Survey [010]	32
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	27.82	%	17
University education	meets the needs of a competitive economy	7.29	Survey [010]	20
Management education	meets the needs of the business community	6.94	Survey [010]	21
Language skills	are meeting the needs of enterprises	8.39	Survey [010]	8
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	4.28	number	21
Educational assessment - PISA	PISA survey of 15-year olds	492	Average	26

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OVERALL PERFORMANCE (63 countries)



	INVESTMENT & DEVELOPMENT		Value	20	022 Rank
\triangleright	Total public expenditure on education	Percentage of GDP	3.2	%	57
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	12,468	US\$	10
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	12.46	ratio	20
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.51	ratio	26
	Apprenticeships	are sufficiently implemented	6.18	Survey [010]	8
	Employee training	is a high priority in companies	6.52	Survey [010]	19
\triangleright	Female labor force	Percentage of total labor force	15.28	%	63
	Health infrastructure	meets the needs of society	8.28	Survey [010]	6

APPEAL		Value	. 2	2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	63.20	index	12
Attracting and retaining talents	is a priority in companies	7.39	Survey [010]	22
Worker motivation	in companies is high	6.55	Survey [010]	15
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.94	Survey [010]	18
Quality of life	is high	8.22	Survey [010]	15
Foreign highly-skilled personnel	are attracted to your country's business environment	7.78	Survey [010]	4
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	22,573	US\$	32
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	161,676	US\$	31
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	0.00	%	1
Justice	is fairly administered	7.96	Survey [010]	10
\triangleright Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	77.11	micrograms	62

	READINESS		Value	e 20	122 Rank
\triangleright	Labor force growth	Percentage change	-5.07	%	63
	Skilled labor	is readily available	6.29	Survey [010]	12
	Finance skills	are readily available	6.80	Survey [010]	16
	International experience	of senior managers is generally significant	7.74	Survey [010]	2
	Competent senior managers	are readily available	6.62	Survey [010]	13
	Primary and secondary education	meets the needs of a competitive economy	7.86	Survey [010]	10
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	21.09	%	42
	University education	meets the needs of a competitive economy	7.90	Survey [010]	11
	Management education	meets the needs of the business community	7.65	Survey [010]	9
	Language skills	are meeting the needs of enterprises	7.90	Survey [010]	15
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	4.84	number	16
\triangleright	Educational assessment - PISA	PISA survey of 15-year olds	413	Average	48

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OVERALL PERFORMANCE (63 countries)



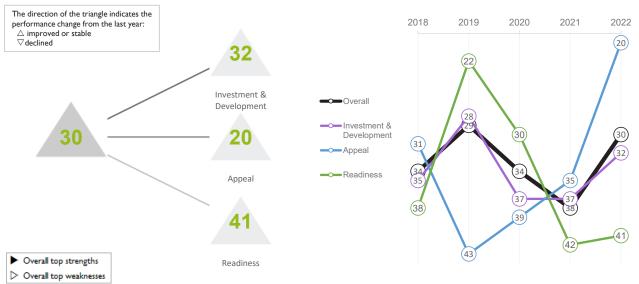
	INVESTMENT & DEVELOPMENT		Value	2	022 Rank
	Total public expenditure on education	Percentage of GDP	3.7	%	51
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	2,623	US\$	44
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	19.40	ratio	53
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.50	ratio	25
\triangleright	Apprenticeships	are sufficiently implemented	2.81	Survey [010]	62
	Employee training	is a high priority in companies	5.31	Survey [010]	47
	Female labor force	Percentage of total labor force	42.44	%	47
\triangleright	Health infrastructure	meets the needs of society	3.38	Survey [010]	58

APPEAL		Value	2	2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	81.00	index	37
Attracting and retaining talents	is a priority in companies	6.03	Survey [010	50
▷ Worker motivation	in companies is high	4.53	Survey [010	57
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	2.97	Survey [010] 55
▷ Quality of life	is high	4.09	Survey [010] 57
Foreign highly-skilled personnel	are attracted to your country's business environment	3.91	Survey [010	j 51
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	11,654	US\$	51
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	90,522	US\$	50
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	2.30	%	14
Justice	is fairly administered	4.47	Survey [010] 47
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	15.06	micrograms	28

	READINESS		Value	203	22 Rank
	Labor force growth	Percentage change -(0.68	%	49
	Skilled labor	is readily available	3.84	Survey [010]	55
	Finance skills	are readily available	4.73	Survey [010]	55
	International experience	of senior managers is generally significant	4.53	Survey [010]	55
\triangleright	Competent senior managers	are readily available	3.84	Survey [010]	57
	Primary and secondary education	meets the needs of a competitive economy	4.28	Survey [010]	51
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences 29	9.09	%	11
	University education	meets the needs of a competitive economy	5.00	Survey [010]	52
	Management education	meets the needs of the business community	4.75	Survey [010]	56
	Language skills	are meeting the needs of enterprises	5.75	Survey [010]	28
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	86.1	number	44
	Educational assessment - PISA	PISA survey of 15-year olds	428	Average	44

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OVERALL PERFORMANCE (63 countries)



	INVESTMENT & DEVELOPMENT		Value	e 2	2022 Rank
	Total public expenditure on education	Percentage of GDP	7.8	%	3
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	6,330	US\$	30
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	13.82	ratio	27
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.99	ratio	41
	Apprenticeships	are sufficiently implemented	6.16	Survey [010]	9
	Employee training	is a high priority in companies	6.61	Survey [010]	14
\triangleright	Female labor force	Percentage of total labor force	21.52	%	61
	Health infrastructure	meets the needs of society	7.34	Survey [010]	21

APPEAL		Value	. 2	022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	62.10	index	10
Attracting and retaining talents	is a priority in companies	7.45	Survey [010]	21
Worker motivation	in companies is high	6.47	Survey [010]	16
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.53	Survey [010]	24
Quality of life	is high	8.19	Survey [010]	16
Foreign highly-skilled personnel	are attracted to your country's business environment	7.11	Survey [010]	10
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	28,388	US\$	26
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	144,621	US\$	38
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	0.00	%	1
Justice	is fairly administered	7.59	Survey [010]	15
> Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	64.06	micrograms	61

	READINESS		Value	20)22 Rank
	Labor force growth	Percentage change	0.47	%	35
\triangleright	Skilled labor	is readily available	4.68	Survey [010]	41
	Finance skills	are readily available	6.26	Survey [010]	30
	International experience	of senior managers is generally significant	7.05	Survey [010]	8
	Competent senior managers	are readily available	6.16	Survey [010]	22
	Primary and secondary education	meets the needs of a competitive economy	6.21	Survey [010]	33
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	23.34	%	32
	University education	meets the needs of a competitive economy	7.12	Survey [010]	23
	Management education	meets the needs of the business community	6.88	Survey [010]	24
	Language skills	are meeting the needs of enterprises	7.44	Survey [010]	20
\triangleright	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.97	number	42
\triangleright	Educational assessment - PISA	PISA survey of 15-year olds	386	Average	55

SINGAPORE

OVERALL PERFORMANCE (63 countries)



