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### IMD world talent ranking ; 2020

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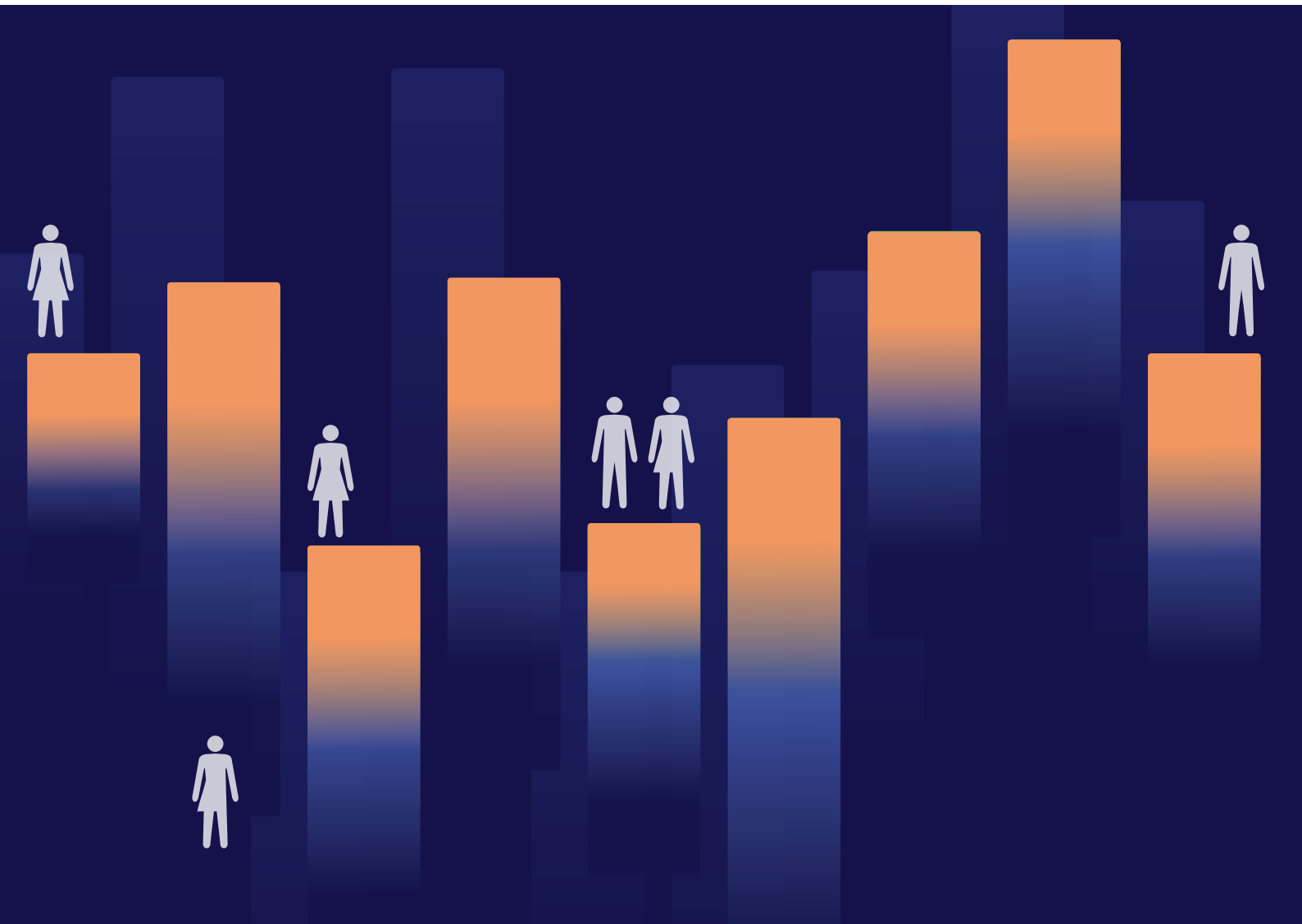
# IMD WORLD

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# TALENT

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# RANKING 2020



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# Preface

How do different economies invest and develop their local talent? How do countries appeal to the international talent pool as well as retaining their own high-skilled work force? And how do economies measure the quality of the skills and competences that are available?

These are the questions that the *IMD World Talent Ranking* addresses. We are delighted to present the seventh edition of this publication.

The latest ranking suggests that most economies that perform well focus their talent development efforts in every stage of the educational process. From primary education to tertiary, to apprenticeships and continuous work training, enhancing the skills and competencies of the work force is important. The top performing economies are open to both people and ideas. Finally, in the difficult times of social distancing and working from home, keeping the employees motivated contributes to the talent competitiveness of an economy.

An undertaking like the *IMD World Talent Ranking* could not have been accomplished without the support and assistance of many stakeholders. Our *Partner Institutes*, the *IMD Alumni* community and our *Panel of Experts* from all the countries generously offer data and insights that are crucial for completing such a project. We are always most grateful for their support. Yet, as we stressed in all our publications, this year, our stakeholders managed to make us feel that it was business as usual and not a uniquely complicated and difficult environment. The reason you have this publication in your hands now is, for a great part, because of our stakeholders. We are humbled and thankful!



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# Table of Contents

## The IMD World Talent Ranking 2020

<b>Preface</b> .....	3
The IMD World Competitiveness Center .....	7
Partner Institutes .....	8
<b>Trends in the World Talent Ranking 2020</b> .....	14
<b>IMD World Talent Ranking 2020</b> .....	23
Methodology in a Nutshell .....	26
What is the IMD World Talent Ranking? .....	27
<b>IMD World Talent Rankings selected breakdowns</b> .....	28
Populations greater than 20 million .....	28
Populations less than 20 million .....	29
GDP per capita greater than \$20,000 .....	30
GDP per capita less than \$20,000 .....	31
Europe - Middle East - Africa.....	32
Asia - Pacific.....	33
The Americas .....	33
Factor 1: Investment and development .....	34
Factor 2: Appeal .....	35
Factor 3: Readiness .....	36
Factor rankings.....	38
<b>Talent country profiles</b> .....	41
The IMD World Talent Ranking methodology .....	106
Notes and sources by criteria .....	110

## World Talent Country Profiles

---

Argentina .....	42	Lithuania .....	74
Australia .....	43	Luxembourg .....	75
Austria .....	44	Malaysia .....	76
Belgium .....	45	Mexico .....	77
Brazil .....	46	Mongolia .....	78
Bulgaria .....	47	Netherlands .....	79
Canada .....	48	New Zealand .....	80
Chile .....	49	Norway .....	81
China .....	50	Peru .....	82
Colombia .....	51	Philippines .....	83
Croatia .....	52	Poland .....	84
Cyprus .....	53	Portugal .....	85
Czech Republic .....	54	Qatar .....	86
Denmark .....	55	Romania .....	87
Estonia .....	56	Russia .....	88
Finland .....	57	Saudi Arabia .....	89
France .....	58	Singapore .....	90
Germany .....	59	Slovak Republic .....	91
Greece .....	60	Slovenia .....	92
Hong Kong SAR .....	61	South Africa .....	93
Hungary .....	62	Spain .....	94
Iceland .....	63	Sweden .....	95
India .....	64	Switzerland .....	96
Indonesia .....	65	Taiwan, China .....	97
Ireland .....	66	Thailand .....	98
Israel .....	67	Turkey .....	99
Italy .....	68	UAE .....	100
Japan .....	69	Ukraine .....	101
Jordan .....	70	United Kingdom .....	102
Kazakhstan .....	71	USA .....	103
Korea Republic .....	72	Venezuela .....	104
Latvia .....	73		



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*For more than thirty years, the IMD World Competitiveness Center has pioneered research on how economies 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:*

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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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# Trends in the World Talent Ranking 2020

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## Introduction

---

The IMD World Talent Ranking captures the capacity of an economy to develop as well as attract talent to strengthen its competitiveness. In order to quantify the quality of an economy's talent pool we evaluate three factors. The *Investment and Development* factor measures how an economy fosters domestic talent; the *Appeal* factor assesses the extent to which an economy retains homegrown talent along with drawing from the international talent pool; and finally, the *Readiness* factor measures the quality of the skills and competences that are available in the country.

In 2020, Switzerland and Denmark hold the first and second position, respectively, for the fifth consecutive year. Luxembourg, Iceland and Sweden complete the five most competitive economies with respect to talent. Austria, Norway, Singapore and the Netherlands remain in the top ten positions with small fluctuations from last year while Canada moves up five spots to become the eighth most talent-competitive economy.

For 2020, the most talent-competitive economies are those that invest in education. In our ranking we include criteria that capture the quality of education at all levels: primary, secondary, and tertiary. Furthermore, in the most competitive economies apprenticeships are sufficiently implemented and the provision of employee training is a priority for companies. The top performers, therefore, are

countries that invest in a holistic concept of education. To put it differently, highly competitive countries focus their talent development efforts on every stage of the educational process.

In addition, economies at the top of the ranking are those that appeal to an international talent pool. By definition, these are countries that are open, both to people and ideas.

The pandemic has affected our lives in different ways. A major disruption that occurred rapidly for many people, was the separation between the working place and “the place from which people work nowadays”. Throughout the world, those members of the labor force whose tasks can be accomplished remotely, work from home. There are different pros and cons for this reality. An important component is the sustainability of workers' motivation while being away from the physical work-place and their co-workers. In this regard, in the midst of the current COVID-19 crisis, we identify a trend among the top-ranking economies. Firms in these countries are able to motivate their work force continuously.

The next section provides an analysis of the trends and outcomes from a regional perspective. It follows with a detailed account of the highest and lowest ranked economies, as well as the countries that experienced a significant change in their position compared to last year.

## Regional trends in the World Talent Ranking 2020

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In this section we provide the trends of the 2020 IMD World Talent Ranking at a regional level.

The IMD World Talent Ranking studies 63 economies of middle and high income per capita. **Figure 1** provides a visualization of the changes in the Talent Ranking between 2019 and 2020 in Asia, Europe and the Americas. In 2020, 27 economies improved their performance in the

World Talent Ranking, 11 remained in the same position and 25 declined. The largest improvements in the ranking compared to 2019 have been experienced by Turkey (+12), Estonia (+8), the UAE (+6), Peru, Chile and Canada (+5). On the other hand, Russia (-7), Kazakhstan (-6), Hungary and Saudi Arabia (-5) are the economies that showed the most significant declines this year.

Figure 1: Talent Ranking 2020: improvements (+) and declines (-) between 2019-2020

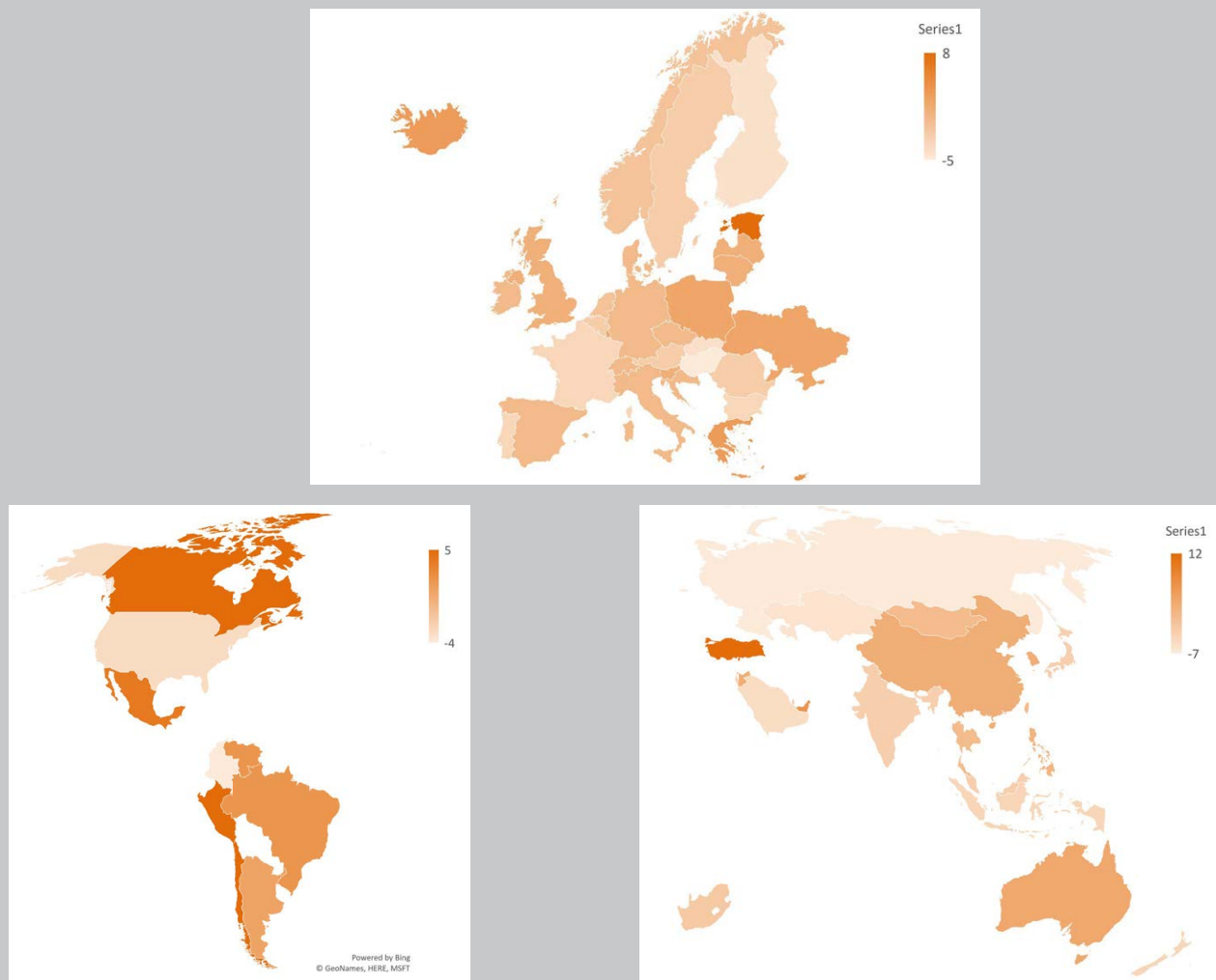
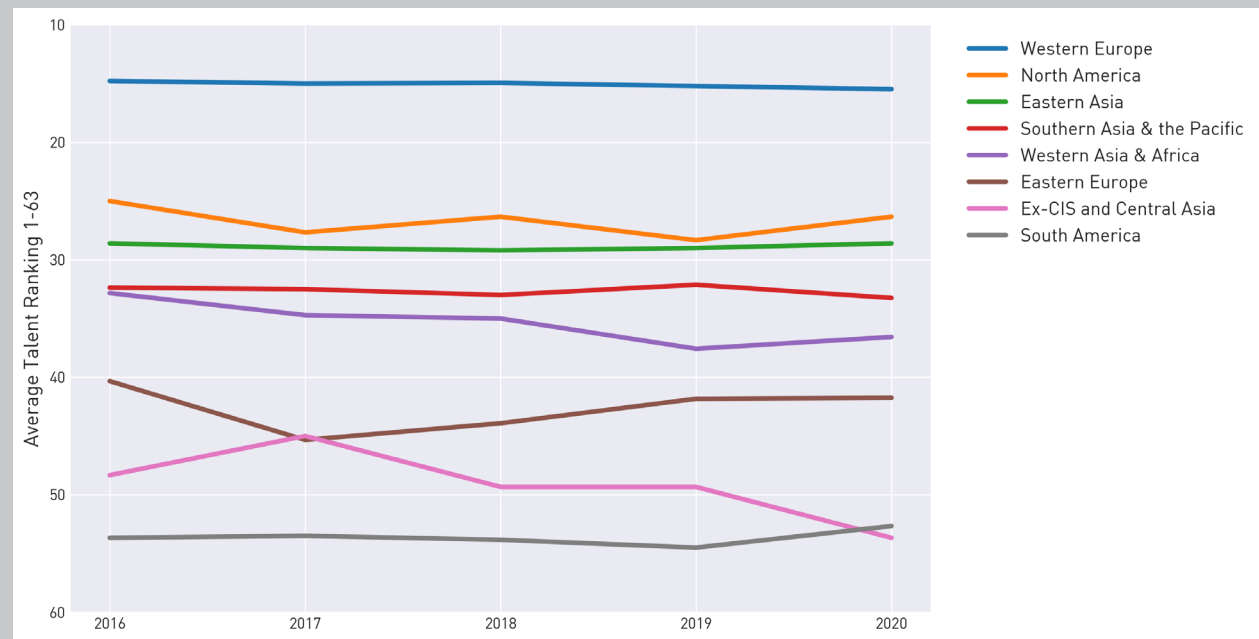


Figure 2: Trends in the World Talent Ranking by region





**Figure 2** presents the sub-regional Talent Ranking trend for the years 2016 to 2020. These trends show that Western European countries remain, on average, the most talent competitive in the world. North America, and Eastern Asia place second and third respectively. Ex-CIS and Central Asia, South America and Eastern Europe are instead regions that continue to underperform in the World Talent Ranking 2020.

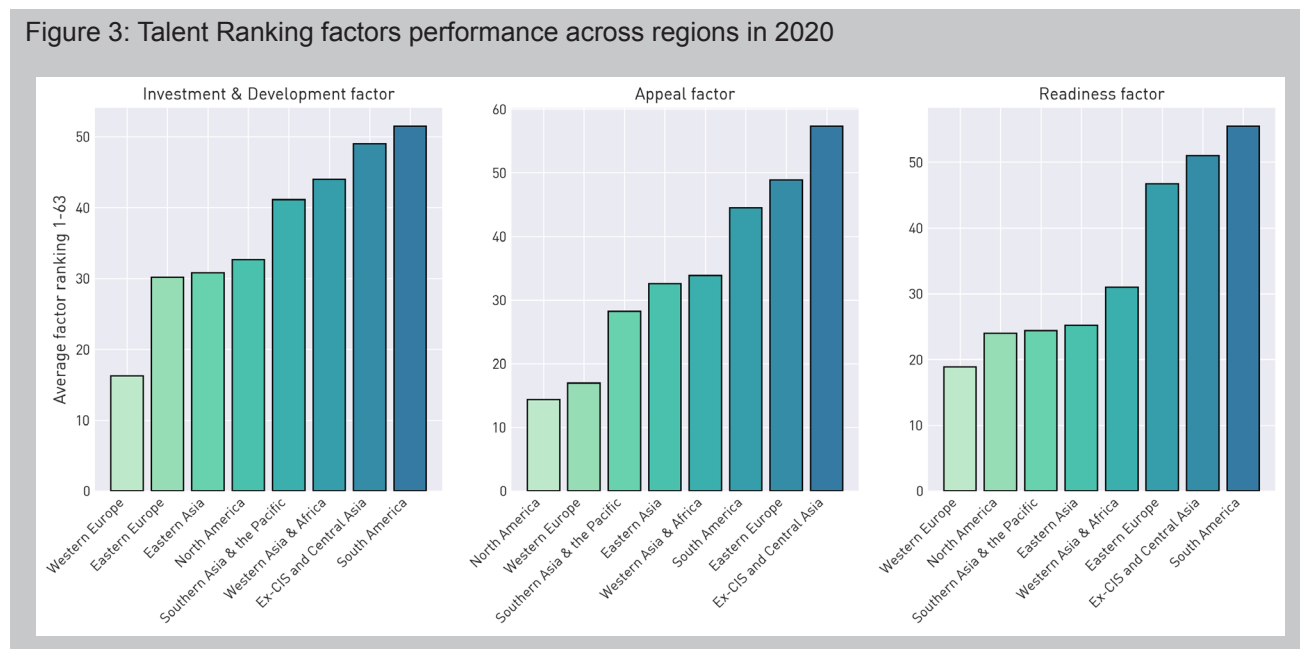
At the factor level (**Figure 3**), while Western Europe firmly keeps the lead in both the Investment & Development and Readiness factors, North America stands out in the Appeal factor, highlighting the important economic attractiveness of both Canada and the United States for foreign highly skilled workers.

The breakdown of Talent competitiveness by factors also reveals asymmetries in performance present in

subregions such as Eastern Europe and Southern Asia and The Pacific. In the first case, (Eastern Europe) economies that belong to the subregion generally excel in education and the development of local talent (Investment and Development factor, 2<sup>nd</sup> out of 8 subregions) but then they are unable to retain it and/or to attract foreign highly skilled workforce to satisfy the private sector's needs (Appeal factor, 7<sup>th</sup>; Readiness factor, 6<sup>th</sup>).

In the second case, as compared to other regions of the world, countries from the Southern Asia and The Pacific subregion underperform in the development of local talent (Investment and Development factor, 5<sup>th</sup>) but they manage to attract foreign professionals from the international talent pool (Appeal, 3<sup>rd</sup>) ensuring the skills and competences that their local job market needs (Readiness, 3<sup>rd</sup>).

**Figure 3: Talent Ranking factors performance across regions in 2020**



## Top 10 countries

Switzerland remains in the top spot as does Denmark in 2<sup>nd</sup> place. While Luxembourg moves up two places to 3<sup>rd</sup>, Iceland rises to 4<sup>th</sup> (from 7<sup>th</sup> in 2019). Sweden, Austria and Norway drop to 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup>, respectively. Canada joins the top 10 in 8<sup>th</sup> place and Singapore moves up to 9<sup>th</sup>. The Netherlands rounds up the top of the ranking in 10<sup>th</sup>.

Switzerland maintains a robust performance in the investment and development and appeal factors (1<sup>st</sup> in both). It leads the ranking in the effective implementation of apprenticeships, 2<sup>nd</sup> in the total public expenditure on education (per student), in the efficiency of its health infrastructure and in the impact of brain drain in its economy.

In the readiness factor, Switzerland ranks 5<sup>th</sup> with a drop in the graduates in sciences indicator (percentage of

graduates in ICT, engineering, math and natural sciences) from 26<sup>th</sup> to 30<sup>th</sup>, although it remains strong in all measures of the availability of skills and competencies.

Denmark's strongest performance at the factor level is in investment and development (2<sup>nd</sup>) in which it ranks 1<sup>st</sup> in the prioritization that the private sector assigns to employee training and 6<sup>th</sup> in total public expenditure on education (percentage of GDP). In the appeal factor, Denmark ranks 8<sup>th</sup> but shows substantial achievements at the indicator level. For example, it ranks 1<sup>st</sup> in the prioritization of the attraction and retainment of talent, the level of worker motivation and the implementation of justice.

Denmark ranks 6<sup>th</sup> in the readiness factor. Although the availability of particular skills remains strong (e.g., 6<sup>th</sup> in skilled labor and 2<sup>nd</sup> in finance skills), it ranks low in

graduates in sciences (39<sup>th</sup>) despite an improvement from 43<sup>rd</sup> in 2019.

Luxembourg's increase in the overall talent ranking is partly the result of its performance in the investment and development factor in which moves up from 5<sup>th</sup> to 3<sup>rd</sup>. It leads the table in the total public expenditure on education (per student) and in the quality of education in primary school (as measured by pupil-teacher ratio). In appeal, it ranks 5<sup>th</sup> with solid performances in prioritizing the attracting and retaining of talent (2<sup>nd</sup>), the availability of foreign highly-skilled personnel (4<sup>th</sup>) and remuneration in services professions (3<sup>rd</sup>). In the readiness factor it ranks relatively low (19<sup>th</sup>) as a result of a negative turn in executive opinions about - for example - the availability of competent senior managers and the effectiveness of its primary and secondary education.

Iceland improves in the investment and development, and readiness factors (from 6<sup>th</sup> to 4<sup>th</sup>, and from 18<sup>th</sup> to 16<sup>th</sup>, respectively). In appeal, it remains 6<sup>th</sup>. The country performs strongly in both measures of public expenditure on education (2<sup>nd</sup> and 3<sup>rd</sup>), and also in the quality of education in primary school (8<sup>th</sup>).

Under appeal, Iceland moves up in several indicators including the impact of brain drain in the economy, the level of motivation among workers and the quality of life that it offers. Despite some improvements in the level of attraction for foreign highly-skilled staff, Iceland remains in the lower ranks in that indicator (41<sup>st</sup>). In readiness, it reached the top of the ranking in the availability of skilled labor and moves up to 4<sup>th</sup> (from 6<sup>th</sup>) in the availability of finance skills. In graduates in sciences, however, Iceland drops to a strikingly low position (53<sup>rd</sup>).

Sweden remains in 7<sup>th</sup> position in investment and development but drops slightly in appeal and readiness. Its performance in both measures of public expenditure on education remains solid. The quality of education indicators (pupil-teacher ratio), however, rank low with primary school at 26<sup>th</sup> (down from 19<sup>th</sup> last year) and secondary school at 34<sup>th</sup> (up from 39<sup>th</sup>). The implementation of apprenticeships plummets to 43<sup>rd</sup> (from 30<sup>th</sup>). Sweden remains strong in measures of environmental protection, ranking 3<sup>rd</sup> in exposure to particle pollution (mean population exposure to PM2.5, micrograms per cubic metre). It also ranks among the top (5<sup>th</sup> up from 8<sup>th</sup>) in quality of life and the motivation of workers (4<sup>th</sup> up from 8<sup>th</sup>). Sweden drops to 23<sup>rd</sup> (from 17<sup>th</sup>) in the graduates in sciences measure but improves in PISA educational assessment (PISA survey of 15-year olds) moving up to 15<sup>th</sup> position (from 25<sup>th</sup>). It observes a similar trend in the availability of skilled labor, rising to 12<sup>th</sup> (from 23<sup>rd</sup>).

Austria drops to 6<sup>th</sup> (from 4<sup>th</sup>) in investment and development and in readiness it falls to 12<sup>th</sup> (down from 10<sup>th</sup>). In appeal, however, it moves up to 11<sup>th</sup> (from 13<sup>th</sup>). Under investment and development, Austria reaches the top position in the effectiveness of its health infrastructure, 2<sup>nd</sup> in the prioritization of employee training and 3<sup>rd</sup> in the

implementation of apprenticeships. It remains low in total public expenditure on education (28<sup>th</sup>) but the quality of education measures (pupil-teacher ratio) rank higher, with primary school at 11<sup>th</sup> (from 13<sup>th</sup>) and secondary school stable at 7<sup>th</sup>.

In appeal, it improves in the brain drain (from 16<sup>th</sup> to 11<sup>th</sup>), reaches 1<sup>st</sup> (from 2<sup>nd</sup>) in the quality of life indicator, and remains 2<sup>nd</sup> in worker motivation. In readiness, Austria drops to 27<sup>th</sup> (from 23<sup>rd</sup>) in the PISA educational assessment and in the availability of finance skills (38<sup>th</sup>) and of senior managers with significant international experience (27<sup>th</sup>). It improves, however, in the effectiveness of its primary and secondary school system (8<sup>th</sup>).

In investment in development, Norway drops to 5<sup>th</sup> (from 3<sup>rd</sup>), in appeal it remains in 10<sup>th</sup> and in readiness improves from 21<sup>st</sup> to 20<sup>th</sup>. Its total public expenditure on education (percentage of GDP, 17<sup>th</sup>), quality of education (primary school pupil-teacher ratio, 4<sup>th</sup>), implementation of apprenticeship (7<sup>th</sup>) and female participation in the workforce (percentage of total labor force, 20<sup>th</sup>) slightly drop.

Norway performs strongly in exposure to particle pollution at 7<sup>th</sup>, in the impact of brain drain (4<sup>th</sup>), and worker motivation (5<sup>th</sup>) but drops in the prioritization of attracting and retaining talent (20<sup>th</sup>). Norway's improvement in the readiness factor is mainly driven by advances in the effectiveness of management education (9<sup>th</sup>, up from 14<sup>th</sup>), the availability of language skills (10<sup>th</sup> from 15<sup>th</sup>) and inbound student mobility (foreign tertiary-level students per 1'000 inhabitants) in which it moves from 38<sup>th</sup> to 32<sup>nd</sup>.

Canada's improvement in the talent overall ranking (from 13<sup>th</sup> to 8<sup>th</sup>) is the result of its performance across all talent factors. It rises to 19<sup>th</sup> (from 26<sup>th</sup>) in investment and development, to 3<sup>rd</sup> (from 5<sup>th</sup>) in appeal and 7<sup>th</sup> (from 15<sup>th</sup>) in readiness. Canada improves, under investment and development, in apprenticeships and employee training. Its performance remains low in total public expenditure on education (36<sup>th</sup>) with both measures relating to the quality of education also lacking (primary school at 40<sup>th</sup> and secondary school at 43<sup>rd</sup>).

In appeal, it improves in several indicators including attracting and retaining talents (from 24<sup>th</sup> to 19<sup>th</sup>), worker motivation (21<sup>st</sup> to 15<sup>th</sup>) and brain drain (22<sup>nd</sup> to 13<sup>th</sup>). It remains in the 4<sup>th</sup> rank in the measure of environmental protection (exposure to particle pollution). Under readiness, Canada advances, for example, in the international experience of managers indicator and in the availability of language skills and inbound student mobility. It also remains in a robust position (7<sup>th</sup>) in the PISA educational assessment.

Singapore improves in investment and development (21<sup>st</sup> from 25<sup>th</sup>) within which it advances in several indicators including the implementation of apprenticeship programs, employee training, quality of education (secondary school pupil-teacher ratio) and female participation in the workforce. In the total public expenditure on education

it remains at 61<sup>st</sup> (but this is because of demographics). In appeal it drops from 20<sup>th</sup> to 22<sup>nd</sup> experiencing, at the indicator level, decreases in the quality of life, attracting overseas staff and the pollution measures.

It improves in worker motivation (17<sup>th</sup> from 20<sup>th</sup>) and the impact of brain drain (8<sup>th</sup> from 9<sup>th</sup>). Singapore remains at the top of the ranking in readiness, observing improvements in several indicators including the availability of skilled labor and finance skills. Singapore sustains its strong performance in readiness despite slight drops in PISA educational assessment, inbound student mobility, availability of language skills and graduates in sciences.

The Netherlands remains in 16<sup>th</sup> position in investment and development, in 7<sup>th</sup> in appeal and drops to 8<sup>th</sup> (from 7<sup>th</sup>) in readiness. With the exception of the measures of total public expenditure on education (it drops to 24<sup>th</sup> from 21<sup>st</sup> as a percentage of GDP, and remains at 13<sup>th</sup> in the per student

indicator) and the effectiveness of its health infrastructure (it drops to 10<sup>th</sup> from 7<sup>th</sup>), all other indicators of investment and development improve, to varying degrees.

In appeal, the Netherlands improves in the prioritization of attracting and retaining talent and it remains in the same position in the remuneration indicators (13<sup>th</sup> in service professions and 12<sup>th</sup> in management). It slightly drops but remains at the top of the rankings in worker motivation (6<sup>th</sup>), brain drain (5<sup>th</sup>) quality of life (7<sup>th</sup>), attraction for overseas highly-skilled staff (6<sup>th</sup>) and the implementation of justice (3<sup>rd</sup>). Under readiness, it experiences slight decreases in several indicators including the availability of skilled labor (10<sup>th</sup>) and finance skills (5<sup>th</sup>), and the PISA assessment (16<sup>th</sup>). It improves in graduates in sciences (56<sup>th</sup> from 60<sup>th</sup>) and inbound student mobility (10<sup>th</sup> from 11<sup>th</sup>).

## Key trends among highly talent competitive countries

As we stated previously, talent competitive economies carry out their talent development efforts in a holistic manner. That is to say, they target every aspect of the talent-development process, going beyond the purely academic component to encompassing more vocational elements such as apprenticeship programs and continued employee training. **Figure 4** shows five measures related to the talent development process including academic and more vocational aspects. In all of these indicators, the top performers are countries that top the overall talent competitiveness rankings.

It important to note that in the implementation of apprenticeships schemes and the prioritization of employee training, Germany is a top performer. Although the country is not in the top 10 of the ranking, it occupies 11<sup>th</sup> position and, over time, has developed a robust infrastructure around apprenticeships and employee training.

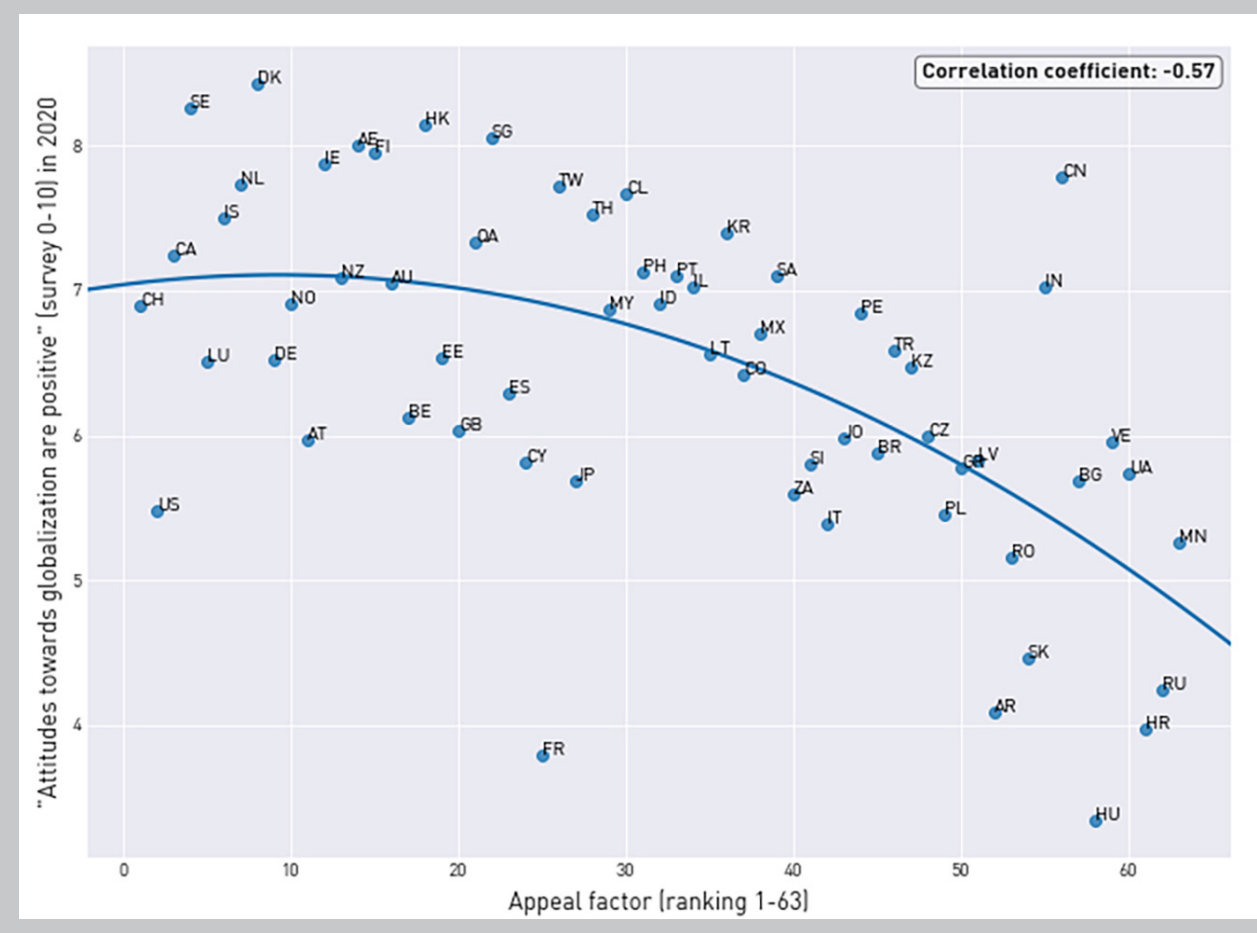
**Figure 4** also shows a measure of employee motivation, another key trend among highly talent-competitive economies. Similarly to measures of education, top performers in employee motivation are countries in the top 10 of the rankings.

Another key trend among talent-competitive economies is their openness towards people and ideas. **Figure 5** shows that the relationship between the attitudes that society has towards globalization and the appeal factor. It shows that despite its current somewhat restrictive immigration practices, the USA remains open and attractive for overseas talent and is able to retain the local component of the talent pool. Other talent-competitive countries such as Switzerland, Luxembourg, Germany, Austria and Norway also show positive attitudes towards globalization and high appeal.

Figure 4: Holistic approach to local talent development

Holistic approach to local talent	Top performers			Under performers		
Total public expenditure on education per enrolled student (US\$)	Luxembourg 29'052\$	Switzerland 24'292\$	Iceland 19'007\$	Indonesia 454\$	Philippines 421\$	India 332\$
Apprenticeships are sufficiently implemented (survey 0-10)	Switzerland 8.86	Germany 8.45	Austria 8.25	Croatia 3.13	Romania 3.11	Slovak Republic 2.39
University education meets the need of the economy (survey 0-10)	Switzerland 9.05	Denmark 8.83	Singapore 8.82	Bulgaria 3.82	Slovak Republic 3.30	Mongolia 4.13
Employee training is a high priority in companies (survey 0-10)	Denmark 7.80	Austria 7.67	Germany 7.61	Bulgaria 4.76	Slovak Republic 4.69	Croatia 3.90
Management education meets the needs of the companies (survey 0-10)	Switzerland 8.59	Denmark 8.31	Singapore 8.16	Bulgaria 4.0	Croatia 3.97	Romania 3.94
Worker motivation in companies is high (survey 0-10)	Denmark 8.22	Austria 7.69	Switzerland 7.60	South Africa 4.0	Croatia 3.94	Slovak Republic 3.73

Figure 5: Relationship between openness and Appeal factor in 2020



## Largest shifts in the overall talent ranking

Among the **largest increases**, Turkey moves up from 58<sup>th</sup> to 46<sup>th</sup> (the greatest improvement this year) due to advances across all talent factors. In investment and development (46<sup>th</sup>, up from 58<sup>th</sup>), it improves (to a different extent), or remains in the same position, in most indicators captured by this factor. In appeal (46<sup>th</sup>, up from 53<sup>rd</sup>), Turkey improves in all indicators with the exception of the cost of living index, remuneration indicators and pollution in which it remains in the same rank. Under readiness (41<sup>st</sup>, up from 56<sup>th</sup>), Turkey's ranking is boosted by advances in all indicators with the exception of labor force growth, which drops to 33<sup>rd</sup> position.

Estonia improves from 27<sup>th</sup> to 19<sup>th</sup> position as a result of advances in all talent factors. In investment and development (10<sup>th</sup>, up from 21<sup>st</sup>), it improves in all indicators captured by the factor (to varying degrees). The trend in appeal (19<sup>th</sup>, up from 23<sup>rd</sup>) is more balanced, improving in all indicators with the exception of the cost of living index, quality of life, remuneration measures and pollution, in which it remains in the same position as last year.

Under readiness (32<sup>nd</sup>, up from 35<sup>th</sup>), Estonia improves in all indicators (to different degrees) with the exception of the availability of competent senior managers, in which it

remains in the same position and graduates in science in which it drops to 18<sup>th</sup> (from 16<sup>th</sup>).

The UAE moves up from the 30<sup>th</sup> to 24<sup>th</sup> position. This is mainly driven by its improvement in the readiness factor (3<sup>rd</sup> up from 13<sup>th</sup>) in which it performs strongly in various indicators including graduates in sciences (17<sup>th</sup>), availability of skilled labor (2<sup>nd</sup>), availability of senior managers with significant international experience (2<sup>nd</sup>), availability of competent senior managers (1<sup>st</sup>) and inbound student mobility (6<sup>th</sup>).

This year Chile improves from 46<sup>th</sup> to 41<sup>st</sup> in the overall ranking. At the factor level, it improves in investment and development (48<sup>th</sup> from 50<sup>th</sup>) and appeal (30<sup>th</sup> from 34<sup>th</sup>), but declines in readiness (from 46<sup>th</sup> to 48<sup>th</sup>). At the indicator level, Chile advances in several indicators including the implementation of apprenticeship programs, the level of employee training, the level of worker motivation and the PISA educational assessment. It declines in the quality of life it offers and in the effectiveness of its primary and secondary education, among others.

Among the **largest downturns**, Russia experiences the largest decline in our sample dropping from the 47<sup>th</sup> to

54<sup>th</sup> position. This down-shift results from declines across all talent factors. Russia decreases from 45<sup>th</sup> to 47<sup>th</sup> in the investment and development factor, from 59<sup>th</sup> to 62<sup>nd</sup> in appeal and from 36<sup>th</sup> to 47<sup>th</sup> in readiness. Under investment and development, all indicators place at the 48<sup>th</sup> rank or below (except for secondary school pupil-teacher ratio, 27<sup>th</sup> and female labor participation, 5<sup>th</sup>). Similarly, in appeal, all indicators drop or remain stagnant at the 51<sup>st</sup> position or below (with the exception of effective income tax rate, 17<sup>th</sup>, and the pollution measure at 31<sup>st</sup>). Russia's performance in readiness is similar with most indicators ranking between the 43<sup>rd</sup> (effectiveness of primary and secondary education) and 61<sup>st</sup> (availability of senior managers with significant international experience) positions.

Saudi Arabia declines from 29<sup>th</sup> to 34<sup>th</sup> mainly as a result of decreases in investment and development (from 28<sup>th</sup> to 37<sup>th</sup>) and readiness (from 22<sup>nd</sup> to 30<sup>th</sup>). In the former, the performance of Saudi Arabia slightly deteriorates in both measures of total public expenditure on education. Furthermore, the quality of education at primary school level shows a steep downturn. Under readiness, despite

an upturn in executives' opinion about the availability of specific skills, graduates in sciences drops from 38<sup>th</sup> to 45<sup>th</sup> position, student inbound mobility from 30<sup>th</sup> to 34<sup>th</sup> and labor force growth from the 1<sup>st</sup> to 4<sup>th</sup> rank.

Kazakhstan drops from 38<sup>th</sup> to 44<sup>th</sup> position in the overall talent ranking. It declines across all talent factors, sliding from 39<sup>th</sup> to 41<sup>st</sup> in the investment and development factor, from 39<sup>th</sup> to 47<sup>th</sup> in appeal and from 38<sup>th</sup> to 50<sup>th</sup> in readiness. The implementation of apprenticeship programs and employee training drop to 23<sup>rd</sup> and 21<sup>st</sup>, respectively. In addition, measures of total public expenditure on education remain low (59<sup>th</sup> as a percentage of GDP, and 53<sup>rd</sup> per student) despite some improvement in both. Under appeal, business executives' perceptions about worker motivation plunges to 44<sup>th</sup> position (from 30<sup>th</sup>); the prioritization of talent attraction and retention drops to 43<sup>rd</sup> (from 34<sup>th</sup>); and the attractiveness of the country for overseas highly-skilled staff slides to 31<sup>st</sup> (from 23<sup>rd</sup>). In the readiness factor, most indicators drop (to varying degrees) except for graduates in sciences, which improves two positions to 31<sup>st</sup>, and student inbound mobility which remains at 50<sup>th</sup>.

## Bottom 10 countries

As discussed in the previous section, Russia drops to 54<sup>th</sup> position and in so doing it places at the bottom 10 of the overall talent ranking.

