

# PwC's EMEA Private Business Attractiveness Index '22

## Methodology and data sources

October 2022



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Methodology

# Attractiveness of jurisdictions for private businesses across Europe, Middle East and Africa (EMEA)

## Introducing PwC's EMEA Private Business Attractiveness Index

PwC's EMEA Private Business Attractiveness Index (previously EMEA EPB Heatmap) provides an overview of the relative attractiveness of **33 EMEA jurisdictions** as locations to foster private businesses and entrepreneurship. The attractiveness rankings are based on scores obtained **across 51 metrics** within **eight different categories**.

The Private Business Attractiveness Index is designed to provide guidance for **private business leaders** (C-suite and their Boards) as well as **governments and policymakers** looking to increase the attractiveness of their jurisdiction as a place for private businesses to locate.

**33** Jurisdictions

**51** Data points

**8** Data categories

# The Private Business Attractiveness Index draws from data across 33 jurisdictions within EMEA

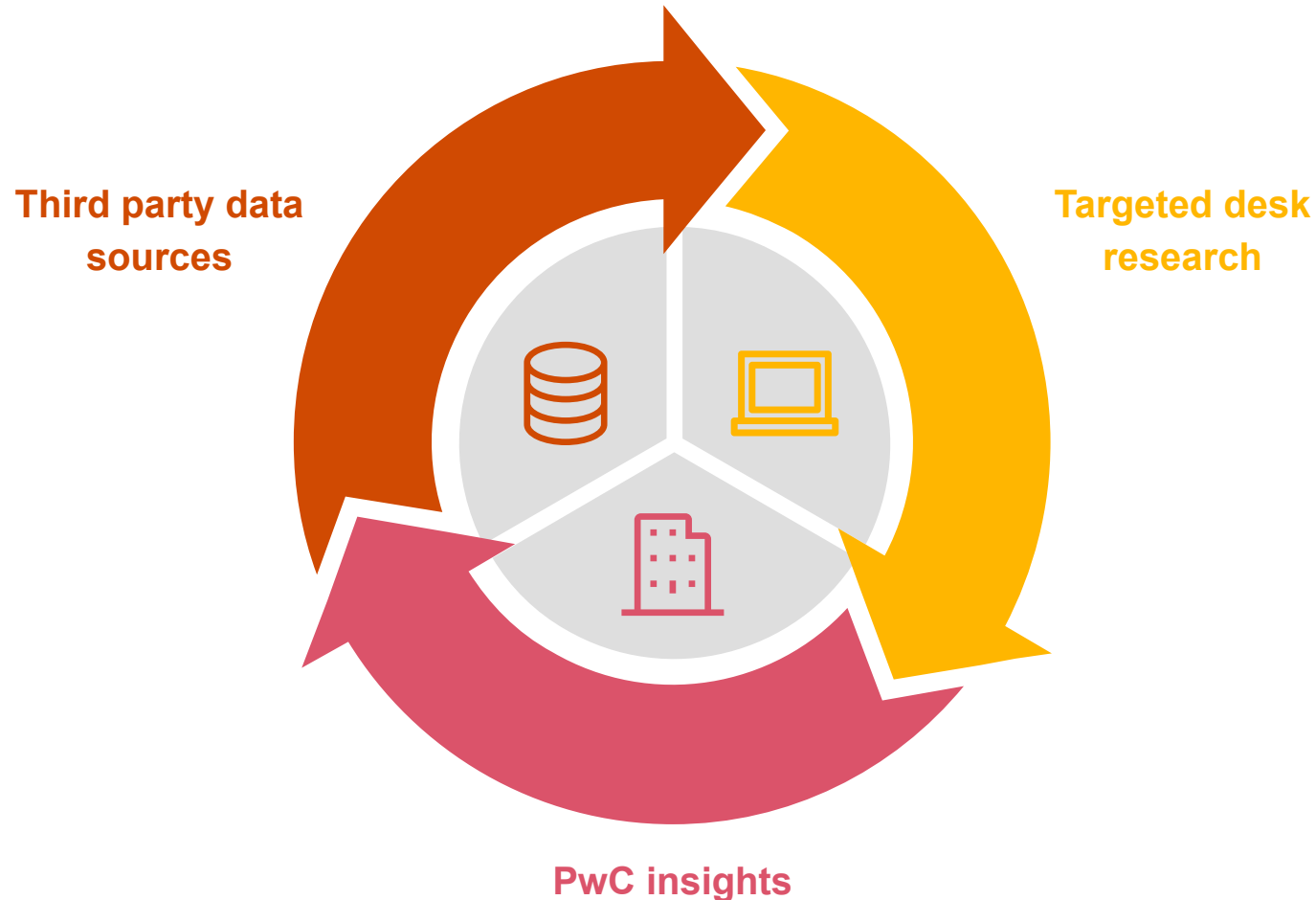


## Jurisdiction coverage

The selection covers countries within the EMEA region which have a PwC office that has agreed to be part of the index. The selection is also dependent on the availability of data for the jurisdiction.

Austria	France	Luxembourg	Slovenia
Belgium	Germany	Malta	South Africa
Bulgaria	Greece	Netherlands	Spain
Croatia	Hungary	Nigeria	Sweden
Cyprus	Ireland	Norway	Switzerland
Czech Republic	Italy	Poland	United Kingdom
Denmark	Kenya	Portugal	
Estonia	Latvia	Romania	
Finland	Lithuania	Slovakia	

# The EMEA Private Business Attractiveness Index data is derived from a series of highly credible data sources



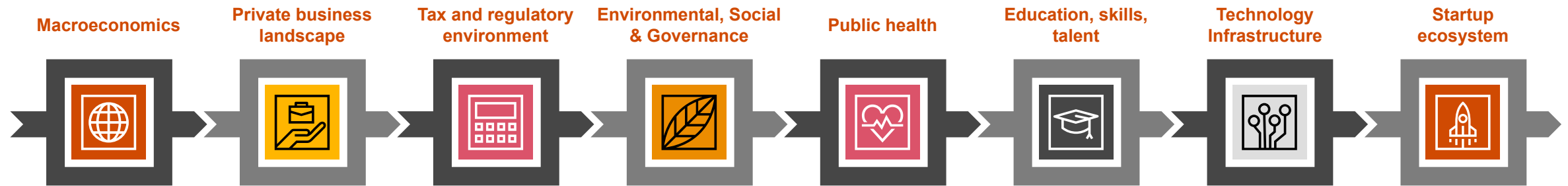
## Third party data sources:

- Factiva, Eurostat, BA Factsheet & SME Portal