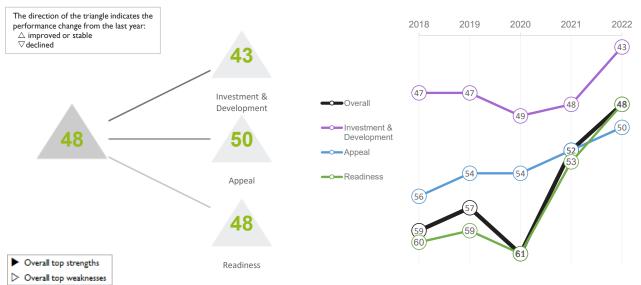
	INVESTMENT & DEVELOPMENT		Value	e 20)22 Rank
\triangleright	Total public expenditure on education	Percentage of GDP	2.6	%	62
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	10,929	US\$	16
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	13.92	ratio	28
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.48	ratio	24
	Apprenticeships	are sufficiently implemented	5.86	Survey [010]	13
	Employee training	is a high priority in companies	6.36	Survey [010]	24
	Female labor force	Percentage of total labor force	46.80	%	25
	Health infrastructure	meets the needs of society	8.18	Survey [010]	8

APPEAL		Value	e 2	2022 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	108.40	index	56
Attracting and retaining talents	is a priority in companies	7.36	Survey [010]	24
Worker motivation	in companies is high	6.11	Survey [010]	26
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.86	Survey [010]	8
Quality of life	is high	8.25	Survey [010]	14
Foreign highly-skilled personnel	are attracted to your country's business environment	7.61	Survey [010]	5
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	-	US\$	-
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	298,777	US\$	4
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	2.68	%	18
Justice	is fairly administered	8.14	Survey [010]	7
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	19.00	micrograms	40

	READINESS		Value	e 202	22 Rank
\triangleright	Labor force growth	Percentage change	-2.86	%	60
	Skilled labor	is readily available	6.50	Survey [010]	8
	Finance skills	are readily available	6.93	Survey [010]	12
	International experience	of senior managers is generally significant	7.14	Survey [010]	5
	Competent senior managers	are readily available	6.82	Survey [010]	8
	Primary and secondary education	meets the needs of a competitive economy	8.43	Survey [010]	4
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	36.27	%	3
	University education	meets the needs of a competitive economy	7.93	Survey [010]	10
	Management education	meets the needs of the business community	7.75	Survey [010]	7
	Language skills	are meeting the needs of enterprises	8.25	Survey [010]	10
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	9.67	number	4
	Educational assessment - PISA	PISA survey of 15-year olds	556	Average	2

AK REPUBLIC 5

OVERALL PERFORMANCE (63 countries)



	INVESTMENT & DEVELOPMENT		Value	2	022 Rank
	Total public expenditure on education	Percentage of GDP	4.6	%	42
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	4,830	US\$	37
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	17.46	ratio	47
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	13.01	ratio	42
\triangleright	Apprenticeships	are sufficiently implemented	3.83	Survey [010]	56
	Employee training	is a high priority in companies	5.33	Survey [010]	46
	Female labor force	Percentage of total labor force	46.97	%	20
\triangleright	Health infrastructure	meets the needs of society	3.89	Survey [010]	53

APPEAL		Value	e 2	2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	71.60	index	22
Attracting and retaining talents	is a priority in companies	6.11	Survey [010]	47
Worker motivation	in companies is high	5.03	Survey [010]	50
▷ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	2.78	Survey [010]	58
Quality of life	is high	5.75	Survey [010]	42
▷ Foreign highly-skilled personnel	are attracted to your country's business environment	3.36	Survey [010]	56
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	14,558	US\$	40
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	175,796	US\$	29
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	3.77	%	27
Justice	is fairly administered	3.61	Survey [010]	51
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	18.53	micrograms	37

	READINESS		Valu	e 202	22 Rank
	Labor force growth	Percentage change	1.31	%	27
	Skilled labor	is readily available	4.00	Survey [010]	53
	Finance skills	are readily available	5.07	Survey [010]	50
	International experience	of senior managers is generally significant	5.27	Survey [010]	40
	Competent senior managers	are readily available	4.33	Survey [010]	49
	Primary and secondary education	meets the needs of a competitive economy	4.33	Survey [010]	50
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	22.18	%	37
\triangleright	University education	meets the needs of a competitive economy	4.72	Survey [010]	54
	Management education	meets the needs of the business community	5.44	Survey [010]	49
	Language skills	are meeting the needs of enterprises	5.67	Survey [010]	42
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.61	number	34
	Educational assessment - PISA	PISA survey of 15-year olds	469	Average	36

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OVERALL PERFORMANCE (63 countries)



INVESTMENT & DEVELOPMENT

	INVESTMENT & DEVELOPMENT		Value	e 2	022 Rank
	Total public expenditure on education	Percentage of GDP	5.8	%	18
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	7,358	US\$	29
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	10.29	ratio	7
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	9.27	ratio	9
\triangleright	Apprenticeships	are sufficiently implemented	3.14	Survey [010]	61
	Employee training	is a high priority in companies	6.32	Survey [010]	26
	Female labor force	Percentage of total labor force	45.98	%	32
\triangleright	Health infrastructure	meets the needs of society	4.87	Survey [010]	44

	APPEAL		Value	. 2	2022 Rank
	Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	69.30	index	20
	Attracting and retaining talents	is a priority in companies	6.56	Survey [010]	40
	Worker motivation	in companies is high	5.27	Survey [010]] 44
\triangleright	Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.83	Survey [010]	47
	Quality of life	is high	8.05	Survey [010]] 19
\triangleright	Foreign highly-skilled personnel	are attracted to your country's business environment	3.40	Survey [010]	55
	Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	23,443	US\$	31
	Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	127,847	US\$	42
	Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	5.40	%	33
	Justice	is fairly administered	4.87	Survey [010]] 44
	Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	17.06	micrograms	35

READINESS

	READINESS		Value	e 20	022 Rank
\triangleright	Labor force growth	Percentage change	-0.87	%	52
	Skilled labor	is readily available	4.92	Survey [010]	37
	Finance skills	are readily available	5.70	Survey [010]	41
	International experience	of senior managers is generally significant	5.05	Survey [010]	44
	Competent senior managers	are readily available	4.93	Survey [010]	42
	Primary and secondary education	meets the needs of a competitive economy	6.60	Survey [010]	26
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	28.64	%	12
	University education	meets the needs of a competitive economy	6.32	Survey [010]	35
	Management education	meets the needs of the business community	6.93	Survey [010]	22
	Language skills	are meeting the needs of enterprises	7.71	Survey [010]	16
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.84	number	31
	Educational assessment - PISA	PISA survey of 15-year olds	504	Average	12

1 AFRICA \subset





INVESTMENT & DEVELOPMENT		Value	2	022 Rank
Total public expenditure on education	Percentage of GDP	8.4	%	2
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,853	US\$	49
\triangleright Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	30.30	ratio	61
▷ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	27.15	ratio	62
Apprenticeships	are sufficiently implemented	3.46	Survey [010]	59
Employee training	is a high priority in companies	4.93	Survey [010]	55
Female labor force	Percentage of total labor force	45.18	%	35
Health infrastructure	meets the needs of society	3.65	Survey [010]	55