Similarly, Bulgaria declines to 55<sup>th</sup> (from 52<sup>nd</sup>) entering the bottom of the ranking. Such deterioration results mainly from the readiness factor's performance (dropping from 55<sup>th</sup> to 57) in which Bulgaria slides in most indicators (to a varying extent) and rank at the 45<sup>th</sup> position or lower with the effectiveness of university and management education both ranking at 61<sup>st</sup>.

In investment and development (45<sup>th</sup>), Bulgaria experiences a decline in secondary school pupil-teacher ratio to 41<sup>st</sup> (from 36<sup>th</sup>) and the prioritization of employee training (61<sup>st</sup> from 55<sup>th</sup>). Within appeal (57<sup>th</sup>), it slightly deteriorates in the quality of life ranking at 60<sup>th</sup> place and in the implementation of justice placing at 54<sup>th</sup>. Bulgaria's performance in the attraction of foreign highly-skilled personnel, also shows a downturn from 50<sup>th</sup> to 56<sup>th</sup>.

Mexico improves from 60<sup>th</sup> to the 56<sup>th</sup> but remains at the bottom of the table. The improvements mainly originate in the country's performance in appeal (38<sup>th</sup> from 40<sup>th</sup>) and readiness (38<sup>th</sup> from 47<sup>th</sup>). In investment and development, Mexico remains in 62<sup>nd</sup> position. In this factor, the country displays improvements in the implementation of apprenticeship programs (36<sup>th</sup> from 42<sup>nd</sup>) and employee training (43<sup>rd</sup> from 49<sup>th</sup>) but its performance in measures of total public expenditure on education and the quality of education remain weak with female participation in the labor force remaining at 54<sup>th</sup>.

The prioritization of attracting and retaining talent improves to the 46<sup>th</sup> rank (from 54<sup>th</sup>) and the level of worker

motivation to 33<sup>rd</sup> (from 42<sup>nd</sup>) - both contributing to the overall improvement in appeal. The availability of skilled labor (33<sup>rd</sup> from 38<sup>th</sup>), finance skills (45<sup>th</sup> from 53<sup>rd</sup>) and competent senior managers (38<sup>th</sup> from 44<sup>th</sup>) mainly drive the country's performance in readiness. Importantly, Mexico shows a decline in the graduates in sciences indicators (22<sup>nd</sup> to 26<sup>th</sup>) and student inbound mobility (54<sup>th</sup> to 59<sup>th</sup>).

Romania drops to the 57<sup>th</sup> rank (from 55<sup>th</sup>). At the factor level, it declines in appeal (from 52<sup>nd</sup> to 53<sup>rd</sup>) and in readiness (from 50<sup>th</sup> to 55<sup>th</sup>). A combination of downturn and stagnation in the indicators that measure appeal contributes to its slight drop. Among the indicators that experience a downturn are the prioritization of talent attraction and retention, worker motivation and the impact of brain drain. Among the stagnant indicators are the measures of remuneration (both at 50<sup>th</sup>) and the implementation of justice (47<sup>th</sup>). In the case of readiness, declines in the availability of skilled labor, finance skills and managers with significant international experience partially drive Romania's performance in this factor.

Colombia moves down to 58<sup>th</sup> position (from 54<sup>th</sup>). It slightly declines in the appeal factor from 36<sup>th</sup> to 37<sup>th</sup> but experiences a steeper dip in readiness from 53<sup>rd</sup> rank to 60<sup>th</sup>. The downturn in appeal is mainly driven by a pessimistic turn in executives' opinions in terms of the private sectors' prioritization of attracting and retaining talent (55<sup>th</sup>), workers motivation (48<sup>th</sup>) and the quality of life (58<sup>th</sup>).

In the case of readiness, all indicators that capture the availability of skills drop to different degrees; for example, the availability of skilled labor (46<sup>th</sup>) and of finance skills (49<sup>th</sup>). Measures of the effectiveness of the educational system also drop or remain stagnant; for example, the



effectiveness of primary and secondary education declines to 51<sup>st</sup> and graduates in sciences to 34<sup>th</sup>, while the indicator of how well management education satisfies the demands of the economy remains at 50<sup>th</sup>.

Brazil displays a slight improvement in the overall talent ranking moving up to the 59<sup>th</sup> rank (from 61<sup>st</sup>). This positive shift is mainly driven by its performance in appeal. The improvement in the latter factor is largely the result of increases in indicators including the level of worker motivation, quality of life and the attractiveness of the country for foreign highly-skilled labor (although they continue to rank low: 41<sup>st</sup>, 56<sup>th</sup> and 57<sup>th</sup>). Despite drops in investment and development and readiness, there are some improvements within both factors. Female participation in the workforce (37<sup>th</sup>) and the effectiveness of the health system (53<sup>rd</sup>) improve in investment and development. In the case of readiness, graduates in sciences (54<sup>th</sup>) and PISA educational assessment (54<sup>th</sup>) slightly improve.

Venezuela advances to 60<sup>th</sup> position (from 62<sup>nd</sup>) largely due to a slightly positive turn in executives' opinions. For example, it improves in the implementation of apprenticeship programs (39<sup>th</sup>), employee training as priority of the private sector (48<sup>th</sup>), level of worker motivation (59<sup>th</sup>) and the availability of language skills (58<sup>th</sup>). While female participation in the labor-force also improves (48<sup>th</sup>) and the pollution indicator remain at 38<sup>th</sup>, the effectiveness of the health infrastructure and the quality of life remain at the bottom of the ranking.

The Slovak Republic drops from 57<sup>th</sup> position to 61<sup>st</sup>. This down shift results partially from declines in the investment and development factor (from 47<sup>th</sup> to 49<sup>th</sup>) and the readiness factor (from 59<sup>th</sup> to 61<sup>st</sup>). Although it performs relatively high in measures of public expenditure (43<sup>rd</sup> as a percentage of GDP and 37<sup>th</sup> per student) and the quality of the education system (44<sup>th</sup> in primary education and 40<sup>th</sup> in secondary), the country's implementation of apprenticeship

schemes ranks 63<sup>rd</sup> and the prioritization of the workforce training is at 62<sup>nd</sup>.

Similarly, several measures of appeal rank extremely low including the prioritization of attracting and retaining talent (62<sup>nd</sup>), worker motivation (63<sup>rd</sup>) and the impact of brain drain (61<sup>st</sup>). With few exceptions, measures of readiness slightly drop including the availability of finance skills (61<sup>st</sup>) and the effectiveness of primary and secondary education (61<sup>st</sup>). Nevertheless, there are some positive signs in readiness. Graduates in science moves up one rank to 40<sup>th</sup> position, the availability of language skills goes up to 51<sup>st</sup> (from 54<sup>th</sup>) and the PISA educational assessment from 38<sup>th</sup> to 36<sup>th</sup>.

India declines to 62<sup>nd</sup> position (from 59<sup>th</sup>). It remains at the 63<sup>rd</sup> rank in investment and appeal, slightly improves in appeal to 55<sup>th</sup> (from 57<sup>th</sup>) and remains in 25<sup>th</sup> place in readiness. Although total public expenditure on education as a percentage of GDP ranks at 35<sup>th</sup>, expenditure per student - as well as both measures of the quality of education (pupil-teacher ratio in primary and secondary school) - rank at 62<sup>nd</sup>. The implementation of apprenticeship schemes and employee training decline (35<sup>th</sup> and 44<sup>th</sup>, respectively). In addition, while the country's attractiveness for overseas highly-skilled personnel (46<sup>th</sup>), quality of life (52<sup>nd</sup>) and the implementation of justice (34<sup>th</sup>) drop, pollution remains at 61<sup>st</sup>. The availability of skilled labor drops (22<sup>nd</sup>) as well as the availability of senior managers with a significant international experience (41<sup>st</sup>), the effectiveness of university education (45<sup>th</sup>) and graduates in sciences (6<sup>th</sup>).

Mongolia remains in 63<sup>rd</sup> with several indicators ranking below 60<sup>th</sup> including quality of life (61<sup>st</sup>), effective personal income tax rate (63<sup>rd</sup>), the availability of skilled labor (63<sup>rd</sup>) and of finance skills (62<sup>nd</sup>). Nevertheless, it experiences some improvements in employee training (9<sup>th</sup>), the effectiveness of its health infrastructure (54<sup>th</sup>), female participation in the workforce (26<sup>th</sup>) and graduates in sciences (28<sup>th</sup>).

## Concluding remarks

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Earlier this year, we published the IMD World Digital Ranking in which we pointed out that countries that sustain their digital progress, are those that enjoy the flexibility and adaptability of not only the private sector but also of individuals. Moreover, we indicated that it was such flexibility and adaptability in terms of upcoming technologies that may enable societies to overcome the current crisis. This finding can be echoed in terms of talent.

Companies that are flexible in relation to work practices (e.g., working from home) and are adaptable in how they employ their available talent (e.g. redeploying available skills and competencies to new services such as online) under constantly changing circumstances are coping better in the current context. It is also important to note that such

enterprises are able to sustain a good level of motivation among their staff. The latter is fundamental for maintaining productivity and thus creating a smoother transition to a post-COVID-19 environment.

There is the risk that in a post-crisis context countries decide to turn inwards in their efforts to revitalize their economies. In other words, some countries may experience a downturn in their openness. It is thus essential to note that openness is a fundamental input to talent competitiveness not only for aspects related to the attraction of overseas staff but also retaining local talent. Importantly, talent competitiveness may be a fundamental component for economic recovery in a post-COVID era.

## Appendices

Composition of sub-regions and regions.

Western Europe	<ul style="list-style-type: none"> <li>Austria</li> <li>Belgium</li> <li>Cyprus</li> <li>Denmark</li> <li>Finland</li> <li>France</li> <li>Germany</li> <li>Greece</li> <li>Iceland</li> <li>Ireland</li> </ul>	<ul style="list-style-type: none"> <li>Italy</li> <li>Luxembourg</li> <li>Netherlands</li> <li>Norway</li> <li>Portugal</li> <li>Spain</li> <li>Sweden</li> <li>Switzerland</li> <li>United Kingdom</li> </ul>	Europe, Middle East & Africa
Eastern Europe	<ul style="list-style-type: none"> <li>Bulgaria</li> <li>Czech Republic</li> <li>Estonia</li> <li>Croatia</li> <li>Hungary</li> <li>Lithuania</li> </ul>	<ul style="list-style-type: none"> <li>Latvia</li> <li>Poland</li> <li>Romania</li> <li>Slovenia</li> <li>Slovak Republic</li> <li>Ukraine</li> </ul>	
Western Asia & Africa	<ul style="list-style-type: none"> <li>Israel</li> <li>Jordan</li> <li>Qatar</li> <li>Saudi Arabia</li> </ul>	<ul style="list-style-type: none"> <li>South Africa</li> <li>Turkey</li> <li>UAE</li> </ul>	
Ex-CIS & Central Asia	<ul style="list-style-type: none"> <li>Kazakhstan</li> <li>Mongolia</li> </ul>	<ul style="list-style-type: none"> <li>Russia</li> </ul>	
Eastern Asia	<ul style="list-style-type: none"> <li>China Mainland</li> <li>Hong Kong SAR</li> <li>Japan</li> </ul>	<ul style="list-style-type: none"> <li>Korea Rep.</li> <li>Taiwan</li> </ul>	Asia & Pacific
Southern Asia & The Pacific	<ul style="list-style-type: none"> <li>Australia</li> <li>India</li> <li>Indonesia</li> <li>Malaysia</li> </ul>	<ul style="list-style-type: none"> <li>New Zealand</li> <li>Philippines</li> <li>Singapore</li> <li>Thailand</li> </ul>	
North America	<ul style="list-style-type: none"> <li>Canada</li> <li>Mexico</li> </ul>	<ul style="list-style-type: none"> <li>USA</li> </ul>	The Americas
South America	<ul style="list-style-type: none"> <li>Argentina</li> <li>Brazil</li> <li>Chile</li> </ul>	<ul style="list-style-type: none"> <li>Colombia</li> <li>Peru</li> <li>Venezuela</li> </ul>	

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# IMD WORLD TALENT RANKING 2020

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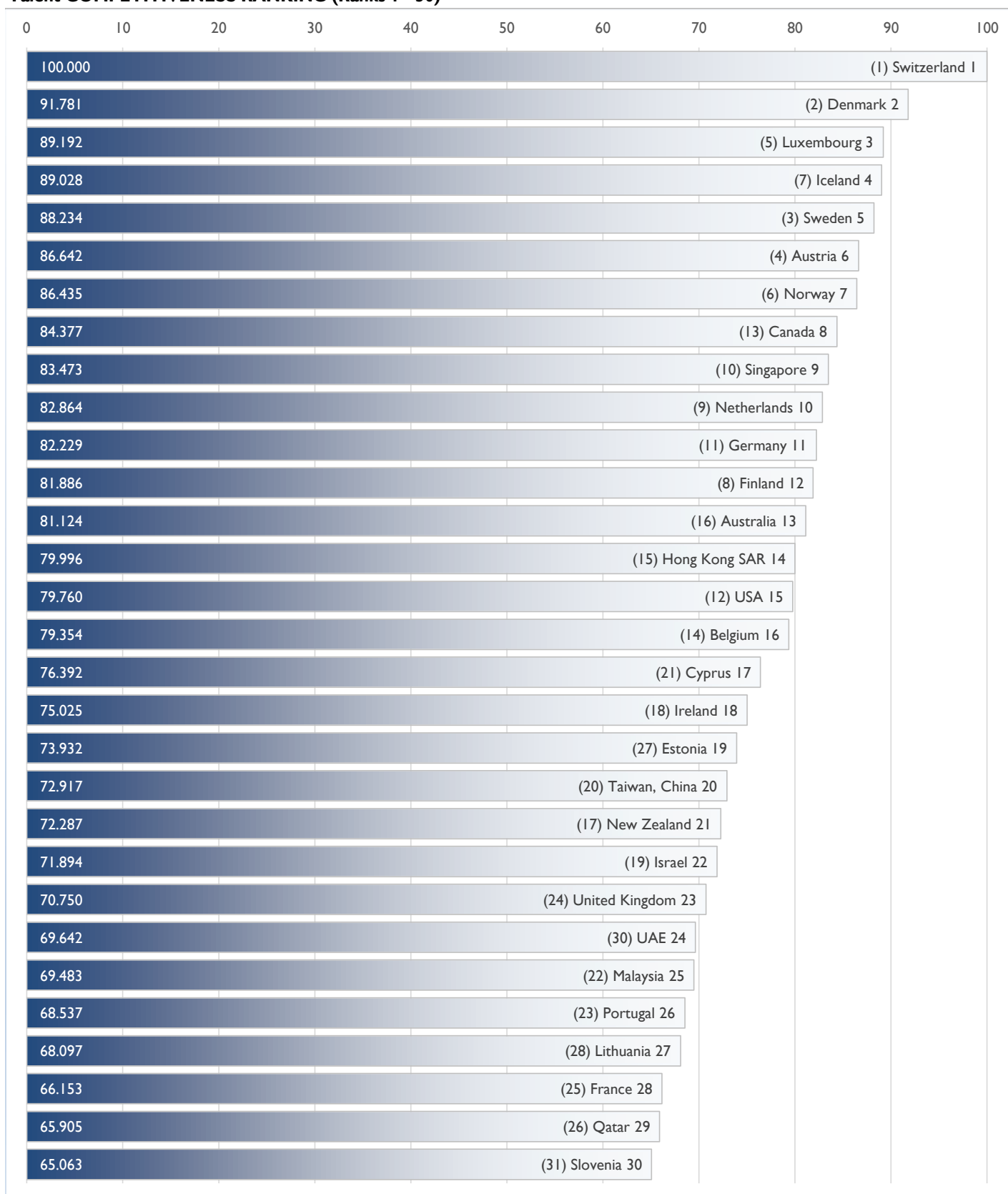
All data are available from the  
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# The 2020 IMD World

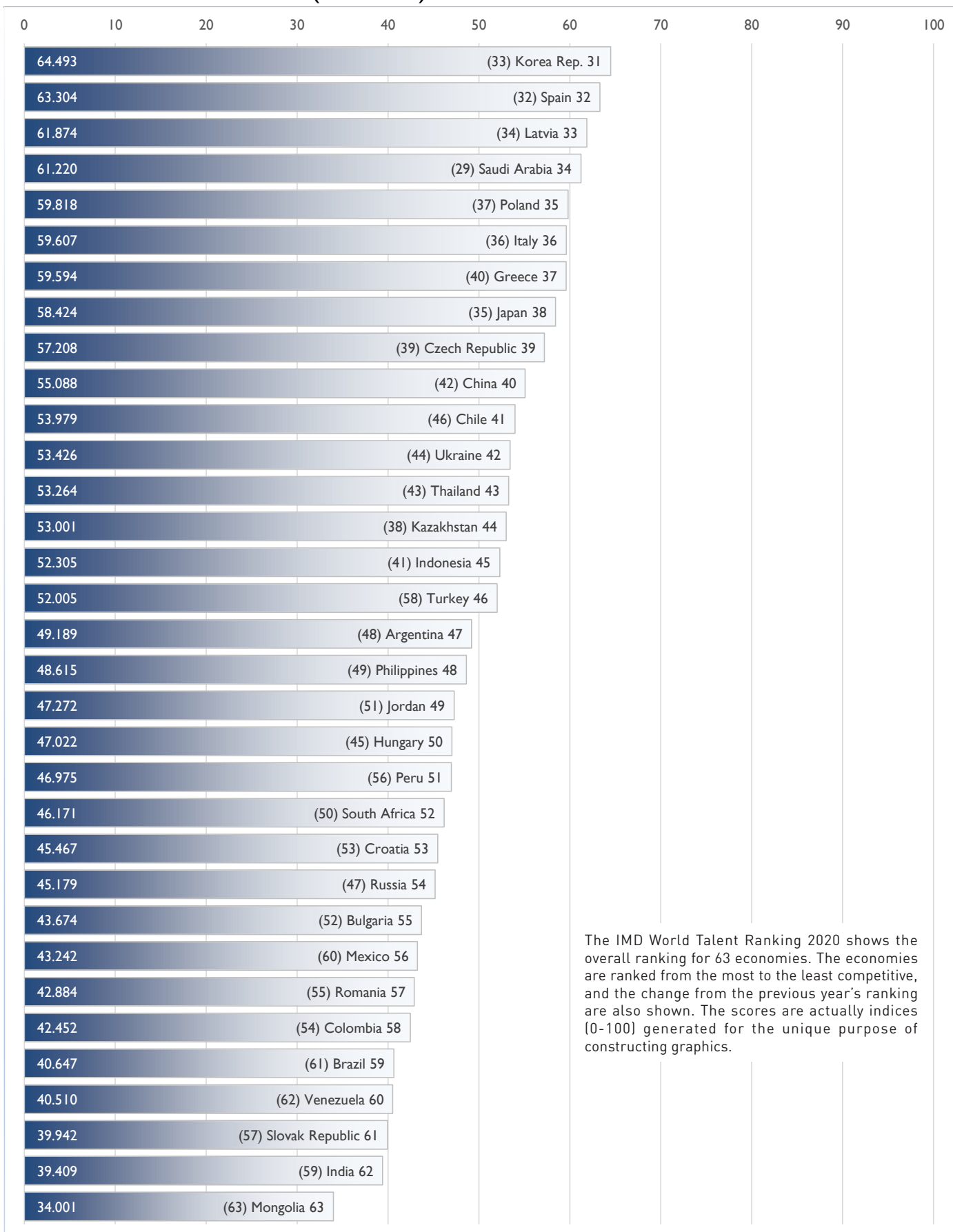
## Talent COMPETITIVENESS RANKING (Ranks 1 - 30)



(2019 rankings are in parentheses)

# Talent Ranking

## Talent COMPETITIVENESS RANKING (Ranks 31 - 63)



The IMD World Talent Ranking 2020 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.

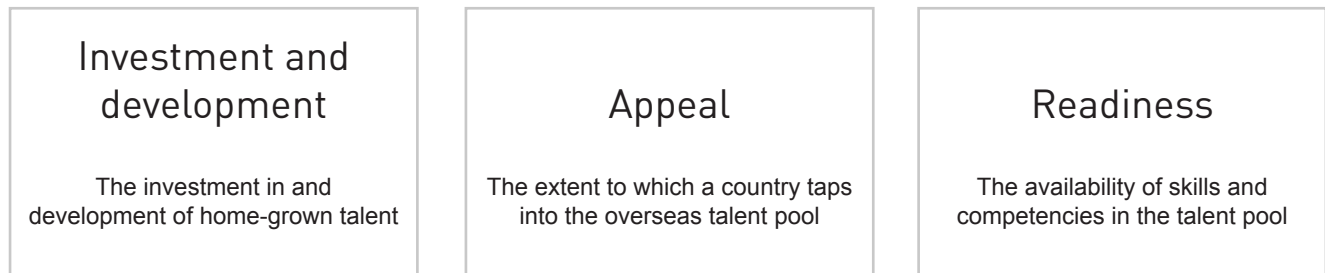
(2019 rankings are in parentheses)

# Methodology in a Nutshell

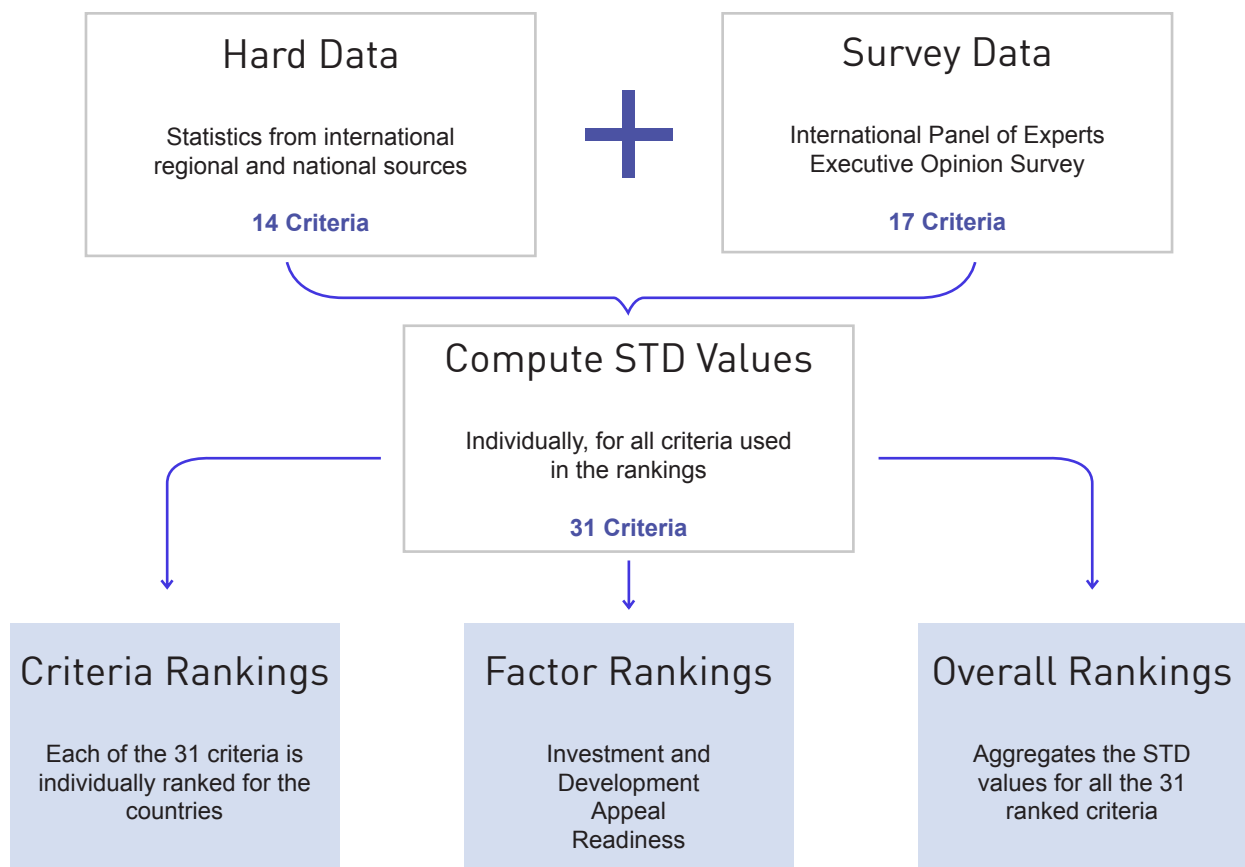
1. The IMD World Talent Ranking (WTR) assesses the status and the development of competencies necessary for enterprises and the economy to achieve long term value creation. It does so by using a set of indicators which measure the development, retention and attraction of a domestic and international highly-skilled workforce.
2. Based on our research, the methodology of the World Talent Ranking defines Talent Competitiveness into three main factors:
  - Investment and Development
  - Appeal
  - Readiness
3. 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).
4. Each factor, independently of the number of criteria it contains, has the same weight in the overall consolidation of results that is  $1/3$  ( $3 \times 33.3 \sim 100$ ).
5. 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).
6. 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.