- Central Intelligence Agency World Factbook
- Crunchbase
- Global System for Mobile Communications Association
- International Monetary Fund
- Refinitiv
- Organisation for Economic Co-operation and Development data
- Our World in Data
- Transparency International
- THE University Rankings
- World Bank
- Meridian West research

## PwC and targeted desk research

- Insights on national government incentives, regulations or other developments to foster private business investment.

# The Private Business Attractiveness Index is based on 51 data points across eight data categories



## Seven metrics (12.5%):

- GDP growth
- GDP forecast
- Inflation rate
- Consumption expenditure
- Gross national income per capita
- Consumer confidence
- Productivity growth

## Seven metrics (15%):

- Number of investors per country
- Percentage of global MNCs registered
- Central bank lending rates
- Number of deals recorded
- Percentage of "large private business"
- FDI investment
- Monetary sector credit to private sector

## Six metrics (12.5%):

- Corporate tax rate
- Income tax rate
- Indirect tax rate
- Regulatory quality
- Days to obtain an operating licence
- Senior management time spent dealing with regulation

## Seven metrics (15%):

- Global corruption index
- Percentage of energy from non fossil fuels
- Global gender gap
- CO2 emissions per capita
- Free press rating
- Percentage CO2 emissions reduction
- Trust in government

## Seven metrics (10%):

- Infant mortality
- Percentage of COVID-19 vaccinated population
- Number of active COVID-19 cases
- COVID-19 cumulative case fatality rate
- Life expectancy
- Health spending
- Cancer death rate

## Seven metrics (10%):

- Employment rate
- Rate of youth unemployment rate
- Size of working age population
- Spending on education
- Literacy rate
- Educational attainment
- Number of universities in top 200