APPEAL		Value		2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	54.10	index	3
Attracting and retaining talents	is a priority in companies	5.39	Survey [010]] 57
> Worker motivation	in companies is high	4.24	Survey [010]] 58
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.92	Survey [010]] 45
Quality of life	is high	4.60	Survey [010]] 53
Foreign highly-skilled personnel	are attracted to your country's business environment	4.75	Survey [010]] 44
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	17,757	US\$	36
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	43,111	US\$	58
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	8.80	%	45
Justice	is fairly administered	4.82	Survey [010]] 45
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	28.33	micrograms	54

READINESS		Value	e 2	022 Rank
Labor force growth	Percentage change	0.94	%	30
Skilled labor	is readily available	4.07	Survey [010]	51
Finance skills	are readily available	4.78	Survey [010]	53
International experience	of senior managers is generally significant	4.57	Survey [010]	53
Competent senior managers	are readily available	4.90	Survey [010]	44
Primary and secondary education	meets the needs of a competitive economy	3.67	Survey [010]	58
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	17.41	%	56
University education	meets the needs of a competitive economy	4.93	Survey [010]	53
Management education	meets the needs of the business community	5.17	Survey [010]	51
Language skills	are meeting the needs of enterprises	5.12	Survey [010]	49
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.60	number	52
Educational assessment - PISA	PISA survey of 15-year olds	-	Average	-

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OVERALL PERFORMANCE (63 countries)



INVESTMENT & DEVELOPMENT

INVESTMENT & DEVELOPMENT		Value	e 2	022 Rank
Total public expenditure on education	Percentage of GDP	4.6	%	41
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	5,935	US\$	31
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	13.27	ratio	26
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	10.92	ratio	19
Apprenticeships	are sufficiently implemented	4.91	Survey [010]	39
▷ Employee training	is a high priority in companies	5.19	Survey [010]	50
Female labor force	Percentage of total labor force	47.20	%	14
Health infrastructure	meets the needs of society	8.05	Survey [010]	10

APPEAL		Value	. 2	2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	79.30	index	35
Attracting and retaining talents	is a priority in companies	5.92	Survey [010]	52
> Worker motivation	in companies is high	5.08	Survey [010]	48
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.41	Survey [010]	37
Quality of life	is high	8.37	Survey [010]	13
Foreign highly-skilled personnel	are attracted to your country's business environment	6.00	Survey [010]	23
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	36,803	US\$	20
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	203,446	US\$	20
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	8.70	%	44
Justice	is fairly administered	5.01	Survey [010]	41
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	9.99	micrograms	13

READINESS

	READINESS		Value	· 20	022 Rank
	Labor force growth	Percentage change	2.07	%	18
	Skilled labor	is readily available	5.80	Survey [010]	26
	Finance skills	are readily available	6.09	Survey [010]	35
\triangleright	International experience	of senior managers is generally significant	4.95	Survey [010]	46
	Competent senior managers	are readily available	5.06	Survey [010]	39
	Primary and secondary education	meets the needs of a competitive economy	5.53	Survey [010]	44
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	20.81	%	43
	University education	meets the needs of a competitive economy	5.61	Survey [010]	44
	Management education	meets the needs of the business community	6.80	Survey [010]	26
\triangleright	Language skills	are meeting the needs of enterprises	4.69	Survey [010]	53
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.74	number	43
	Educational assessment - PISA	PISA survey of 15-year olds	492	Average	27

S F Ν **OVERALL PERFORMANCE (63 countries)**

The direction of the triangle indicates the performance change from the last year: \triangle improved or stable ∇ declined 2018 2019 2020 2021 2022 2 2 1 (3 3 (4 Investment & 5 • Overall Development 6 7 ---- Investment & 7 7 2 Development 2 - Appeal 9 -----Readiness Appeal (11) 6 15 Overall top strengths Readiness > Overall top weaknesses

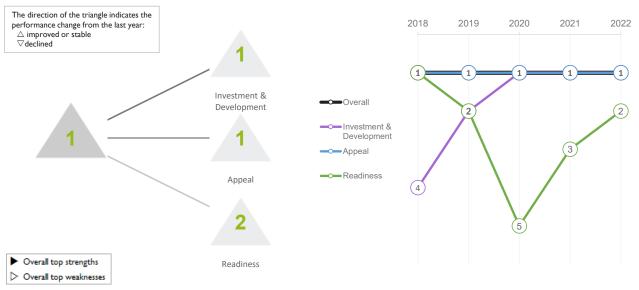
INVESTMENT & DEVELOPMENT		Value	e 2	2022 Rank
Total public expenditure on education	Percentage of GDP	7.2	%	5
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	13,889	US\$	7
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	13.09	ratio	23
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.25	ratio	35
Apprenticeships	are sufficiently implemented	5.74	Survey [010]	19
Employee training	is a high priority in companies	7.29	Survey [010]	7
Female labor force	Percentage of total labor force	47.11	%	15
Health infrastructure	meets the needs of society	7.59	Survey [010]	16

APPEAL		Value	20)22 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	77.80	index	32
Attracting and retaining talents	is a priority in companies	8.09	Survey [010]	5
Worker motivation	in companies is high	7.42	Survey [010]	7
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	7.91	Survey [010]	2
Quality of life	is high	9.13	Survey [010]	7
Foreign highly-skilled personnel	are attracted to your country's business environment	6.48	Survey [010]	17
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	51,960	US\$	7
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	208,113	US\$	19
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	12.39	%	59
Justice	is fairly administered	8.74	Survey [010]	4
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	5.72	micrograms	2

READINESS		Value	e 20)22 Rank
Labor force growth	Percentage change	1.59	%	23
Skilled labor	is readily available	6.39	Survey [010]	10
Finance skills	are readily available	7.61	Survey [010]	4
International experience	of senior managers is generally significant	7.26	Survey [010]	3
Competent senior managers	are readily available	7.17	Survey [010]	3
Primary and secondary education	meets the needs of a competitive economy	7.64	Survey [010]	13
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	27.01	%	20
University education	meets the needs of a competitive economy	8.22	Survey [010]	7
Management education	meets the needs of the business community	8.00	Survey [010]	5
Language skills	are meeting the needs of enterprises	8.91	Survey [010]	3
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	3.08	number	29
Educational assessment - PISA	PISA survey of 15-year olds	503	Average	15

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OVERALL PERFORMANCE (63 countries)



INVESTMENT & DEVELOPMENT		Value	e 20)22 Rank
Total public expenditure on education	Percentage of GDP	5.7	%	19
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	26,209	US\$	2
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	15.10	ratio	36
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.96	ratio	32
Apprenticeships	are sufficiently implemented	8.85	Survey [010]	1
Employee training	is a high priority in companies	7.82	Survey [010]	2
Female labor force	Percentage of total labor force	46.72	%	26
Health infrastructure	meets the needs of society	8.87	Survey [010]	2