# What is the IMD World Talent Ranking?

## World Talent Ranking Factors

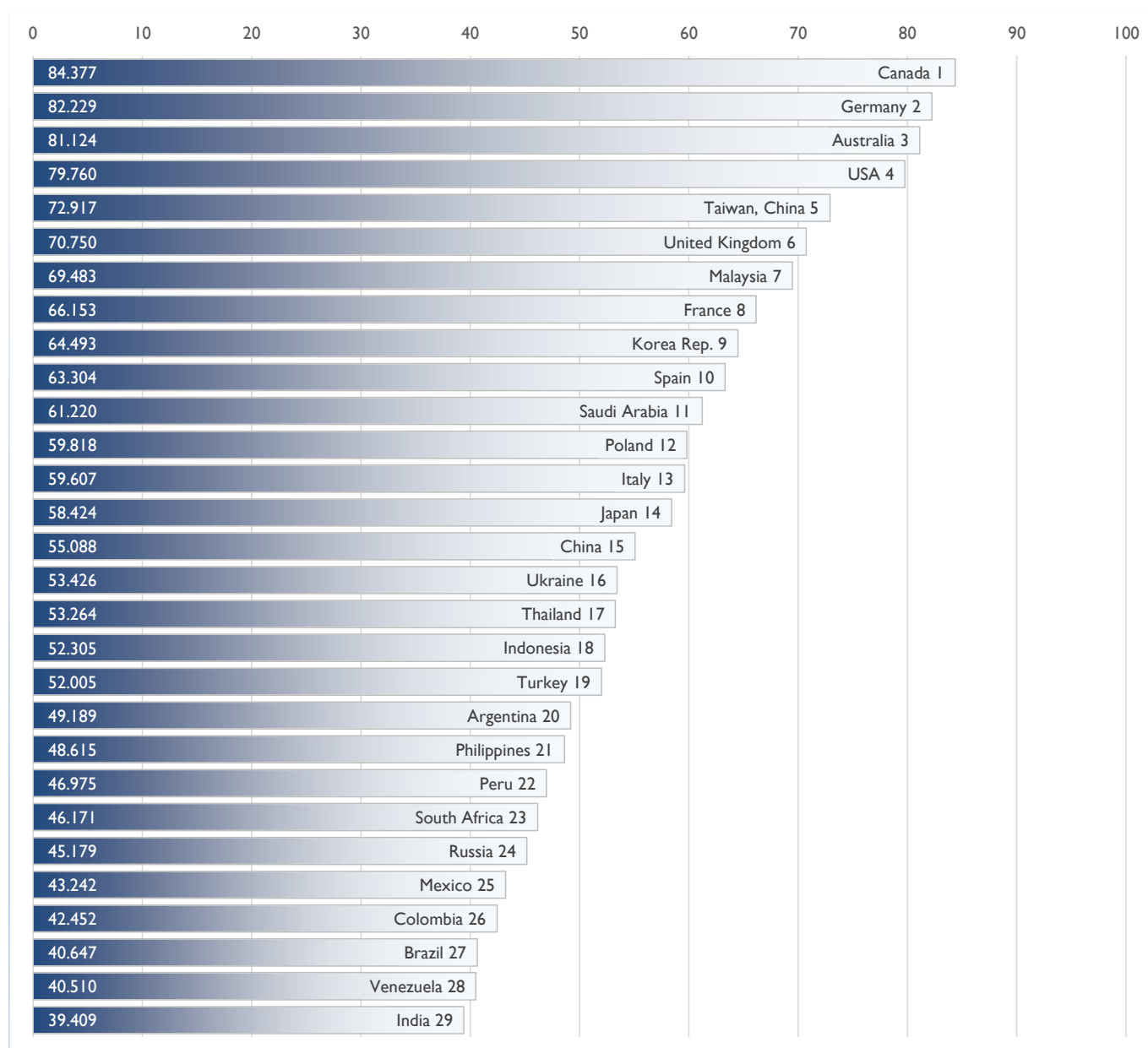


## Computing the Rankings

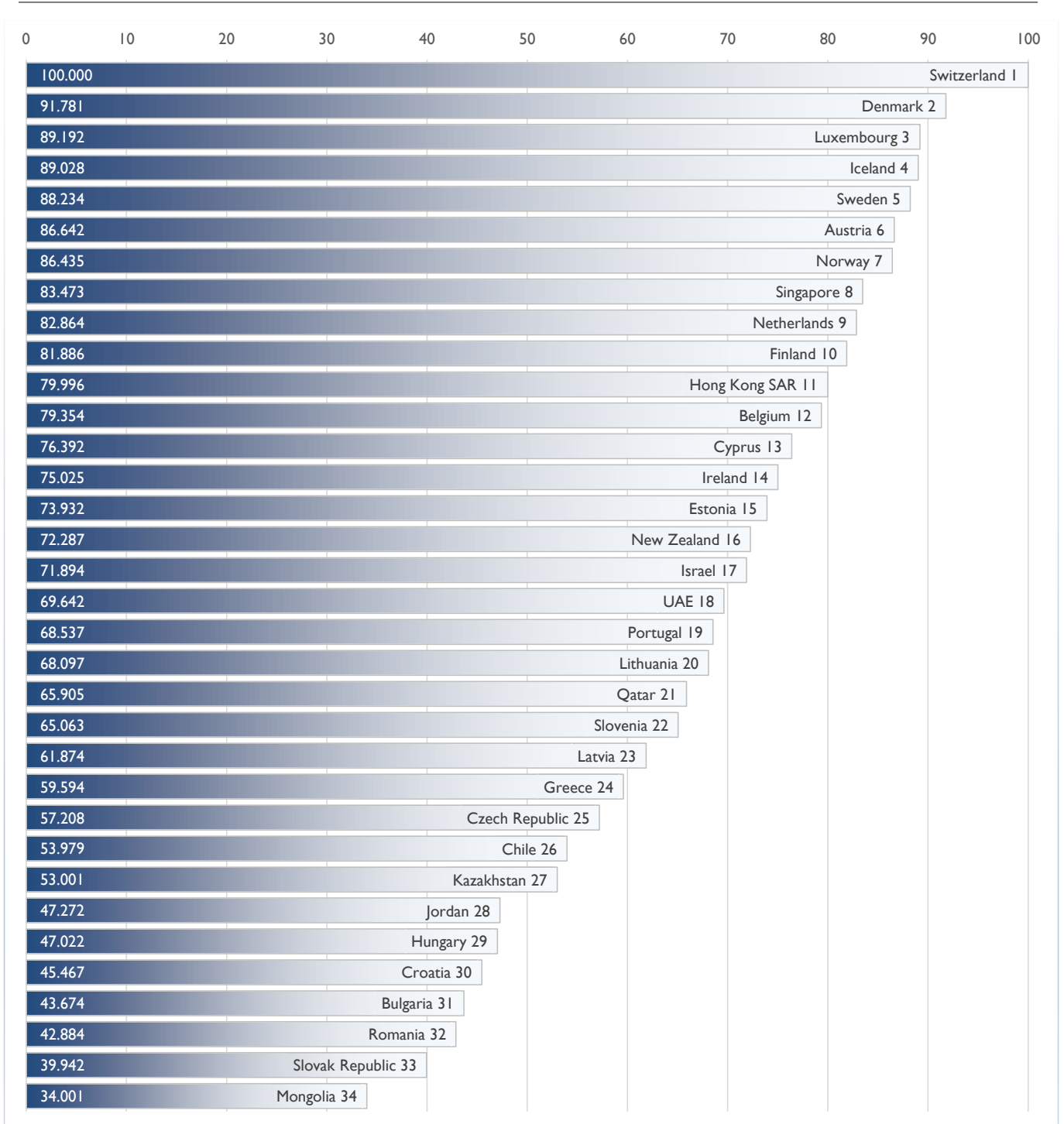


# The 2020 IMD World Talent Rankings: Selected Breakdowns

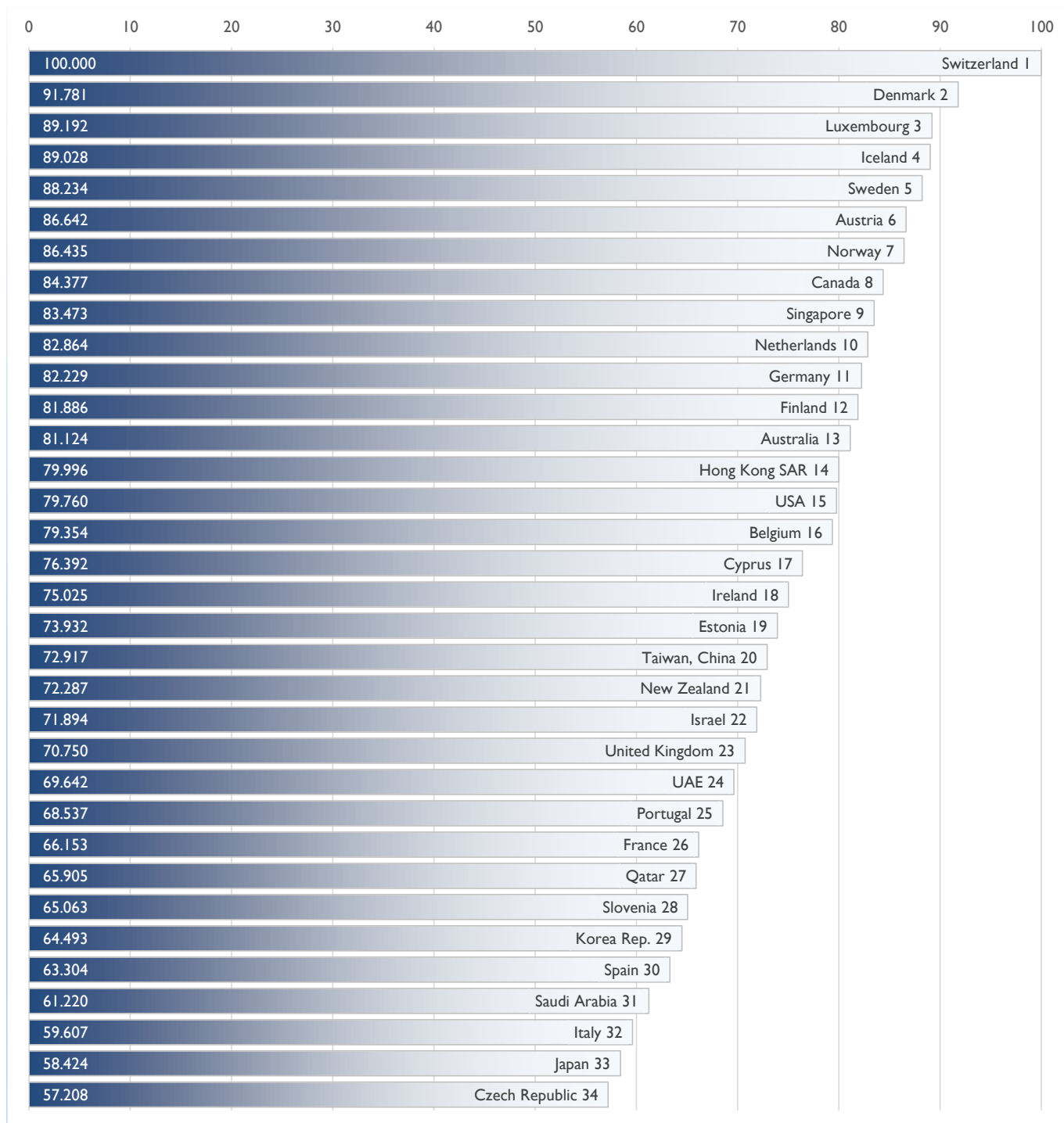
## Populations greater than 20 million

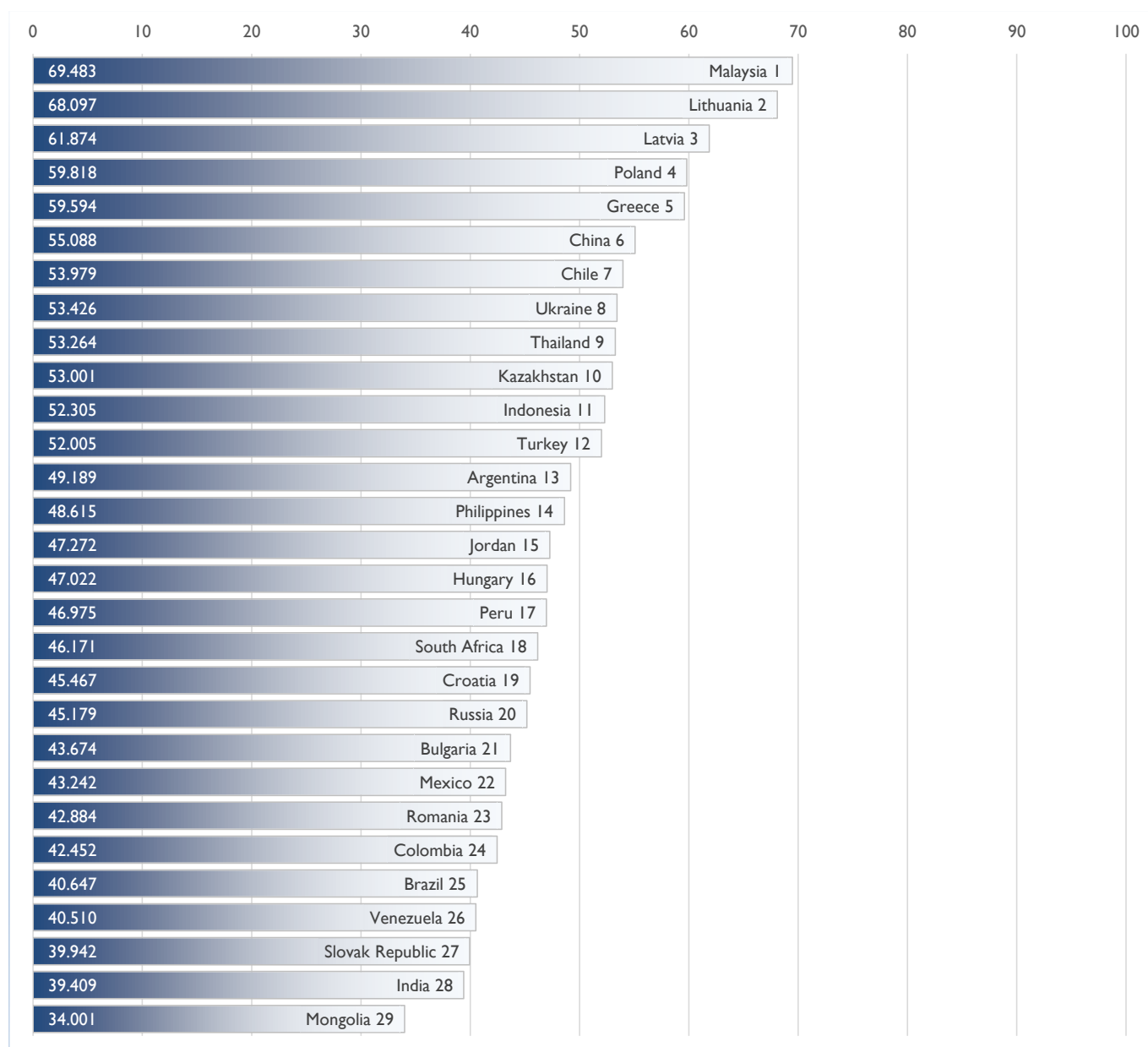


## Populations less than 20 million



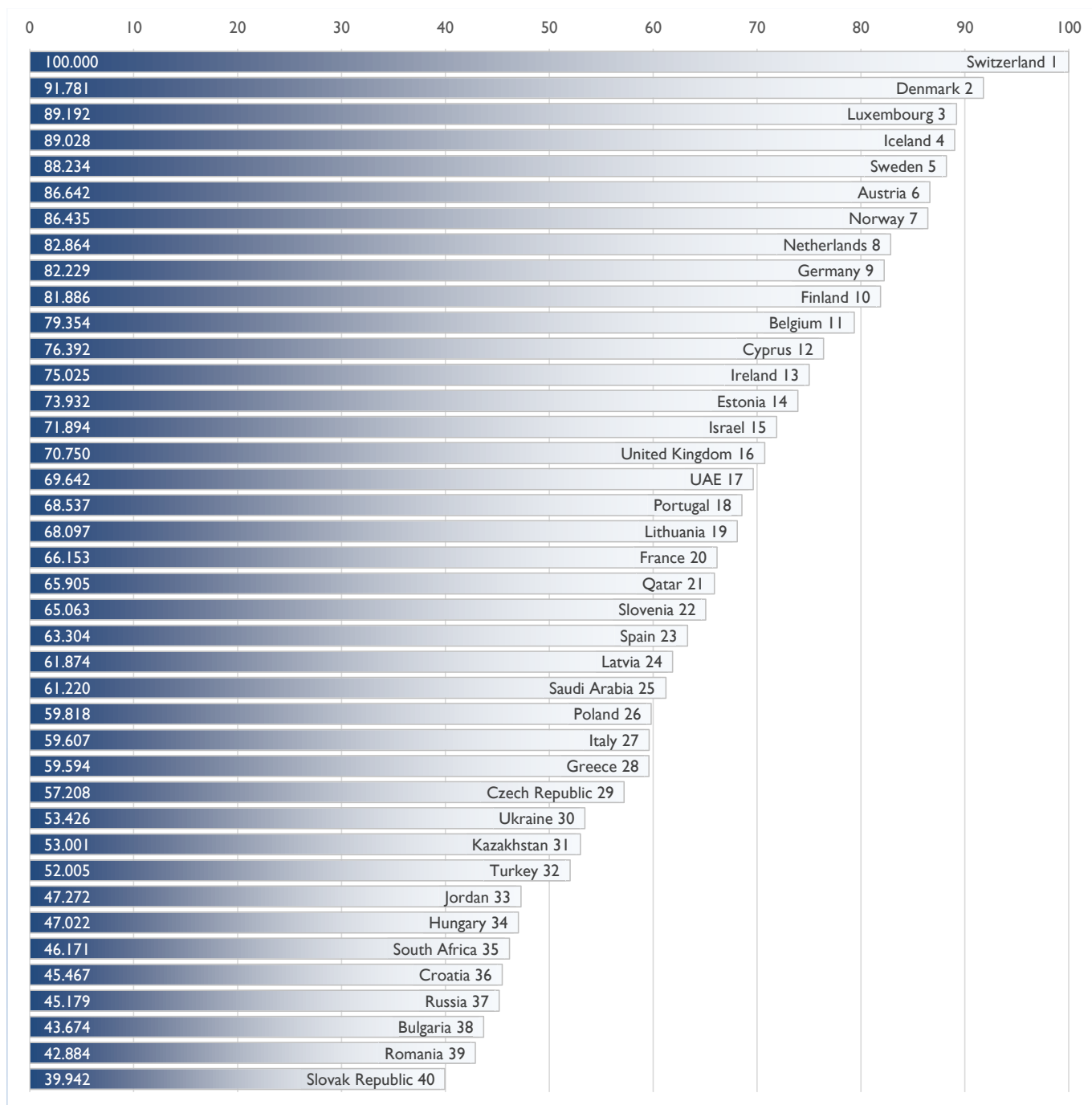
## GDP per capita greater than \$20,000



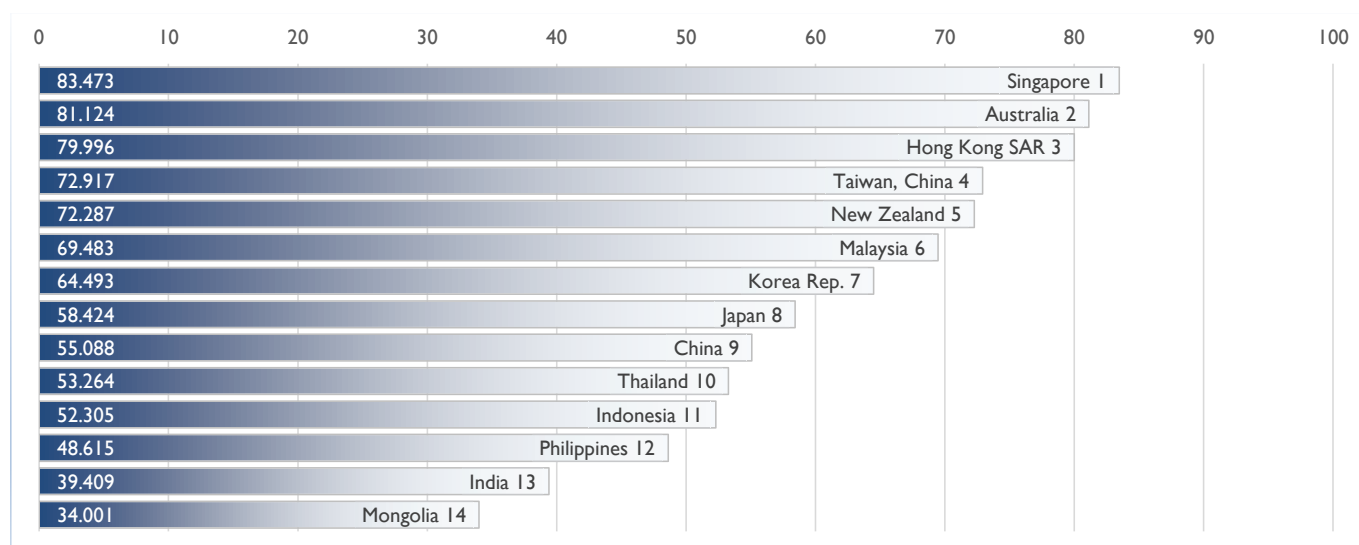




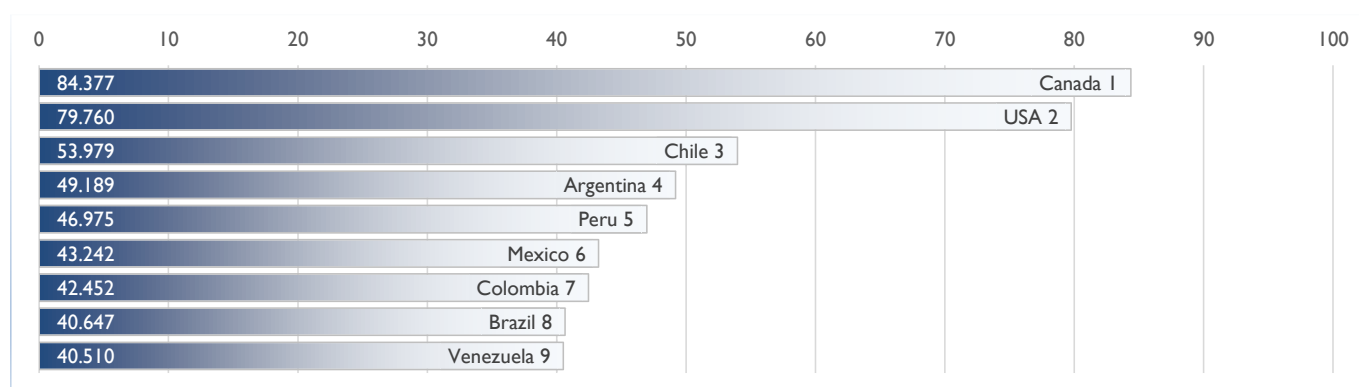
## Europe - Middle East - Africa



## Asia - Pacific

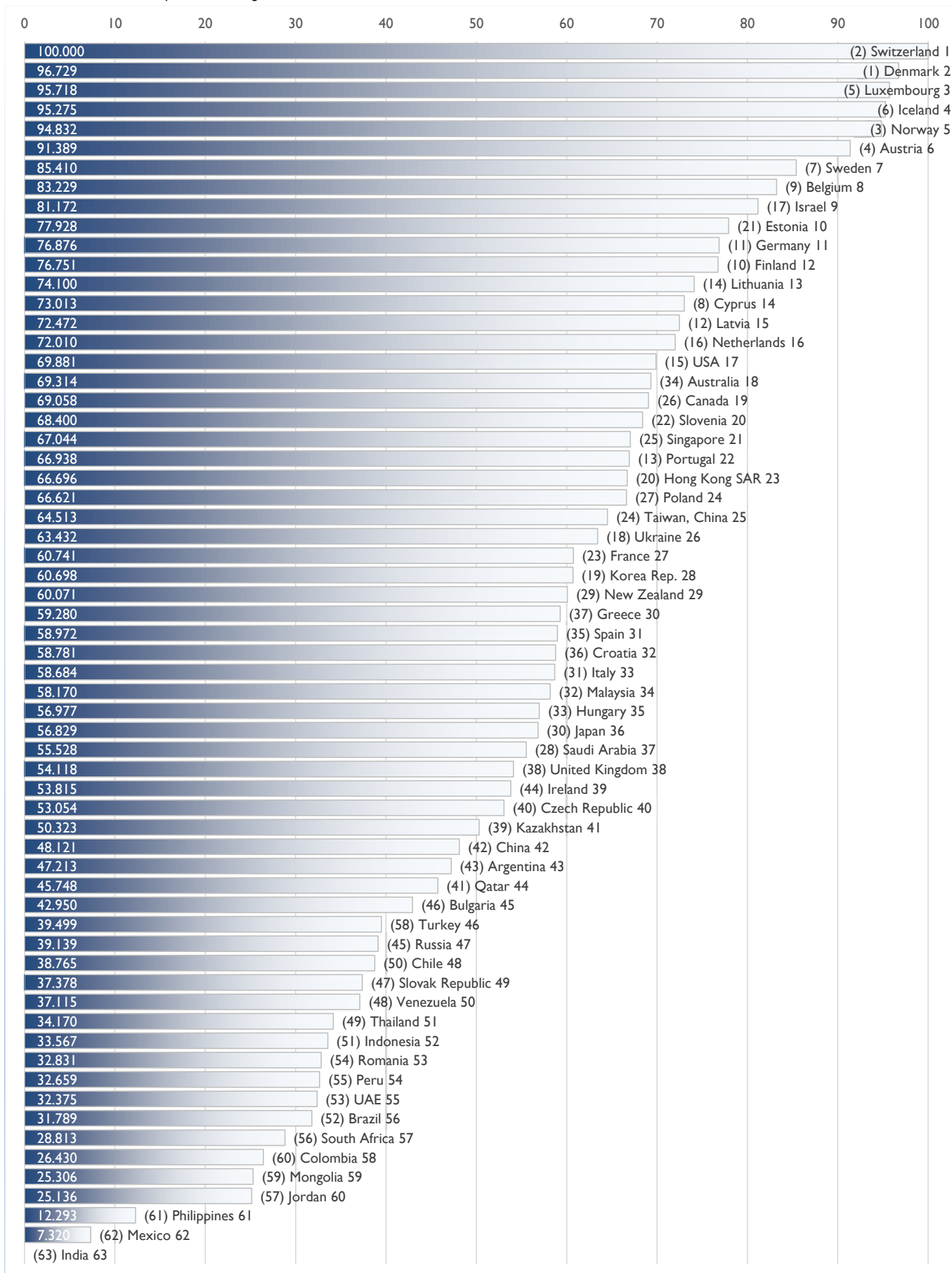


## The Americas



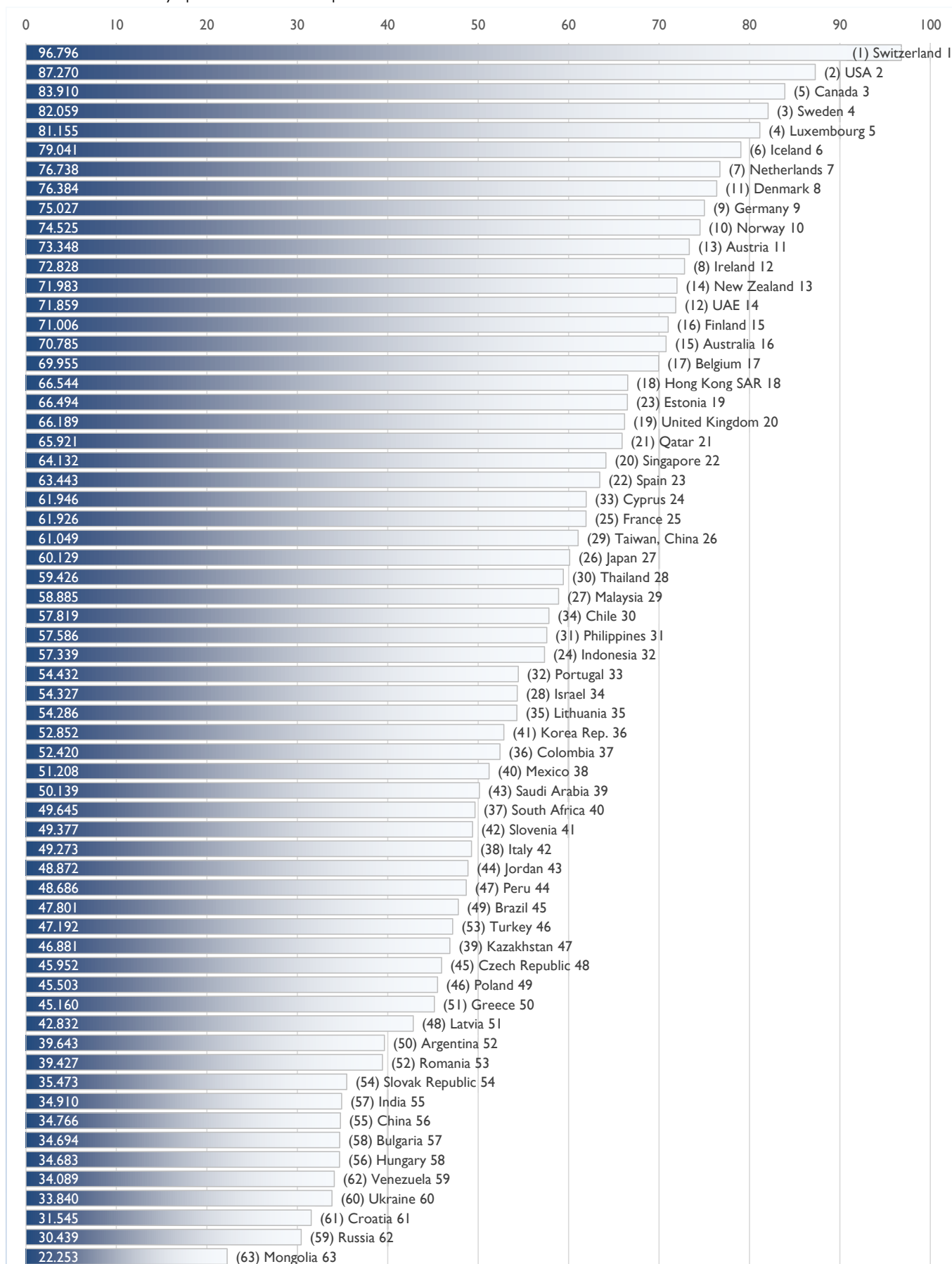
## Factor 1: Investment & Development

The investment in and development of home-grown talent



(2019 rankings are in parentheses)

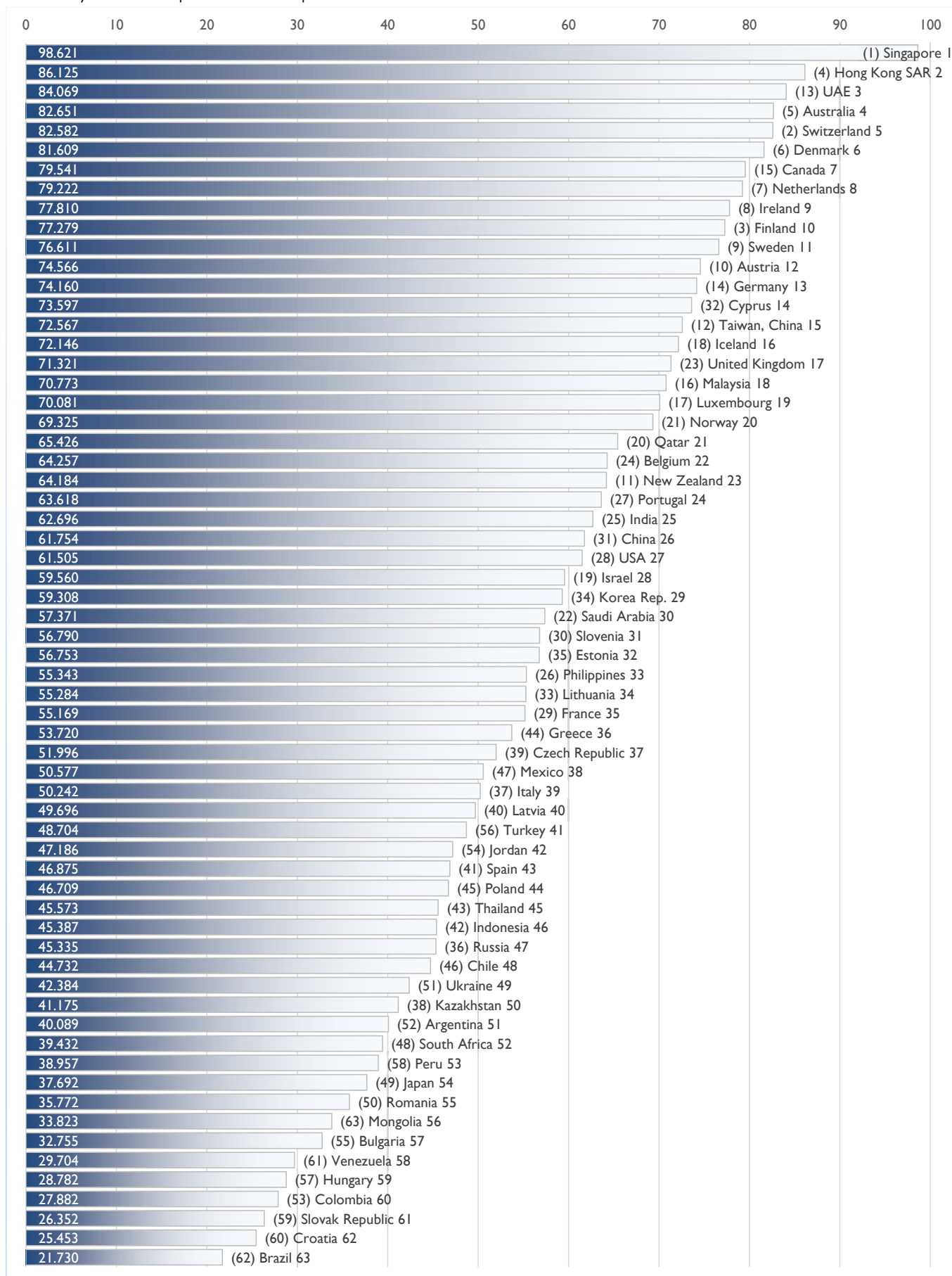
The extent to which a country taps into the overseas talent pool



(2019 rankings are in parentheses)

### Factor 3: Readiness

The availability of skills and competencies in the talent pool



(2019 rankings are in parentheses)



	OVERALL					Investment & Development				
	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Argentina	52	50	47	48	47	51	55	53	43	43
Australia	16	19	14	16	13	29	36	26	34	18
Austria	5	4	4	4	6	3	3	2	4	6
Belgium	3	3	11	14	16	2	2	8	9	8
Brazil	45	52	58	61	59	39	45	49	52	56
Bulgaria	58	58	57	52	55	44	44	45	46	45
Canada	12	11	6	13	8	22	22	19	26	19
Chile	48	44	43	46	41	59	53	55	50	48
China	42	40	39	42	40	45	42	40	42	42
Colombia	57	55	60	54	58	57	59	60	60	58
Croatia	53	60	54	53	53	38	32	39	36	32
Cyprus	-	17	15	21	17	-	8	5	8	14
Czech Republic	33	38	37	39	39	35	39	38	40	40
Denmark	2	2	2	2	2	1	1	1	1	2
Estonia	26	29	28	27	19	13	14	16	21	10
Finland	6	5	7	8	12	4	4	6	10	12
France	28	27	25	25	28	24	20	21	23	27
Germany	10	8	10	11	11	11	10	10	11	11
Greece	35	41	44	40	37	23	31	29	37	30
Hong Kong SAR	9	12	18	15	14	27	24	31	20	23
Hungary	51	54	49	45	50	41	46	41	33	35
Iceland	18	18	16	7	4	12	11	12	6	4
India	54	51	53	59	62	60	62	63	63	63
Indonesia	47	47	45	41	45	55	56	51	51	52
Ireland	17	14	21	18	18	30	34	42	44	39
Israel	19	20	19	19	22	19	17	14	17	9
Italy	32	36	32	36	36	32	33	33	31	33
Japan	31	31	29	35	38	20	18	23	30	36
Jordan	40	49	41	51	49	56	60	50	57	60
Kazakhstan	44	30	40	38	44	34	23	30	39	41
Korea Rep.	38	39	33	33	31	33	38	20	19	28
Latvia	30	35	35	34	33	9	13	11	12	15
Lithuania	24	33	36	28	27	10	12	13	14	13
Luxembourg	11	10	9	5	3	15	16	18	5	3
Malaysia	21	28	22	22	25	17	19	17	32	34
Mexico	50	56	61	60	56	58	61	61	62	62
Mongolia	60	62	62	63	63	49	54	57	59	59
Netherlands	8	6	5	9	10	14	15	15	16	16
New Zealand	14	15	20	17	21	25	28	32	29	29
Norway	7	7	3	6	7	6	6	3	3	5
Peru	59	57	52	56	51	54	50	52	55	54
Philippines	55	45	55	49	48	61	63	62	61	61
Poland	29	34	38	37	35	18	21	24	27	24
Portugal	25	24	17	23	26	8	7	7	13	22
Qatar	22	22	24	26	29	48	47	44	41	44
Romania	56	61	56	55	57	47	51	54	54	53
Russia	41	43	46	47	54	42	40	43	45	47
Saudi Arabia	-	26	34	29	34	-	26	35	28	37
Singapore	15	13	13	10	9	40	41	34	25	21
Slovak Republic	39	46	59	57	61	37	43	47	47	49
Slovenia	36	37	30	31	30	21	27	27	22	20
South Africa	43	48	50	50	52	50	57	56	56	57
Spain	34	32	31	32	32	31	30	36	35	31
Sweden	4	9	8	3	5	7	9	9	7	7
Switzerland	1	1	1	1	1	5	5	4	2	1
Taiwan, China	23	23	27	20	20	28	25	25	24	25
Thailand	37	42	42	43	43	43	48	46	49	51
Turkey	46	53	51	58	46	52	52	58	58	46
UAE	27	25	26	30	24	53	58	59	53	55
Ukraine	49	59	48	44	42	16	35	22	18	26
United Kingdom	20	21	23	24	23	36	37	37	38	38
USA	13	16	12	12	15	26	29	28	15	17
Venezuela	61	63	63	62	60	46	49	48	48	50

Appeal					Readiness					
2016	2017	2018	2019	2020	2016	2017	2018	2019	2020	
52	53	48	50	52	43	46	44	52	51	Argentina
17	18	19	15	16	6	13	6	5	4	Australia
18	15	13	13	11	19	16	18	10	12	Austria
14	16	16	17	17	7	12	14	24	22	Belgium
47	47	53	49	45	54	61	61	62	63	Brazil
57	57	58	58	57	57	59	58	55	57	Bulgaria
7	6	3	5	3	11	9	5	15	7	Canada
28	27	30	34	30	49	43	35	46	48	Chile
55	54	51	55	56	36	30	32	31	26	China
39	39	45	36	37	55	57	59	53	60	Colombia
58	59	60	61	61	58	62	62	60	62	Croatia
-	21	27	33	24	-	25	26	32	14	Cyprus
34	40	35	45	48	30	36	36	39	37	Czech Republic
11	10	7	11	8	4	4	8	6	6	Denmark
35	38	33	23	19	34	35	31	35	32	Estonia
24	24	21	16	15	9	5	7	3	10	Finland
30	29	22	25	25	29	28	28	29	35	France
9	8	6	9	9	18	15	21	14	13	Germany
50	56	54	51	50	35	40	47	44	36	Greece
4	11	14	18	18	5	6	9	4	2	Hong Kong SAR
60	61	59	56	58	53	54	53	57	59	Hungary
20	20	20	6	6	17	21	19	18	16	Iceland
41	43	44	57	55	28	29	30	25	25	India
31	32	34	24	32	45	47	49	42	46	Indonesia
5	5	11	8	12	13	10	12	8	9	Ireland
25	28	23	28	34	22	23	16	19	28	Israel
37	41	36	38	42	33	34	33	37	39	Italy
21	22	28	26	27	51	48	41	49	54	Japan
32	44	39	44	43	25	44	25	54	42	Jordan
54	37	49	39	47	52	32	42	38	50	Kazakhstan
42	42	41	41	36	42	42	34	34	29	Korea Rep.
46	52	52	48	51	41	38	43	40	40	Latvia
36	48	46	35	35	32	45	45	33	34	Lithuania
3	4	4	4	5	16	17	11	17	19	Luxembourg
22	30	26	27	29	26	27	24	16	18	Malaysia
33	33	43	40	38	46	53	54	47	38	Mexico
56	60	62	63	63	56	56	55	63	56	Mongolia
13	7	10	7	7	3	3	3	7	8	Netherlands
12	14	17	14	13	8	8	13	11	23	New Zealand
15	13	12	10	10	14	14	10	21	20	Norway
44	46	47	47	44	60	58	57	58	53	Peru
38	34	38	31	31	23	11	37	26	33	Philippines
45	45	40	46	49	24	33	39	45	44	Poland
40	36	29	32	33	31	31	22	27	24	Portugal
10	9	8	21	21	10	18	20	20	21	Qatar
51	58	55	52	53	47	55	52	50	55	Romania
53	55	57	59	62	38	39	46	36	47	Russia
-	31	31	43	39	-	26	38	22	30	Saudi Arabia
19	17	15	20	22	2	2	2	1	1	Singapore
49	50	56	54	54	39	49	60	59	61	Slovak Republic
48	49	42	42	41	37	37	29	30	31	Slovenia
29	35	37	37	40	50	52	51	48	52	South Africa
27	25	25	22	23	44	41	40	41	43	Spain
6	12	9	3	4	15	19	15	9	11	Sweden
1	1	1	1	1	1	1	1	2	5	Switzerland
26	26	32	29	26	27	22	27	12	15	Taiwan, China
23	23	24	30	28	48	50	50	43	45	Thailand
43	51	50	53	46	40	51	48	56	41	Turkey
8	3	5	12	14	12	7	4	13	3	UAE
59	62	61	60	60	59	60	56	51	49	Ukraine
16	19	18	19	20	20	20	17	23	17	United Kingdom
2	2	2	2	2	21	24	23	28	27	USA
61	63	63	62	59	61	63	63	61	58	Venezuela





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# TALENT COUNTRY PROFILES

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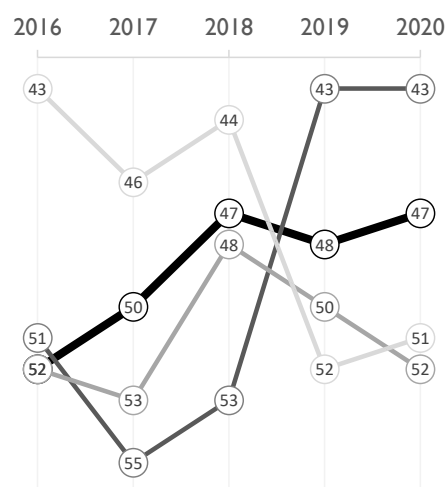
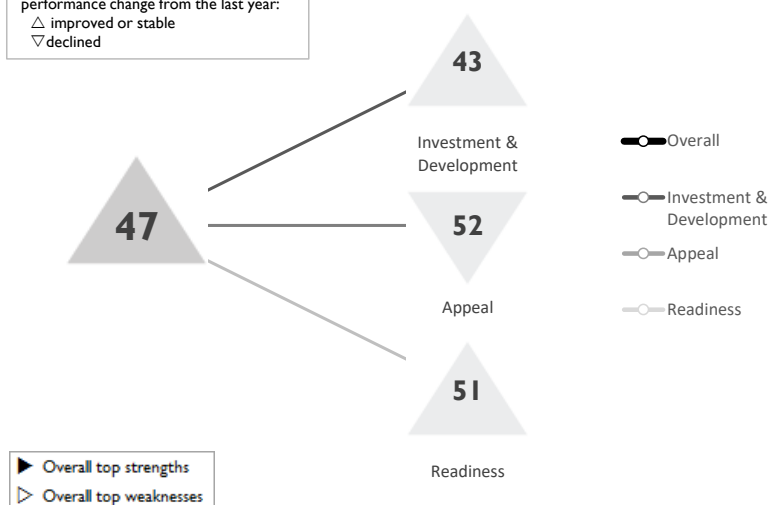
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# ARGENTINA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▶ Total public expenditure on education	Percentage of GDP	5.5 %	16
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	2,472 US\$	44
▶ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	13.25 ratio	22
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	17.91 ratio	53
Apprenticeships	are sufficiently implemented	4.49 Survey [0..10]	49
Employee training	is a high priority in companies	5.07 Survey [0..10]	53
Female labor force	Percentage of total labor force	42.00 %	51
Health infrastructure	meets the needs of society	4.58 Survey [0..10]	47

### Appeal

		Value	2020 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	78.80 index	30
Attracting and retaining talents	is a priority in companies	6.31 Survey [0..10]	44
▷ Worker motivation	in companies is high	4.76 Survey [0..10]	56
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.04 Survey [0..10]	47
Quality of life	is high	4.91 Survey [0..10]	49
▷ Foreign highly-skilled personnel	are attracted to your country's business environment	2.74 Survey [0..10]	60
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	12,539 US\$	45
▷ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	63,282 US\$	56
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	12.45 %	19
▷ Justice	is fairly administered	2.26 Survey [0..10]	60
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	14.23 micrograms	27

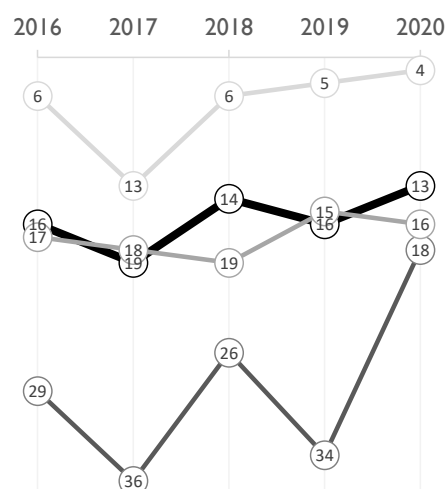
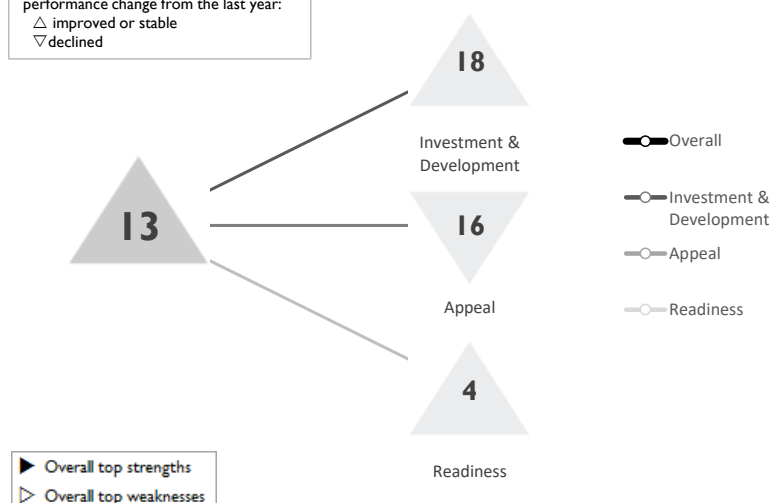
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	0.90 %	30
Skilled labor	is readily available	5.70 Survey [0..10]	37
▶ Finance skills	are readily available	6.98 Survey [0..10]	20
International experience	of senior managers is generally significant	5.82 Survey [0..10]	30
Competent senior managers	are readily available	5.55 Survey [0..10]	40
Primary and secondary education	meets the needs of a competitive economy	4.17 Survey [0..10]	53
▷ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	16.14 %	59
University education	meets the needs of a competitive economy	5.96 Survey [0..10]	39
Management education	meets the needs of the business community	6.30 Survey [0..10]	40
Language skills	are meeting the needs of enterprises	5.87 Survey [0..10]	41
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.02 number	37
Educational assessment - PISA	PISA survey of 15-year olds	395 Average	55

# AUSTRALIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	5.2 %	20
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	10,468 US\$	15
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	14.93 ratio	29
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.89 ratio	28
▷ Apprenticeships	are sufficiently implemented	4.49 Survey [0..10]	50
▷ Employee training	is a high priority in companies	5.72 Survey [0..10]	38
Female labor force	Percentage of total labor force	47.29 %	17
Health infrastructure	meets the needs of society	7.52 Survey [0..10]	21

### Appeal

		Value	2020 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	89.20 index	47
Attracting and retaining talents	is a priority in companies	7.81 Survey [0..10]	10
Worker motivation	in companies is high	6.30 Survey [0..10]	21
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.91 Survey [0..10]	23
▶ Quality of life	is high	9.14 Survey [0..10]	8
▶ Foreign highly-skilled personnel	are attracted to your country's business environment	7.56 Survey [0..10]	9
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\$	166,659 US\$	30
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	22.12 %	43
▶ Justice	is fairly administered	8.43 Survey [0..10]	5
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	8.52 micrograms	11

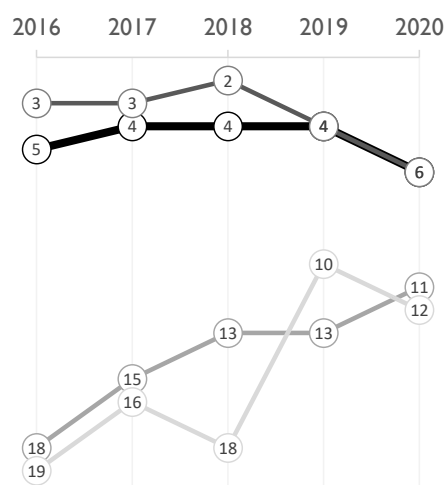
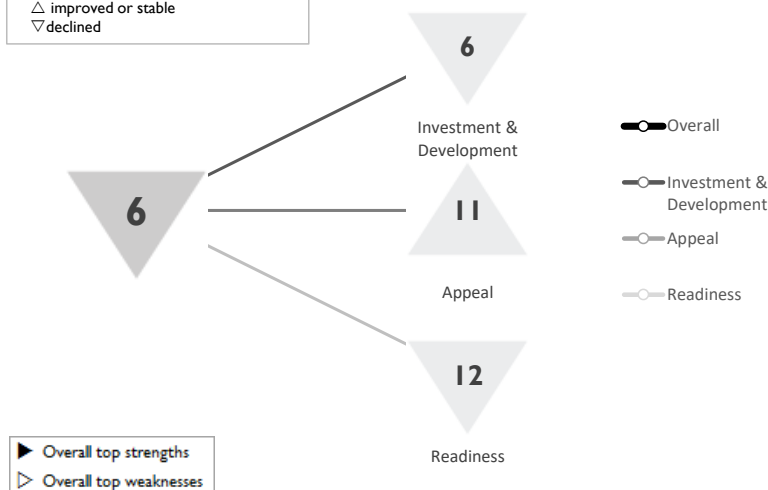
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	2.13 %	10
Skilled labor	is readily available	6.50 Survey [0..10]	15
▶ Finance skills	are readily available	7.75 Survey [0..10]	6
International experience	of senior managers is generally significant	5.59 Survey [0..10]	37
Competent senior managers	are readily available	6.18 Survey [0..10]	22
Primary and secondary education	meets the needs of a competitive economy	7.31 Survey [0..10]	20
▷ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	17.40 %	57
University education	meets the needs of a competitive economy	7.24 Survey [0..10]	22
Management education	meets the needs of the business community	6.85 Survey [0..10]	26
Language skills	are meeting the needs of enterprises	6.36 Survey [0..10]	31
▶ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	17.79 number	1
Educational assessment - PISA	PISA survey of 15-year olds	499 Average	20

# AUSTRIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	4.8 %	28
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	12,570 US\$	10
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	11.55 ratio	11
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	9.13 ratio	7
▶ Apprenticeships	are sufficiently implemented	8.25 Survey [0..10]	3
▶ Employee training	is a high priority in companies	7.67 Survey [0..10]	2
Female labor force	Percentage of total labor force	46.81 %	23
▶ Health infrastructure	meets the needs of society	9.17 Survey [0..10]	1

### Appeal

		Value	2020 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	87.20 index	43
Attracting and retaining talents	is a priority in companies	7.89 Survey [0..10]	7
▶ Worker motivation	in companies is high	7.69 Survey [0..10]	2
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.75 Survey [0..10]	11
▶ Quality of life	is high	9.81 Survey [0..10]	1
Foreign highly-skilled personnel	are attracted to your country's business environment	6.61 Survey [0..10]	17
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\$	287,910 US\$	5
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	29.67 %	62
Justice	is fairly administered	7.97 Survey [0..10]	13
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	12.69 micrograms	22

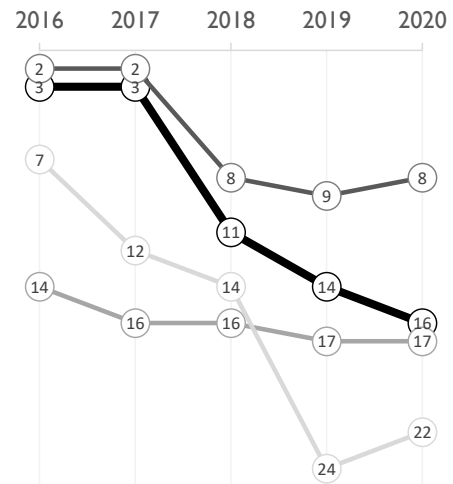
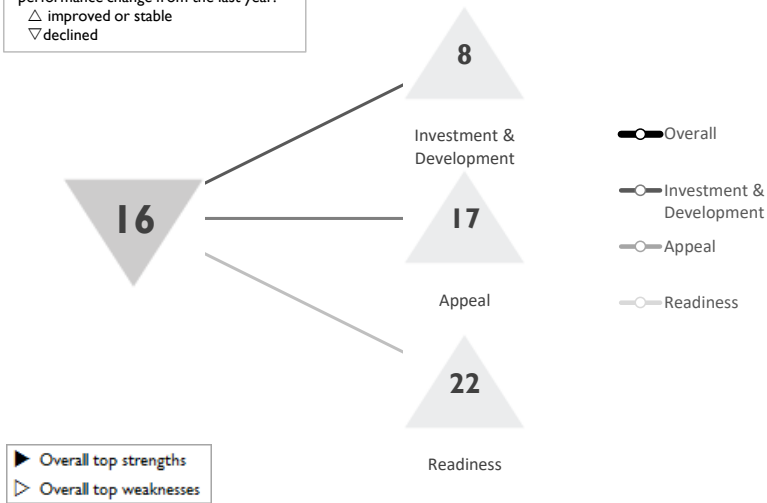
### Readiness

		Value	2020 Rank
▷ Labor force growth	Percentage change	0.46 %	39
▷ Skilled labor	is readily available	5.17 Survey [0..10]	47
▷ Finance skills	are readily available	6.36 Survey [0..10]	38
International experience	of senior managers is generally significant	5.94 Survey [0..10]	27
Competent senior managers	are readily available	5.92 Survey [0..10]	29
Primary and secondary education	meets the needs of a competitive economy	8.19 Survey [0..10]	8
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	31.03 %	8
University education	meets the needs of a competitive economy	8.19 Survey [0..10]	6
Management education	meets the needs of the business community	7.33 Survey [0..10]	17
Language skills	are meeting the needs of enterprises	7.53 Survey [0..10]	22
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	8.52 number	5
Educational assessment - PISA	PISA survey of 15-year olds	491 Average	27

# BELGIUM

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▶ Total public expenditure on education	Percentage of GDP	6.2 %	7
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	11,162 US\$	12
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	12.82 ratio	19
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	9.35 ratio	10
▷ Apprenticeships	are sufficiently implemented	4.91 Survey [0..10]	38
Employee training	is a high priority in companies	6.31 Survey [0..10]	26
Female labor force	Percentage of total labor force	46.83 %	22
▶ Health infrastructure	meets the needs of society	8.62 Survey [0..10]	6

### Appeal

		Value	2020 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	80.80 index	33
▶ Attracting and retaining talents	is a priority in companies	7.82 Survey [0..10]	9
Worker motivation	in companies is high	6.77 Survey [0..10]	18
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.97 Survey [0..10]	21
Quality of life	is high	8.77 Survey [0..10]	11
Foreign highly-skilled personnel	are attracted to your country's business environment	5.74 Survey [0..10]	27
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\$	266,075 US\$	10
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	22.28 %	45
Justice	is fairly administered	6.34 Survey [0..10]	25
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	13.10 micrograms	24

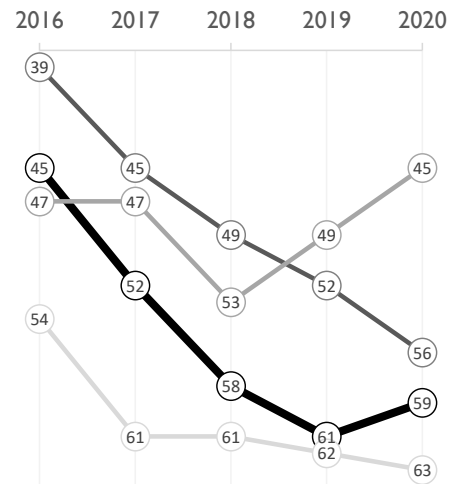
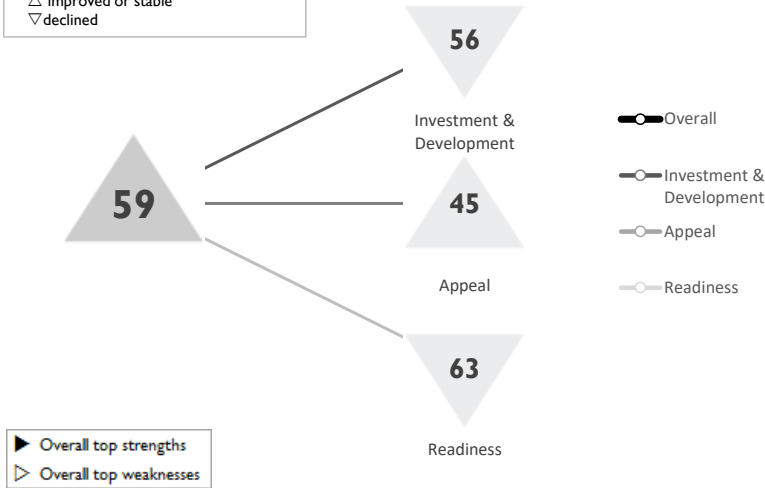
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	0.88 %	32
▷ Skilled labor	is readily available	5.66 Survey [0..10]	38
Finance skills	are readily available	7.00 Survey [0..10]	19
International experience	of senior managers is generally significant	6.53 Survey [0..10]	12
Competent senior managers	are readily available	6.09 Survey [0..10]	25
Primary and secondary education	meets the needs of a competitive economy	7.60 Survey [0..10]	16
▷ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	16.99 %	58
University education	meets the needs of a competitive economy	7.69 Survey [0..10]	16
Management education	meets the needs of the business community	7.66 Survey [0..10]	13
Language skills	are meeting the needs of enterprises	7.85 Survey [0..10]	17
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	4.71 number	15
Educational assessment - PISA	PISA survey of 15-year olds	500 Average	19

# BRAZIL

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▶ Total public expenditure on education	Percentage of GDP	6.0 %	9
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	2,110 US\$	46
▷ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	23.91 ratio	57
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	24.41 ratio	56
Apprenticeships	are sufficiently implemented	4.61 Survey [0..10]	45
▷ Employee training	is a high priority in companies	4.85 Survey [0..10]	59
▶ Female labor force	Percentage of total labor force	45.17 %	37
Health infrastructure	meets the needs of society	3.21 Survey [0..10]	53

### Appeal

		Value	2020 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	82.40 index	35
Attracting and retaining talents	is a priority in companies	6.25 Survey [0..10]	45
Worker motivation	in companies is high	5.58 Survey [0..10]	41
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.49 Survey [0..10]	41
Quality of life	is high	4.49 Survey [0..10]	56
Foreign highly-skilled personnel	are attracted to your country's business environment	3.29 Survey [0..10]	57
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	15,916 US\$	36
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	100,107 US\$	48
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	9.02 %	14
Justice	is fairly administered	3.40 Survey [0..10]	51
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	12.83 micrograms	23