	APPEAL		Value	. 20	022 Rank
\triangleright	Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	115.90	index	58
	Attracting and retaining talents	is a priority in companies	8.00	Survey [010]	6
	Worker motivation	in companies is high	7.78	Survey [010]	2
	Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	7.85	Survey [010]	3
	Quality of life	is high	9.69	Survey [010]	4
	Foreign highly-skilled personnel	are attracted to your country's business environment	8.97	Survey [010]	1
	Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	81,614	US\$	1
	Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	456,478	US\$	1
\triangleright	Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	8.47	%	43
	Justice	is fairly administered	8.69	Survey [010]	5
	Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	10.04	micrograms	15

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	READINESS		Value	201	22 Rank
\triangleright	Labor force growth	Percentage change	-0.16	%	43
	Skilled labor	is readily available	6.54	Survey [010]	6
	Finance skills	are readily available	8.21	Survey [010]	1
	International experience	of senior managers is generally significant	8.03	Survey [010]	1
	Competent senior managers	are readily available	7.01	Survey [010]	5
	Primary and secondary education	meets the needs of a competitive economy	8.90	Survey [010]	2
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	25.17	%	28
	University education	meets the needs of a competitive economy	9.09	Survey [010]	1
	Management education	meets the needs of the business community	8.72	Survey [010]	1
	Language skills	are meeting the needs of enterprises	8.94	Survey [010]	2
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	6.74	number	10
	Educational assessment - PISA	PISA survey of 15-year olds	498	Average	21

TAIWAN, CHINA

OVERALL PERFORMANCE (63 countries)



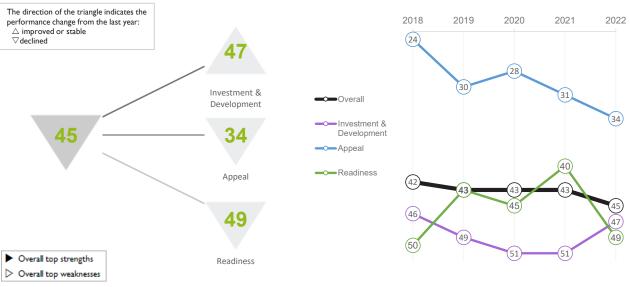
	INVESTMENT & DEVELOPMENT		Value	2	022 Rank
\triangleright	Total public expenditure on education	Percentage of GDP	3.6	%	52
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	5,722	US\$	34
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	12.10	ratio	15
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.10	ratio	34
	Apprenticeships	are sufficiently implemented	6.35	Survey [010]	7
	Employee training	is a high priority in companies	7.32	Survey [010]	6
	Female labor force	Percentage of total labor force	44.67	%	37
	Health infrastructure	meets the needs of society	8.58	Survey [010]	4

APPEAL		Value	e 1	2022 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	92.10	index	50
Attracting and retaining talents	is a priority in companies	7.06	Survey [010]] 27
 Worker motivation 	in companies is high	7.54	Survey [010]] 5
▷ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.20	Survey [010]] 40
Quality of life	is high	7.72	Survey [010]] 28
▷ Foreign highly-skilled personnel	are attracted to your country's business environment	4.88	Survey [010]] 43
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	26,500	US\$	28
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	183,102	US\$	24
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	2.55	%	17
Justice	is fairly administered	6.53	Survey [010]] 25
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	16.20	micrograms	31

	READINESS		Value	20)22 Rank
\triangleright	Labor force growth	Percentage change	-0.38	%	46
	Skilled labor	is readily available	6.05	Survey [010]	19
	Finance skills	are readily available	6.86	Survey [010]	14
	International experience	of senior managers is generally significant	5.70	Survey [010]	27
	Competent senior managers	are readily available	6.17	Survey [010]	21
	Primary and secondary education	meets the needs of a competitive economy	8.00	Survey [010]	8
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	32.36	%	7
	University education	meets the needs of a competitive economy	7.60	Survey [010]	14
	Management education	meets the needs of the business community	7.45	Survey [010]	10
	Language skills	are meeting the needs of enterprises	6.43	Survey [010]	31
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	3.86	number	26
	Educational assessment - PISA	PISA survey of 15-year olds	516	Average	8

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OVERALL PERFORMANCE (63 countries)



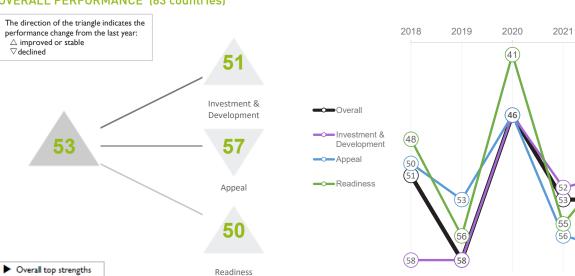
	INVESTMENT & DEVELOPMENT		Value	e 202	22 Rank
\triangleright	Total public expenditure on education	Percentage of GDP	3.7	%	50
\triangleright	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,078	US\$	54
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	14.00	ratio	29
\triangleright	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	21.59	ratio	57
	Apprenticeships	are sufficiently implemented	5.47	Survey [010]	27
	Employee training	is a high priority in companies	6.44	Survey [010]	20
	Female labor force	Percentage of total labor force	45.77	%	33
	Health infrastructure	meets the needs of society	7.39	Survey [010]	19

APPEAL		Value		2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	84.90	index	42
Attracting and retaining talents	is a priority in companies	6.81	Survey [010] 32
Worker motivation	in companies is high	6.30	Survey [010] 21
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.21	Survey [010] 28
Quality of life	is high	6.36	Survey [010] 38
Foreign highly-skilled personnel	are attracted to your country's business environment	5.90	Survey [010] 25
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	12,681	US\$	45
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	193,546	US\$	23
 Collected personal income tax 	On profits, income and capital gains, as a percentage of GDP	1.90	%	11
Justice	is fairly administered	5.78	Survey [010] 34
> Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	27.32	micrograms	52

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	READINESS		Value	2	022 Rank
	Labor force growth	Percentage change	0.40	%	37
	Skilled labor	is readily available	5.88	Survey [010]	21
	Finance skills	are readily available	5.82	Survey [010]	39
	International experience	of senior managers is generally significant	5.96	Survey [010]	19
	Competent senior managers	are readily available	6.04	Survey [010]	25
	Primary and secondary education	meets the needs of a competitive economy	5.56	Survey [010]	43
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	22.06	%	38
	University education	meets the needs of a competitive economy	5.78	Survey [010]	41
	Management education	meets the needs of the business community	6.22	Survey [010]	37
	Language skills	are meeting the needs of enterprises	4.97	Survey [010]	50
\triangleright	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.38	number	54
	Educational assessment - PISA	PISA survey of 15-year olds	412	Average	49

IRL **OVERALL PERFORMANCE (63 countries)**



2022

(50) 51

53)

(57)

> Overall top weaknesses

INVESTMENT & DEVELOPMENT

INVESTMENT & DEVELOPMENT		Value	e 21	022 Rank
Total public expenditure on education	Percentage of GDP	5.4	%	24
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,474	US\$	52
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	17.07	ratio	45
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.93	ratio	40
Apprenticeships	are sufficiently implemented	3.67	Survey [010]	57
▷ Employee training	is a high priority in companies	4.33	Survey [010]	63
Female labor force	Percentage of total labor force	32.28	%	57
Health infrastructure	meets the needs of society	5.92	Survey [010]	35

APPEAL		Value	2	2022 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	57.40	index	6
Attracting and retaining talents	is a priority in companies	5.27	Survey [010]	59
Worker motivation	in companies is high	4.67	Survey [010]	56
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.31	Survey [010]	52
▷ Quality of life	is high	4.08	Survey [010]	58
Foreign highly-skilled personnel	are attracted to your country's business environment	3.80	Survey [010]	52
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	8,368	US\$	55
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	128,492	US\$	41
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	3.15	%	23
Justice	is fairly administered	3.23	Survey [010]	53
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	26.85	micrograms	51

	READINESS		Value	e 20	22 Rank
	Labor force growth	Percentage change	6.45	%	4
	Skilled labor	is readily available	4.48	Survey [010]	45
	Finance skills	are readily available	4.63	Survey [010]	58
	International experience	of senior managers is generally significant	5.09	Survey [010]	43
	Competent senior managers	are readily available	4.53	Survey [010]	46
	Primary and secondary education	meets the needs of a competitive economy	3.72	Survey [010]	56
\triangleright	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	15.21	%	59
\triangleright	University education	meets the needs of a competitive economy	4.46	Survey [010]	58
	Management education	meets the needs of the business community	4.73	Survey [010]	57
	Language skills	are meeting the needs of enterprises	4.41	Survey [010]	56
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.21	number	38
	Educational assessment - PISA	PISA survey of 15-year olds	462	Average	38

94

OVERALL PERFORMANCE (63 countries)



	INVESTMENT & DEVELOPMENT		Value	20	22 Rank
\triangleright	Total public expenditure on education	Percentage of GDP	3.9	%	49
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	8,441	US\$	24
\triangleright	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	18.76	ratio	52
	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	9.59	ratio	10
	Apprenticeships	are sufficiently implemented	5.43	Survey [010]	28
	Employee training	is a high priority in companies	6.29	Survey [010]	28
\triangleright	Female labor force	Percentage of total labor force	25.24	%	59
	Health infrastructure	meets the needs of society	7.64	Survey [010]	15

APPEAL		Value	e 2	2022 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	86.40	index	44
Attracting and retaining talents	is a priority in companies	6.93	Survey [010]] 30
Worker motivation	in companies is high	6.29	Survey [010]] 22
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.36	Survey [010]] 12
Quality of life	is high	8.57	Survey [010]] 11
Foreign highly-skilled personnel	are attracted to your country's business environment	7.79	Survey [010]] 3
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	32,449	US\$	24
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	243,522	US\$	14
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	0.00	%	1
Justice	is fairly administered	7.19	Survey [010]] 20
Dash Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	43.08	micrograms	58

READINESS		Value	e 20)22 Rank
Labor force growth	Percentage change	0.10	%	41
Skilled labor	is readily available	6.57	Survey [010]	4
Finance skills	are readily available	6.93	Survey [010]	12
International experience	of senior managers is generally significant	7.26	Survey [010]	4
Competent senior managers	are readily available	7.21	Survey [010]	2
Primary and secondary education	meets the needs of a competitive economy	6.86	Survey [010]	22
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	33.15	%	6
University education	meets the needs of a competitive economy	6.79	Survey [010]	27
Management education	meets the needs of the business community	6.50	Survey [010]	34
Language skills	are meeting the needs of enterprises	8.43	Survey [010]	7
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	23.27	number	1
Educational assessment - PISA	PISA survey of 15-year olds	433	Average	42

USA

OVERALL PERFORMANCE (63 countries)



	INVESTMENT & DEVELOPMENT		Value	e 2	2022 Rank
	Total public expenditure on education	Percentage of GDP	6.0	%	11
	Total public exp. on education per student	Spending per enrolled pupil/student, all levels	16,116	US\$	4
	Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	15.03	ratio	35
\triangleright	Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	15.02	ratio	49
	Apprenticeships	are sufficiently implemented	5.40	Survey [010]	29
	Employee training	is a high priority in companies	6.11	Survey [010]	33
	Female labor force	Percentage of total labor force	46.94	%	22
	Health infrastructure	meets the needs of society	5.51	Survey [010]	38

APPEAL		Value	2	2022 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	100.00	index	54
Attracting and retaining talents	is a priority in companies	7.49	Survey [010]	19
Worker motivation	in companies is high	6.04	Survey [010]	29
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.97	Survey [010]	7
Quality of life	is high	7.15	Survey [010]	32
Foreign highly-skilled personnel	are attracted to your country's business environment	7.60	Survey [010]	6
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	59,616	US\$	4
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	396,392	US\$	2
Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	10.49	%	52
Justice	is fairly administered	6.38	Survey [010]	26
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	7.68	micrograms	9

	READINESS		Value	e 202	22 Rank
\triangleright	Labor force growth	Percentage change	0.22	%	39
	Skilled labor	is readily available	6.23	Survey [010]	15
	Finance skills	are readily available	6.70	Survey [010]	20
	International experience	of senior managers is generally significant	5.73	Survey [010]	26
	Competent senior managers	are readily available	6.34	Survey [010]	19
	Primary and secondary education	meets the needs of a competitive economy	6.84	Survey [010]	24
\triangleright	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	19.55	%	46
	University education	meets the needs of a competitive economy	7.52	Survey [010]	16
	Management education	meets the needs of the business community	7.28	Survey [010]	11
	Language skills	are meeting the needs of enterprises	6.21	Survey [010]	38
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.89	number	30
	Educational assessment - PISA	PISA survey of 15-year olds	495	Average	24

ED KINGDOM

OVERALL PERFORMANCE (63 countries)



INVESTMENT & DEVELOPMENT

INVESTMENT & DEVELOPMENT		Value	e 2	2022 Rank
Total public expenditure on education	Percentage of GDP	5.4	%	23
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	9,664	US\$	19
▷ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	19.62	ratio	54
▷ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	17.71	ratio	52
Apprenticeships	are sufficiently implemented	4.76	Survey [010]	43
Employee training	is a high priority in companies	5.93	Survey [010]	37
Female labor force	Percentage of total labor force	47.68	%	11
Health infrastructure	meets the needs of society	5.86	Survey [010]	36

	APPEAL		Value	. 2	2022 Rank
\triangleright	Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	95.20	index	51
	Attracting and retaining talents	is a priority in companies	6.64	Survey [010]	38
	Worker motivation	in companies is high	5.55	Survey [010]	39
	Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.34	Survey [010]	13
	Quality of life	is high	6.50	Survey [010]	35
	Foreign highly-skilled personnel	are attracted to your country's business environment	6.38	Survey [010]	18
	Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	39,774	US\$	17
	Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	242,150	US\$	15
\triangleright	Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	9.29	%	48
	Justice	is fairly administered	6.71	Survey [010]	22
	Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	10.02	micrograms	14

READINESS

	READINESS		Value	e 20	022 Rank
\triangleright	Labor force growth	Percentage change	-0.56	%	47
	Skilled labor	is readily available	5.69	Survey [010]	30
	Finance skills	are readily available	6.41	Survey [010]	27
	International experience	of senior managers is generally significant	5.55	Survey [010]	33
	Competent senior managers	are readily available	5.79	Survey [010]	30
	Primary and secondary education	meets the needs of a competitive economy	6.40	Survey [010]	28
	Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	22.75	%	35
	University education	meets the needs of a competitive economy	6.76	Survey [010]	29
	Management education	meets the needs of the business community	6.19	Survey [010]	39
	Language skills	are meeting the needs of enterprises	5.64	Survey [010]	43
	Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	8.21	number	8
	Educational assessment - PISA	PISA survey of 15-year olds	503	Average	13