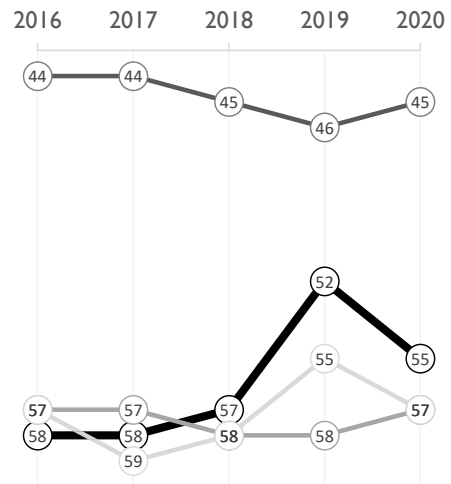
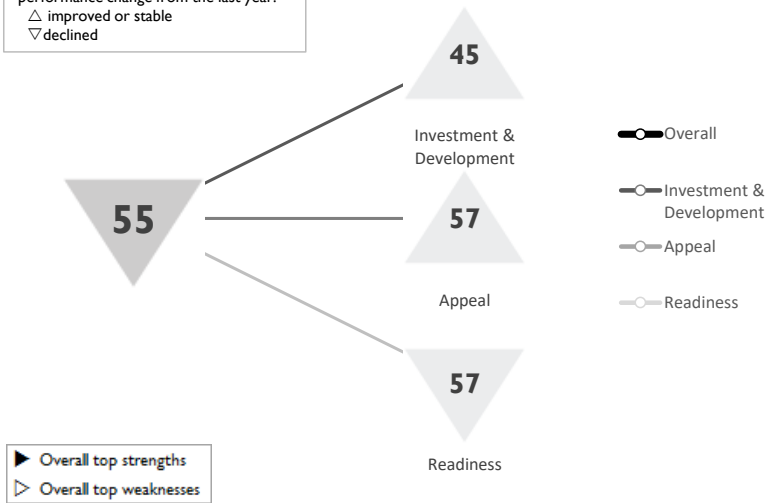
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	- %	-
Skilled labor	is readily available	4.12 Survey [0..10]	54
Finance skills	are readily available	4.97 Survey [0..10]	56
International experience	of senior managers is generally significant	4.57 Survey [0..10]	56
Competent senior managers	are readily available	4.87 Survey [0..10]	50
▷ Primary and secondary education	meets the needs of a competitive economy	2.74 Survey [0..10]	62
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	18.37 %	54
▷ University education	meets the needs of a competitive economy	4.25 Survey [0..10]	58
Management education	meets the needs of the business community	4.76 Survey [0..10]	56
▷ Language skills	are meeting the needs of enterprises	2.99 Survey [0..10]	63
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.10 number	57
Educational assessment - PISA	PISA survey of 15-year olds	400 Average	54

# BULGARIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	3.5 %	47
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,930 US\$	49
► Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	15.21 ratio	30
► Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	13.00 ratio	41
Apprenticeships	are sufficiently implemented	4.55 Survey [0..10]	47
▷ Employee training	is a high priority in companies	4.76 Survey [0..10]	61
► Female labor force	Percentage of total labor force	46.25 %	29
Health infrastructure	meets the needs of society	3.69 Survey [0..10]	51

### Appeal

		Value	2020 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	4
Attracting and retaining talents	is a priority in companies	5.64 Survey [0..10]	58
Worker motivation	in companies is high	4.89 Survey [0..10]	55
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.36 Survey [0..10]	52
▷ Quality of life	is high	3.64 Survey [0..10]	60
Foreign highly-skilled personnel	are attracted to your country's business environment	3.38 Survey [0..10]	56
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	9,351 US\$	52
▷ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	49,907 US\$	58
Effective personal income tax rate	Percentage of an income equal to GDP per capita	19.89 %	36
Justice	is fairly administered	2.93 Survey [0..10]	54
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	20.29 micrograms	45

### Readiness

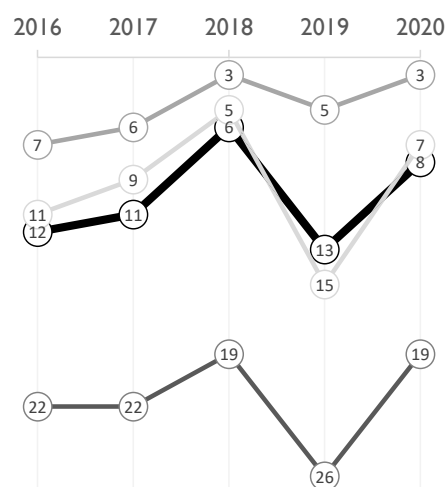
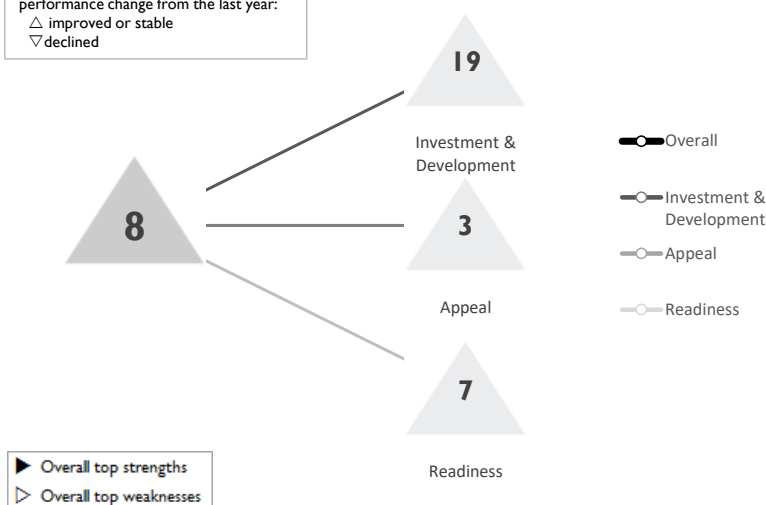
		Value	2020 Rank
► Labor force growth	Percentage change	1.50 %	17
Skilled labor	is readily available	4.86 Survey [0..10]	51
Finance skills	are readily available	4.67 Survey [0..10]	58
International experience	of senior managers is generally significant	4.86 Survey [0..10]	52
Competent senior managers	are readily available	4.18 Survey [0..10]	55
Primary and secondary education	meets the needs of a competitive economy	4.04 Survey [0..10]	55
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	19.28 %	50
▷ University education	meets the needs of a competitive economy	3.82 Survey [0..10]	61
▷ Management education	meets the needs of the business community	4.00 Survey [0..10]	61
Language skills	are meeting the needs of enterprises	5.33 Survey [0..10]	45
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.15 number	35
Educational assessment - PISA	PISA survey of 15-year olds	427 Average	46



# CANADA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▶ Total public expenditure on education	Percentage of GDP	4.4 %	36
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	11,265 US\$	11
▶ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	16.69 ratio	40
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	13.25 ratio	43
Apprenticeships	are sufficiently implemented	6.16 Survey [0..10]	9
Employee training	is a high priority in companies	6.62 Survey [0..10]	20
Female labor force	Percentage of total labor force	47.39 %	15
Health infrastructure	meets the needs of society	7.54 Survey [0..10]	19

### Appeal

		Value	2020 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	73.30 index	23
Attracting and retaining talents	is a priority in companies	7.57 Survey [0..10]	19
Worker motivation	in companies is high	6.97 Survey [0..10]	15
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.59 Survey [0..10]	13
Quality of life	is high	8.68 Survey [0..10]	14
Foreign highly-skilled personnel	are attracted to your country's business environment	7.35 Survey [0..10]	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\$	204,269 US\$	20
Effective personal income tax rate	Percentage of an income equal to GDP per capita	14.44 %	27
Justice	is fairly administered	7.89 Survey [0..10]	16
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	6.46 micrograms	4

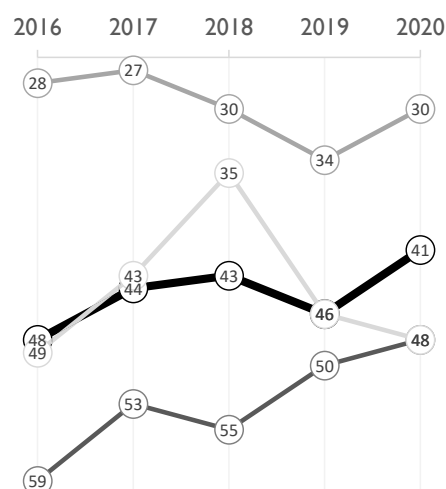
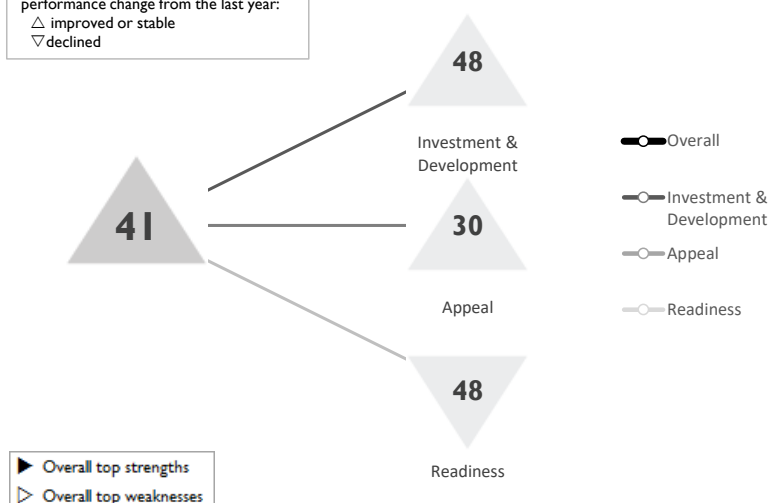
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	1.95 %	13
▶ Skilled labor	is readily available	7.19 Survey [0..10]	5
Finance skills	are readily available	7.37 Survey [0..10]	15
International experience	of senior managers is generally significant	6.30 Survey [0..10]	17
Competent senior managers	are readily available	6.78 Survey [0..10]	9
Primary and secondary education	meets the needs of a competitive economy	7.78 Survey [0..10]	14
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	22.38 %	37
University education	meets the needs of a competitive economy	7.86 Survey [0..10]	13
▶ Management education	meets the needs of the business community	7.84 Survey [0..10]	8
Language skills	are meeting the needs of enterprises	8.08 Survey [0..10]	15
▶ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	6.08 number	9
▶ Educational assessment - PISA	PISA survey of 15-year olds	517 Average	7

# CHILE

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▶ Total public expenditure on education	Percentage of GDP	5.4 %	18
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	3,070 US\$	43
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	19.41 ratio	50
▷ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	20.44 ratio	55
Apprenticeships	are sufficiently implemented	4.61 Survey [0..10]	46
Employee training	is a high priority in companies	5.19 Survey [0..10]	47
Female labor force	Percentage of total labor force	42.07 %	50
Health infrastructure	meets the needs of society	4.60 Survey [0..10]	46

### Appeal

		Value	2020 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	80.60 index	32
Attracting and retaining talents	is a priority in companies	6.82 Survey [0..10]	30
Worker motivation	in companies is high	5.41 Survey [0..10]	47
▶ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.87 Survey [0..10]	9
Quality of life	is high	6.26 Survey [0..10]	40
▶ Foreign highly-skilled personnel	are attracted to your country's business environment	7.77 Survey [0..10]	8
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	23,844 US\$	29
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	195,050 US\$	22
Effective personal income tax rate	Percentage of an income equal to GDP per capita	16.97 %	32
Justice	is fairly administered	5.57 Survey [0..10]	35
▷ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	22.14 micrograms	51

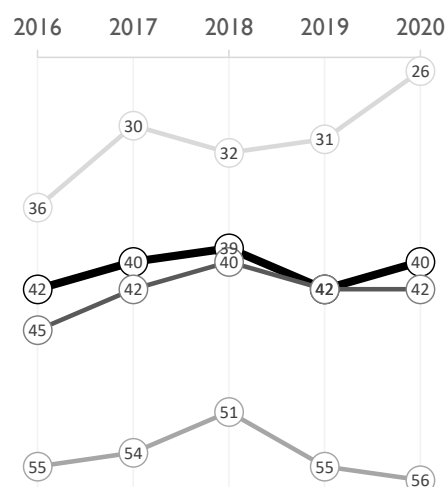
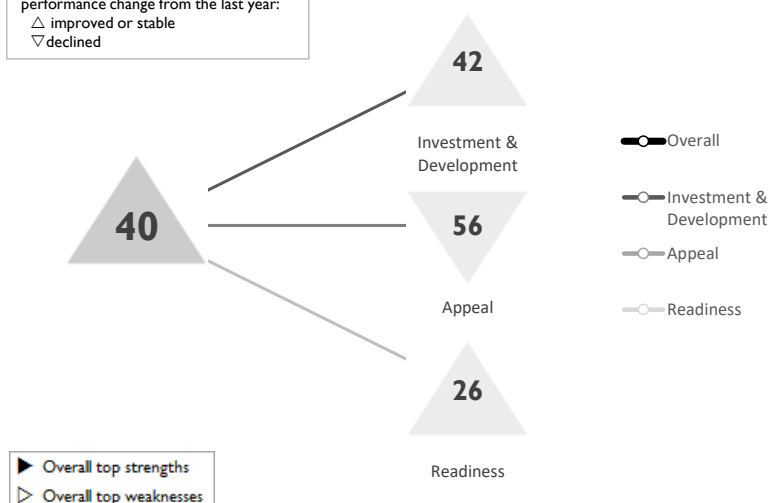
### Readiness

		Value	2020 Rank
▶ Labor force growth	Percentage change	1.36 %	19
Skilled labor	is readily available	5.10 Survey [0..10]	49
Finance skills	are readily available	6.50 Survey [0..10]	29
International experience	of senior managers is generally significant	6.23 Survey [0..10]	19
▶ Competent senior managers	are readily available	6.32 Survey [0..10]	18
▷ Primary and secondary education	meets the needs of a competitive economy	3.68 Survey [0..10]	57
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	20.95 %	46
University education	meets the needs of a competitive economy	5.71 Survey [0..10]	42
Management education	meets the needs of the business community	6.99 Survey [0..10]	23
▷ Language skills	are meeting the needs of enterprises	3.30 Survey [0..10]	61
▷ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.30 number	54
Educational assessment - PISA	PISA survey of 15-year olds	438 Average	42

# CHINA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▷ Total public expenditure on education	Percentage of GDP	3.5 %	49
▷ Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,755 US\$	50
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	16.43 ratio	38
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	13.26 ratio	44
Apprenticeships	are sufficiently implemented	5.51 Survey [0..10]	27
► Employee training	is a high priority in companies	6.64 Survey [0..10]	19
Female labor force	Percentage of total labor force	- %	-
Health infrastructure	meets the needs of society	6.43 Survey [0..10]	31

### Appeal

		Value	2020 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	108.60 index	55
Attracting and retaining talents	is a priority in companies	6.86 Survey [0..10]	29
► Worker motivation	in companies is high	6.97 Survey [0..10]	16
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.94 Survey [0..10]	33
Quality of life	is high	6.54 Survey [0..10]	36
Foreign highly-skilled personnel	are attracted to your country's business environment	5.45 Survey [0..10]	32
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	11,684 US\$	48
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	155,675 US\$	34
Effective personal income tax rate	Percentage of an income equal to GDP per capita	20.14 %	38
Justice	is fairly administered	5.83 Survey [0..10]	32
▷ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	53.45 micrograms	59

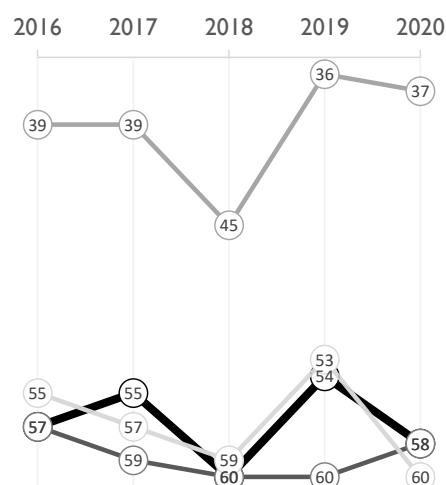
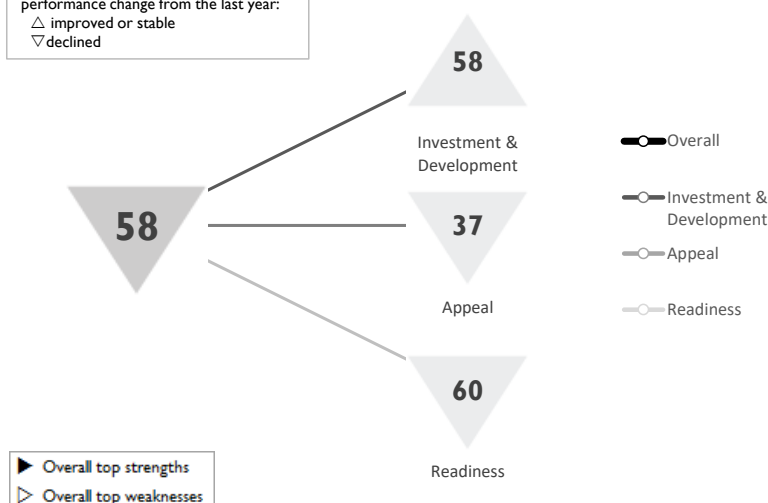
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	-0.05 %	48
► Skilled labor	is readily available	6.60 Survey [0..10]	14
Finance skills	are readily available	6.46 Survey [0..10]	31
International experience	of senior managers is generally significant	5.22 Survey [0..10]	44
Competent senior managers	are readily available	5.76 Survey [0..10]	35
► Primary and secondary education	meets the needs of a competitive economy	7.56 Survey [0..10]	18
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	- %	-
University education	meets the needs of a competitive economy	7.05 Survey [0..10]	24
Management education	meets the needs of the business community	6.72 Survey [0..10]	29
Language skills	are meeting the needs of enterprises	5.85 Survey [0..10]	42
▷ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.13 number	55
► Educational assessment - PISA	PISA survey of 15-year olds	579 Average	1

# COLOMBIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	4.5 %	32
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,119 US\$	55
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	23.30 ratio	56
▷ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	25.91 ratio	58
▶ Apprenticeships	are sufficiently implemented	6.03 Survey [0..10]	11
Employee training	is a high priority in companies	6.00 Survey [0..10]	34
Female labor force	Percentage of total labor force	42.83 %	46
Health infrastructure	meets the needs of society	3.19 Survey [0..10]	55

### Appeal

		Value	2020 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	63.70 index	6
Attracting and retaining talents	is a priority in companies	5.69 Survey [0..10]	55
Worker motivation	in companies is high	5.40 Survey [0..10]	48
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.88 Survey [0..10]	35
▷ Quality of life	is high	4.42 Survey [0..10]	58
Foreign highly-skilled personnel	are attracted to your country's business environment	5.43 Survey [0..10]	33
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	12,241 US\$	47
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	140,782 US\$	40
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	8.29 %	12
▷ Justice	is fairly administered	2.40 Survey [0..10]	59
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	16.92 micrograms	37

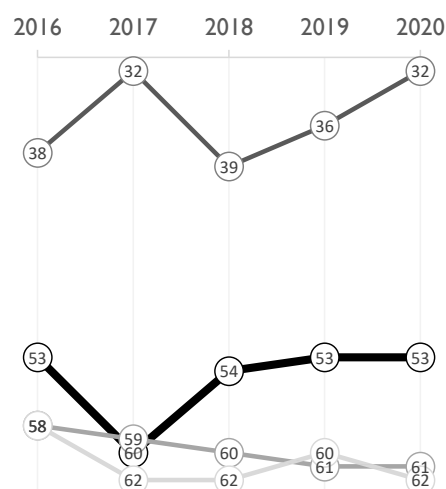
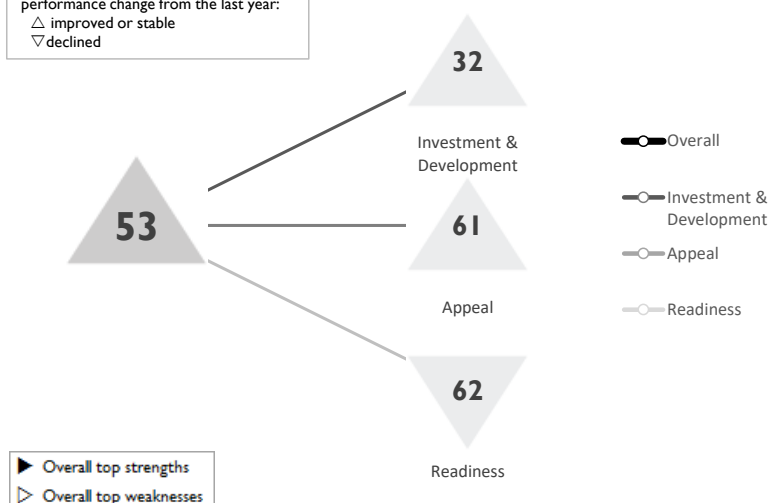
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	-0.79 %	57
Skilled labor	is readily available	5.24 Survey [0..10]	46
Finance skills	are readily available	5.58 Survey [0..10]	49
International experience	of senior managers is generally significant	4.92 Survey [0..10]	51
Competent senior managers	are readily available	4.62 Survey [0..10]	53
Primary and secondary education	meets the needs of a competitive economy	4.22 Survey [0..10]	51
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	23.13 %	34
University education	meets the needs of a competitive economy	5.21 Survey [0..10]	49
Management education	meets the needs of the business community	5.36 Survey [0..10]	50
▷ Language skills	are meeting the needs of enterprises	3.75 Survey [0..10]	59
▷ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.10 number	58
Educational assessment - PISA	PISA survey of 15-year olds	406 Average	51

# CROATIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▶ Total public expenditure on education	Percentage of GDP	5.3 %	19
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	4,183 US\$	38
▶ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	10.90 ratio	7
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	8.76 ratio	6
Apprenticeships	are sufficiently implemented	3.13 Survey [0..10]	61
▷ Employee training	is a high priority in companies	3.90 Survey [0..10]	63
Female labor force	Percentage of total labor force	46.19 %	30
Health infrastructure	meets the needs of society	4.83 Survey [0..10]	42

### Appeal

		Value	2020 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	69.70 index	15
▷ Attracting and retaining talents	is a priority in companies	4.84 Survey [0..10]	63
Worker motivation	in companies is high	3.94 Survey [0..10]	62
▷ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	1.87 Survey [0..10]	63
Quality of life	is high	5.65 Survey [0..10]	44
Foreign highly-skilled personnel	are attracted to your country's business environment	1.94 Survey [0..10]	62
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	14,350 US\$	40
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	91,668 US\$	51
Effective personal income tax rate	Percentage of an income equal to GDP per capita	19.45 %	35
Justice	is fairly administered	2.43 Survey [0..10]	58
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	17.72 micrograms	39

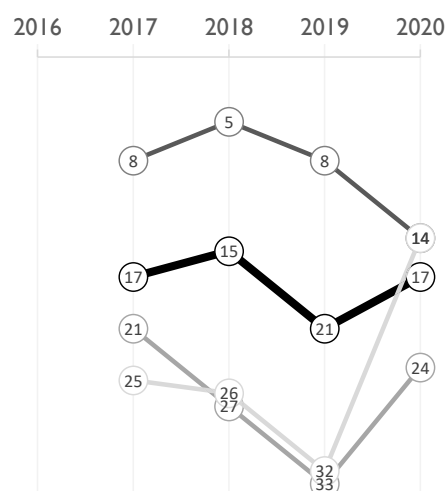
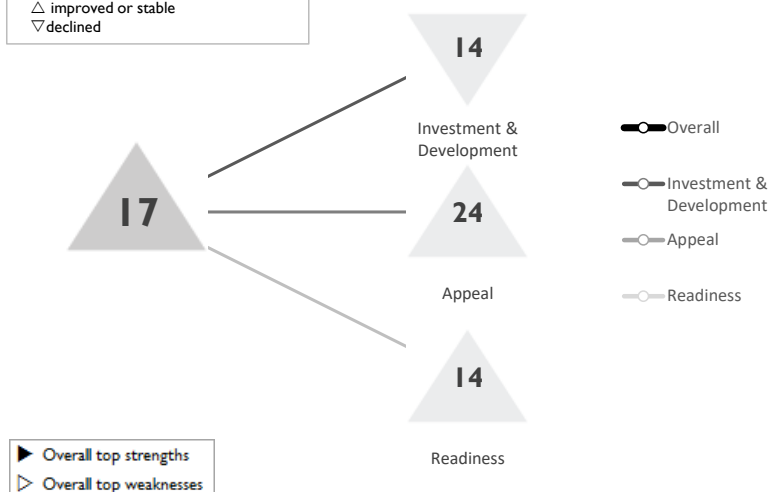
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	-0.50 %	53
Skilled labor	is readily available	3.08 Survey [0..10]	62
▷ Finance skills	are readily available	3.32 Survey [0..10]	63
International experience	of senior managers is generally significant	3.00 Survey [0..10]	62
▷ Competent senior managers	are readily available	2.65 Survey [0..10]	63
Primary and secondary education	meets the needs of a competitive economy	4.06 Survey [0..10]	54
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	27.01 %	20
University education	meets the needs of a competitive economy	4.19 Survey [0..10]	59
Management education	meets the needs of the business community	3.97 Survey [0..10]	62
Language skills	are meeting the needs of enterprises	6.19 Survey [0..10]	34
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.23 number	48
Educational assessment - PISA	PISA survey of 15-year olds	472 Average	35

# CYPRUS

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	5.2 %	21
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	7,119 US\$	25
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	12.04 ratio	15
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	8.31 ratio	4
Apprenticeships	are sufficiently implemented	5.00 Survey [0..10]	33
Employee training	is a high priority in companies	5.92 Survey [0..10]	36
Female labor force	Percentage of total labor force	47.36 %	16
Health infrastructure	meets the needs of society	6.04 Survey [0..10]	34

### Appeal

		Value	2020 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	66.40 index	10
Attracting and retaining talents	is a priority in companies	6.54 Survey [0..10]	40
▷ Worker motivation	in companies is high	5.46 Survey [0..10]	45
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.58 Survey [0..10]	27
Quality of life	is high	7.81 Survey [0..10]	25
Foreign highly-skilled personnel	are attracted to your country's business environment	5.65 Survey [0..10]	30
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	27,374 US\$	26
▷ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	88,845 US\$	52
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	7.31 %	10
Justice	is fairly administered	5.76 Survey [0..10]	33
▷ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	17.75 micrograms	40

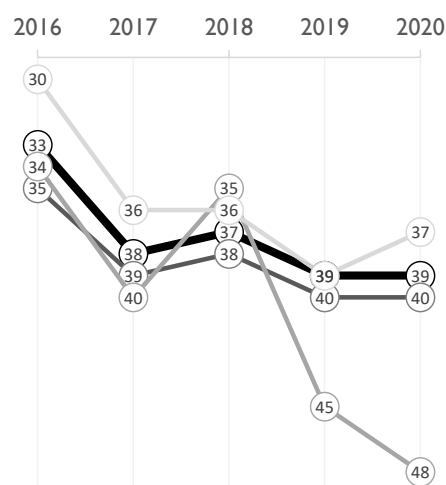
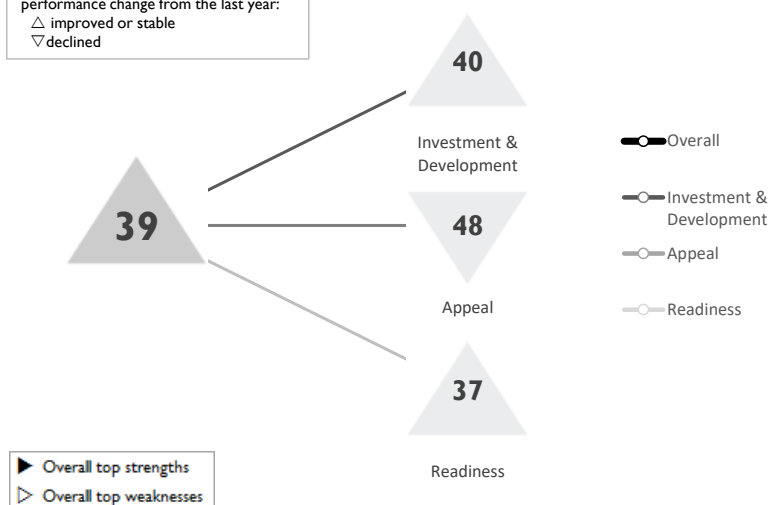
### Readiness

		Value	2020 Rank
▶ Labor force growth	Percentage change	2.52 %	6
Skilled labor	is readily available	5.77 Survey [0..10]	35
Finance skills	are readily available	7.46 Survey [0..10]	12
International experience	of senior managers is generally significant	6.42 Survey [0..10]	13
Competent senior managers	are readily available	6.31 Survey [0..10]	19
Primary and secondary education	meets the needs of a competitive economy	7.06 Survey [0..10]	22
▷ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	15.15 %	60
University education	meets the needs of a competitive economy	7.54 Survey [0..10]	19
Management education	meets the needs of the business community	7.23 Survey [0..10]	18
Language skills	are meeting the needs of enterprises	8.19 Survey [0..10]	13
▶ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	12.96 number	2
▷ Educational assessment - PISA	PISA survey of 15-year olds	438 Average	41

# CZECH REPUBLIC

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	4.6 %	29
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	5,464 US\$	32
▷ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	19.20 ratio	48
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.90 ratio	29
▷ Apprenticeships	are sufficiently implemented	4.15 Survey [0..10]	55
Employee training	is a high priority in companies	5.96 Survey [0..10]	35
Female labor force	Percentage of total labor force	44.45 %	42
Health infrastructure	meets the needs of society	6.45 Survey [0..10]	30

### Appeal

		Value	2020 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	78.10 index	28
▷ Attracting and retaining talents	is a priority in companies	6.00 Survey [0..10]	51
Worker motivation	in companies is high	5.77 Survey [0..10]	38
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.25 Survey [0..10]	29
Quality of life	is high	7.21 Survey [0..10]	30
Foreign highly-skilled personnel	are attracted to your country's business environment	4.72 Survey [0..10]	42
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	15,563 US\$	37
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	110,667 US\$	44
Effective personal income tax rate	Percentage of an income equal to GDP per capita	22.04 %	42
Justice	is fairly administered	4.94 Survey [0..10]	42
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	16.21 micrograms	32

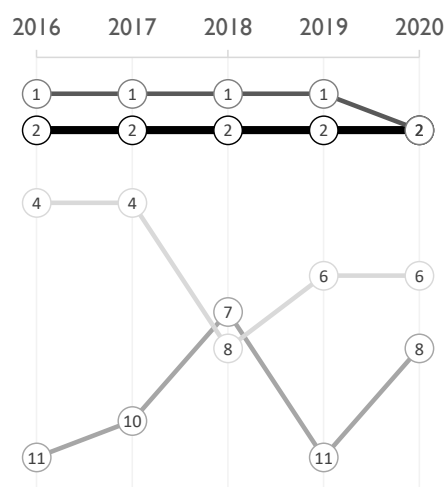
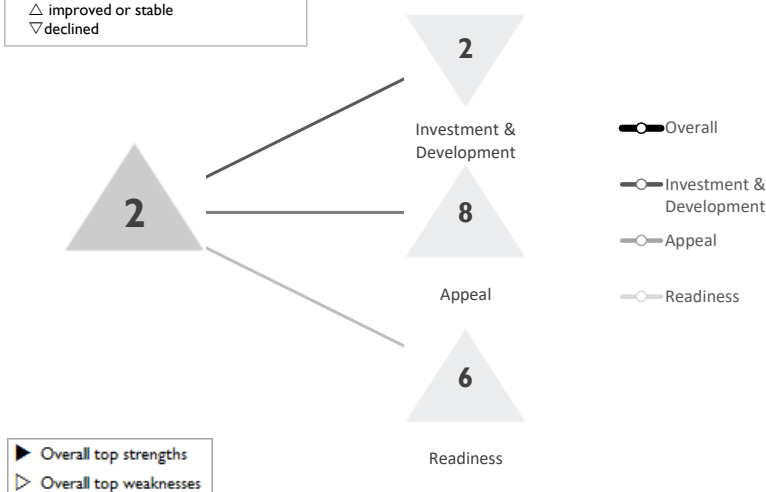
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	0.11 %	46
▷ Skilled labor	is readily available	4.75 Survey [0..10]	52
Finance skills	are readily available	5.58 Survey [0..10]	48
International experience	of senior managers is generally significant	5.77 Survey [0..10]	33
▷ Competent senior managers	are readily available	4.45 Survey [0..10]	54
Primary and secondary education	meets the needs of a competitive economy	5.92 Survey [0..10]	37
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	26.12 %	25
University education	meets the needs of a competitive economy	5.85 Survey [0..10]	40
Management education	meets the needs of the business community	5.89 Survey [0..10]	46
Language skills	are meeting the needs of enterprises	6.04 Survey [0..10]	39
▶ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	4.21 number	19
▶ Educational assessment - PISA	PISA survey of 15-year olds	495 Average	23

# DENMARK

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	6.4 %	6
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	15,346 US\$	6
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	11.91 ratio	13
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.31 ratio	25
Apprenticeships	are sufficiently implemented	6.90 Survey [0..10]	4
Employee training	is a high priority in companies	7.80 Survey [0..10]	1
Female labor force	Percentage of total labor force	47.63 %	13
Health infrastructure	meets the needs of society	8.88 Survey [0..10]	3

### Appeal

		Value	2020 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	97.30 index	53
Attracting and retaining talents	is a priority in companies	8.32 Survey [0..10]	1
Worker motivation	in companies is high	8.22 Survey [0..10]	1
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	8.09 Survey [0..10]	1
Quality of life	is high	9.78 Survey [0..10]	2
Foreign highly-skilled personnel	are attracted to your country's business environment	6.58 Survey [0..10]	19
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\$	227,770 US\$	16
Effective personal income tax rate	Percentage of an income equal to GDP per capita	29.43 %	61
Justice	is fairly administered	9.15 Survey [0..10]	1
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	10.35 micrograms	14

### Readiness

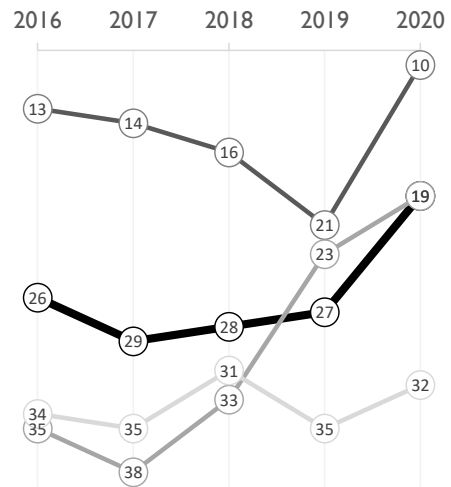
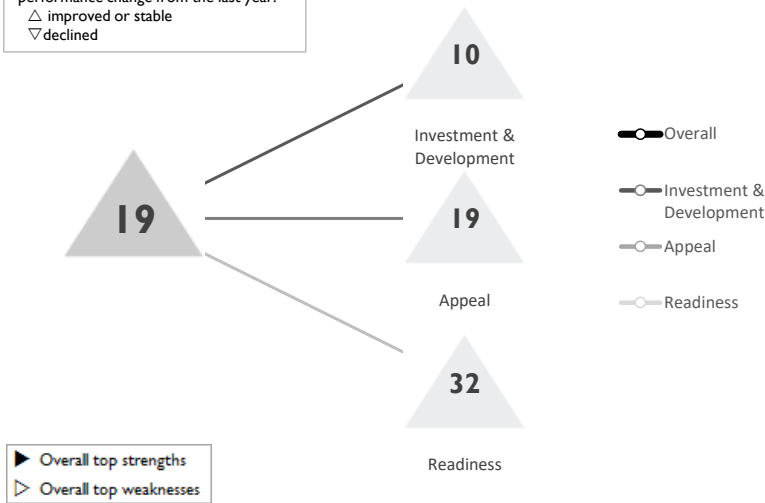
		Value	2020 Rank
Labor force growth	Percentage change	1.31 %	21
Skilled labor	is readily available	7.14 Survey [0..10]	6
Finance skills	are readily available	8.10 Survey [0..10]	2
International experience	of senior managers is generally significant	6.69 Survey [0..10]	10
Competent senior managers	are readily available	7.29 Survey [0..10]	4
Primary and secondary education	meets the needs of a competitive economy	8.71 Survey [0..10]	4
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	22.20 %	39
University education	meets the needs of a competitive economy	8.83 Survey [0..10]	2
Management education	meets the needs of the business community	8.31 Survey [0..10]	2
Language skills	are meeting the needs of enterprises	9.19 Survey [0..10]	1
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	5.76 number	11
Educational assessment - PISA	PISA survey of 15-year olds	501 Average	17



# ESTONIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	6.2 %	8
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	6,850 US\$	26
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	13.15 ratio	21
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.66 ratio	35
Apprenticeships	are sufficiently implemented	5.63 Survey [0..10]	20
Employee training	is a high priority in companies	7.32 Survey [0..10]	5
Female labor force	Percentage of total labor force	48.62 %	6
Health infrastructure	meets the needs of society	6.50 Survey [0..10]	29

### Appeal

		Value	2020 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	69.40 index	14
Attracting and retaining talents	is a priority in companies	8.13 Survey [0..10]	3
Worker motivation	in companies is high	6.33 Survey [0..10]	20
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.53 Survey [0..10]	40
Quality of life	is high	6.88 Survey [0..10]	34
Foreign highly-skilled personnel	are attracted to your country's business environment	5.67 Survey [0..10]	29
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	15,532 US\$	38
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	101,547 US\$	47
Effective personal income tax rate	Percentage of an income equal to GDP per capita	12.95 %	22
Justice	is fairly administered	7.23 Survey [0..10]	21
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	6.84 micrograms	6

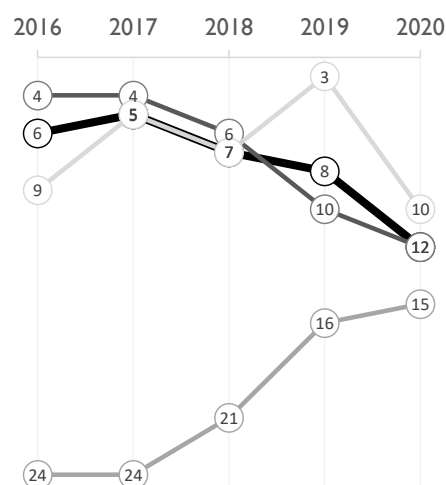
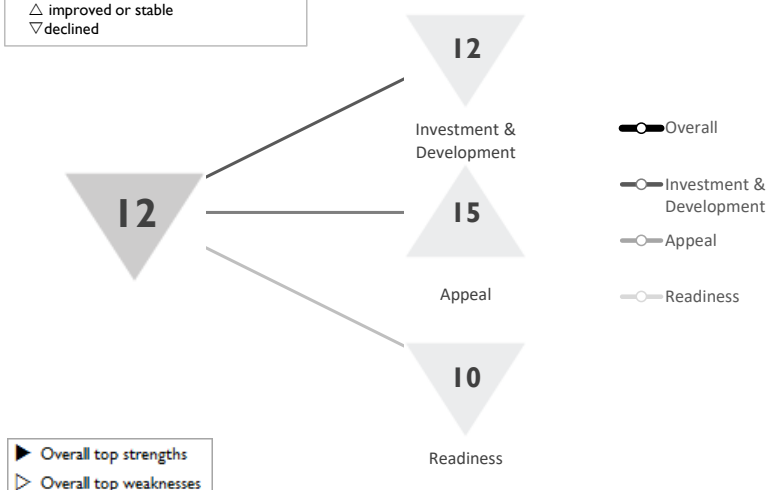
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	0.14 %	45
Skilled labor	is readily available	3.27 Survey [0..10]	58
Finance skills	are readily available	5.10 Survey [0..10]	55
International experience	of senior managers is generally significant	5.17 Survey [0..10]	45
Competent senior managers	are readily available	3.80 Survey [0..10]	57
Primary and secondary education	meets the needs of a competitive economy	7.87 Survey [0..10]	12
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	27.73 %	18
University education	meets the needs of a competitive economy	7.43 Survey [0..10]	20
Management education	meets the needs of the business community	6.95 Survey [0..10]	24
Language skills	are meeting the needs of enterprises	7.53 Survey [0..10]	21
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	3.32 number	25
Educational assessment - PISA	PISA survey of 15-year olds	526 Average	4

# FINLAND

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	5.5 %	15
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	10,535 US\$	14
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	13.59 ratio	24
▷ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	13.77 ratio	45
Apprenticeships	are sufficiently implemented	4.93 Survey [0..10]	37
Employee training	is a high priority in companies	7.16 Survey [0..10]	8
Female labor force	Percentage of total labor force	48.00 %	9
Health infrastructure	meets the needs of society	8.52 Survey [0..10]	7

### Appeal

		Value	2020 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	83.50 index	38
Attracting and retaining talents	is a priority in companies	7.76 Survey [0..10]	13
Worker motivation	in companies is high	7.19 Survey [0..10]	9
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.00 Survey [0..10]	20
Quality of life	is high	9.38 Survey [0..10]	6
▷ Foreign highly-skilled personnel	are attracted to your country's business environment	4.95 Survey [0..10]	39
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\$	186,568 US\$	24
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	27.74 %	60
▶ Justice	is fairly administered	9.08 Survey [0..10]	2
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	5.91 micrograms	1

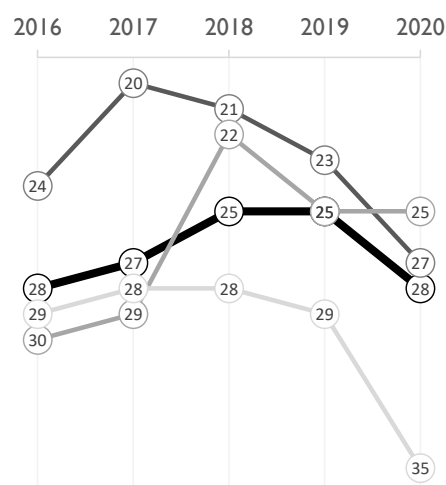
### Readiness

		Value	2020 Rank
▷ Labor force growth	Percentage change	0.29 %	44
Skilled labor	is readily available	6.45 Survey [0..10]	18
Finance skills	are readily available	7.48 Survey [0..10]	11
International experience	of senior managers is generally significant	6.31 Survey [0..10]	16
Competent senior managers	are readily available	6.36 Survey [0..10]	17
▶ Primary and secondary education	meets the needs of a competitive economy	9.31 Survey [0..10]	1
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	28.12 %	14
▶ University education	meets the needs of a competitive economy	8.76 Survey [0..10]	4
▶ Management education	meets the needs of the business community	8.02 Survey [0..10]	6
Language skills	are meeting the needs of enterprises	8.43 Survey [0..10]	9
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	4.30 number	18
Educational assessment - PISA	PISA survey of 15-year olds	516 Average	9

# FRANCE

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	5.1 %	22
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	9,124 US\$	19
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	19.15 ratio	47
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	13.01 ratio	42
▷ Apprenticeships	are sufficiently implemented	4.40 Survey [0..10]	52
Employee training	is a high priority in companies	5.17 Survey [0..10]	50
▶ Female labor force	Percentage of total labor force	48.48 %	8
Health infrastructure	meets the needs of society	7.52 Survey [0..10]	20

### Appeal

		Value	2020 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	88.50 index	44
Attracting and retaining talents	is a priority in companies	6.75 Survey [0..10]	33
▷ Worker motivation	in companies is high	5.07 Survey [0..10]	54
▶ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.12 Survey [0..10]	17
Quality of life	is high	8.10 Survey [0..10]	21
Foreign highly-skilled personnel	are attracted to your country's business environment	5.72 Survey [0..10]	28
▶ 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\$	269,516 US\$	8
Effective personal income tax rate	Percentage of an income equal to GDP per capita	23.27 %	48
Justice	is fairly administered	6.35 Survey [0..10]	24
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	11.96 micrograms	19

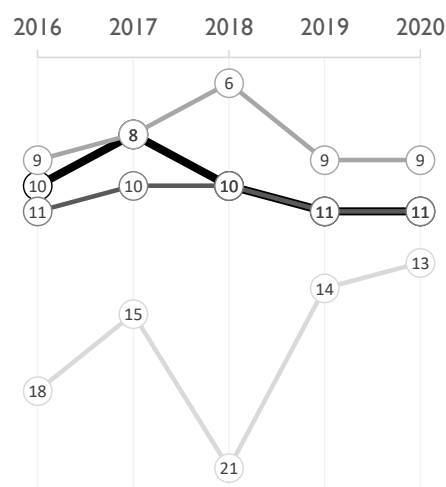
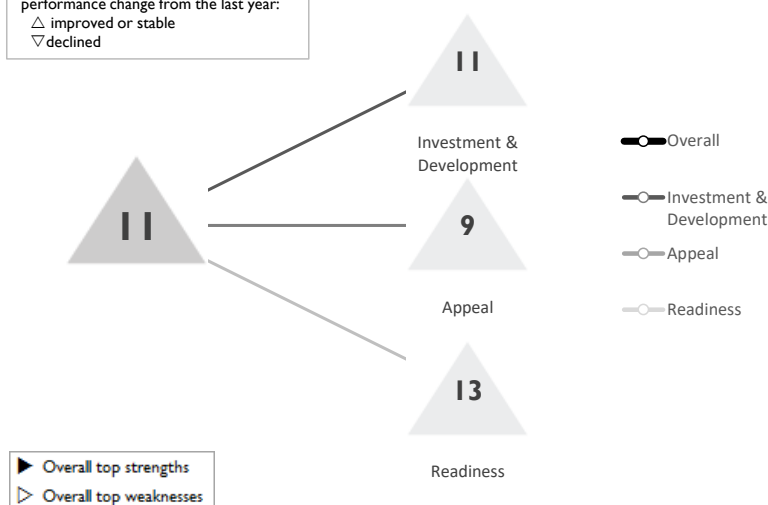
### Readiness

		Value	2020 Rank
▷ Labor force growth	Percentage change	-0.21 %	51
Skilled labor	is readily available	5.95 Survey [0..10]	32
Finance skills	are readily available	6.82 Survey [0..10]	23
▷ International experience	of senior managers is generally significant	4.67 Survey [0..10]	54
Competent senior managers	are readily available	5.81 Survey [0..10]	34
Primary and secondary education	meets the needs of a competitive economy	6.92 Survey [0..10]	24
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	25.39 %	27
University education	meets the needs of a competitive economy	6.87 Survey [0..10]	28
Management education	meets the needs of the business community	7.12 Survey [0..10]	20
▷ Language skills	are meeting the needs of enterprises	4.12 Survey [0..10]	55
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	3.43 number	24
Educational assessment - PISA	PISA survey of 15-year olds	494 Average	25

# GERMANY

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▷ Total public expenditure on education	Percentage of GDP	4.2 %	40
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	10,166 US\$	16
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	15.27 ratio	34
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.89 ratio	38
▶ Apprenticeships	are sufficiently implemented	8.45 Survey [0..10]	2
▶ Employee training	is a high priority in companies	7.61 Survey [0..10]	3
Female labor force	Percentage of total labor force	46.45 %	27
▶ Health infrastructure	meets the needs of society	8.44 Survey [0..10]	8

### Appeal

		Value	2020 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	82.70 index	36
Attracting and retaining talents	is a priority in companies	7.47 Survey [0..10]	22
Worker motivation	in companies is high	7.10 Survey [0..10]	13
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.05 Survey [0..10]	19
Quality of life	is high	9.00 Survey [0..10]	9
Foreign highly-skilled personnel	are attracted to your country's business environment	6.32 Survey [0..10]	20
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\$	318,208 US\$	3
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	25.85 %	55
Justice	is fairly administered	8.23 Survey [0..10]	12
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	12.09 micrograms	21

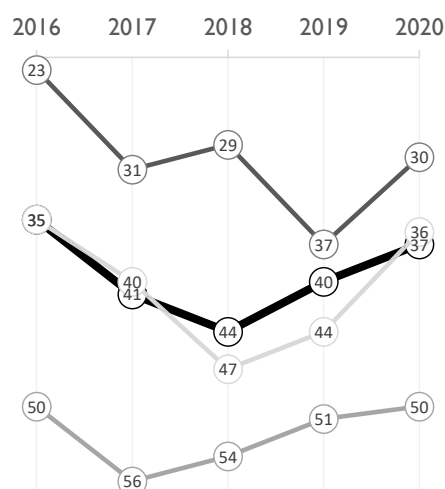
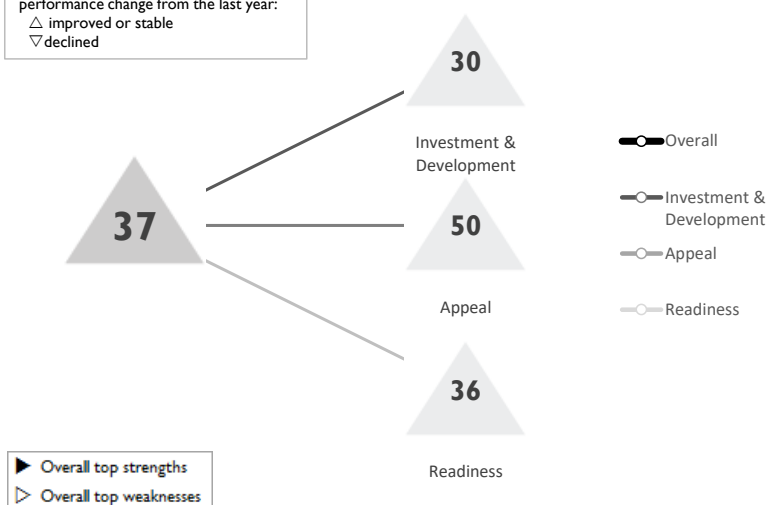
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	0.89 %	31
▷ Skilled labor	is readily available	5.36 Survey [0..10]	44
Finance skills	are readily available	6.84 Survey [0..10]	22
International experience	of senior managers is generally significant	6.39 Survey [0..10]	14
Competent senior managers	are readily available	5.69 Survey [0..10]	37
Primary and secondary education	meets the needs of a competitive economy	7.86 Survey [0..10]	13
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	35.31 %	3
University education	meets the needs of a competitive economy	7.96 Survey [0..10]	12
Management education	meets the needs of the business community	7.07 Survey [0..10]	21
Language skills	are meeting the needs of enterprises	7.02 Survey [0..10]	26
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	3.76 number	23
Educational assessment - PISA	PISA survey of 15-year olds	500 Average	18

# GREECE

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	3.9 %	44
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	3,668 US\$	41
► Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	9.22 ratio	2
► Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	8.63 ratio	5
Apprenticeships	are sufficiently implemented	4.77 Survey [0..10]	41
▷ Employee training	is a high priority in companies	4.99 Survey [0..10]	56
Female labor force	Percentage of total labor force	44.30 %	44
Health infrastructure	meets the needs of society	5.28 Survey [0..10]	40

### Appeal

		Value	2020 Rank
► Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	72.80 index	22
▷ Attracting and retaining talents	is a priority in companies	5.88 Survey [0..10]	54
▷ Worker motivation	in companies is high	5.16 Survey [0..10]	50
▷ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	2.73 Survey [0..10]	57
Quality of life	is high	6.59 Survey [0..10]	35
▷ Foreign highly-skilled personnel	are attracted to your country's business environment	2.95 Survey [0..10]	58
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	20,159 US\$	33
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	187,489 US\$	23
Effective personal income tax rate	Percentage of an income equal to GDP per capita	22.15 %	44
Justice	is fairly administered	4.67 Survey [0..10]	44
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	16.48 micrograms	34

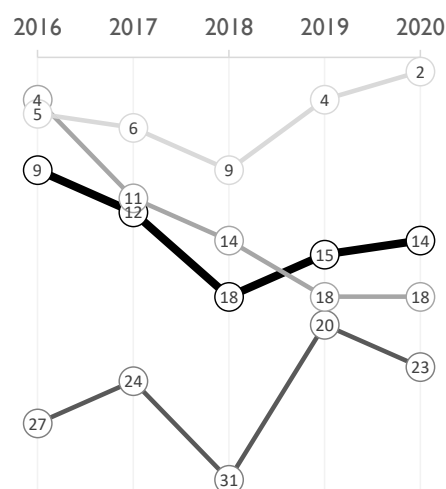
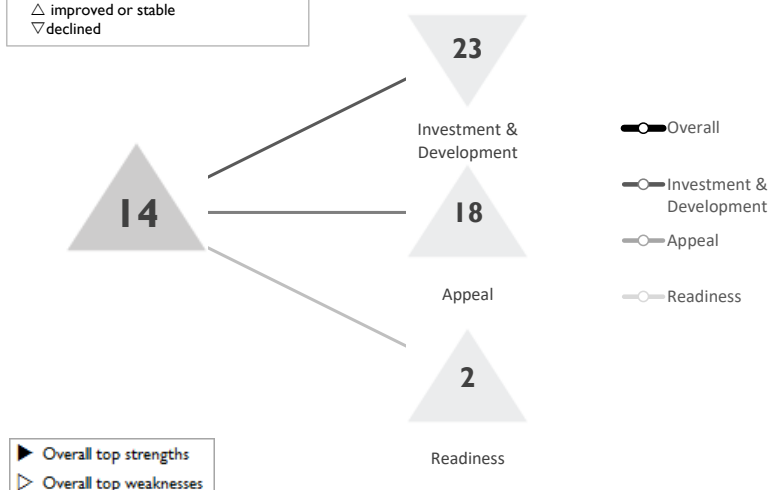
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	0.34 %	42
Skilled labor	is readily available	6.12 Survey [0..10]	26
Finance skills	are readily available	6.50 Survey [0..10]	29
International experience	of senior managers is generally significant	5.06 Survey [0..10]	47
Competent senior managers	are readily available	5.21 Survey [0..10]	43
Primary and secondary education	meets the needs of a competitive economy	5.68 Survey [0..10]	40
► Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	28.27 %	13
University education	meets the needs of a competitive economy	5.68 Survey [0..10]	43
Management education	meets the needs of the business community	5.95 Survey [0..10]	45
► Language skills	are meeting the needs of enterprises	8.10 Survey [0..10]	14
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.45 number	31
Educational assessment - PISA	PISA survey of 15-year olds	453 Average	40

# HONG KONG SAR

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▷ Total public expenditure on education	Percentage of GDP	3.1 %	53
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	9,291 US\$	18
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	13.35 ratio	23
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.22 ratio	21
Apprenticeships	are sufficiently implemented	5.52 Survey [0..10]	26
Employee training	is a high priority in companies	6.19 Survey [0..10]	30
▶ Female labor force	Percentage of total labor force	50.09 %	2
Health infrastructure	meets the needs of society	7.67 Survey [0..10]	16

### Appeal

		Value	2020 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	125.20 index	60
Attracting and retaining talents	is a priority in companies	7.71 Survey [0..10]	15
Worker motivation	in companies is high	7.16 Survey [0..10]	11
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.87 Survey [0..10]	24
Quality of life	is high	7.13 Survey [0..10]	32
Foreign highly-skilled personnel	are attracted to your country's business environment	7.02 Survey [0..10]	14
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\$	283,328 US\$	6
Effective personal income tax rate	Percentage of an income equal to GDP per capita	4.71 %	7
Justice	is fairly administered	8.36 Survey [0..10]	8
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	- micrograms	-

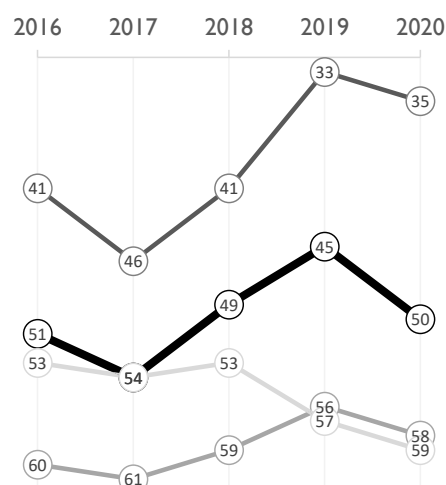
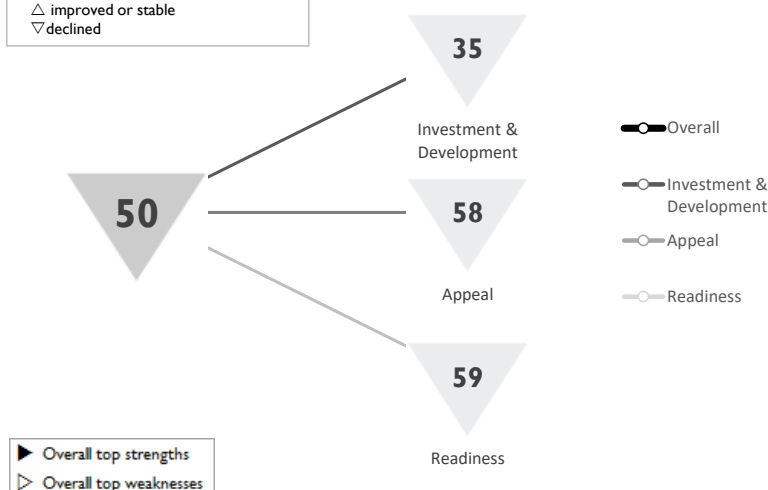
### Readiness

		Value	2020 Rank
▷ Labor force growth	Percentage change	-0.32 %	52
Skilled labor	is readily available	6.76 Survey [0..10]	9
▶ Finance skills	are readily available	8.41 Survey [0..10]	1
International experience	of senior managers is generally significant	7.75 Survey [0..10]	4
▶ Competent senior managers	are readily available	7.31 Survey [0..10]	3
Primary and secondary education	meets the needs of a competitive economy	7.56 Survey [0..10]	17
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	40.59 %	2
University education	meets the needs of a competitive economy	7.70 Survey [0..10]	15
Management education	meets the needs of the business community	7.70 Survey [0..10]	11
Language skills	are meeting the needs of enterprises	7.13 Survey [0..10]	25
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	5.01 number	14
▶ Educational assessment - PISA	PISA survey of 15-year olds	531 Average	3

# HUNGARY

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▶ Total public expenditure on education	Percentage of GDP	5.1 %	23
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	4,361 US\$	36
▶ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	10.18 ratio	5
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.42 ratio	26
Apprenticeships	are sufficiently implemented	3.50 Survey [0..10]	58
Employee training	is a high priority in companies	5.13 Survey [0..10]	52
Female labor force	Percentage of total labor force	45.12 %	38
Health infrastructure	meets the needs of society	2.91 Survey [0..10]	58

### Appeal

		Value	2020 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	67.00 index	11
Attracting and retaining talents	is a priority in companies	5.89 Survey [0..10]	53
Worker motivation	in companies is high	4.59 Survey [0..10]	58
▷ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	2.26 Survey [0..10]	60
Quality of life	is high	4.71 Survey [0..10]	54
Foreign highly-skilled personnel	are attracted to your country's business environment	3.89 Survey [0..10]	50
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	12,322 US\$	46
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	85,503 US\$	53
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	27.56 %	59
Justice	is fairly administered	4.49 Survey [0..10]	45
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	16.08 micrograms	30

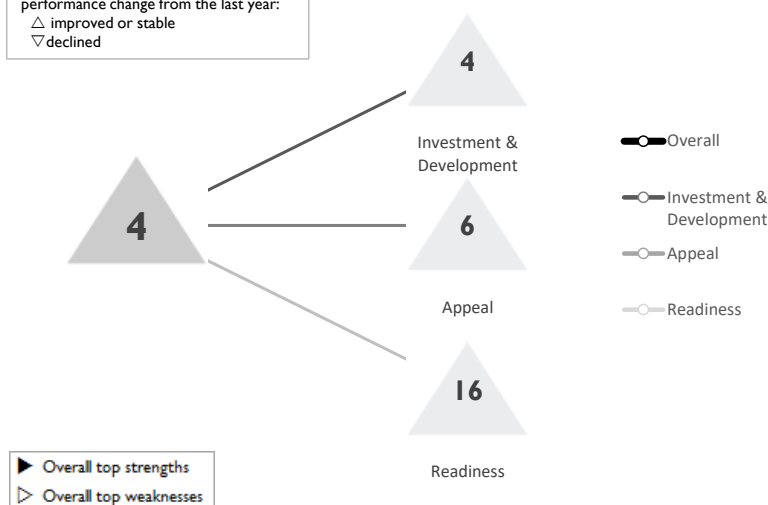
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	-1.01 %	58
▷ Skilled labor	is readily available	3.10 Survey [0..10]	61
Finance skills	are readily available	4.93 Survey [0..10]	57
International experience	of senior managers is generally significant	5.01 Survey [0..10]	49
▷ Competent senior managers	are readily available	2.75 Survey [0..10]	62
Primary and secondary education	meets the needs of a competitive economy	4.26 Survey [0..10]	50
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	22.52 %	36
University education	meets the needs of a competitive economy	4.97 Survey [0..10]	51
Management education	meets the needs of the business community	4.65 Survey [0..10]	58
▷ Language skills	are meeting the needs of enterprises	3.57 Survey [0..10]	60
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	3.31 number	26
Educational assessment - PISA	PISA survey of 15-year olds	479 Average	32

# ICELAND

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▶ Total public expenditure on education	Percentage of GDP	7.4 %	2
▶ Total public exp. on education per student	Spending per enrolled pupil/student, all levels	19,007 US\$	3
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	11.02 ratio	8
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	10.13 ratio	15
Apprenticeships	are sufficiently implemented	4.79 Survey [0..10]	40
Employee training	is a high priority in companies	6.27 Survey [0..10]	27
Female labor force	Percentage of total labor force	46.00 %	32
Health infrastructure	meets the needs of society	7.64 Survey [0..10]	17

### Appeal

		Value	2020 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	7.79 Survey [0..10]	12
Worker motivation	in companies is high	7.21 Survey [0..10]	7
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	7.27 Survey [0..10]	6
Quality of life	is high	9.61 Survey [0..10]	4
▷ Foreign highly-skilled personnel	are attracted to your country's business environment	4.85 Survey [0..10]	41
▶ Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	70,973 US\$	2
▷ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	97,700 US\$	49
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	21.32 %	41
Justice	is fairly administered	7.60 Survey [0..10]	19
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	6.78 micrograms	5

### Readiness

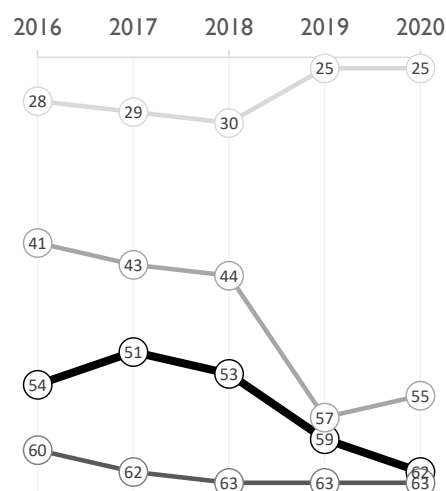
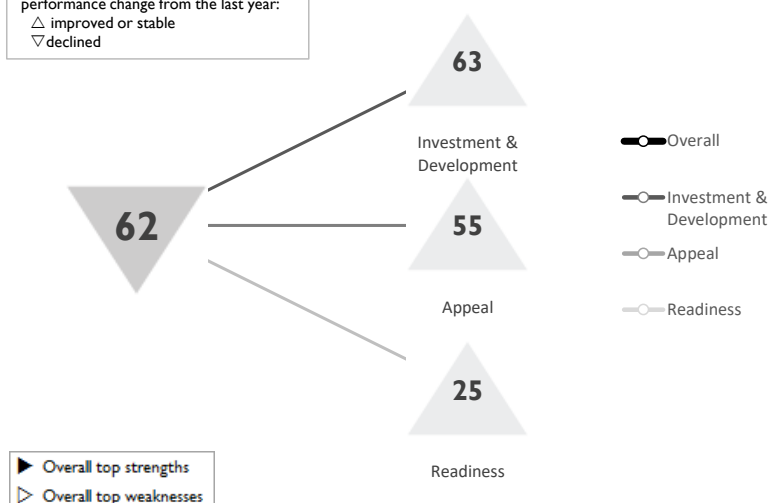
		Value	2020 Rank
Labor force growth	Percentage change	2.21 %	9
▶ Skilled labor	is readily available	7.55 Survey [0..10]	1
Finance skills	are readily available	8.00 Survey [0..10]	4
▷ International experience	of senior managers is generally significant	5.22 Survey [0..10]	43
Competent senior managers	are readily available	6.55 Survey [0..10]	14
Primary and secondary education	meets the needs of a competitive economy	7.97 Survey [0..10]	10
▷ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	18.59 %	53
University education	meets the needs of a competitive economy	8.12 Survey [0..10]	8
Management education	meets the needs of the business community	8.06 Survey [0..10]	5
▶ Language skills	are meeting the needs of enterprises	8.83 Survey [0..10]	3
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	4.10 number	21
Educational assessment - PISA	PISA survey of 15-year olds	481 Average	29



# INDIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▶ Total public expenditure on education	Percentage of GDP	4.4 %	35
▷ Total public exp. on education per student	Spending per enrolled pupil/student, all levels	332 US\$	62
▷ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	36.66 ratio	62
▷ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	28.52 ratio	62
Apprenticeships	are sufficiently implemented	4.99 Survey [0..10]	35
Employee training	is a high priority in companies	5.46 Survey [0..10]	44
Female labor force	Percentage of total labor force	- %	-
Health infrastructure	meets the needs of society	4.71 Survey [0..10]	45

### Appeal

		Value	2020 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	82.90 index	37
Attracting and retaining talents	is a priority in companies	6.59 Survey [0..10]	37
Worker motivation	in companies is high	5.73 Survey [0..10]	39
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.91 Survey [0..10]	34
Quality of life	is high	4.74 Survey [0..10]	52
Foreign highly-skilled personnel	are attracted to your country's business environment	4.62 Survey [0..10]	46
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\$	104,387 US\$	45
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	11.14 %	16
Justice	is fairly administered	5.68 Survey [0..10]	34
▷ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	90.25 micrograms	61

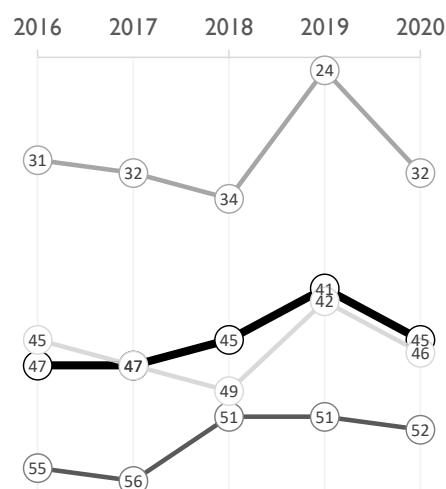
### Readiness

		Value	2020 Rank
▶ Labor force growth	Percentage change	1.82 %	14
▶ Skilled labor	is readily available	6.25 Survey [0..10]	22
▶ Finance skills	are readily available	6.78 Survey [0..10]	25
International experience	of senior managers is generally significant	5.39 Survey [0..10]	41
Competent senior managers	are readily available	5.88 Survey [0..10]	30
Primary and secondary education	meets the needs of a competitive economy	5.66 Survey [0..10]	41
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	32.65 %	6
University education	meets the needs of a competitive economy	5.51 Survey [0..10]	45
Management education	meets the needs of the business community	6.42 Survey [0..10]	35
Language skills	are meeting the needs of enterprises	6.94 Survey [0..10]	27
▷ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.03 number	60
Educational assessment - PISA	PISA survey of 15-year olds	- Average	-

# INDONESIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▷ Total public expenditure on education	Percentage of GDP	3.0 %	58
▷ 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	19.02 ratio	46
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	15.21 ratio	49
► Apprenticeships	are sufficiently implemented	5.65 Survey [0..10]	19
Employee training	is a high priority in companies	6.09 Survey [0..10]	32
Female labor force	Percentage of total labor force	37.58 %	56
Health infrastructure	meets the needs of society	5.66 Survey [0..10]	38

### Appeal

		Value	2020 Rank
► Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	71.90 index	19
Attracting and retaining talents	is a priority in companies	6.57 Survey [0..10]	38
Worker motivation	in companies is high	6.04 Survey [0..10]	30
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.76 Survey [0..10]	25
Quality of life	is high	5.72 Survey [0..10]	43
Foreign highly-skilled personnel	are attracted to your country's business environment	6.00 Survey [0..10]	24
▷ Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	5,788 US\$	58
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	82,139 US\$	54
► Effective personal income tax rate	Percentage of an income equal to GDP per capita	1.85 %	4
Justice	is fairly administered	5.02 Survey [0..10]	41
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	16.71 micrograms	36

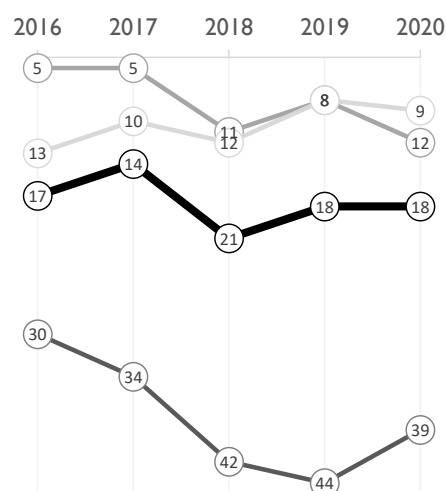
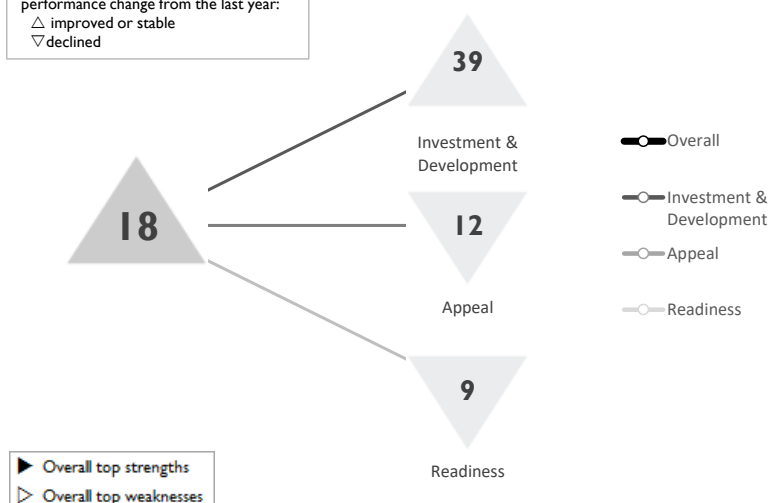
### Readiness

		Value	2020 Rank
► Labor force growth	Percentage change	2.25 %	7
Skilled labor	is readily available	5.59 Survey [0..10]	41
Finance skills	are readily available	5.72 Survey [0..10]	46
► International experience	of senior managers is generally significant	6.17 Survey [0..10]	23
Competent senior managers	are readily available	6.00 Survey [0..10]	26
Primary and secondary education	meets the needs of a competitive economy	5.94 Survey [0..10]	36
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	19.42 %	49
University education	meets the needs of a competitive economy	6.32 Survey [0..10]	31
Management education	meets the needs of the business community	6.34 Survey [0..10]	37
Language skills	are meeting the needs of enterprises	6.11 Survey [0..10]	37
▷ 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	57

# IRELAND

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▷ Total public expenditure on education	Percentage of GDP	3.1 %	54
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	8,301 US\$	22
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	15.25 ratio	33
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.89 ratio	37
Apprenticeships	are sufficiently implemented	4.75 Survey [0..10]	42
Employee training	is a high priority in companies	6.38 Survey [0..10]	24
Female labor force	Percentage of total labor force	45.99 %	33
▷ Health infrastructure	meets the needs of society	4.79 Survey [0..10]	44

### Appeal

		Value	2020 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	88.90 index	46
Attracting and retaining talents	is a priority in companies	7.46 Survey [0..10]	23
Worker motivation	in companies is high	7.17 Survey [0..10]	10
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.47 Survey [0..10]	15
Quality of life	is high	8.29 Survey [0..10]	19
Foreign highly-skilled personnel	are attracted to your country's business environment	7.46 Survey [0..10]	10
▶ 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\$	217,567 US\$	18
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	23.61 %	49
Justice	is fairly administered	7.71 Survey [0..10]	18
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	8.27 micrograms	10

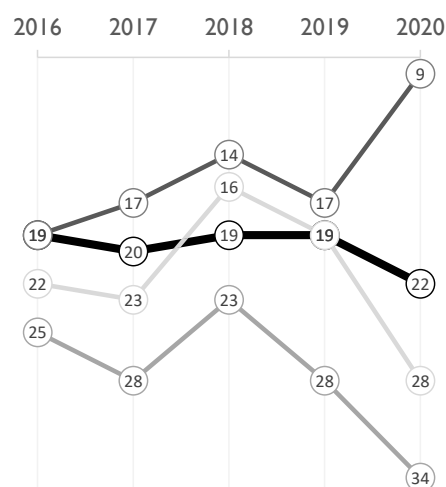
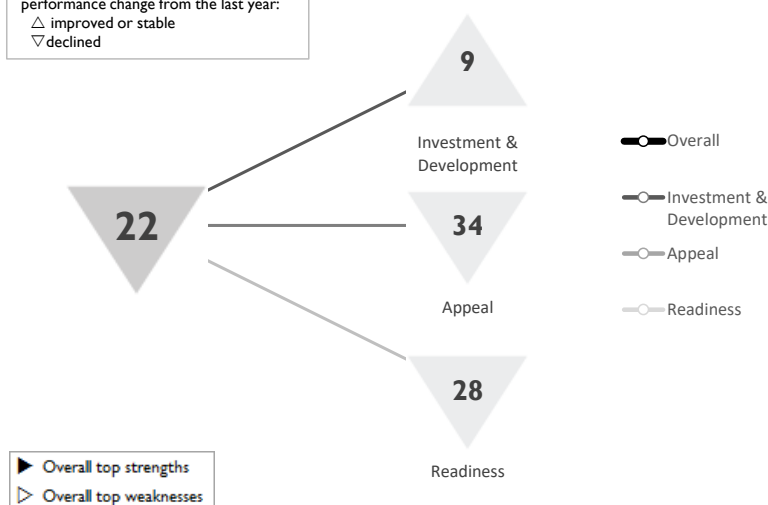
### Readiness

		Value	2020 Rank
▶ Labor force growth	Percentage change	2.53 %	5
Skilled labor	is readily available	6.71 Survey [0..10]	11
▶ Finance skills	are readily available	7.63 Survey [0..10]	8
▶ International experience	of senior managers is generally significant	6.88 Survey [0..10]	9
Competent senior managers	are readily available	6.71 Survey [0..10]	12
▶ Primary and secondary education	meets the needs of a competitive economy	8.21 Survey [0..10]	7
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	24.10 %	33
University education	meets the needs of a competitive economy	8.00 Survey [0..10]	11
Management education	meets the needs of the business community	7.50 Survey [0..10]	15
▷ Language skills	are meeting the needs of enterprises	5.25 Survey [0..10]	46
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	4.59 number	16
Educational assessment - PISA	PISA survey of 15-year olds	505 Average	11

# ISRAEL

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▶ Total public expenditure on education	Percentage of GDP	7.1 %	3
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	9,763 US\$	17
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	15.43 ratio	35
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	10.40 ratio	17
▶ Apprenticeships	are sufficiently implemented	5.85 Survey [0..10]	16
Employee training	is a high priority in companies	6.20 Survey [0..10]	29
▶ Female labor force	Percentage of total labor force	47.88 %	11
Health infrastructure	meets the needs of society	5.90 Survey [0..10]	36

### Appeal

		Value	2020 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	96.50 index	52
▷ Attracting and retaining talents	is a priority in companies	6.49 Survey [0..10]	42
Worker motivation	in companies is high	6.24 Survey [0..10]	23
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.95 Survey [0..10]	22
Quality of life	is high	6.51 Survey [0..10]	37
Foreign highly-skilled personnel	are attracted to your country's business environment	5.75 Survey [0..10]	26
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\$	178,295 US\$	28
Effective personal income tax rate	Percentage of an income equal to GDP per capita	16.13 %	30
Justice	is fairly administered	6.29 Survey [0..10]	26
▷ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	20.81 micrograms	47

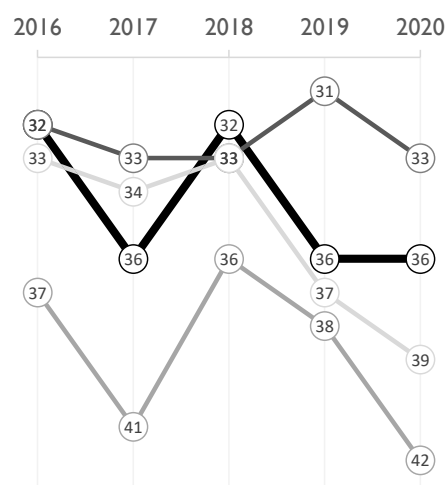
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	1.38 %	18
▶ Skilled labor	is readily available	6.80 Survey [0..10]	8
Finance skills	are readily available	6.39 Survey [0..10]	35
International experience	of senior managers is generally significant	6.20 Survey [0..10]	20
Competent senior managers	are readily available	5.85 Survey [0..10]	33
Primary and secondary education	meets the needs of a competitive economy	6.05 Survey [0..10]	35
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	- %	-
University education	meets the needs of a competitive economy	6.93 Survey [0..10]	25
Management education	meets the needs of the business community	6.49 Survey [0..10]	33
Language skills	are meeting the needs of enterprises	7.22 Survey [0..10]	24
▷ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.28 number	47
▷ Educational assessment - PISA	PISA survey of 15-year olds	465 Average	37

# ITALY

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	4.0 %	42
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	7,574 US\$	24
▶ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	11.53 ratio	10
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	10.60 ratio	18
Apprenticeships	are sufficiently implemented	4.54 Survey [0..10]	48
▷ Employee training	is a high priority in companies	4.77 Survey [0..10]	60
Female labor force	Percentage of total labor force	42.81 %	47
Health infrastructure	meets the needs of society	7.13 Survey [0..10]	25

### Appeal

		Value	2020 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	45
▷ Attracting and retaining talents	is a priority in companies	5.55 Survey [0..10]	60
Worker motivation	in companies is high	5.52 Survey [0..10]	42
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.05 Survey [0..10]	46
Quality of life	is high	7.59 Survey [0..10]	27
▷ Foreign highly-skilled personnel	are attracted to your country's business environment	3.73 Survey [0..10]	52
▶ 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\$	269,124 US\$	9
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	23.85 %	50
Justice	is fairly administered	3.98 Survey [0..10]	49
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	16.50 micrograms	35

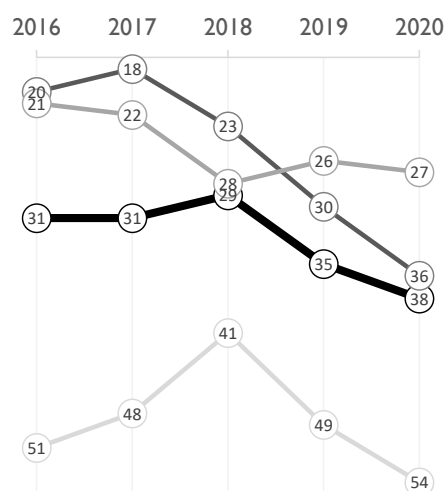
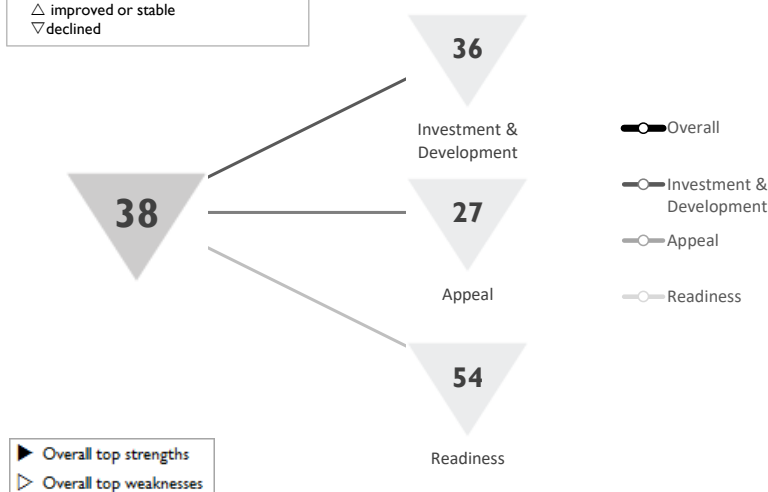
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	-0.11 %	49
Skilled labor	is readily available	6.11 Survey [0..10]	27
Finance skills	are readily available	5.69 Survey [0..10]	47
▷ International experience	of senior managers is generally significant	4.96 Survey [0..10]	50
Competent senior managers	are readily available	5.66 Survey [0..10]	39
Primary and secondary education	meets the needs of a competitive economy	6.91 Survey [0..10]	25
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	24.20 %	32
▶ University education	meets the needs of a competitive economy	7.14 Survey [0..10]	23
Management education	meets the needs of the business community	6.61 Survey [0..10]	32
Language skills	are meeting the needs of enterprises	4.93 Survey [0..10]	49
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.76 number	39
Educational assessment - PISA	PISA survey of 15-year olds	477 Average	33

# JAPAN

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	3.1 %	52
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	7,704 US\$	23
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	16.17 ratio	36
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.30 ratio	33
▶ Apprenticeships	are sufficiently implemented	5.93 Survey [0..10]	12
Employee training	is a high priority in companies	6.24 Survey [0..10]	28
Female labor force	Percentage of total labor force	44.40 %	43
Health infrastructure	meets the needs of society	7.26 Survey [0..10]	24

### Appeal

		Value	2020 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	114.70 index	59
▶ Attracting and retaining talents	is a priority in companies	7.76 Survey [0..10]	14
Worker motivation	in companies is high	5.83 Survey [0..10]	37
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.79 Survey [0..10]	36
Quality of life	is high	7.54 Survey [0..10]	28
Foreign highly-skilled personnel	are attracted to your country's business environment	3.50 Survey [0..10]	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\$	265,052 US\$	11
Effective personal income tax rate	Percentage of an income equal to GDP per capita	14.33 %	26
Justice	is fairly administered	6.72 Survey [0..10]	22
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	11.86 micrograms	17

### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	0.82 %	34
Skilled labor	is readily available	5.13 Survey [0..10]	48
Finance skills	are readily available	5.28 Survey [0..10]	53
▷ International experience	of senior managers is generally significant	2.75 Survey [0..10]	63
▷ Competent senior managers	are readily available	3.16 Survey [0..10]	61
Primary and secondary education	meets the needs of a competitive economy	6.09 Survey [0..10]	33
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	21.71 %	42
University education	meets the needs of a competitive economy	4.89 Survey [0..10]	52
▷ Management education	meets the needs of the business community	4.65 Survey [0..10]	57
▷ Language skills	are meeting the needs of enterprises	2.99 Survey [0..10]	62
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.44 number	45
▶ Educational assessment - PISA	PISA survey of 15-year olds	520 Average	5

# JORDAN

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	3.0 %	55
▷ Total public exp. on education per student	Spending per enrolled pupil/student, all levels	540 US\$	59
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	18.54 ratio	45
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.26 ratio	32
▶ Apprenticeships	are sufficiently implemented	5.88 Survey [0..10]	14
Employee training	is a high priority in companies	6.48 Survey [0..10]	23
▷ Female labor force	Percentage of total labor force	20.09 %	59
Health infrastructure	meets the needs of society	6.05 Survey [0..10]	33

### Appeal

		Value	2020 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	75.80 index	24
Attracting and retaining talents	is a priority in companies	6.54 Survey [0..10]	39
Worker motivation	in companies is high	5.65 Survey [0..10]	40
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.22 Survey [0..10]	45
Quality of life	is high	5.42 Survey [0..10]	47
Foreign highly-skilled personnel	are attracted to your country's business environment	5.23 Survey [0..10]	36
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\$	52,311 US\$	57
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	7.39 %	11
Justice	is fairly administered	6.13 Survey [0..10]	28
▷ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	32.75 micrograms	56

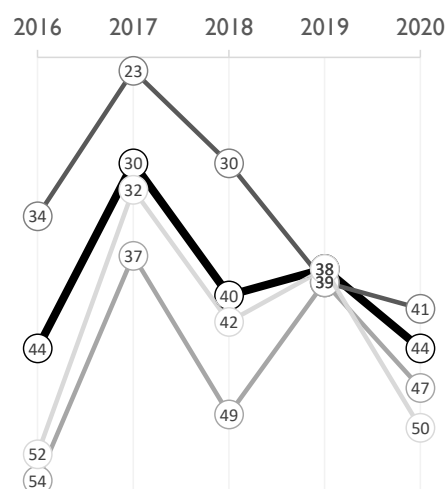
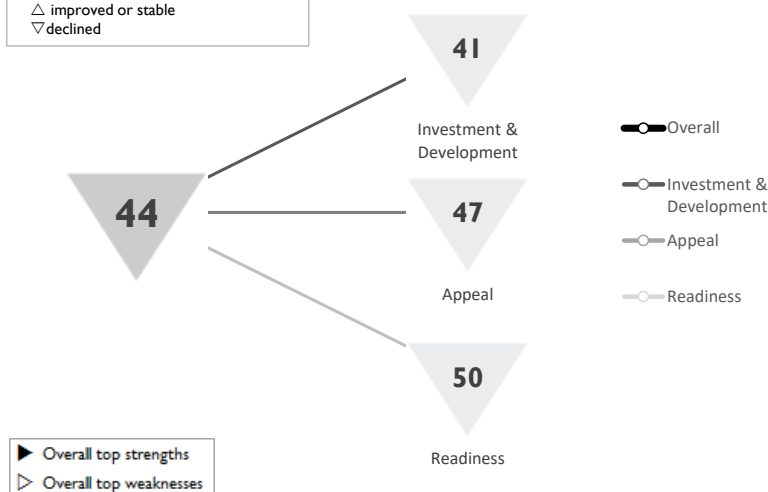
### Readiness