JF7UFLA

OVERALL PERFORMANCE (63 countries)



	Value	e 2	2022 Rank
Percentage of GDP	-	%	-
Spending per enrolled pupil/student, all levels	-	US\$	-
Ratio of students to teaching staff	-	ratio	-
Ratio of students to teaching staff	-	ratio	-
are sufficiently implemented	3.93	Survey [010]	54
is a high priority in companies	4.58	Survey [010]	58
Percentage of total labor force	34.98	%	56
meets the needs of society	1.39	Survey [010]	63
	Spending per enrolled pupil/student, all levels Ratio of students to teaching staff Ratio of students to teaching staff are sufficiently implemented is a high priority in companies Percentage of total labor force	Percentage of GDP - Spending per enrolled pupil/student, all levels - Ratio of students to teaching staff - are sufficiently implemented 3.93 is a high priority in companies 4.58 Percentage of total labor force 34.98	Percentage of GDP - % Spending per enrolled pupil/student, all levels - US\$ Ratio of students to teaching staff - ratio Ratio of students to teaching staff - ratio are sufficiently implemented 3.93 Survey [010] is a high priority in companies 4.58 Survey [010] Percentage of total labor force 34.98 %

	APPEAL		Value	2	022 Rank
	Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	-	index	-
	Attracting and retaining talents	is a priority in companies	6.07	Survey [010]	49
	Worker motivation	in companies is high	3.86	Survey [010]	62
\triangleright	Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	2.04	Survey [010]	63
\triangleright	Quality of life	is high	2.18	Survey [010]	63
\triangleright	Foreign highly-skilled personnel	are attracted to your country's business environment	1.64	Survey [010]	63
	Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	-	US\$	-
	Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	23,610	US\$	60
	Collected personal income tax	On profits, income and capital gains, as a percentage of GDP	-	%	-
\triangleright	Justice	is fairly administered	0.65	Survey [010]	63
	Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	22.22	micrograms	46

READINESS		Value	2022 Rank
Labor force growth	Percentage change	1.97 %	19
Skilled labor	is readily available	4.14 Survey [0	010] 50
Finance skills	are readily available	4.57 Survey [0	010] 59
International experience	of senior managers is generally significant	4.11 Survey [0	010] 60
Competent senior managers	are readily available	3.39 Survey [0	010] 62
Primary and secondary education	meets the needs of a competitive economy	3.11 Survey [0	010] 61
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	- %	-
University education	meets the needs of a competitive economy	4.58 Survey [0	010] 56
Management education	meets the needs of the business community	4.50 Survey [0	010] 59
Language skills	are meeting the needs of enterprises	3.57 Survey [0	010] 59
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	- number	-
Educational assessment - PISA	PISA survey of 15-year olds	- Average	-

The IMD World Talent Ranking methodology

- > The IMD World Talent Ranking (WTR) assesses the status and the development of competencies necessary for enterprises and the economy to achieve long term value creation. It does so by using a set of indicators which measure the development, retention and attraction of a domestic and international highly-skilled workforce.
- > Based on our research, the methodology of the World Talent Ranking defines Talent Competitiveness into three main factors:

Investment and Development Appeal Readiness

- > These 3 factors comprise 31 criteria, although each factor does not necessarily have the same number of criteria (for example, it takes more criteria to assess Readiness than to evaluate Investment and Development).
- > Each factor, independently of the number of criteria it contains, has the same weight in the overall consolidation of results that is 1/3 (3x33.3 ~100).
- > Criteria can be hard data, which analyze talent development as it can be measured (e.g. Total Public Expenditure on Education) or soft data, which analyze the quality of these investments as they can be perceived (e.g. Management Education).
- > Finally, to compute the overall World Talent Ranking, we aggregate the criteria to calculate the scores of each factor which function as the basis to generate the overall ranking.

I. The structure of the IMD World Talent Ranking

The ranking is structured according to three factors:

- > Investment and development
- > Appeal
- > Readiness

The first factor takes into account the investment in and development of home-grown talent. It traces the size of public investment on education by incorporating an indicator of public expenditure. It also looks at the quality of education through indicators related to pupil-teacher ratios. The development of talent is covered by variables related to the implementation of apprenticeship and the priority of employee training for companies. It also looks at the development of the female labor force. In addition, this factor takes into account the quality of the health infrastructure in terms of meeting the health needs of society.

The appeal factor goes beyond the focus on the local labor force to incorporate the ability of a country to tap into the overseas talent pool. It does so by including indicators such as the cost of living and quality of life in a particular economy. Specifically, it examines the ability of a country to attract highly skilled foreign labor. In addition, it assesses the way enterprises prioritize the attraction and retention of talent. Another component of this factor evaluates the impact of brain drain on the competitiveness of countries. It also takes into account the level of worker motivation. Salary and taxation levels are important for an economy to be able to maintain an effective flow of talent. The appeal factor thus considers remuneration at the management and services professions levels and personal income tax rates. This factor also incorporates measures of personal security and the protection of private property rights because they play a key role in increasing the attractiveness of a particular economy.

The success of the investment in and development of talent and the ability to attract and retain talent is reflected in the availability of skills and competencies to sustain an economy's talent pool. The readiness factor looks at the context of the talent pool. It considers the growth of the labor force and the quality of the skills available. It also takes into consideration the experience and competencies of the existing senior managers' pool. In addition, the readiness factor focuses, on the ability of the educational system to meet the talent needs of enterprises. It examines the way in which the educational system fulfils the talent demands of the economy, the ability of higher education to meet that demand and the languages skills available. Finally, it considers the mobility of students (inbound) and educational assessment (PISA).

Such a comprehensive set of criteria enables us to observe how countries perform in terms of sustaining their talent pool. In developing the talent ranking, we have omitted measures of the regulation of labor and productivity. The reason for this is because our objective is to assess the development and retention of talent, and the regulation of labor and its focus on conflict resolution could be perceived as peripheral to that objective. Similarly, productivity is an outcome of what we want to assess.

II. Constructing the IMD World Talent Ranking

In order to calculate the IMD World Talent Ranking, we normalize criteria data using the same STD methodology used in the IMD World Competitiveness Yearbook

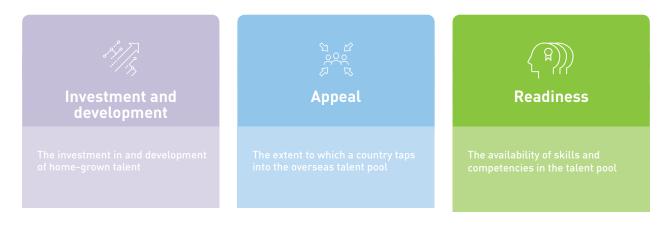
- > Average the criteria STDs to generate the three talent factors
- > Aggregate factors to build the overall talent ranking
- > Normalize the factors and overall ranking to the
- 0-100 range to facilitate the interpretation of results.