		Value	2020 Rank
▷ Labor force growth	Percentage change	-1.85 %	61
▶ Skilled labor	is readily available	6.49 Survey [0..10]	16
Finance skills	are readily available	6.45 Survey [0..10]	32
International experience	of senior managers is generally significant	6.15 Survey [0..10]	24
▶ Competent senior managers	are readily available	6.69 Survey [0..10]	13
Primary and secondary education	meets the needs of a competitive economy	6.07 Survey [0..10]	34
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	26.36 %	24
University education	meets the needs of a competitive economy	6.10 Survey [0..10]	37
Management education	meets the needs of the business community	6.03 Survey [0..10]	44
Language skills	are meeting the needs of enterprises	6.54 Survey [0..10]	30
▶ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	4.35 number	17
Educational assessment - PISA	PISA survey of 15-year olds	416 Average	48

# KAZAKHSTAN

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▶ Total public expenditure on education	Percentage of GDP	2.6 %	59
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,150 US\$	53
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	19.64 ratio	51
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	6.96 ratio	1
▶ Apprenticeships	are sufficiently implemented	5.59 Survey [0..10]	23
▶ Employee training	is a high priority in companies	6.60 Survey [0..10]	21
▶ Female labor force	Percentage of total labor force	48.60 %	7
Health infrastructure	meets the needs of society	4.34 Survey [0..10]	48

### Appeal

		Value	2020 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	1
Attracting and retaining talents	is a priority in companies	6.38 Survey [0..10]	43
Worker motivation	in companies is high	5.47 Survey [0..10]	44
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.26 Survey [0..10]	53
Quality of life	is high	4.77 Survey [0..10]	51
Foreign highly-skilled personnel	are attracted to your country's business environment	5.54 Survey [0..10]	31
▶ Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	6,878 US\$	56
▶ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	17,332 US\$	62
Effective personal income tax rate	Percentage of an income equal to GDP per capita	15.96 %	29
Justice	is fairly administered	5.51 Survey [0..10]	36
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	13.97 micrograms	25

### Readiness

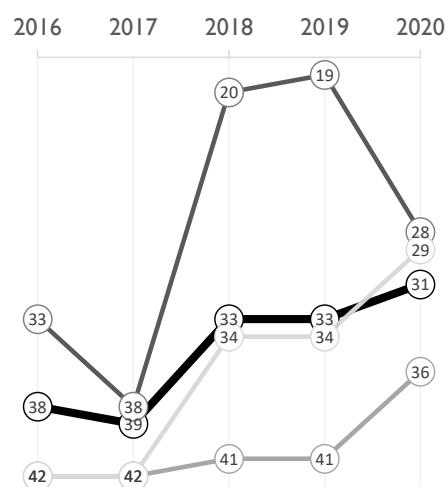
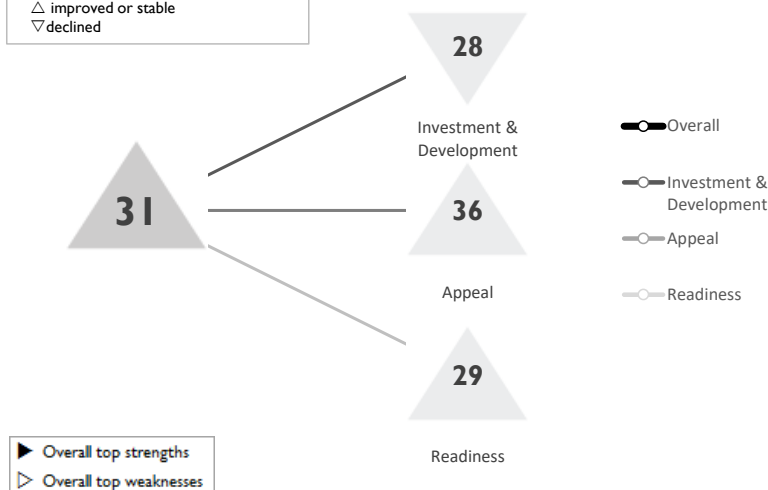
		Value	2020 Rank
Labor force growth	Percentage change	0.90 %	29
Skilled labor	is readily available	5.55 Survey [0..10]	42
Finance skills	are readily available	6.42 Survey [0..10]	34
International experience	of senior managers is generally significant	5.61 Survey [0..10]	36
Competent senior managers	are readily available	5.88 Survey [0..10]	31
Primary and secondary education	meets the needs of a competitive economy	5.01 Survey [0..10]	48
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	24.84 %	31
▶ University education	meets the needs of a competitive economy	4.63 Survey [0..10]	54
▶ Management education	meets the needs of the business community	4.91 Survey [0..10]	55
Language skills	are meeting the needs of enterprises	4.96 Survey [0..10]	48
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.79 number	50
Educational assessment - PISA	PISA survey of 15-year olds	402 Average	52



# KOREA REP.

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	4.3 %	37
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	6,230 US\$	29
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	16.51 ratio	39
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.78 ratio	36
Apprenticeships	are sufficiently implemented	5.67 Survey [0..10]	18
Employee training	is a high priority in companies	6.84 Survey [0..10]	15
Female labor force	Percentage of total labor force	42.92 %	45
Health infrastructure	meets the needs of society	8.00 Survey [0..10]	15

### Appeal

		Value	2020 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	109.40 index	56
Attracting and retaining talents	is a priority in companies	7.81 Survey [0..10]	11
Worker motivation	in companies is high	5.48 Survey [0..10]	43
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.46 Survey [0..10]	28
Quality of life	is high	6.43 Survey [0..10]	39
Foreign highly-skilled personnel	are attracted to your country's business environment	4.70 Survey [0..10]	43
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	24,963 US\$	28
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	249,586 US\$	14
Effective personal income tax rate	Percentage of an income equal to GDP per capita	8.43 %	13
Justice	is fairly administered	5.04 Survey [0..10]	40
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	25.14 micrograms	53

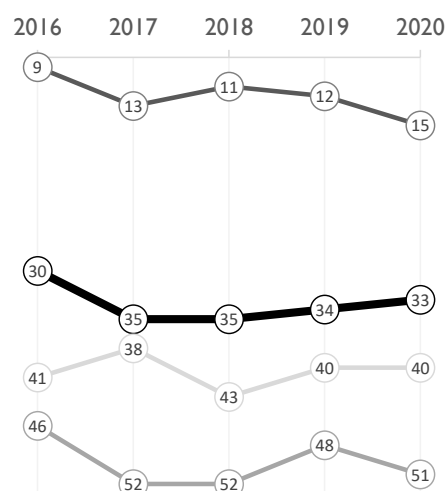
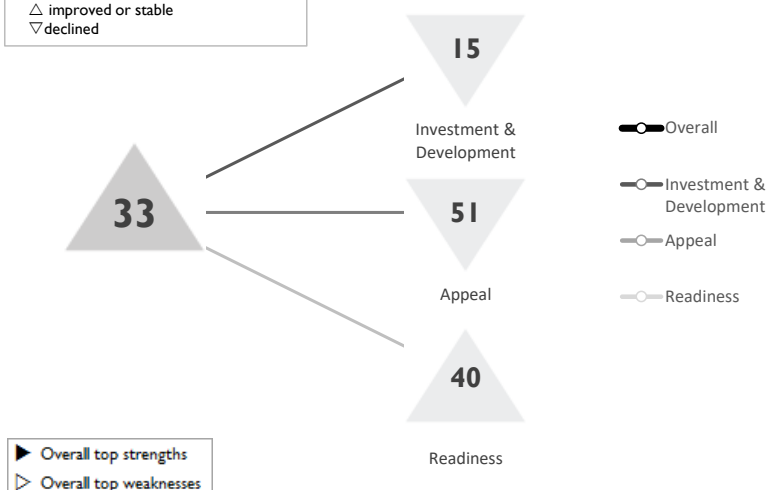
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	1.04 %	25
Skilled labor	is readily available	5.97 Survey [0..10]	31
Finance skills	are readily available	6.59 Survey [0..10]	28
International experience	of senior managers is generally significant	5.51 Survey [0..10]	39
Competent senior managers	are readily available	5.27 Survey [0..10]	42
Primary and secondary education	meets the needs of a competitive economy	5.53 Survey [0..10]	44
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	29.35 %	10
University education	meets the needs of a competitive economy	5.30 Survey [0..10]	48
Management education	meets the needs of the business community	5.53 Survey [0..10]	48
Language skills	are meeting the needs of enterprises	6.08 Survey [0..10]	38
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.64 number	41
Educational assessment - PISA	PISA survey of 15-year olds	520 Average	6

# LATVIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▶ Total public expenditure on education	Percentage of GDP	5.8 %	12
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	4,975 US\$	34
▶ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	12.00 ratio	14
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	9.53 ratio	13
Apprenticeships	are sufficiently implemented	5.07 Survey [0..10]	32
Employee training	is a high priority in companies	5.69 Survey [0..10]	39
▶ Female labor force	Percentage of total labor force	50.07 %	3
Health infrastructure	meets the needs of society	4.80 Survey [0..10]	43

### Appeal

		Value	2020 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	76.20 index	26
▷ Attracting and retaining talents	is a priority in companies	6.04 Survey [0..10]	50
Worker motivation	in companies is high	5.86 Survey [0..10]	35
▷ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.20 Survey [0..10]	54
Quality of life	is high	6.09 Survey [0..10]	41
Foreign highly-skilled personnel	are attracted to your country's business environment	4.89 Survey [0..10]	40
▷ Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	11,431 US\$	51
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	103,020 US\$	46
Effective personal income tax rate	Percentage of an income equal to GDP per capita	22.84 %	47
Justice	is fairly administered	5.11 Survey [0..10]	38
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	14.11 micrograms	26

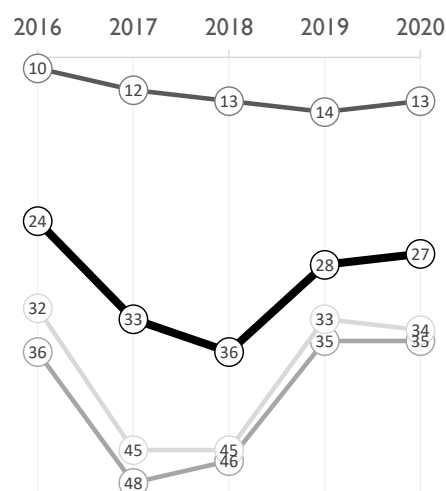
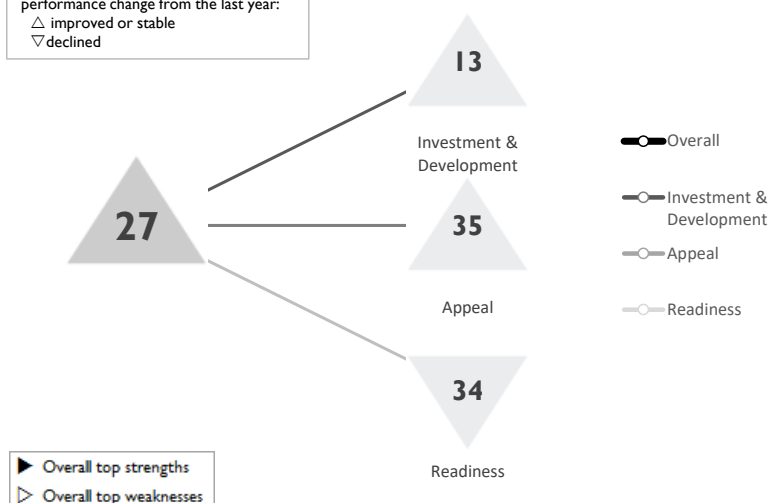
### Readiness

		Value	2020 Rank
▷ Labor force growth	Percentage change	-1.11 %	60
Skilled labor	is readily available	5.60 Survey [0..10]	40
Finance skills	are readily available	6.09 Survey [0..10]	40
International experience	of senior managers is generally significant	5.86 Survey [0..10]	29
Competent senior managers	are readily available	5.87 Survey [0..10]	32
Primary and secondary education	meets the needs of a competitive economy	6.58 Survey [0..10]	28
▷ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	20.17 %	47
University education	meets the needs of a competitive economy	6.22 Survey [0..10]	34
Management education	meets the needs of the business community	6.36 Survey [0..10]	36
▶ Language skills	are meeting the needs of enterprises	7.60 Survey [0..10]	19
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	3.91 number	22
Educational assessment - PISA	PISA survey of 15-year olds	487 Average	28

# LITHUANIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	4.5 %	33
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	4,043 US\$	39
► Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	11.22 ratio	9
► Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	7.75 ratio	3
► Apprenticeships	are sufficiently implemented	5.93 Survey [0..10]	13
Employee training	is a high priority in companies	6.68 Survey [0..10]	17
► Female labor force	Percentage of total labor force	50.20 %	1
Health infrastructure	meets the needs of society	5.84 Survey [0..10]	37

### Appeal

		Value	2020 Rank
► Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	68.20 index	12
Attracting and retaining talents	is a priority in companies	7.20 Survey [0..10]	25
Worker motivation	in companies is high	6.24 Survey [0..10]	25
▷ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.84 Survey [0..10]	50
Quality of life	is high	7.18 Survey [0..10]	31
Foreign highly-skilled personnel	are attracted to your country's business environment	5.10 Survey [0..10]	38
▷ Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	11,666 US\$	49
▷ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	116,571 US\$	43
Effective personal income tax rate	Percentage of an income equal to GDP per capita	20.72 %	40
Justice	is fairly administered	6.07 Survey [0..10]	29
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	11.90 micrograms	18

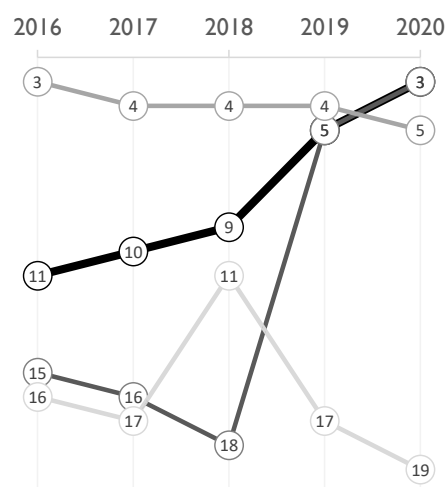
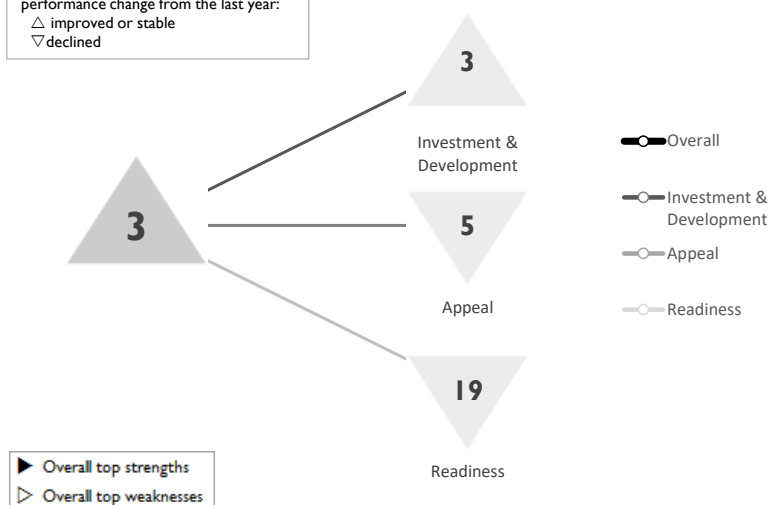
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	0.38 %	40
▷ Skilled labor	is readily available	5.24 Survey [0..10]	45
▷ Finance skills	are readily available	5.34 Survey [0..10]	52
International experience	of senior managers is generally significant	6.19 Survey [0..10]	21
Competent senior managers	are readily available	5.98 Survey [0..10]	27
Primary and secondary education	meets the needs of a competitive economy	5.91 Survey [0..10]	38
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	26.82 %	22
University education	meets the needs of a competitive economy	5.81 Survey [0..10]	41
Management education	meets the needs of the business community	6.33 Survey [0..10]	38
Language skills	are meeting the needs of enterprises	7.81 Survey [0..10]	18
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.25 number	33
Educational assessment - PISA	PISA survey of 15-year olds	480 Average	31

# LUXEMBOURG

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	4.6 %	30
▶ Total public exp. on education per student	Spending per enrolled pupil/student, all levels	29,052 US\$	1
▶ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	9.05 ratio	1
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	9.47 ratio	12
Apprenticeships	are sufficiently implemented	5.59 Survey [0..10]	22
Employee training	is a high priority in companies	6.91 Survey [0..10]	13
▷ Female labor force	Percentage of total labor force	41.03 %	52
Health infrastructure	meets the needs of society	8.03 Survey [0..10]	14

### Appeal

		Value	2020 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	31
▶ Attracting and retaining talents	is a priority in companies	8.20 Survey [0..10]	2
Worker motivation	in companies is high	6.24 Survey [0..10]	25
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.06 Survey [0..10]	18
Quality of life	is high	8.69 Survey [0..10]	13
Foreign highly-skilled personnel	are attracted to your country's business environment	8.17 Survey [0..10]	4
▶ 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\$	274,618 US\$	7
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	24.50 %	52
Justice	is fairly administered	7.71 Survey [0..10]	17
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	10.18 micrograms	13

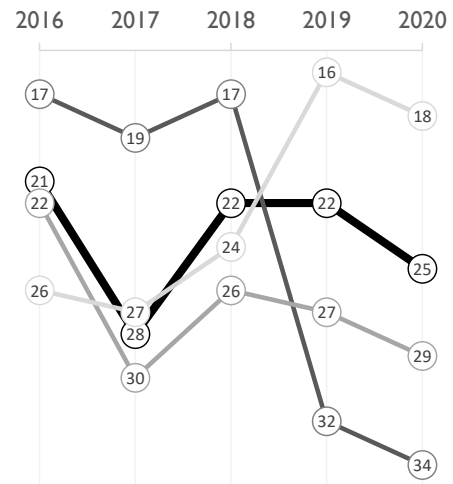
### Readiness

		Value	2020 Rank
▶ Labor force growth	Percentage change	3.72 %	1
▷ Skilled labor	is readily available	4.32 Survey [0..10]	53
Finance skills	are readily available	7.13 Survey [0..10]	18
International experience	of senior managers is generally significant	7.54 Survey [0..10]	6
▷ Competent senior managers	are readily available	5.29 Survey [0..10]	41
Primary and secondary education	meets the needs of a competitive economy	6.49 Survey [0..10]	30
▷ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	18.82 %	52
University education	meets the needs of a competitive economy	6.14 Survey [0..10]	36
Management education	meets the needs of the business community	6.65 Survey [0..10]	30
Language skills	are meeting the needs of enterprises	8.77 Survey [0..10]	4
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	5.58 number	12
Educational assessment - PISA	PISA survey of 15-year olds	477 Average	34

# MALAYSIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	4.4 %	34
▷ Total public exp. on education per student	Spending per enrolled pupil/student, all levels	3,267 US\$	42
► Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	11.70 ratio	12
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.30 ratio	22
Apprenticeships	are sufficiently implemented	5.31 Survey [0..10]	28
Employee training	is a high priority in companies	6.13 Survey [0..10]	31
▷ Female labor force	Percentage of total labor force	39.01 %	55
Health infrastructure	meets the needs of society	7.30 Survey [0..10]	23

### Appeal

		Value	2020 Rank
► Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	68.50 index	13
Attracting and retaining talents	is a priority in companies	6.50 Survey [0..10]	41
Worker motivation	in companies is high	5.97 Survey [0..10]	31
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.24 Survey [0..10]	30
Quality of life	is high	7.00 Survey [0..10]	33
Foreign highly-skilled personnel	are attracted to your country's business environment	5.99 Survey [0..10]	25
▷ Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	13,564 US\$	41
▷ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	119,219 US\$	42
► Effective personal income tax rate	Percentage of an income equal to GDP per capita	10.53 %	15
Justice	is fairly administered	6.23 Survey [0..10]	27
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	16.04 micrograms	29

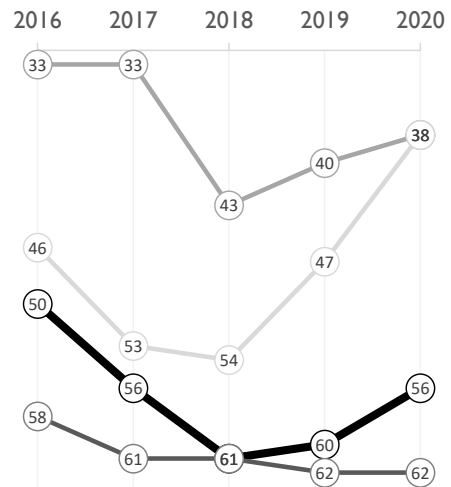
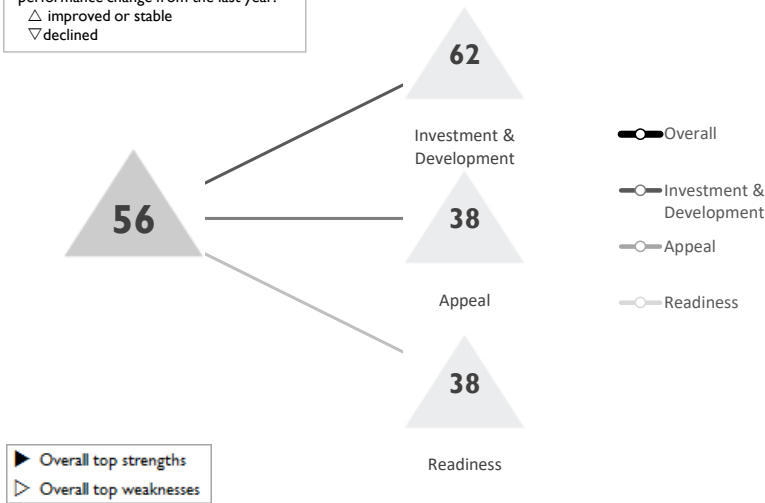
### Readiness

		Value	2020 Rank
► Labor force growth	Percentage change	1.97 %	12
Skilled labor	is readily available	5.99 Survey [0..10]	30
Finance skills	are readily available	6.43 Survey [0..10]	33
International experience	of senior managers is generally significant	5.80 Survey [0..10]	32
Competent senior managers	are readily available	6.10 Survey [0..10]	24
Primary and secondary education	meets the needs of a competitive economy	6.53 Survey [0..10]	29
► Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	40.77 %	1
University education	meets the needs of a competitive economy	6.31 Survey [0..10]	32
Management education	meets the needs of the business community	6.32 Survey [0..10]	39
Language skills	are meeting the needs of enterprises	6.82 Survey [0..10]	28
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	3.15 number	27
▷ Educational assessment - PISA	PISA survey of 15-year olds	431 Average	44

# MEXICO

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	3.0 %	56
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	983 US\$	57
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	26.41 ratio	58
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	27.84 ratio	61
Apprenticeships	are sufficiently implemented	4.97 Survey [0..10]	36
Employee training	is a high priority in companies	5.47 Survey [0..10]	43
Female labor force	Percentage of total labor force	39.57 %	54
Health infrastructure	meets the needs of society	3.15 Survey [0..10]	56

### Appeal

		Value	2020 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	65.30 index	8
Attracting and retaining talents	is a priority in companies	6.17 Survey [0..10]	46
Worker motivation	in companies is high	5.90 Survey [0..10]	33
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.44 Survey [0..10]	43
Quality of life	is high	5.44 Survey [0..10]	46
Foreign highly-skilled personnel	are attracted to your country's business environment	5.43 Survey [0..10]	33
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	7,429 US\$	55
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	198,605 US\$	21
Effective personal income tax rate	Percentage of an income equal to GDP per capita	14.10 %	25
Justice	is fairly administered	2.44 Survey [0..10]	57
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	21.24 micrograms	49

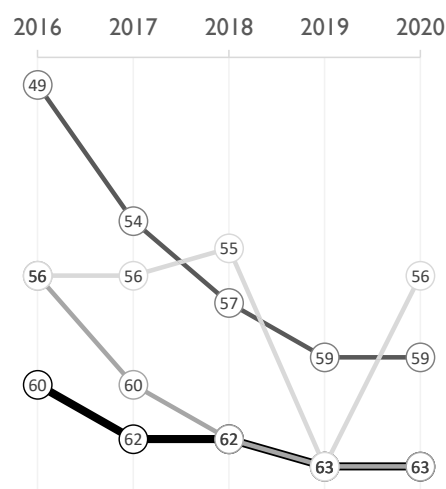
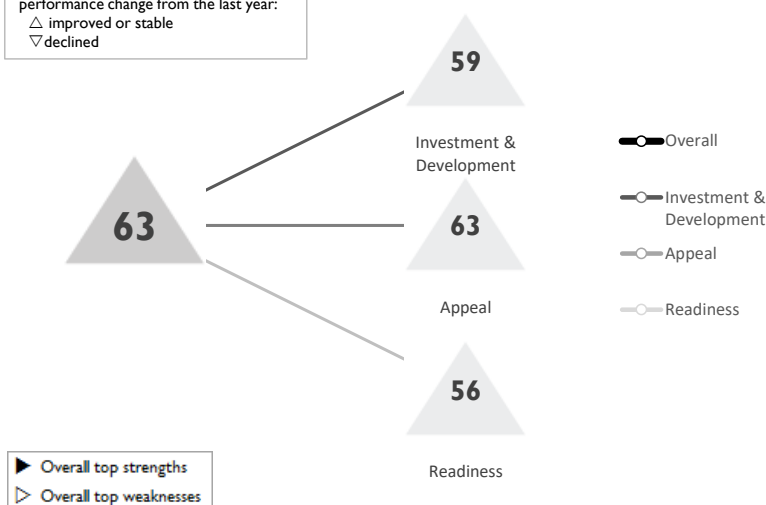
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	2.86 %	2
Skilled labor	is readily available	5.92 Survey [0..10]	33
Finance skills	are readily available	5.75 Survey [0..10]	45
International experience	of senior managers is generally significant	6.17 Survey [0..10]	22
Competent senior managers	are readily available	5.68 Survey [0..10]	38
Primary and secondary education	meets the needs of a competitive economy	4.19 Survey [0..10]	52
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	25.97 %	26
University education	meets the needs of a competitive economy	5.38 Survey [0..10]	47
Management education	meets the needs of the business community	5.77 Survey [0..10]	47
Language skills	are meeting the needs of enterprises	4.82 Survey [0..10]	50
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.06 number	59
Educational assessment - PISA	PISA survey of 15-year olds	416 Average	47

# MONGOLIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	4.3 %	38
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	768 US\$	58
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	32.41 ratio	61
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	19.50 ratio	54
Apprenticeships	are sufficiently implemented	3.97 Survey [0..10]	57
▶ Employee training	is a high priority in companies	7.13 Survey [0..10]	9
▶ Female labor force	Percentage of total labor force	46.46 %	26
Health infrastructure	meets the needs of society	3.19 Survey [0..10]	54

### Appeal

		Value	2020 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	8.00 Survey [0..10]	4
Worker motivation	in companies is high	4.67 Survey [0..10]	57
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.62 Survey [0..10]	51
Quality of life	is high	3.12 Survey [0..10]	61
Foreign highly-skilled personnel	are attracted to your country's business environment	3.80 Survey [0..10]	51
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\$	6,084 US\$	63
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	30.00 %	63
Justice	is fairly administered	3.13 Survey [0..10]	53
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	43.18 micrograms	58

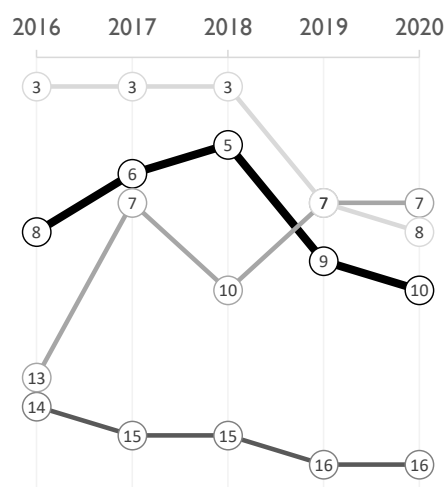
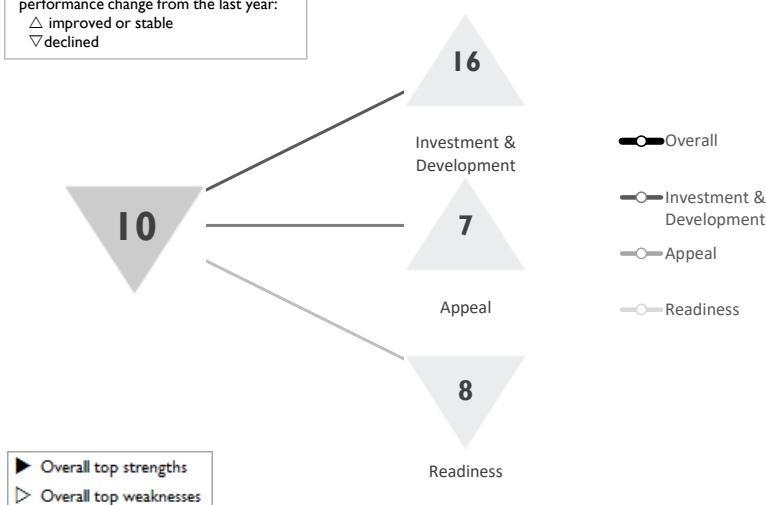
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	- %	-
▷ Skilled labor	is readily available	2.90 Survey [0..10]	63
▷ Finance skills	are readily available	3.77 Survey [0..10]	62
International experience	of senior managers is generally significant	4.20 Survey [0..10]	59
Competent senior managers	are readily available	3.71 Survey [0..10]	58
Primary and secondary education	meets the needs of a competitive economy	3.68 Survey [0..10]	57
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	25.34 %	28
▷ University education	meets the needs of a competitive economy	3.13 Survey [0..10]	63
Management education	meets the needs of the business community	4.18 Survey [0..10]	60
Language skills	are meeting the needs of enterprises	4.29 Survey [0..10]	53
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.50 number	52
Educational assessment - PISA	PISA survey of 15-year olds	- Average	-

# NETHERLANDS

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	5.1 %	24
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	11,161 US\$	13
▷ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	16.41 ratio	37
▷ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	16.87 ratio	50
Apprenticeships	are sufficiently implemented	6.78 Survey [0..10]	5
Employee training	is a high priority in companies	7.31 Survey [0..10]	7
Female labor force	Percentage of total labor force	46.72 %	24
Health infrastructure	meets the needs of society	8.31 Survey [0..10]	10

### Appeal

		Value	2020 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	84.30 index	40
Attracting and retaining talents	is a priority in companies	7.97 Survey [0..10]	5
Worker motivation	in companies is high	7.34 Survey [0..10]	6
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	7.56 Survey [0..10]	5
Quality of life	is high	9.30 Survey [0..10]	7
Foreign highly-skilled personnel	are attracted to your country's business environment	7.85 Survey [0..10]	6
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\$	255,603 US\$	12
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	26.42 %	57
▶ Justice	is fairly administered	8.79 Survey [0..10]	3
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	12.09 micrograms	20

### Readiness

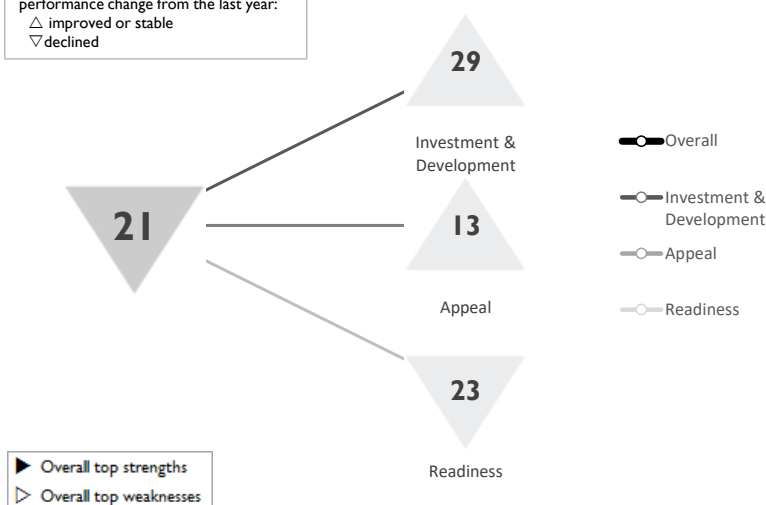
		Value	2020 Rank
Labor force growth	Percentage change	1.62 %	16
Skilled labor	is readily available	6.73 Survey [0..10]	10
Finance skills	are readily available	7.87 Survey [0..10]	5
▶ International experience	of senior managers is generally significant	7.77 Survey [0..10]	3
▶ Competent senior managers	are readily available	7.34 Survey [0..10]	2
Primary and secondary education	meets the needs of a competitive economy	8.30 Survey [0..10]	5
▷ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	17.45 %	56
University education	meets the needs of a competitive economy	8.59 Survey [0..10]	5
▶ Management education	meets the needs of the business community	8.10 Survey [0..10]	4
▶ Language skills	are meeting the needs of enterprises	8.97 Survey [0..10]	2
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	6.01 number	10
Educational assessment - PISA	PISA survey of 15-year olds	502 Average	16



# NEW ZEALAND

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	5.6 %	14
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	8,798 US\$	21
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	16.83 ratio	41
▷ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	14.64 ratio	47
▷ Apprenticeships	are sufficiently implemented	4.04 Survey [0..10]	56
▷ Employee training	is a high priority in companies	5.15 Survey [0..10]	51
▶ Female labor force	Percentage of total labor force	47.93 %	10
Health infrastructure	meets the needs of society	6.10 Survey [0..10]	32

### Appeal

		Value	2020 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	78.30 index	29
Attracting and retaining talents	is a priority in companies	7.66 Survey [0..10]	16
Worker motivation	in companies is high	6.24 Survey [0..10]	24
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.71 Survey [0..10]	37
▶ Quality of life	is high	8.78 Survey [0..10]	10
Foreign highly-skilled personnel	are attracted to your country's business environment	7.15 Survey [0..10]	12
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\$	166,713 US\$	29
Effective personal income tax rate	Percentage of an income equal to GDP per capita	22.76 %	46
▶ Justice	is fairly administered	8.41 Survey [0..10]	6
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	5.99 micrograms	2

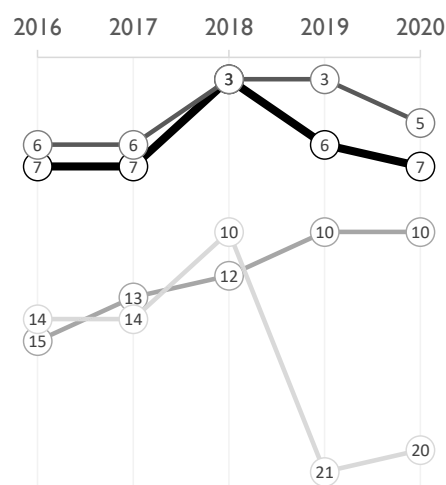
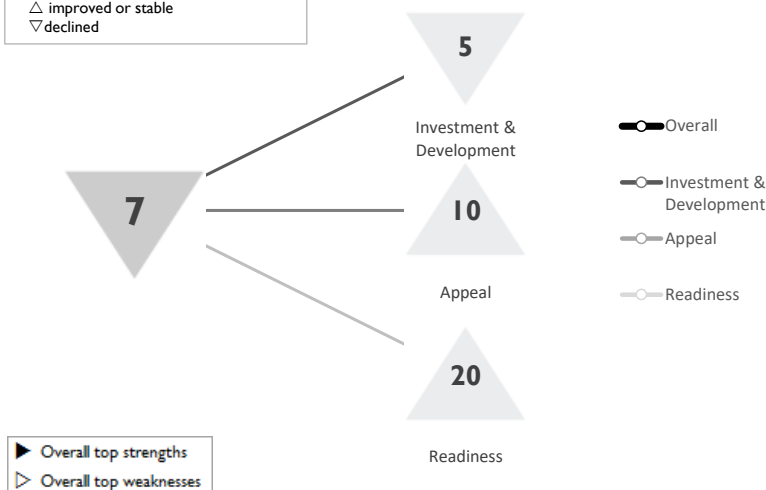
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	1.34 %	20
▷ Skilled labor	is readily available	4.03 Survey [0..10]	56
Finance skills	are readily available	5.86 Survey [0..10]	44
International experience	of senior managers is generally significant	5.46 Survey [0..10]	40
▷ Competent senior managers	are readily available	5.05 Survey [0..10]	47
Primary and secondary education	meets the needs of a competitive economy	6.98 Survey [0..10]	23
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	21.38 %	44
University education	meets the needs of a competitive economy	6.92 Survey [0..10]	26
Management education	meets the needs of the business community	6.14 Survey [0..10]	41
Language skills	are meeting the needs of enterprises	6.31 Survey [0..10]	32
▶ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	10.69 number	3
Educational assessment - PISA	PISA survey of 15-year olds	503 Average	14

# NORWAY

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	5.4 %	17
▶ Total public exp. on education per student	Spending per enrolled pupil/student, all levels	17,181 US\$	4
▶ 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	9.61 ratio	14
Apprenticeships	are sufficiently implemented	6.57 Survey [0..10]	7
▶ Employee training	is a high priority in companies	7.42 Survey [0..10]	4
Female labor force	Percentage of total labor force	46.96 %	20
Health infrastructure	meets the needs of society	8.23 Survey [0..10]	11

### Appeal

		Value	2020 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	84.70 index	41
Attracting and retaining talents	is a priority in companies	7.50 Survey [0..10]	20
Worker motivation	in companies is high	7.37 Survey [0..10]	5
▶ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	7.60 Survey [0..10]	4
Quality of life	is high	8.73 Survey [0..10]	12
Foreign highly-skilled personnel	are attracted to your country's business environment	6.92 Survey [0..10]	15
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\$	146,090 US\$	38
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	25.26 %	53
Justice	is fairly administered	8.33 Survey [0..10]	9
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	7.05 micrograms	7

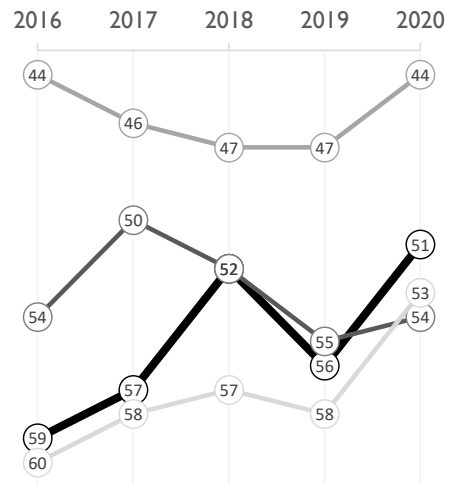
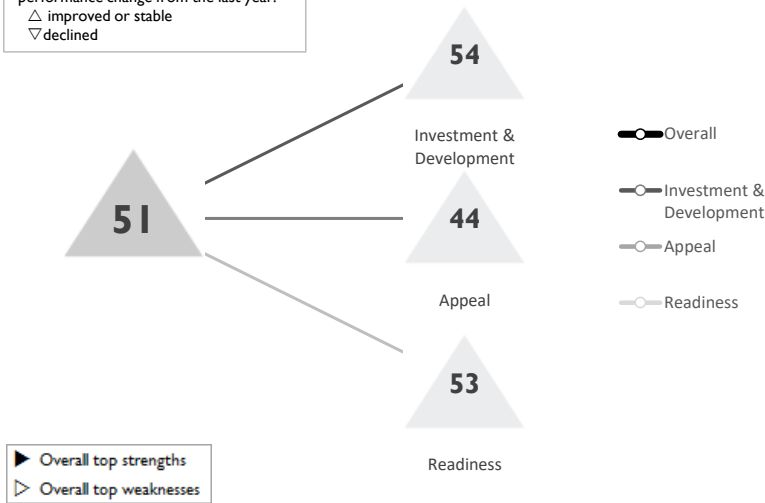
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	0.99 %	26
▶ Skilled labor	is readily available	7.27 Survey [0..10]	4
Finance skills	are readily available	7.32 Survey [0..10]	16
International experience	of senior managers is generally significant	6.10 Survey [0..10]	25
Competent senior managers	are readily available	6.78 Survey [0..10]	10
Primary and secondary education	meets the needs of a competitive economy	7.63 Survey [0..10]	15
▷ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	21.81 %	41
University education	meets the needs of a competitive economy	8.03 Survey [0..10]	10
Management education	meets the needs of the business community	7.80 Survey [0..10]	9
Language skills	are meeting the needs of enterprises	8.40 Survey [0..10]	10
▷ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.29 number	32
Educational assessment - PISA	PISA survey of 15-year olds	497 Average	22

# PERU

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	3.7 %	46
▷ Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,035 US\$	56
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	19.99 ratio	53
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	17.34 ratio	52
Apprenticeships	are sufficiently implemented	5.19 Survey [0..10]	31
Employee training	is a high priority in companies	5.18 Survey [0..10]	49
Female labor force	Percentage of total labor force	44.48 %	41
▷ Health infrastructure	meets the needs of society	2.23 Survey [0..10]	61

### Appeal

		Value	2020 Rank
► Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	70.00 index	17
Attracting and retaining talents	is a priority in companies	5.67 Survey [0..10]	56
Worker motivation	in companies is high	5.42 Survey [0..10]	46
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.99 Survey [0..10]	31
Quality of life	is high	4.79 Survey [0..10]	50
► Foreign highly-skilled personnel	are attracted to your country's business environment	6.16 Survey [0..10]	22
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	13,359 US\$	42
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	164,455 US\$	32
► Effective personal income tax rate	Percentage of an income equal to GDP per capita	12.45 %	20
▷ Justice	is fairly administered	2.60 Survey [0..10]	56
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	26.04 micrograms	54

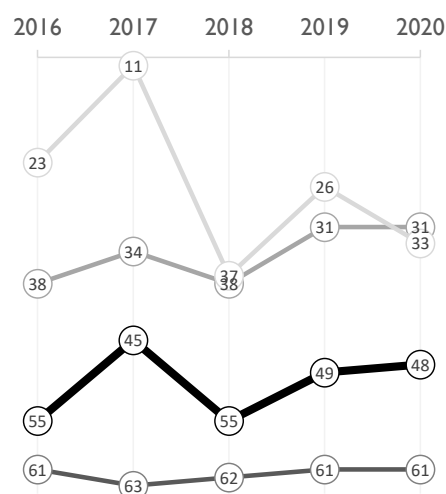
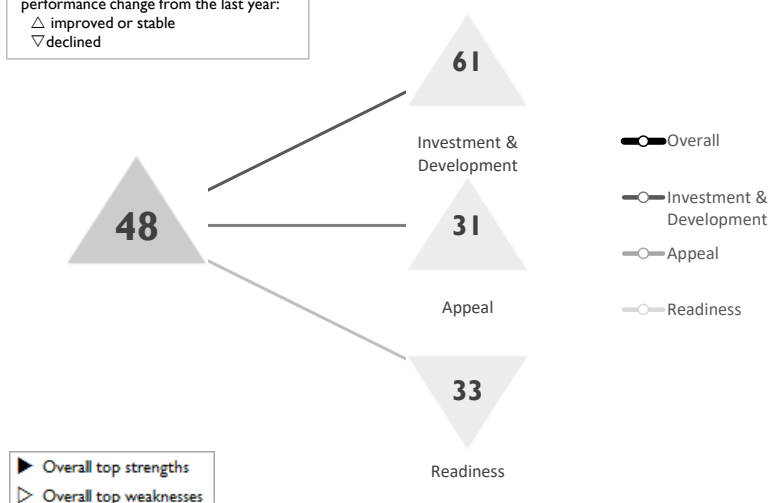
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	0.00 %	47
Skilled labor	is readily available	4.92 Survey [0..10]	50
Finance skills	are readily available	5.36 Survey [0..10]	51
► International experience	of senior managers is generally significant	6.00 Survey [0..10]	26
Competent senior managers	are readily available	4.96 Survey [0..10]	48
▷ Primary and secondary education	meets the needs of a competitive economy	3.64 Survey [0..10]	59
► Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	29.64 %	9
University education	meets the needs of a competitive economy	4.47 Survey [0..10]	55
Management education	meets the needs of the business community	5.12 Survey [0..10]	52
▷ Language skills	are meeting the needs of enterprises	4.08 Survey [0..10]	57
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	- number	-
Educational assessment - PISA	PISA survey of 15-year olds	402 Average	53

# PHILIPPINES

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	3.3 %	50
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	421 US\$	61
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	27.13 ratio	59
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	25.08 ratio	57
Apprenticeships	are sufficiently implemented	4.71 Survey [0..10]	44
Employee training	is a high priority in companies	5.80 Survey [0..10]	37
Female labor force	Percentage of total labor force	39.71 %	53
Health infrastructure	meets the needs of society	4.18 Survey [0..10]	49

### Appeal

		Value	2020 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	69.70 index	15
Attracting and retaining talents	is a priority in companies	6.89 Survey [0..10]	28
Worker motivation	in companies is high	6.29 Survey [0..10]	22
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.29 Survey [0..10]	44
Quality of life	is high	5.27 Survey [0..10]	48
Foreign highly-skilled personnel	are attracted to your country's business environment	5.13 Survey [0..10]	37
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	12,791 US\$	43
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	152,973 US\$	35
Effective personal income tax rate	Percentage of an income equal to GDP per capita	5.35 %	8
Justice	is fairly administered	3.75 Survey [0..10]	50
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	18.17 micrograms	42

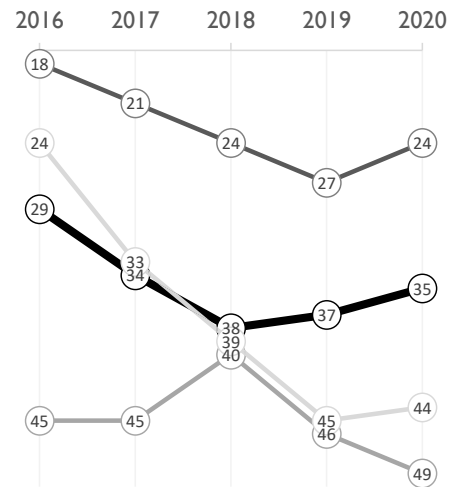
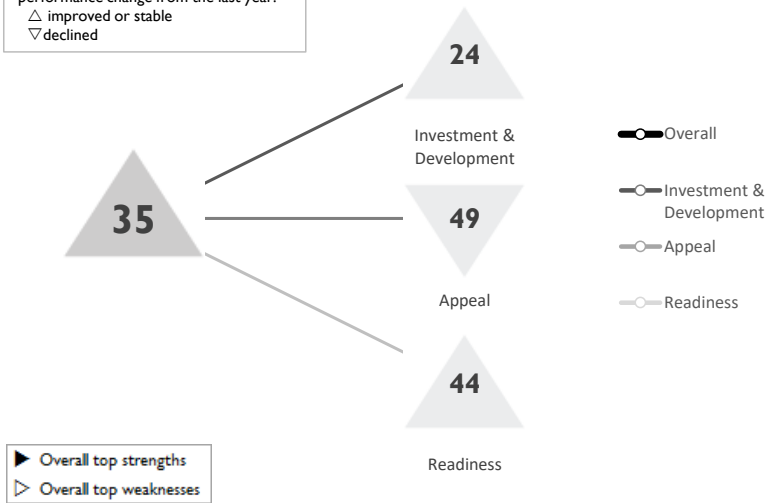
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	2.84 %	3
Skilled labor	is readily available	6.62 Survey [0..10]	13
Finance skills	are readily available	6.38 Survey [0..10]	36
International experience	of senior managers is generally significant	5.58 Survey [0..10]	38
Competent senior managers	are readily available	6.24 Survey [0..10]	21
Primary and secondary education	meets the needs of a competitive economy	5.49 Survey [0..10]	45
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	29.17 %	11
University education	meets the needs of a competitive economy	6.24 Survey [0..10]	33
Management education	meets the needs of the business community	6.64 Survey [0..10]	31
Language skills	are meeting the needs of enterprises	7.56 Survey [0..10]	20
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.12 number	56
Educational assessment - PISA	PISA survey of 15-year olds	350 Average	58

# POLAND

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	5.0 %	25
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	3,783 US\$	40
▶ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	9.60 ratio	3
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	10.26 ratio	16
Apprenticeships	are sufficiently implemented	5.54 Survey [0..10]	25
▶ Employee training	is a high priority in companies	6.49 Survey [0..10]	22
Female labor force	Percentage of total labor force	44.78 %	39
▷ Health infrastructure	meets the needs of society	3.56 Survey [0..10]	52

### Appeal

		Value	2020 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	66.30 index	9
▷ Attracting and retaining talents	is a priority in companies	5.32 Survey [0..10]	61
Worker motivation	in companies is high	6.06 Survey [0..10]	28
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.95 Survey [0..10]	32
Quality of life	is high	6.00 Survey [0..10]	42
Foreign highly-skilled personnel	are attracted to your country's business environment	4.65 Survey [0..10]	45
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	18,898 US\$	34
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	152,515 US\$	36
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	25.75 %	54
Justice	is fairly administered	4.34 Survey [0..10]	46
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	20.94 micrograms	48

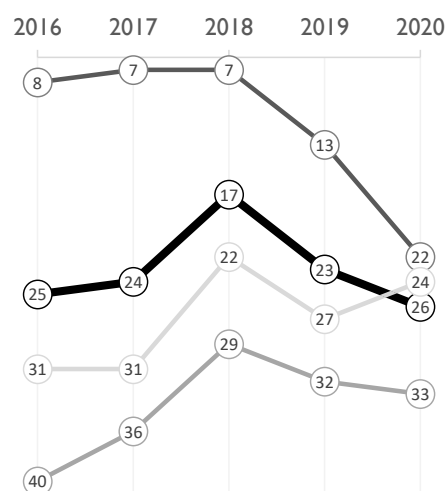
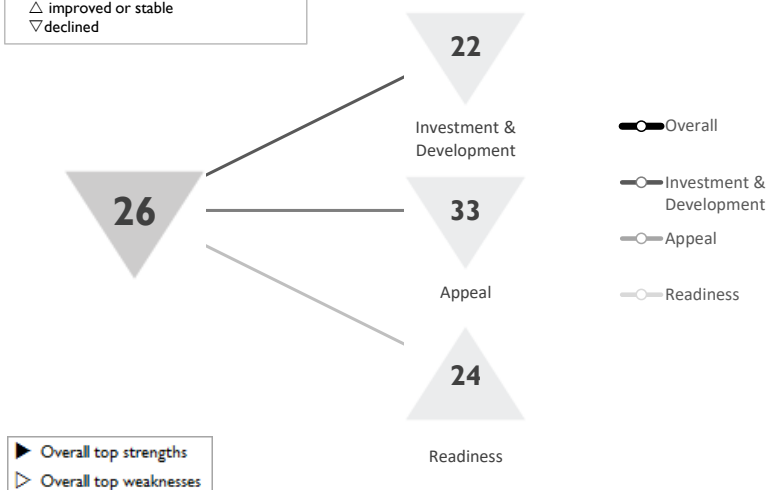
### Readiness

		Value	2020 Rank
▷ Labor force growth	Percentage change	-0.72 %	56
Skilled labor	is readily available	5.50 Survey [0..10]	43
▷ Finance skills	are readily available	5.50 Survey [0..10]	50
International experience	of senior managers is generally significant	5.63 Survey [0..10]	35
Competent senior managers	are readily available	5.72 Survey [0..10]	36
Primary and secondary education	meets the needs of a competitive economy	5.42 Survey [0..10]	46
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	21.65 %	43
University education	meets the needs of a competitive economy	6.22 Survey [0..10]	35
Management education	meets the needs of the business community	6.09 Survey [0..10]	42
Language skills	are meeting the needs of enterprises	6.18 Survey [0..10]	35
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.42 number	46
▶ Educational assessment - PISA	PISA survey of 15-year olds	513 Average	10

# PORTUGAL

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	4.5 %	31
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	5,498 US\$	31
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	12.42 ratio	18
► Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	9.21 ratio	8
Apprenticeships	are sufficiently implemented	5.28 Survey [0..10]	29
▷ Employee training	is a high priority in companies	4.88 Survey [0..10]	58
► Female labor force	Percentage of total labor force	49.39 %	4
Health infrastructure	meets the needs of society	6.85 Survey [0..10]	28

### Appeal

		Value	2020 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	75.90 index	25
▷ Attracting and retaining talents	is a priority in companies	6.05 Survey [0..10]	49
▷ Worker motivation	in companies is high	5.16 Survey [0..10]	51
▷ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.93 Survey [0..10]	49
Quality of life	is high	7.83 Survey [0..10]	24
Foreign highly-skilled personnel	are attracted to your country's business environment	5.42 Survey [0..10]	35
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	21,500 US\$	32
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	165,200 US\$	31
Effective personal income tax rate	Percentage of an income equal to GDP per capita	18.51 %	33
▷ Justice	is fairly administered	2.80 Survey [0..10]	55
► Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	8.12 micrograms	9

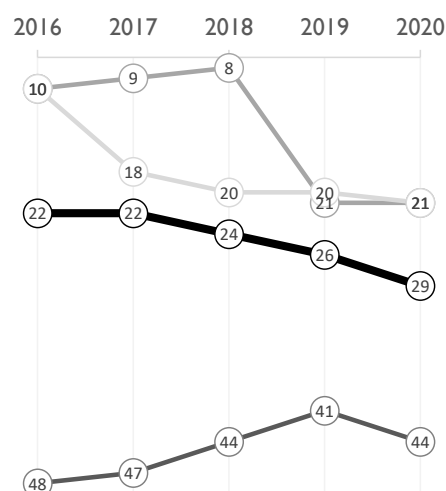
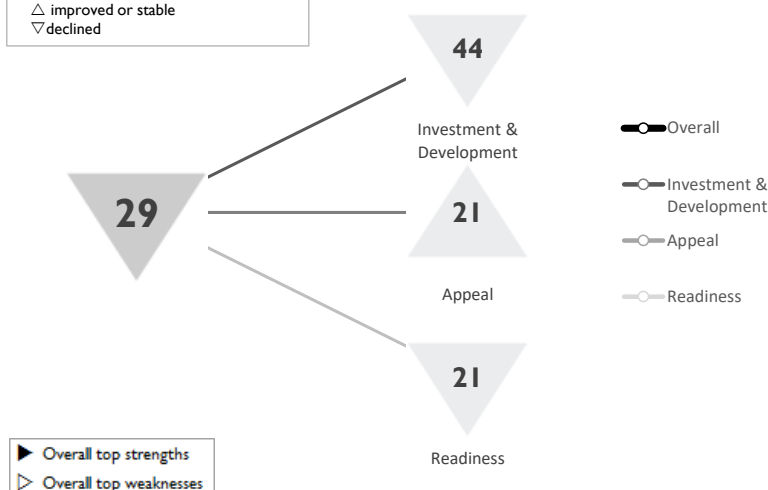
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	0.38 %	41
Skilled labor	is readily available	6.24 Survey [0..10]	23
Finance skills	are readily available	6.22 Survey [0..10]	39
International experience	of senior managers is generally significant	5.01 Survey [0..10]	48
Competent senior managers	are readily available	5.16 Survey [0..10]	45
Primary and secondary education	meets the needs of a competitive economy	6.89 Survey [0..10]	26
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	27.91 %	15
University education	meets the needs of a competitive economy	7.81 Survey [0..10]	14
► Management education	meets the needs of the business community	7.66 Survey [0..10]	12
► Language skills	are meeting the needs of enterprises	8.72 Survey [0..10]	7
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.74 number	30
Educational assessment - PISA	PISA survey of 15-year olds	492 Average	26

# QATAR

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▷ Total public expenditure on education	Percentage of GDP	2.6 %	60
▶ Total public exp. on education per student	Spending per enrolled pupil/student, all levels	14,408 US\$	7
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	12.17 ratio	17
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.04 ratio	19
Apprenticeships	are sufficiently implemented	6.24 Survey [0..10]	8
Employee training	is a high priority in companies	7.11 Survey [0..10]	10
▷ Female labor force	Percentage of total labor force	13.55 %	61
Health infrastructure	meets the needs of society	8.39 Survey [0..10]	9

### Appeal

		Value	2020 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	72.30 index	20
Attracting and retaining talents	is a priority in companies	7.62 Survey [0..10]	17
Worker motivation	in companies is high	7.07 Survey [0..10]	14
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.66 Survey [0..10]	12
Quality of life	is high	8.49 Survey [0..10]	18
▶ Foreign highly-skilled personnel	are attracted to your country's business environment	7.85 Survey [0..10]	7
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	22,573 US\$	31
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	158,654 US\$	33
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	0.00 %	1
Justice	is fairly administered	7.91 Survey [0..10]	14
▷ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	89.72 micrograms	60

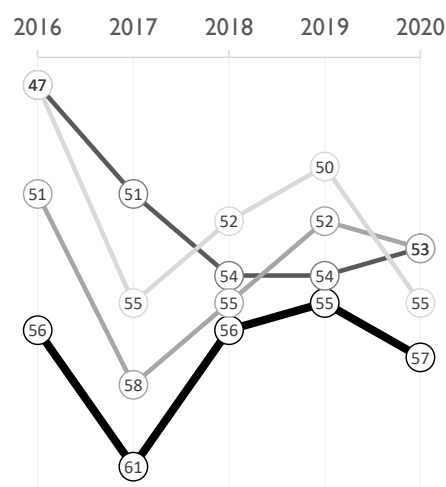
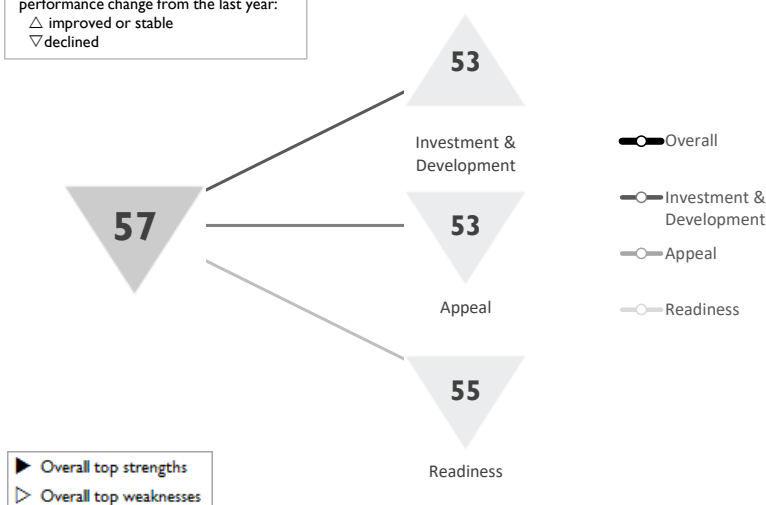
### Readiness

		Value	2020 Rank
▷ Labor force growth	Percentage change	0.62 %	36
Skilled labor	is readily available	6.45 Survey [0..10]	19
Finance skills	are readily available	7.28 Survey [0..10]	17
▶ International experience	of senior managers is generally significant	7.72 Survey [0..10]	5
▶ Competent senior managers	are readily available	7.11 Survey [0..10]	6
Primary and secondary education	meets the needs of a competitive economy	8.00 Survey [0..10]	9
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	22.55 %	35
University education	meets the needs of a competitive economy	8.11 Survey [0..10]	9
Management education	meets the needs of the business community	7.85 Survey [0..10]	7
Language skills	are meeting the needs of enterprises	7.85 Survey [0..10]	16
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	4.17 number	20
▷ Educational assessment - PISA	PISA survey of 15-year olds	413 Average	49

# ROMANIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	3.2 %	51
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	2,146 US\$	45
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	19.33 ratio	49
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.08 ratio	31
▷ Apprenticeships	are sufficiently implemented	3.11 Survey [0..10]	62
Employee training	is a high priority in companies	5.35 Survey [0..10]	46
Female labor force	Percentage of total labor force	42.64 %	49
Health infrastructure	meets the needs of society	3.00 Survey [0..10]	57

### Appeal

		Value	2020 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	61.90 index	3
Attracting and retaining talents	is a priority in companies	6.09 Survey [0..10]	48
Worker motivation	in companies is high	5.14 Survey [0..10]	52
▷ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	2.71 Survey [0..10]	58
Quality of life	is high	4.49 Survey [0..10]	57
Foreign highly-skilled personnel	are attracted to your country's business environment	3.94 Survey [0..10]	49
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	11,654 US\$	50
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	95,295 US\$	50
Effective personal income tax rate	Percentage of an income equal to GDP per capita	26.31 %	56
Justice	is fairly administered	4.12 Survey [0..10]	47
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	14.61 micrograms	28

### Readiness

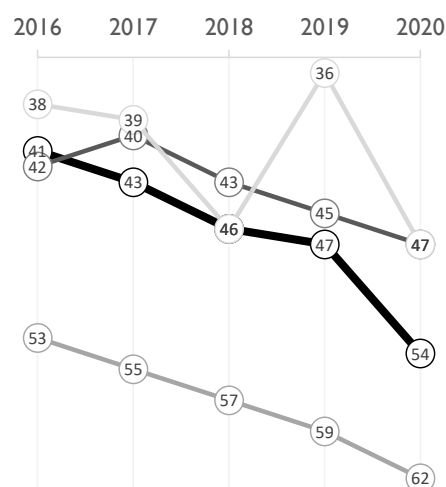
		Value	2020 Rank
Labor force growth	Percentage change	0.53 %	38
▷ Skilled labor	is readily available	3.97 Survey [0..10]	57
▷ Finance skills	are readily available	4.44 Survey [0..10]	60
International experience	of senior managers is generally significant	4.76 Survey [0..10]	53
Competent senior managers	are readily available	3.91 Survey [0..10]	56
Primary and secondary education	meets the needs of a competitive economy	3.85 Survey [0..10]	56
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	28.77 %	12
University education	meets the needs of a competitive economy	4.40 Survey [0..10]	56
▷ Management education	meets the needs of the business community	3.94 Survey [0..10]	63
▶ Language skills	are meeting the needs of enterprises	7.38 Survey [0..10]	23
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.49 number	44
Educational assessment - PISA	PISA survey of 15-year olds	428 Average	45



# RUSSIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	3.5 %	48
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,993 US\$	48
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	22.93 ratio	54
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.74 ratio	27
Apprenticeships	are sufficiently implemented	4.46 Survey [0..10]	51
Employee training	is a high priority in companies	5.00 Survey [0..10]	55
► Female labor force	Percentage of total labor force	49.02 %	5
Health infrastructure	meets the needs of society	3.92 Survey [0..10]	50

### Appeal

		Value	2020 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	96.20 index	51
▷ Attracting and retaining talents	is a priority in companies	5.60 Survey [0..10]	59
▷ Worker motivation	in companies is high	4.38 Survey [0..10]	60
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	2.78 Survey [0..10]	56
▷ Quality of life	is high	3.90 Survey [0..10]	59
Foreign highly-skilled personnel	are attracted to your country's business environment	3.44 Survey [0..10]	55
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	8,987 US\$	53
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	68,728 US\$	55
► Effective personal income tax rate	Percentage of an income equal to GDP per capita	11.33 %	17
Justice	is fairly administered	3.20 Survey [0..10]	52
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	16.17 micrograms	31

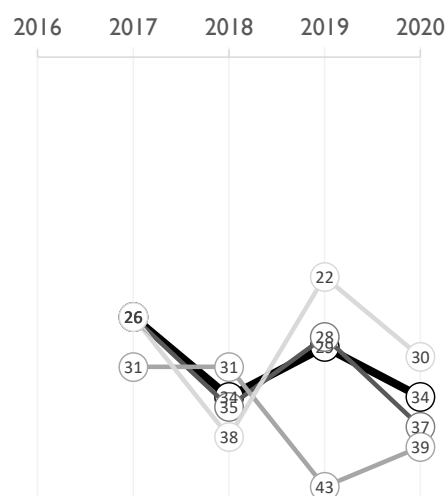
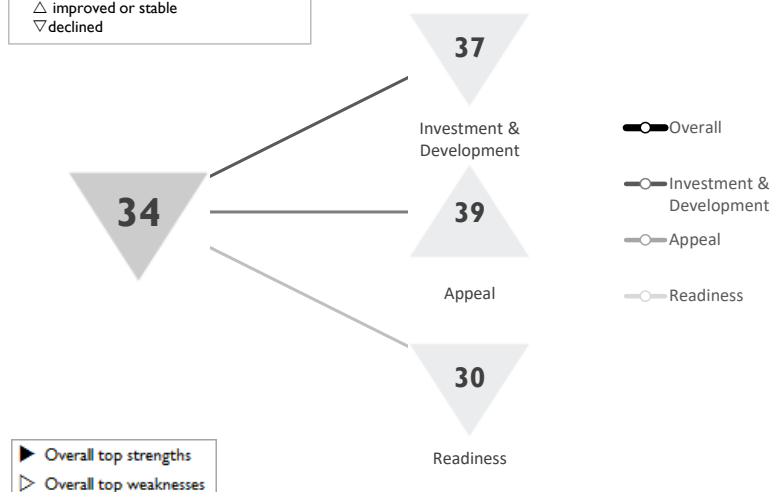
### Readiness

		Value	2020 Rank
▷ Labor force growth	Percentage change	-1.04 %	59
► Skilled labor	is readily available	6.46 Survey [0..10]	17
► Finance skills	are readily available	6.85 Survey [0..10]	21
▷ International experience	of senior managers is generally significant	3.60 Survey [0..10]	61
Competent senior managers	are readily available	5.20 Survey [0..10]	44
Primary and secondary education	meets the needs of a competitive economy	5.60 Survey [0..10]	43
► Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	31.06 %	7
University education	meets the needs of a competitive economy	5.08 Survey [0..10]	50
Management education	meets the needs of the business community	5.18 Survey [0..10]	51
Language skills	are meeting the needs of enterprises	4.10 Survey [0..10]	56
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.79 number	38
Educational assessment - PISA	PISA survey of 15-year olds	481 Average	30

# SAUDI ARABIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▶ Total public expenditure on education	Percentage of GDP	7.1 %	4
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	6,622 US\$	27
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	13.81 ratio	27
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.30 ratio	22
▶ Apprenticeships	are sufficiently implemented	6.14 Survey [0..10]	10
Employee training	is a high priority in companies	6.03 Survey [0..10]	33
▷ Female labor force	Percentage of total labor force	17.51 %	60
Health infrastructure	meets the needs of society	7.62 Survey [0..10]	18

### Appeal

		Value	2020 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	85.90 index	42
Attracting and retaining talents	is a priority in companies	7.00 Survey [0..10]	26
Worker motivation	in companies is high	5.91 Survey [0..10]	32
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.56 Survey [0..10]	14
Quality of life	is high	7.66 Survey [0..10]	26
▶ Foreign highly-skilled personnel	are attracted to your country's business environment	7.14 Survey [0..10]	13
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	28,388 US\$	25
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	144,059 US\$	39
Effective personal income tax rate	Percentage of an income equal to GDP per capita	12.12 %	18
Justice	is fairly administered	7.49 Survey [0..10]	20
▷ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	92.37 micrograms	62

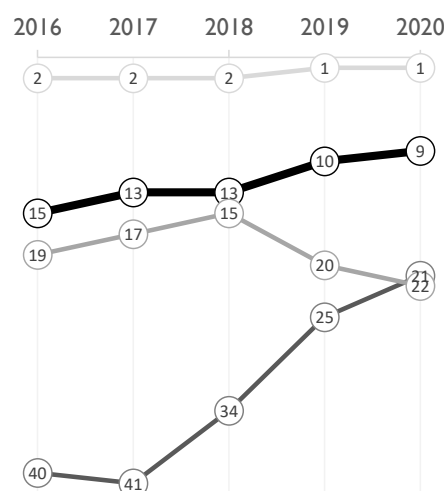
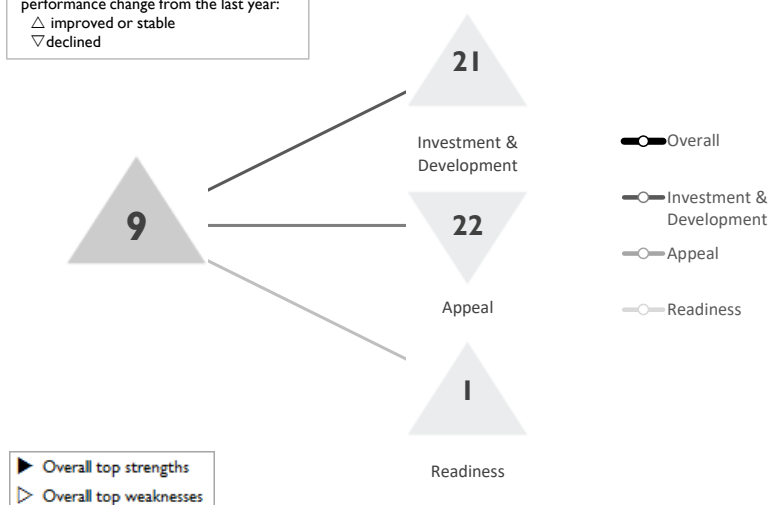
### Readiness

		Value	2020 Rank
▶ Labor force growth	Percentage change	2.60 %	4
Skilled labor	is readily available	6.03 Survey [0..10]	29
Finance skills	are readily available	6.74 Survey [0..10]	26
▶ International experience	of senior managers is generally significant	6.69 Survey [0..10]	11
Competent senior managers	are readily available	6.51 Survey [0..10]	16
Primary and secondary education	meets the needs of a competitive economy	6.43 Survey [0..10]	31
▷ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	21.14 %	45
University education	meets the needs of a competitive economy	6.79 Survey [0..10]	29
Management education	meets the needs of the business community	6.94 Survey [0..10]	25
Language skills	are meeting the needs of enterprises	6.80 Survey [0..10]	29
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.21 number	34
▷ Educational assessment - PISA	PISA survey of 15-year olds	386 Average	56

# SINGAPORE

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▶ 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	13,453 US\$	9
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	14.33 ratio	28
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.31 ratio	24
Apprenticeships	are sufficiently implemented	5.58 Survey [0..10]	24
Employee training	is a high priority in companies	6.82 Survey [0..10]	16
Female labor force	Percentage of total labor force	46.27 %	28
Health infrastructure	meets the needs of society	8.85 Survey [0..10]	4

### Appeal

		Value	2020 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	110.10 index	57
Attracting and retaining talents	is a priority in companies	7.58 Survey [0..10]	18
Worker motivation	in companies is high	6.89 Survey [0..10]	17
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.95 Survey [0..10]	8
Quality of life	is high	8.61 Survey [0..10]	16
Foreign highly-skilled personnel	are attracted to your country's business environment	8.03 Survey [0..10]	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\$	299,993 US\$	4
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	18.79 %	34
Justice	is fairly administered	8.39 Survey [0..10]	7
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	19.72 micrograms	44

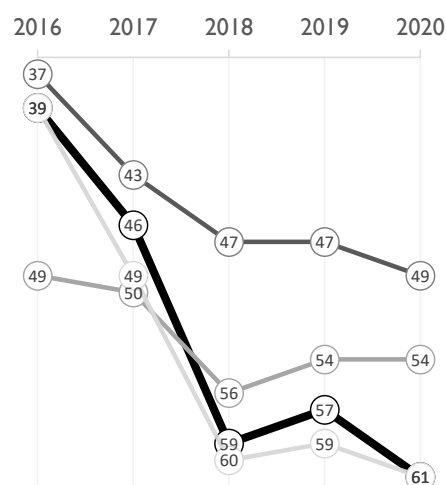
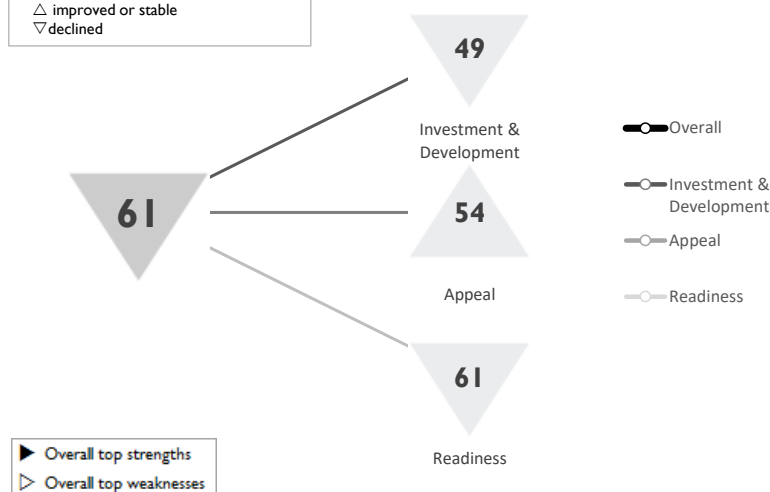
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	1.77 %	15
▶ Skilled labor	is readily available	7.34 Survey [0..10]	3
Finance skills	are readily available	7.68 Survey [0..10]	7
International experience	of senior managers is generally significant	7.34 Survey [0..10]	7
Competent senior managers	are readily available	7.00 Survey [0..10]	7
▶ Primary and secondary education	meets the needs of a competitive economy	8.87 Survey [0..10]	2
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	33.48 %	4
▶ University education	meets the needs of a competitive economy	8.82 Survey [0..10]	3
▶ Management education	meets the needs of the business community	8.16 Survey [0..10]	3
Language skills	are meeting the needs of enterprises	8.37 Survey [0..10]	11
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	9.18 number	4
▶ Educational assessment - PISA	PISA survey of 15-year olds	556 Average	2

# SLOVAK REPUBLIC

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	3.9 %	43
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	4,218 US\$	37
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	17.52 ratio	44
► Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.93 ratio	40
▷ Apprenticeships	are sufficiently implemented	2.39 Survey [0..10]	63
Employee training	is a high priority in companies	4.69 Survey [0..10]	62
► Female labor force	Percentage of total labor force	45.24 %	36
Health infrastructure	meets the needs of society	2.27 Survey [0..10]	60

### Appeal

		Value	2020 Rank
► Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	72.70 index	21
▷ Attracting and retaining talents	is a priority in companies	4.90 Survey [0..10]	62
▷ Worker motivation	in companies is high	3.73 Survey [0..10]	63
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	2.24 Survey [0..10]	61
Quality of life	is high	4.72 Survey [0..10]	53
Foreign highly-skilled personnel	are attracted to your country's business environment	2.33 Survey [0..10]	61
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	14,558 US\$	39
► Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	182,711 US\$	27
Effective personal income tax rate	Percentage of an income equal to GDP per capita	16.95 %	31
▷ Justice	is fairly administered	1.61 Survey [0..10]	62
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	17.93 micrograms	41

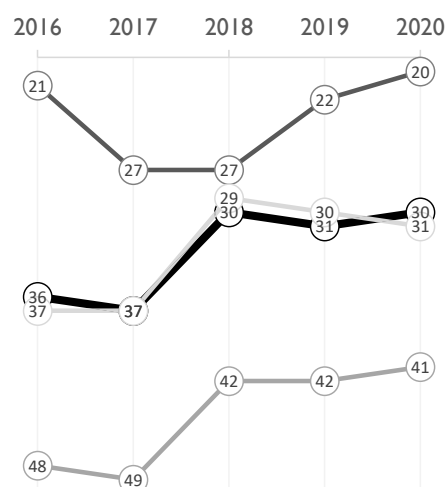
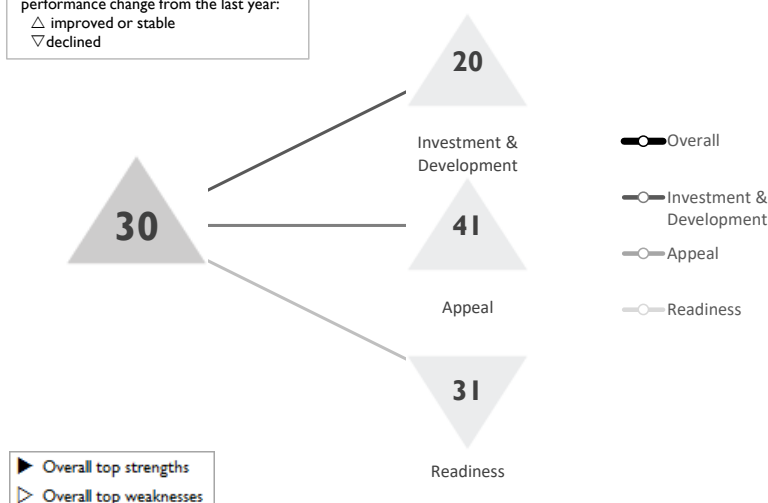
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	-0.17 %	50
Skilled labor	is readily available	3.23 Survey [0..10]	59
Finance skills	are readily available	4.36 Survey [0..10]	61
International experience	of senior managers is generally significant	4.54 Survey [0..10]	58
Competent senior managers	are readily available	3.39 Survey [0..10]	60
Primary and secondary education	meets the needs of a competitive economy	3.04 Survey [0..10]	61
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	22.07 %	40
▷ University education	meets the needs of a competitive economy	3.30 Survey [0..10]	62
Management education	meets the needs of the business community	4.62 Survey [0..10]	59
Language skills	are meeting the needs of enterprises	4.42 Survey [0..10]	51
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.13 number	36
Educational assessment - PISA	PISA survey of 15-year olds	469 Average	36

# SLOVENIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	4.9 %	26
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	6,468 US\$	28
► Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	10.34 ratio	6
► Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	9.27 ratio	9
▷ Apprenticeships	are sufficiently implemented	3.30 Survey [0..10]	60
Employee training	is a high priority in companies	6.67 Survey [0..10]	18
Female labor force	Percentage of total labor force	46.09 %	31
Health infrastructure	meets the needs of society	5.44 Survey [0..10]	39

### Appeal

		Value	2020 Rank
► Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	70.00 index	17
Attracting and retaining talents	is a priority in companies	6.64 Survey [0..10]	36
Worker motivation	in companies is high	5.87 Survey [0..10]	34
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.46 Survey [0..10]	42
Quality of life	is high	8.52 Survey [0..10]	17
▷ Foreign highly-skilled personnel	are attracted to your country's business environment	3.70 Survey [0..10]	53
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	23,443 US\$	30
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	133,045 US\$	41
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	26.78 %	58
Justice	is fairly administered	4.77 Survey [0..10]	43
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	16.25 micrograms	33

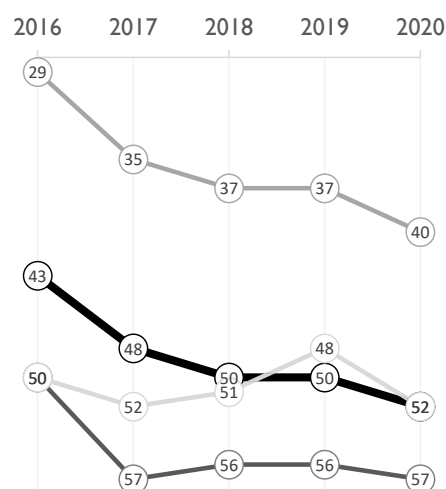
### Readiness

		Value	2020 Rank
▷ Labor force growth	Percentage change	-0.51 %	54
Skilled labor	is readily available	5.91 Survey [0..10]	34
Finance skills	are readily available	6.06 Survey [0..10]	41
International experience	of senior managers is generally significant	5.33 Survey [0..10]	42
▷ Competent senior managers	are readily available	5.08 Survey [0..10]	46
Primary and secondary education	meets the needs of a competitive economy	7.07 Survey [0..10]	21
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	27.23 %	19
University education	meets the needs of a competitive economy	6.65 Survey [0..10]	30
Management education	meets the needs of the business community	7.02 Survey [0..10]	22
► Language skills	are meeting the needs of enterprises	8.33 Survey [0..10]	12
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.65 number	40
► Educational assessment - PISA	PISA survey of 15-year olds	504 Average	12

# SOUTH AFRICA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▶ Total public expenditure on education	Percentage of GDP	8.3 %	1
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	2,053 US\$	47
▷ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	30.33 ratio	60
▷ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	27.62 ratio	60
Apprenticeships	are sufficiently implemented	3.31 Survey [0..10]	59
Employee training	is a high priority in companies	4.90 Survey [0..10]	57
▶ Female labor force	Percentage of total labor force	45.43 %	35
Health infrastructure	meets the needs of society	2.70 Survey [0..10]	59

### Appeal

		Value	2020 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	61.30 index	2
Attracting and retaining talents	is a priority in companies	5.98 Survey [0..10]	52
▷ Worker motivation	in companies is high	4.00 Survey [0..10]	61
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.19 Survey [0..10]	55
Quality of life	is high	4.70 Survey [0..10]	55
Foreign highly-skilled personnel	are attracted to your country's business environment	4.67 Survey [0..10]	44
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	17,757 US\$	35
▷ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	46,502 US\$	59
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	1.68 %	3
Justice	is fairly administered	5.31 Survey [0..10]	37
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	24.96 micrograms	52

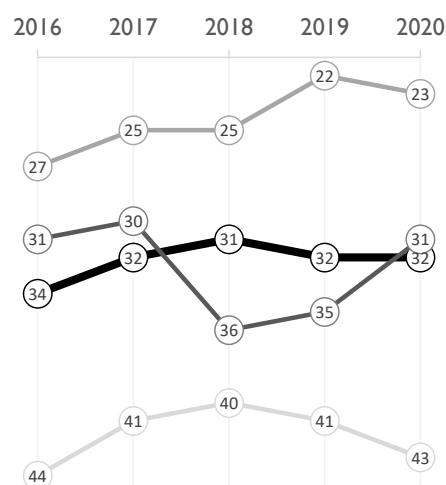
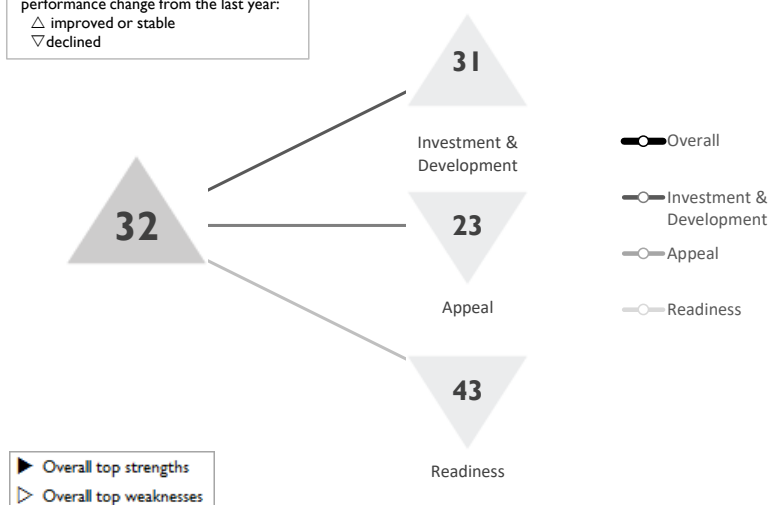
### Readiness

		Value	2020 Rank
▶ Labor force growth	Percentage change	2.11 %	11
Skilled labor	is readily available	4.11 Survey [0..10]	55
Finance skills	are readily available	5.26 Survey [0..10]	54
International experience	of senior managers is generally significant	4.66 Survey [0..10]	55
Competent senior managers	are readily available	4.72 Survey [0..10]	52
▷ Primary and secondary education	meets the needs of a competitive economy	3.23 Survey [0..10]	60
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	18.28 %	55
University education	meets the needs of a competitive economy	4.83 Survey [0..10]	53
Management education	meets the needs of the business community	5.41 Survey [0..10]	49
Language skills	are meeting the needs of enterprises	6.02 Survey [0..10]	40
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.73 number	51
Educational assessment - PISA	PISA survey of 15-year olds	- Average	-

# SPAIN

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	4.0 %	41
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	5,763 US\$	30
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	13.61 ratio	25
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.16 ratio	20
▷ Apprenticeships	are sufficiently implemented	4.37 Survey [0..10]	53
▷ Employee training	is a high priority in companies	5.04 Survey [0..10]	54
Female labor force	Percentage of total labor force	46.70 %	25
▶ Health infrastructure	meets the needs of society	8.03 Survey [0..10]	13

### Appeal

		Value	2020 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	81.30 index	34
▷ Attracting and retaining talents	is a priority in companies	5.65 Survey [0..10]	57
Worker motivation	in companies is high	5.39 Survey [0..10]	49
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.64 Survey [0..10]	39
Quality of life	is high	8.28 Survey [0..10]	20
Foreign highly-skilled personnel	are attracted to your country's business environment	6.14 Survey [0..10]	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\$	212,822 US\$	19
Effective personal income tax rate	Percentage of an income equal to GDP per capita	14.63 %	28
Justice	is fairly administered	5.08 Survey [0..10]	39
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	9.91 micrograms	12