We employ this methodology to rank the countries' evolution in talent aspects from 2013 onward. However, there are some caveats. For certain years, our sample varies according to the evolution of the IMD World Competitiveness Yearbook. That is to say, some countries appear in the talent ranking only for the years since they became part of the Yearbook. For example, talent rankings for Mongolia are available from 2015 onward and Cyprus and Saudi Arabia are available only from 2017.

Additionally, hard data may not be available for specific countries in specific years. Whenever possible, we use the most recent data available.

What is the IMD World Talent Ranking?

World Talent Ranking Factors



Computing the Rankings

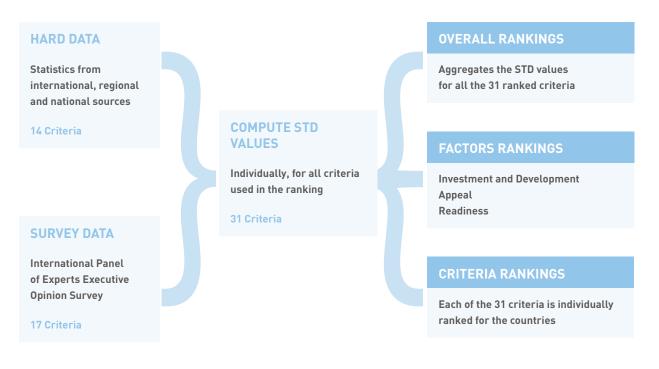


Table 1: Sample size (2018-2022)

Years	2018	2019	2020	2021	2022
Countries	63	63	63	63	63

Table 2: Criteria definitions and survey questions

Investment & Development

Total public expenditure on education	Percentage of GDP
Total public expenditure on education per student	Spending per enrolled pupil/student, all levels
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff
Apprenticeships	Apprenticeships are sufficiently implemented
Employee training	Employee training is a high priority in companies
Female labor force	Percentage of total labor force
Health infrastructure	Health infrastructure meets the needs of society

Appeal

Арреаі	
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)
Attracting and retaining talents	Attracting and retaining talents is a priority in companies
Worker motivation	Worker motivation in companies is high
Brain drain	Brain drain (well-educated and skilled people) does not hinder competitiveness in your economy
Quality of life	Quality of life is high
Foreign highly-skilled personnel	Foreign highly-skilled personnel are attracted to your country's business environment
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$
Collected personal income tax rate	On profits, income and capital gains, as a percentage of GDP
Justice	Justice is fairly administered
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre

Readiness

Labor force growth	Percentage change
Skilled labor	Skilled labor is readily available
Finance skills	Finance skills are readily available
International experience	International experience of senior managers is generally significant
Competent senior managers	Competent senior managers are readily available
Primary and secondary education	Primary and secondary education meets the needs of a competitive economy
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences
University education	University education meets the needs of a competitive economy
Management education	Management education meets the needs of the business community
Language skills	Language skills are meeting the needs of enterprises
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants
Educational assessment - PISA	PISA survey of 15-year olds

Notes and Sources by Criteria

The source of the survey criteria is always :

IMD World Competitiveness Center's Executive Opinion Survey 2022.

Which was conducted from mid-February to early May 2022, with a total number of 6'031 respondents.

Background Criteria

0.0.1 [B] Exchange Rate

International Financial Statistics Online February 2021 (IMF) National sources

Period average.

0.0.2 [B] Population - market size World Economic Outlook April 2022 National sources

Mid-year estimates. Croatia: new census in 2011 with a new methodology. India: break in series in 2011. Iceland, Romania as of January 1. Jordan: series have been revised according to the the new Population and Housing Census published in 2016. End of year population for 2019 and 2020. Lithuania: break in series 2011 - census revised population figure downwards by 10% (emigration to EU over past decade). Philippines: Projected population (medium assumption) excluding for 2015, which is based on the 2015 Census. Portugal: methodological change in 2011. Russia: including Crimea as of 2015. UAE: re-estimation of the national population was made by the National Bureau of Statistics in 2010 (consequent increase as of 2008).

0.0.3 [B] GDP per capita

OECD (2022), Main Economic Indicators - complete database National sources

Provisional data or estimates for most recent year. Malaysia: Data for 2021 is sum of 4 quarters. Taiwan, China: 2019 and 2020 data are revised according to the annual revisions released by DGBAS in November 2021.

Factor 1: Investment & Development

1.01 Total public expenditure on education

IMF Government Finance Statistics Eurostat March 2022 UNESCO http://stats.uis.unesco.org National sources

Total general (local, regional and central) government expenditure in educational institutions (current and capital). It excludes transfers to private entities such as subsidies to households and students, but includes expenditure funded by transfers from international sources to government. It includes pre-primary, primary, secondary all levels and tertiary public institutions. Chile and Jordan: Budgetary central government. Philippines: Includes expenditure for items other than basic and higher education such as vocational education, culture and sports.

1.02 Total public exp. on education per student IMF Government Finance Statistics

Eurostat March 2022 UNESCO http://stats.uis.unesco.org National sources

Total general (local, regional and central) government expenditure in educational institutions (current and capital). It excludes transfers to private entities such as subsidies to households and students, but includes expenditure funded by transfers from international sources to government. It includes pre-primary, primary, secondary all levels and tertiary public institutions. Chile and Jordan: Budgetary central government. Philippines: Includes expenditure for items other than basic and higher education such as vocational education, culture and sports.

1.03 Pupil-teacher ratio (primary education) UNESCO http://stats.uis.unesco.org OECD Education at a Glance 2022 National sources

For public and private institutions, based on full-time equivalent. Primary education (ISCED level 1): level of which the main function is to provide the basic elements of education at such establishments as elementary schools, primary schools. The ratio of students to teaching staff is calculated as the total number of full-time equivalent students divided by the total number of full-time equivalent educational personal. Teaching staff refers to professional personnel directly involved in teaching students. The classification includes classroom teachers; special education teacher; and other teachers who work with students as a whole class in a classroom, in small groups in a resource room, or in one-to-one teaching inside a regular classroom. Teaching staff also includes chairpersons of departments whose duties include some amount of teaching, but it does not include non-professional personnel who support teachers in providing instructions to students, such as teacher's aides and other paraprofessional personnel. Data are UNESCO or OECD estimates and from national statistics. Brazil, Bulgaria, China, Cyprus, Greece, Hong Kong SAR, Jordan, Kazakhstan, Mongolia, Peru, Philippines, Qatar, Romania, Saudi Arabia, Singapore, South Africa, Thailand, UAE and Ukraine: based on headcounts. Canada and Slovenia: Include data from another category.