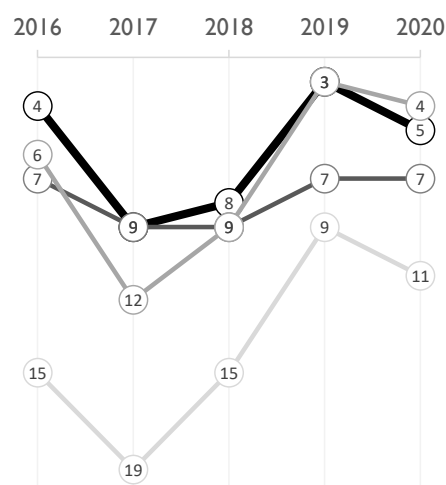
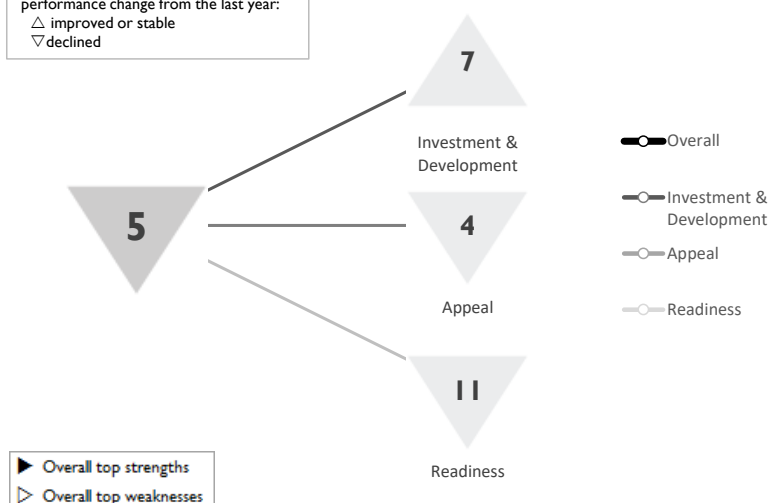
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	0.97 %	27
Skilled labor	is readily available	5.65 Survey [0..10]	39
Finance skills	are readily available	6.02 Survey [0..10]	43
International experience	of senior managers is generally significant	5.07 Survey [0..10]	46
▷ Competent senior managers	are readily available	4.80 Survey [0..10]	51
Primary and secondary education	meets the needs of a competitive economy	5.63 Survey [0..10]	42
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	22.27 %	38
University education	meets the needs of a competitive economy	5.60 Survey [0..10]	44
Management education	meets the needs of the business community	6.78 Survey [0..10]	28
▷ Language skills	are meeting the needs of enterprises	4.31 Survey [0..10]	52
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.52 number	43
Educational assessment - PISA	PISA survey of 15-year olds	- Average	-

# SWEDEN

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▶ Total public expenditure on education	Percentage of GDP	6.9 %	5
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	13,947 US\$	8
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	13.65 ratio	26
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.32 ratio	34
▷ Apprenticeships	are sufficiently implemented	4.73 Survey [0..10]	43
Employee training	is a high priority in companies	7.06 Survey [0..10]	11
Female labor force	Percentage of total labor force	47.58 %	14
Health infrastructure	meets the needs of society	7.08 Survey [0..10]	26

### Appeal

		Value	2020 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	76.90 index	27
Attracting and retaining talents	is a priority in companies	7.87 Survey [0..10]	8
▶ Worker motivation	in companies is high	7.51 Survey [0..10]	4
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	7.09 Survey [0..10]	7
▶ Quality of life	is high	9.40 Survey [0..10]	5
Foreign highly-skilled personnel	are attracted to your country's business environment	6.21 Survey [0..10]	21
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\$	224,486 US\$	17
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	24.35 %	51
Justice	is fairly administered	8.31 Survey [0..10]	10
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	6.13 micrograms	3

### Readiness

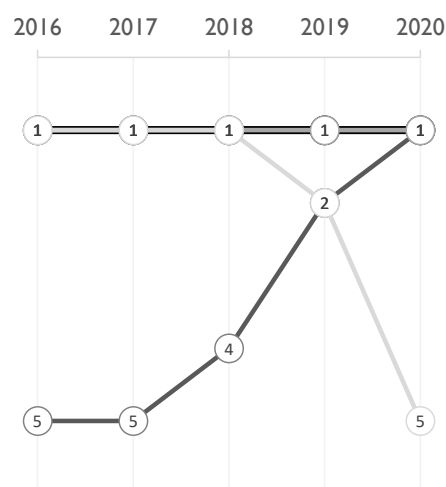
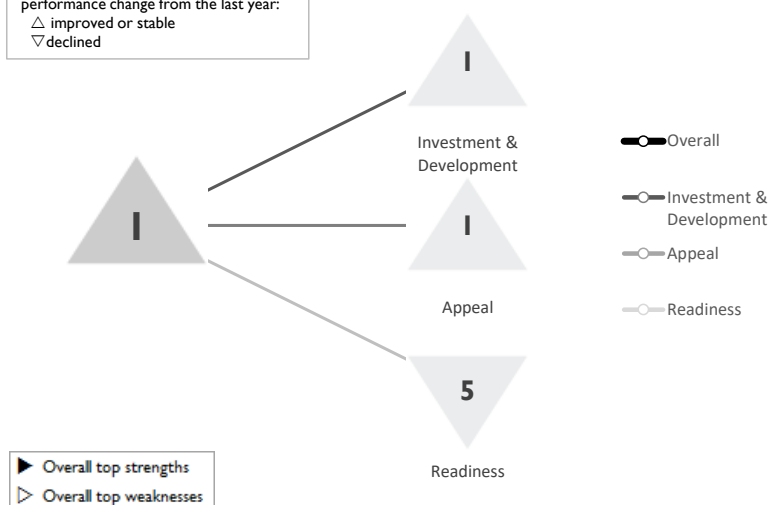
		Value	2020 Rank
Labor force growth	Percentage change	1.18 %	23
Skilled labor	is readily available	6.62 Survey [0..10]	12
Finance skills	are readily available	7.45 Survey [0..10]	13
International experience	of senior managers is generally significant	7.06 Survey [0..10]	8
Competent senior managers	are readily available	6.88 Survey [0..10]	8
Primary and secondary education	meets the needs of a competitive economy	7.90 Survey [0..10]	11
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	26.64 %	23
University education	meets the needs of a competitive economy	8.16 Survey [0..10]	7
Management education	meets the needs of the business community	7.77 Survey [0..10]	10
▶ Language skills	are meeting the needs of enterprises	8.75 Survey [0..10]	6
▷ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	3.02 number	28
Educational assessment - PISA	PISA survey of 15-year olds	503 Average	15



# SWITZERLAND

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	5.6 %	13
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	24,292 US\$	2
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	15.22 ratio	31
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.91 ratio	30
► Apprenticeships	are sufficiently implemented	8.86 Survey [0..10]	1
Employee training	is a high priority in companies	7.31 Survey [0..10]	6
Female labor force	Percentage of total labor force	46.88 %	21
Health infrastructure	meets the needs of society	8.91 Survey [0..10]	2

### Appeal

		Value	2020 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	111.60 index	58
Attracting and retaining talents	is a priority in companies	7.48 Survey [0..10]	21
Worker motivation	in companies is high	7.60 Survey [0..10]	3
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	7.80 Survey [0..10]	2
Quality of life	is high	9.66 Survey [0..10]	3
► Foreign highly-skilled personnel	are attracted to your country's business environment	8.90 Survey [0..10]	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\$	460,999 US\$	1
Effective personal income tax rate	Percentage of an income equal to GDP per capita	12.71 %	21
Justice	is fairly administered	8.58 Survey [0..10]	4
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	10.44 micrograms	15

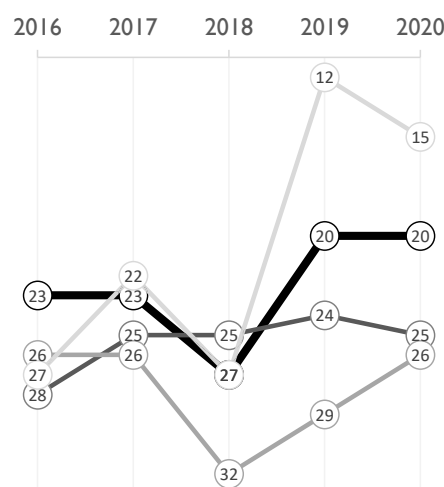
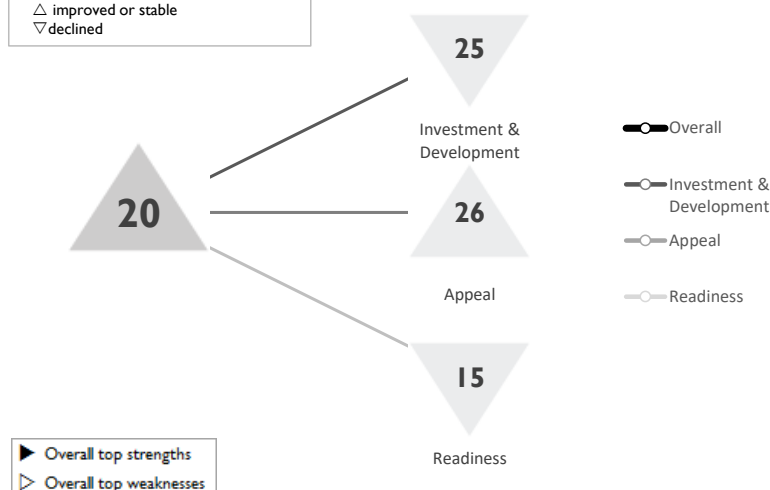
### Readiness

		Value	2020 Rank
▷ Labor force growth	Percentage change	0.32 %	43
Skilled labor	is readily available	7.06 Survey [0..10]	7
Finance skills	are readily available	8.07 Survey [0..10]	3
► International experience	of senior managers is generally significant	7.83 Survey [0..10]	1
Competent senior managers	are readily available	7.14 Survey [0..10]	5
Primary and secondary education	meets the needs of a competitive economy	8.84 Survey [0..10]	3
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	25.21 %	30
University education	meets the needs of a competitive economy	9.05 Survey [0..10]	1
Management education	meets the needs of the business community	8.59 Survey [0..10]	1
Language skills	are meeting the needs of enterprises	8.77 Survey [0..10]	5
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	6.40 number	8
Educational assessment - PISA	PISA survey of 15-year olds	498 Average	21

# TAIWAN, CHINA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▷ Total public expenditure on education	Percentage of GDP	3.7 %	45
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	5,223 US\$	33
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	12.10 ratio	16
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.90 ratio	39
Apprenticeships	are sufficiently implemented	5.86 Survey [0..10]	15
Employee training	is a high priority in companies	6.99 Survey [0..10]	12
Female labor force	Percentage of total labor force	44.49 %	40
▶ Health infrastructure	meets the needs of society	8.77 Survey [0..10]	5

### Appeal

		Value	2020 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	89.70 index	48
Attracting and retaining talents	is a priority in companies	6.73 Survey [0..10]	34
▶ Worker motivation	in companies is high	7.21 Survey [0..10]	8
▷ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.94 Survey [0..10]	48
Quality of life	is high	7.98 Survey [0..10]	22
▷ Foreign highly-skilled personnel	are attracted to your country's business environment	4.59 Survey [0..10]	47
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	26,500 US\$	27
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	185,939 US\$	25
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	5.77 %	9
Justice	is fairly administered	5.94 Survey [0..10]	31
▷ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	18.30 micrograms	43

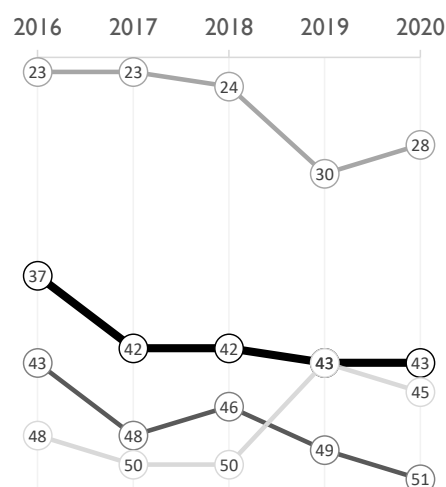
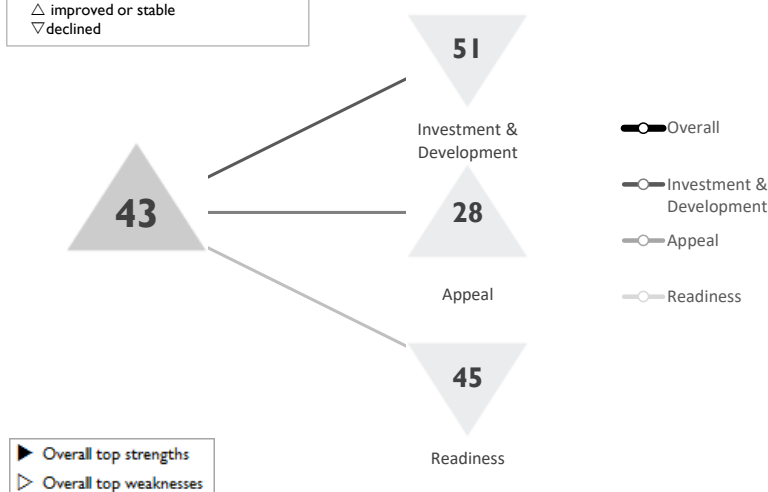
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	0.61 %	37
Skilled labor	is readily available	6.18 Survey [0..10]	24
Finance skills	are readily available	6.80 Survey [0..10]	24
International experience	of senior managers is generally significant	5.72 Survey [0..10]	34
Competent senior managers	are readily available	5.92 Survey [0..10]	28
Primary and secondary education	meets the needs of a competitive economy	7.54 Survey [0..10]	19
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	32.85 %	5
University education	meets the needs of a competitive economy	6.89 Survey [0..10]	27
Management education	meets the needs of the business community	6.81 Survey [0..10]	27
Language skills	are meeting the needs of enterprises	6.28 Survey [0..10]	33
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	5.48 number	13
▶ Educational assessment - PISA	PISA survey of 15-year olds	516 Average	8

# THAILAND

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▷ Total public expenditure on education	Percentage of GDP	3.0 %	57
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,167 US\$	52
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	16.89 ratio	42
▷ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	25.95 ratio	59
▶ Apprenticeships	are sufficiently implemented	5.77 Survey [0..10]	17
Employee training	is a high priority in companies	6.33 Survey [0..10]	25
Female labor force	Percentage of total labor force	45.53 %	34
Health infrastructure	meets the needs of society	7.51 Survey [0..10]	22

### Appeal

		Value	2020 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	83.60 index	39
Attracting and retaining talents	is a priority in companies	6.98 Survey [0..10]	27
Worker motivation	in companies is high	6.22 Survey [0..10]	27
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.63 Survey [0..10]	26
Quality of life	is high	6.45 Survey [0..10]	38
▶ Foreign highly-skilled personnel	are attracted to your country's business environment	6.86 Survey [0..10]	16
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	12,681 US\$	44
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	184,089 US\$	26
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	4.09 %	5
Justice	is fairly administered	5.96 Survey [0..10]	30
▷ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	26.34 micrograms	55

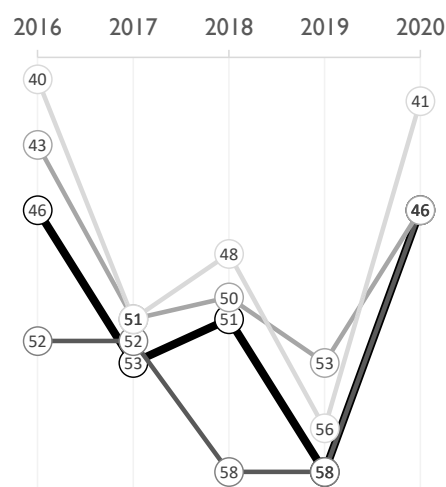
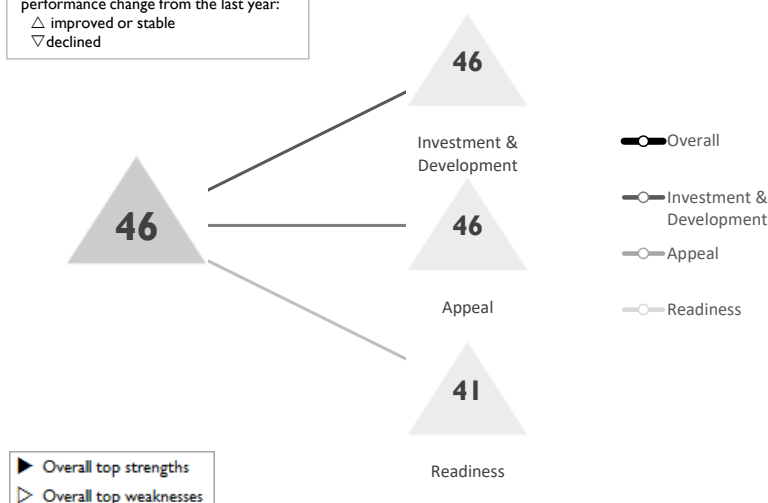
### Readiness

		Value	2020 Rank
▷ Labor force growth	Percentage change	-0.67 %	55
Skilled labor	is readily available	6.29 Survey [0..10]	21
Finance skills	are readily available	6.37 Survey [0..10]	37
▶ International experience	of senior managers is generally significant	6.33 Survey [0..10]	15
Competent senior managers	are readily available	6.29 Survey [0..10]	20
Primary and secondary education	meets the needs of a competitive economy	5.80 Survey [0..10]	39
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	27.86 %	16
University education	meets the needs of a competitive economy	5.96 Survey [0..10]	38
Management education	meets the needs of the business community	6.45 Survey [0..10]	34
Language skills	are meeting the needs of enterprises	5.02 Survey [0..10]	47
▷ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.48 number	53
Educational assessment - PISA	PISA survey of 15-year olds	412 Average	50

# TURKEY

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	4.2 %	39
▷ Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,275 US\$	51
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	17.18 ratio	43
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	14.09 ratio	46
▶ Apprenticeships	are sufficiently implemented	5.60 Survey [0..10]	21
Employee training	is a high priority in companies	5.60 Survey [0..10]	42
▷ Female labor force	Percentage of total labor force	32.83 %	57
▶ Health infrastructure	meets the needs of society	6.98 Survey [0..10]	27

### Appeal

		Value	2020 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	64.50 index	7
Attracting and retaining talents	is a priority in companies	6.65 Survey [0..10]	35
Worker motivation	in companies is high	5.85 Survey [0..10]	36
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.69 Survey [0..10]	38
Quality of life	is high	5.63 Survey [0..10]	45
Foreign highly-skilled personnel	are attracted to your country's business environment	4.40 Survey [0..10]	48
▷ Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	8,368 US\$	54
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	147,309 US\$	37
Effective personal income tax rate	Percentage of an income equal to GDP per capita	20.43 %	39
Justice	is fairly administered	4.11 Survey [0..10]	48
▷ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	21.82 micrograms	50

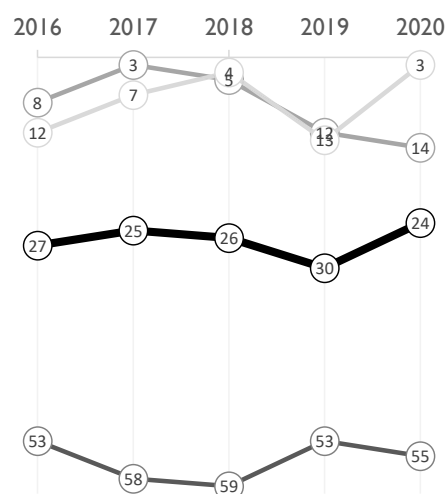
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	0.85 %	33
▶ Skilled labor	is readily available	6.44 Survey [0..10]	20
Finance skills	are readily available	6.62 Survey [0..10]	27
International experience	of senior managers is generally significant	5.89 Survey [0..10]	28
▶ Competent senior managers	are readily available	6.15 Survey [0..10]	23
Primary and secondary education	meets the needs of a competitive economy	5.16 Survey [0..10]	47
▷ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	19.44 %	48
University education	meets the needs of a competitive economy	5.45 Survey [0..10]	46
Management education	meets the needs of the business community	6.07 Survey [0..10]	43
Language skills	are meeting the needs of enterprises	5.38 Survey [0..10]	44
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.53 number	42
Educational assessment - PISA	PISA survey of 15-year olds	462 Average	39

# UAE

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▷ Total public expenditure on education	Percentage of GDP	2.0 %	62
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	4,635 US\$	35
▷ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	23.20 ratio	55
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	9.40 ratio	11
Apprenticeships	are sufficiently implemented	6.74 Survey [0..10]	6
Employee training	is a high priority in companies	6.90 Survey [0..10]	14
▷ Female labor force	Percentage of total labor force	24.71 %	58
Health infrastructure	meets the needs of society	8.13 Survey [0..10]	12

### Appeal

		Value	2020 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	90.30 index	49
Attracting and retaining talents	is a priority in companies	7.36 Survey [0..10]	24
Worker motivation	in companies is high	7.13 Survey [0..10]	12
▶ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	7.61 Survey [0..10]	3
Quality of life	is high	8.67 Survey [0..10]	15
▶ Foreign highly-skilled personnel	are attracted to your country's business environment	8.18 Survey [0..10]	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\$	241,787 US\$	15
Effective personal income tax rate	Percentage of an income equal to GDP per capita	4.64 %	6
Justice	is fairly administered	8.28 Survey [0..10]	11
▷ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	40.65 micrograms	57

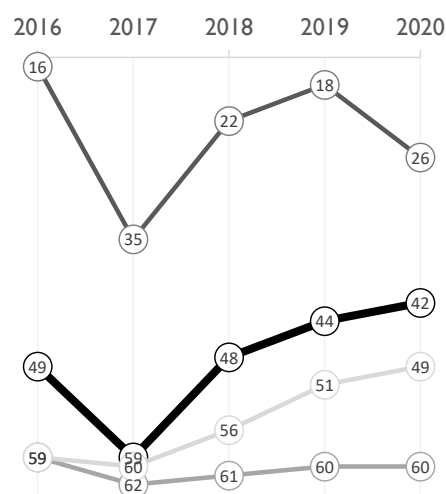
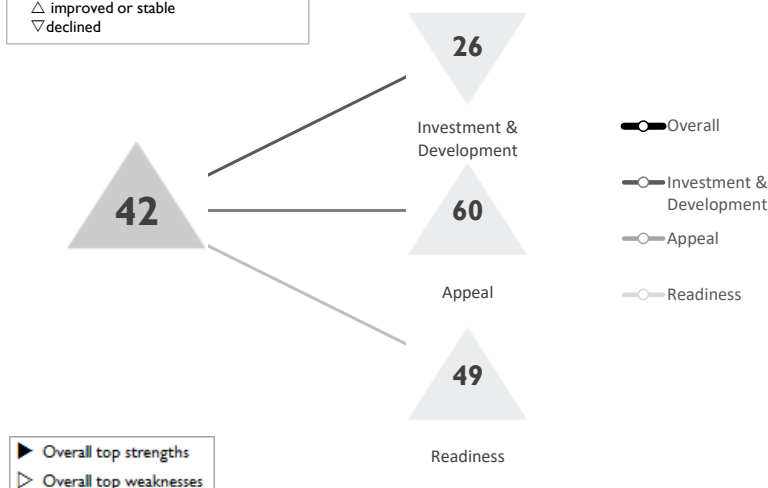
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	2.21 %	8
▶ Skilled labor	is readily available	7.38 Survey [0..10]	2
Finance skills	are readily available	7.59 Survey [0..10]	9
▶ International experience	of senior managers is generally significant	7.79 Survey [0..10]	2
▶ Competent senior managers	are readily available	7.56 Survey [0..10]	1
Primary and secondary education	meets the needs of a competitive economy	8.23 Survey [0..10]	6
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	27.73 %	17
University education	meets the needs of a competitive economy	7.41 Survey [0..10]	21
Management education	meets the needs of the business community	7.46 Survey [0..10]	16
Language skills	are meeting the needs of enterprises	8.44 Survey [0..10]	8
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	8.49 number	6
Educational assessment - PISA	PISA survey of 15-year olds	433 Average	43

# UKRAINE

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
▶ Total public expenditure on education	Percentage of GDP	5.9 %	11
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,123 US\$	54
▶ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	12.98 ratio	20
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	7.34 ratio	2
Apprenticeships	are sufficiently implemented	5.00 Survey [0..10]	33
Employee training	is a high priority in companies	5.40 Survey [0..10]	45
▶ Female labor force	Percentage of total labor force	47.67 %	12
▷ Health infrastructure	meets the needs of society	1.59 Survey [0..10]	62

### Appeal

		Value	2020 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	62.30 index	5
Attracting and retaining talents	is a priority in companies	6.16 Survey [0..10]	47
Worker motivation	in companies is high	5.10 Survey [0..10]	53
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	2.43 Survey [0..10]	59
▷ Quality of life	is high	2.63 Survey [0..10]	62
Foreign highly-skilled personnel	are attracted to your country's business environment	2.93 Survey [0..10]	59
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	3,311 US\$	59
▷ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	28,071 US\$	60
Effective personal income tax rate	Percentage of an income equal to GDP per capita	13.28 %	23
▷ Justice	is fairly administered	2.11 Survey [0..10]	61
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	20.70 micrograms	46

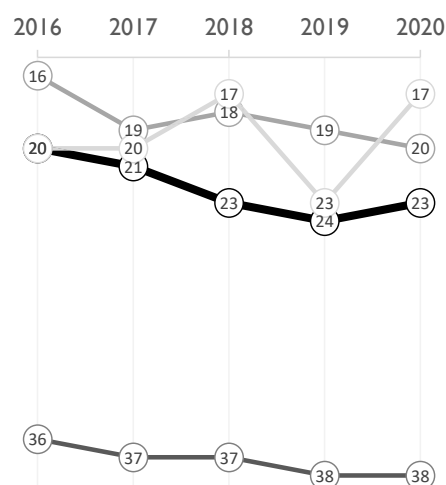
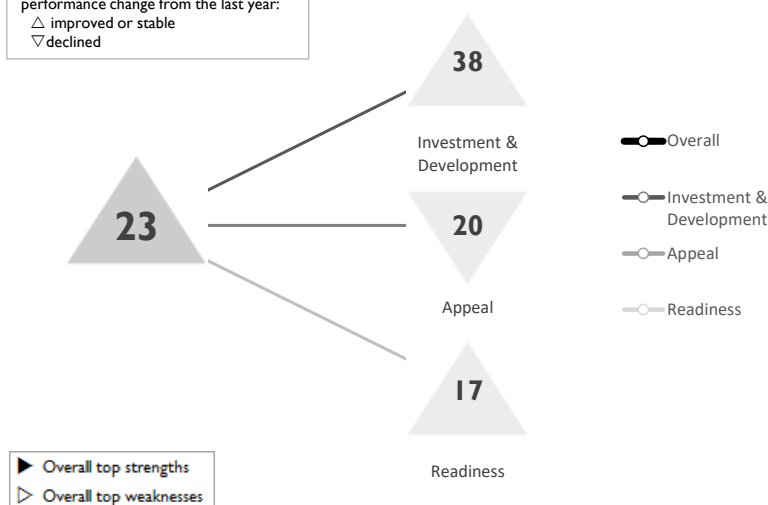
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	1.21 %	22
Skilled labor	is readily available	5.70 Survey [0..10]	36
Finance skills	are readily available	6.05 Survey [0..10]	42
International experience	of senior managers is generally significant	4.11 Survey [0..10]	60
Competent senior managers	are readily available	4.89 Survey [0..10]	49
Primary and secondary education	meets the needs of a competitive economy	4.49 Survey [0..10]	49
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	25.28 %	29
▷ University education	meets the needs of a competitive economy	4.08 Survey [0..10]	60
Management education	meets the needs of the business community	5.03 Survey [0..10]	54
Language skills	are meeting the needs of enterprises	4.22 Survey [0..10]	54
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.18 number	49
Educational assessment - PISA	PISA survey of 15-year olds	463 Average	38

# UNITED KINGDOM

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	4.8 %	27
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	9,052 US\$	20
▷ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	19.89 ratio	52
▷ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	17.08 ratio	51
Apprenticeships	are sufficiently implemented	5.24 Survey [0..10]	30
▷ Employee training	is a high priority in companies	5.65 Survey [0..10]	41
Female labor force	Percentage of total labor force	47.16 %	18
Health infrastructure	meets the needs of society	5.97 Survey [0..10]	35

### Appeal

		Value	2020 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	94.20 index	50
Attracting and retaining talents	is a priority in companies	6.79 Survey [0..10]	32
Worker motivation	in companies is high	6.06 Survey [0..10]	29
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.38 Survey [0..10]	16
Quality of life	is high	7.22 Survey [0..10]	29
Foreign highly-skilled personnel	are attracted to your country's business environment	6.61 Survey [0..10]	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\$	250,925 US\$	13
Effective personal income tax rate	Percentage of an income equal to GDP per capita	20.07 %	37
▶ Justice	is fairly administered	7.91 Survey [0..10]	15
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	10.44 micrograms	16

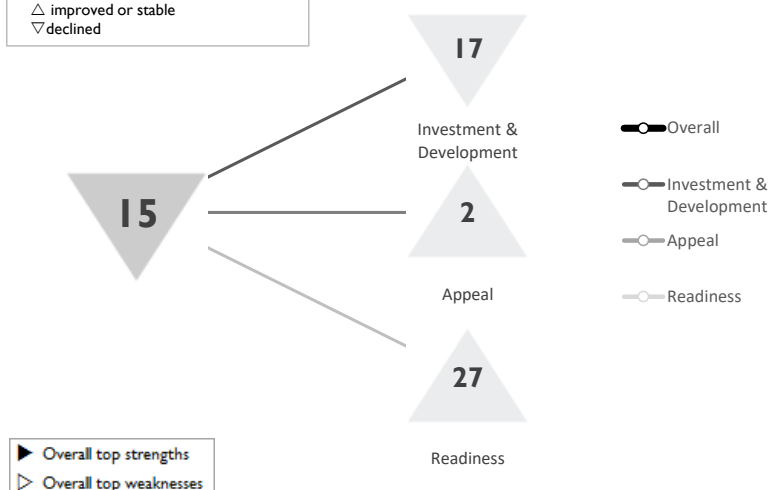
### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	0.78 %	35
Skilled labor	is readily available	6.03 Survey [0..10]	28
▶ Finance skills	are readily available	7.44 Survey [0..10]	14
International experience	of senior managers is generally significant	6.24 Survey [0..10]	18
Competent senior managers	are readily available	6.53 Survey [0..10]	15
Primary and secondary education	meets the needs of a competitive economy	6.62 Survey [0..10]	27
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	26.91 %	21
University education	meets the needs of a competitive economy	7.62 Survey [0..10]	17
Management education	meets the needs of the business community	7.13 Survey [0..10]	19
▷ Language skills	are meeting the needs of enterprises	5.44 Survey [0..10]	43
▶ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	6.80 number	7
▶ Educational assessment - PISA	PISA survey of 15-year olds	503 Average	13

# USA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	5.9 %	10
▶ Total public exp. on education per student	Spending per enrolled pupil/student, all levels	15,560 US\$	5
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	15.22 ratio	32
▷ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	15.13 ratio	48
▷ Apprenticeships	are sufficiently implemented	4.22 Survey [0..10]	54
Employee training	is a high priority in companies	5.68 Survey [0..10]	40
Female labor force	Percentage of total labor force	46.99 %	19
▷ Health infrastructure	meets the needs of society	5.11 Survey [0..10]	41

### Appeal

		Value	2020 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	7.96 Survey [0..10]	6
Worker motivation	in companies is high	6.47 Survey [0..10]	19
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.75 Survey [0..10]	10
Quality of life	is high	7.96 Survey [0..10]	23
▶ Foreign highly-skilled personnel	are attracted to your country's business environment	8.24 Survey [0..10]	2
▶ 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\$	391,787 US\$	2
Effective personal income tax rate	Percentage of an income equal to GDP per capita	13.34 %	24
Justice	is fairly administered	6.61 Survey [0..10]	23
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	7.36 micrograms	8

### Readiness

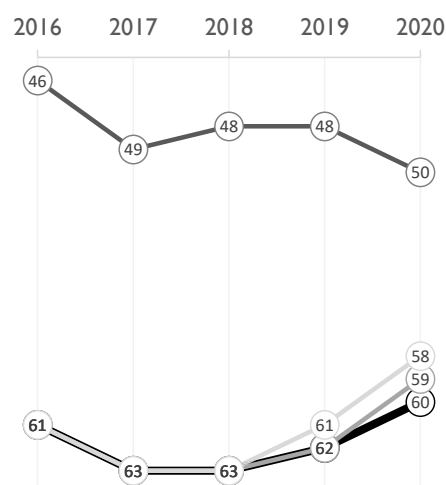
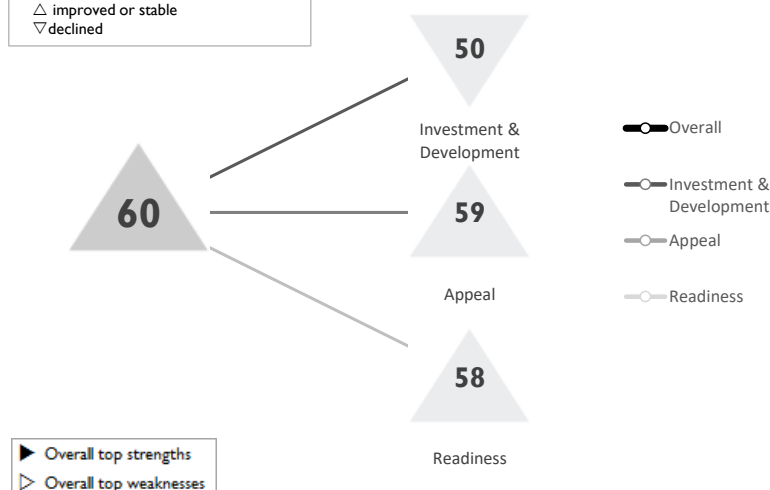
		Value	2020 Rank
Labor force growth	Percentage change	0.90 %	28
Skilled labor	is readily available	6.15 Survey [0..10]	25
Finance skills	are readily available	7.55 Survey [0..10]	10
International experience	of senior managers is generally significant	5.81 Survey [0..10]	31
Competent senior managers	are readily available	6.74 Survey [0..10]	11
Primary and secondary education	meets the needs of a competitive economy	6.28 Survey [0..10]	32
▷ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	19.02 %	51
University education	meets the needs of a competitive economy	7.57 Survey [0..10]	18
Management education	meets the needs of the business community	7.63 Survey [0..10]	14
Language skills	are meeting the needs of enterprises	6.11 Survey [0..10]	36
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	3.02 number	29
Educational assessment - PISA	PISA survey of 15-year olds	495 Average	24



# VENEZUELA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2020 Rank
Total public expenditure on education	Percentage of GDP	- %	-
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	- US\$	-
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	- ratio	-
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	- ratio	-
Apprenticeships	are sufficiently implemented	4.80 Survey [0..10]	39
Employee training	is a high priority in companies	5.18 Survey [0..10]	48
Female labor force	Percentage of total labor force	42.75 %	48
Health infrastructure	meets the needs of society	0.76 Survey [0..10]	63

### Appeal

		Value	2020 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	6.80 Survey [0..10]	31
Worker motivation	in companies is high	4.44 Survey [0..10]	59
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	2.12 Survey [0..10]	62
Quality of life	is high	1.43 Survey [0..10]	63
Foreign highly-skilled personnel	are attracted to your country's business environment	1.14 Survey [0..10]	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\$	61
Effective personal income tax rate	Percentage of an income equal to GDP per capita	0.98 %	2
Justice	is fairly administered	0.45 Survey [0..10]	63
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	17.40 micrograms	38

### Readiness

		Value	2020 Rank
Labor force growth	Percentage change	1.09 %	24
Skilled labor	is readily available	3.20 Survey [0..10]	60
Finance skills	are readily available	4.56 Survey [0..10]	59
International experience	of senior managers is generally significant	4.56 Survey [0..10]	57
Competent senior managers	are readily available	3.40 Survey [0..10]	59
Primary and secondary education	meets the needs of a competitive economy	2.32 Survey [0..10]	63
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	- %	-
University education	meets the needs of a competitive economy	4.36 Survey [0..10]	57
Management education	meets the needs of the business community	5.04 Survey [0..10]	53
Language skills	are meeting the needs of enterprises	3.80 Survey [0..10]	58
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

## I. The structure of the IMD World Talent Ranking

The ranking is structured according to three factors:

- 1) investment and development
- 2) appeal
- 3) 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.

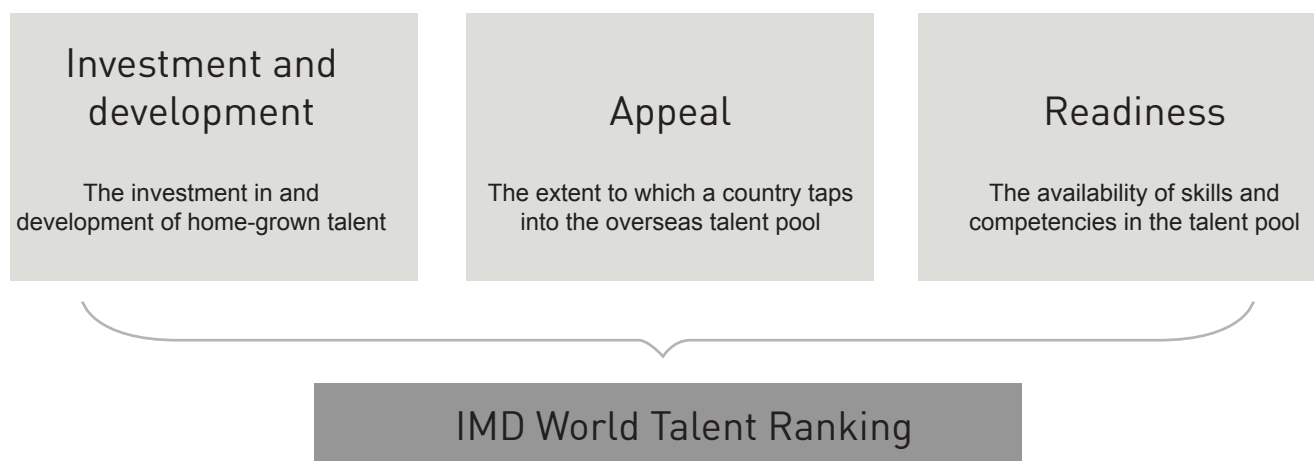
The appeal factor goes beyond the focus on the local labor force to incorporate the ability of a country to tap into the overseas talent pool. It does so by including indicators such as the cost of living and quality of life in a particular economy. Specifically, it examines the ability of a country 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.

**Graph 1.** Relation between Competitiveness and the Scientific Infrastructure sub-factor



## 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 competitiveness factors
- Aggregate factors to build the overall talent ranking
- Normalize the factors and overall ranking to the 0 to 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.

In **Table 2** we present all the definitions of hard and survey criteria. Note that the value range for all survey-based criteria is of 0 to 10.

**Table 1:** Sample size (2016-2020)

Year:	2016	2017	2018	2019	2020
# Countries:	61	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**

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\$
Effective personal income tax rate	Percentage of an income equal to GDP per capita
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 2020.*  
Which was conducted from mid-February to early May 2020, with a total number of 5'866 respondents.

## Background Criteria

### 0.01 [B] Exchange Rate

International Financial Statistics Online March 2020 (IMF)  
National sources

Period average.

### 0.02 [B] Population - Market Size

UNDP Human Development Report 2019

Mid-year estimates. Croatia: new census in 2011 with a new methodology. India: break in series in 2011. Jordan: series have been revised according to the the new Population and Housing Census published in 2016: end of year population for 2019. 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). Lithuania: break in series 2011 - census revised population figure downwards by 10% (emigration to EU over past decade). Philippines: Latest available census data is for 2010. 2011-2015 figures are projections based on PSA's annual Philippines in Figures publication.

### 0.03 [B] GDP per capita

OECD (2020), Main Economic Indicators - complete database  
National sources

Provisional data or estimates for most recent year. Malaysia: Data 2017 & 2018: Preliminary; Data 2019 is sum of 4 quarters.

## Factor 1: Investment & Development

### 1.01 Total public expenditure on education

UNESCO <http://stats.uis.unesco.org>  
Eurostat April 2020  
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 expenditure on education per student

UNESCO <http://stats.uis.unesco.org>  
Eurostat October 2020  
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 2020  
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. Bulgaria, Cyprus, Greece, Hong Kong SAR, India, Indonesia, Jordan, Kazakhstan, Mongolia, Peru, Philippines, Qatar, Romania, Saudi Arabia, Singapore, Thailand, UAE and Ukraine: based on headcounts. Canada: Primary includes pre-primary education. France: Public and government-dependent private institutions only for all levels. Ireland and Switzerland: Public institutions only for all levels.

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#### **1.04 Pupil-teacher ratio (secondary education)**

UNESCO <http://stats.uis.unesco.org>

OECD Education at a Glance 2020

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 personnel. 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. Bulgaria, Cyprus, Greece, Hong Kong, Jordan, Kazakhstan, Peru, Philippines, Qatar, Romania, Singapore, Thailand, UAE, Ukraine and Venezuela: Based on headcounts. Australia: general programs only. Ireland, Israel and Switzerland: public institutions only. France: Public and government-dependent private institutions only. Iceland: lower secondary only.

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#### **1.07 Female labor force**

OECD (2020), Main Economic Indicators - complete database

National sources

Estimate for 2019. Austria: break in series in 2008. Belgium: until Q3 for 2018. Denmark: break in series in 2009. Malaysia: break in series in 2010. Portugal: methodological change in 2011. Romania: for 2018 - third quarter. Spain: break in series in 2005. Philippines: 2018 data calculated from the July 2018 Labor Force Survey

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## **Factor 2: Appeal**

#### **2.01 Cost-of-living index**

MERCER Cost of Living survey 2018

[www.mercer.com](http://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).

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#### **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. Product 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. Secretary/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.

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#### **2.08 [4] Remuneration of management**

HCM International Ltd, April 2019

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).

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## 2.09 Effective personal income tax rate

PricewaterhouseCoopers, Resource Tax Manager

This criterion is based on the GDP per capita 2018 figures. Amount of personal income tax (including social security paid by the employee) that an individual married + 1 child with this level of earnings would expect to pay in 2018.

The taxes for Canada, Switzerland and the US are an average for the respective provinces, cantons and states.

India: in case, where the number of employees in the establishment exceeds 20 and an employee's monthly salary is less than INR 6,500.--, he would have to contribute to Provident Fund 12% of basic salary. The employer also contributes to an equal amount to Provident Fund. As a consequence, if we assume that the number of employees is less than 20, no social security contributions would be due.

The differences against last year's data can generally be explained by differences in base GDP/capita, and the changes in legislation for some countries.

## 2.11 Exposure to particle pollution

OECD (2020), Air quality and health: Exposure to PM2.5 fine particles - countries and regions, 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.

## Factor 3: Readiness

### 3.01 Labor force growth

OECD (2020), Main Economic Indicators - complete database  
National sources

Estimates for 2019. Austria: break in series in 2008. Belgium: untill Q3 for 2018. Brazil: break in series in 2014. China and Saudi Arabia: estimate calculated by the World Competitiveness Center based on employment and unemployment rate for 2018. Denmark: break in series in 2009. 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. Portugal: methodological change in 2011. Romania: for 2018 - third quarter. Spain: break in series in 2005.

### 3.07 Graduates in Sciences

OECD Education at a Glance 2020  
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 (%). Philippines: Academic Year 2017-2018 data. Japan: Data on information and communication technologies are included in other fields.

### 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.

### 3.12 [2] Educational assessment - PISA

PISA 2015 (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. 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. Cyprus: relates to the southern part of the Island. Argentina, Kazakhstan and Malaysia: Coverage is too small to ensure comparability.

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## About the Institute for Management Development (IMD)

IMD is an independent academic institution with Swiss roots and global reach, founded almost 75 years ago by business leaders for business leaders. Since its creation, IMD has been a pioneering force in developing leaders who transform organizations and contribute to society.

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