1.04 Pupil-teacher ratio (secondary education) UNESCO http://stats.uis.unesco.org OECD Education at a Glance 2022 National sources

For public and private institutions, based on full-time equivalent. Secondary education (ISCED levels 2 and 3]: level providing general and/or specialized instruction at middle schools, secondary schools, high schools, teacher training schools and schools of a vocational or technical nature. The ratio of students to teaching staff is calculated as the total number of full-time equivalent students divided by the total number of full-time equivalent educational personal. Teaching staff refers to professional personnel directly involved in teaching students. The classification includes classroom teachers; special education teacher; and other teachers who work with students as a whole class in a classroom, in small groups in a resource room, or in one-to-one teaching inside a regular classroom. Teaching staff also includes chairpersons of departments whose duties include some amount of teaching, but it does not include non-professional personnel who support teachers in providing instructions to students, such as teacher's aides and other paraprofessional personnel. Data are UNESCO or OECD estimates and from national statistics. Brazil, China, Cyprus, Hong Kong, Jordan, Kazakhstan, Peru, Philippines, Qatar, Romania, Saudi Arabia, Singapore, Thailand, UAE, Ukraine and Venezuela: Based on headcounts. Australia: general programs only. Bulgaria, Canada: upper secondary only. Estonia, Italy, Japan, Portugal, Switzerland and United Kingdom: Include data from another category. Iceland: lower secondary only.

1.07 Female labor force

OECD (2022), Main Economic Indicators - complete database National sources

Estimates for the most recent year. Austria: break in series in 2008. Denmark: break in series in 2009. Hong Kong SAR: data have been revised based on the revised population figures since 2016. Malaysia: break in series in 2010. Philippines: 2021 data are preliminary figures. Portugal: methodological change in 2011. Singapore: estimates from the Ministry of Manpower. Slovenia: Estimate based on quarterly data for 2021. Spain: break in series in 2005.

Factor 2: Appeal

2.01 Cost-of-living index

MERCER Cost of Living survey 2021 www.mercer.com

Break in series in 2015: In the main city as of 2015, average of main cities in large countries (made by IMD WCC) or in the capital in smaller ones up to 2014. The Mercer survey covers 214 cities across five continents and measures the comparative cost of over 200 items in each location, including housing, transport, food, clothing, household goods and entertainment. It is the world's most comprehensive cost of living survey and is used to help multinational companies and governments determine compensation allowance for their expatriate employees. New York is used as the base city [=100] for the index and all cities are compared against New York. Currency movements are measured against the US dollar. The cost of housing - often the biggest expense for expats - plays an important part in determining where cities are ranked.

Data is not always comparable over years (money fluctuations in 2010 and 2011).

2.07 [7] Remuneration in services professions

UBS Prices and Earnings 2018 National sources

Figures are estimates remuneration paid in major cities. Gross annual income including possible supplementary benefits, such as bonuses, vacation pay, meal or housing allowances, or family assistance. roduct Manager: manager in pharmaceutical, chemical or food industry, about five years of experience, tertiary educational degree, middle management, approximate age and status: 35, married. Primary school teacher: teaching for about 10 years in government-operated schools, approximate age and status: 35, married, two children. Secratary/Personal Assistant: secretary of a department manager in an industrial firm, at least five years of experience; knowledge of PCs and one foreign language, approximate age and status: 25, single. Call center agent: trained agent at an inbound call/service center in the telecommunications or technology sector, approximate age and status: 25, single. Nurse: Completed apprenticeship or studies, at least 10 years of experience, approx. age and status: 35, married, two children. Sales Assistant: Sales in ladies' apparel at a large department store, specialized training in sales, several years of experience, approx. age and status: 25, single. Iceland: These are averages for all workers in the appropriate group, not adjusted for experience, age and status.

2.08 [4] Remuneration of management HCM International Ltd, April 2021

National sources

Total remuneration: including annual base salary, annual short-term incentive bonus and long term incentive. Based on companies having a minimal turnover of US\$ 250 million. Chief Executive Officer: directs all company's operations, including sales, marketing, manufacturing and support function; coordinates and provides guidance for the development and implementation of business strategies; optimizes market potential; provides long-term vision and leadership; identifies growth opportunities; assures organizational efficiency of the operations; builds long-term partnership with key accounts. Estonia: break in series in 2011 (change of source, data for earlier years are not comparable).

2.09 Collected personal income tax OECD (2022), "Revenue Statistics: Comparative tables", OECD Tax Statistics (database) Government Finance Statistics 2022 National sources

Personal income taxes paid to general government. Russia: break in series in 2005 and 2007. Singapore: financial year.

2.11 Exposure to particle pollution

OECD (2022), "Green growth indicators", OECD Environment Statistics (database)

Particle pollution, also called particulate matter or PM, is a mixture of solids and liquid droplets floating in the air. Some particles are released directly from a specific source, while others form in complicated chemical reactions in the atmosphere. Particles less than 10 micrometers in diameter pose the greatest problems, because they can get deep into lungs and even the bloodstream. Cyprus: includes PM2.5 and PM10.

2022

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Factor 3: Readiness

3.01 Labor force growth

OECD (2022), Main Economic Indicators - complete database National sources

Estimates for the most recent year. Austria: break in series in 2008. Brazil: break in series in 2014. Denmark: break in series in 2009. Hong Kong SAR: data have been revised based on the revised population figures since 2016. Lithuania: break in series 2011 - census revised labor force figure downwards by 10% (emigration to EU over past decade). Latvia: break in series in 2012. Malaysia: break in series in 2010. Philippines: 2021 data are preliminary figures . Portugal: methodological change in 2011. Singapore: estimates from the Ministry of Manpower. Slovenia: Estimate based on guarterly data for 2021. Spain: break in series in 2005.

3.07 Graduates in Sciences UNESCO

National sources

Share of graduates in Natural Sciences; Mathematics and Statistics; Information and Communication technologies; Engineering, manufacturing and construction. In tertiary education (ISCED2011 levels 5 to 8), both sexes (%). Japan: Data on information and communication technologies are included in other fields. Jordan: 2020 data used in 2019. Philippines: includes Medical and Allied Disciplines Graduates.

3.11 Student mobility inbound UNESCO http://stats.uis.unesco.org

International mobile students (men and women) from abroad studying in a given country

(in tertiary education). Data can refer to the school or financial year prior or after

the reference year. Thailand : 2020 data have been used in 2019.

3.12 [3] Educational assessment - PISA

PISA 2018 (OECD)

http://www.oecd.org/pisa/

The OECD's Programme for International Student Assessment (PISA) is a regular survey of 15-year olds which assesses aspects of their preparedness for adult life. PISA selects a sample of students that represents the full population of 15-year-old students in each participating country or education system, in both public and private schools. Mathematical literacy: an individual's capacity to identify and understand the role that mathematics plays in the world, to make well-founded judgments and to use and engage with mathematics in ways that meet the needs of that individual's life as a constructive, concerned and reflective citizen. Scientific literacy: an individual's scientific knowledge and use of that knowledge to identify questions, to acquire new knowledge, to explain scientific phenomena, and to draw evidence based conclusions about science-related issues, understanding of the characteristic features of science as a form of human knowledge and enquiry, awareness of how science and technology shape our material, intellectual, and cultural environments, and willingness to engage in science-related issues, and with the ideas of science, as a reflective citizen. Hong Kong (China), Netherlands, Portugal and United States: Data did not meet the PISA technical standards but were accepted as largely comparable. China: limited regions (B-S-J-Z); the municipalities of Beijing and Shanghai and the provinces of Jiangsu and Zhejiang participated.

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