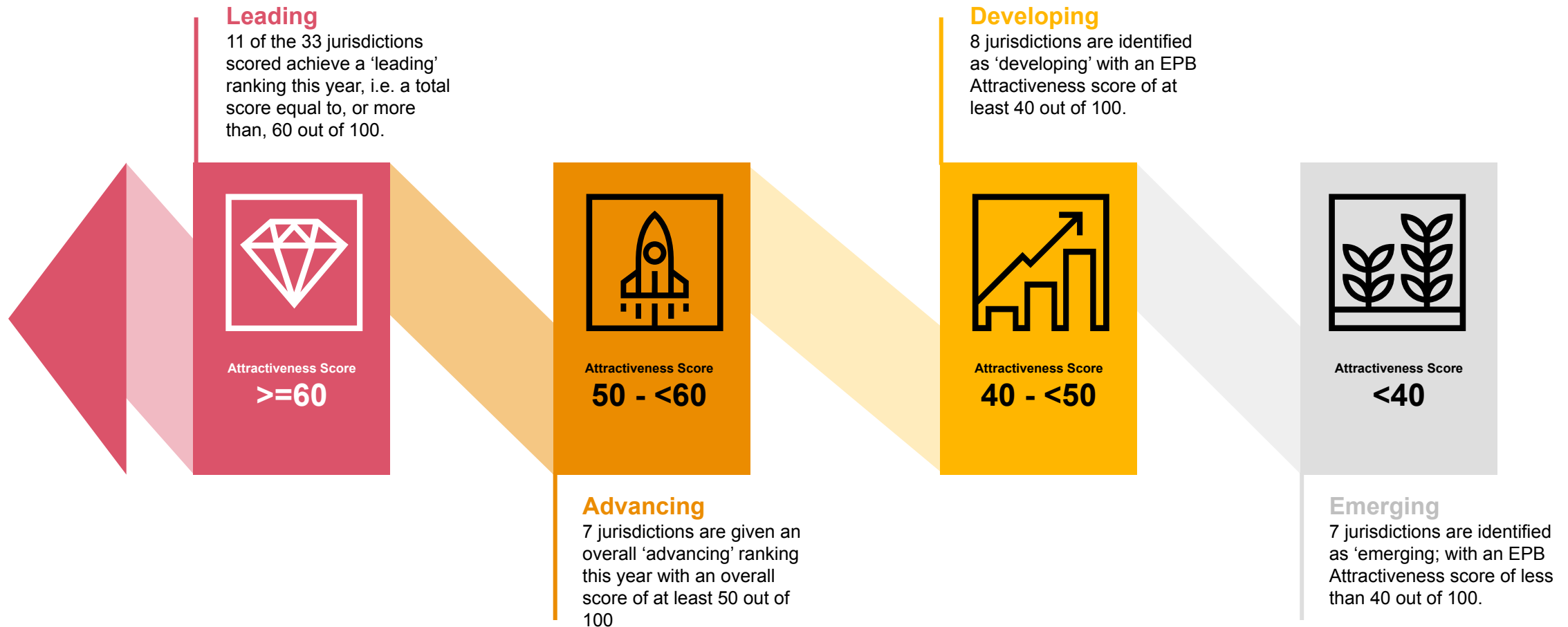
## Six metrics (10%):

- Internet usage
- Cell phone access
- Broadband access
- Mobile Connectivity Index
- Cyber security
- Supply chain resilience

## Four metrics (15%):

- Number of startups
- Number of women founders
- Innovation index (aggregate measure of innovation capability)
- Number of unicorns / percentage of population

Each of the eight category scores has been added together and weighted to produce a total Private Business Attractiveness Score out of 100





# A step-by-step guide for creating the ranking

1

We have collated each of the raw data points from the 51 different metrics.



2

Each jurisdiction is then ranked according to favourability (e.g. the jurisdiction with the largest GDP growth is ranked 33, and the lowest is ranked 1).



3

The scores for each of the data points within a category have been added together to produce an overall category ranking. A weighting is applied to produce an overall category score.



4

This is repeated across each of the eight categories.



5

Each of the eight category scores add together to produce a total EMEA Private Business Attractiveness Score out of 100. The jurisdiction with the highest total score is ranked top.



6

The jurisdictions are then divided into categories based on their total score: emerging (Attractiveness Score <40), developing (Attractiveness Score 40 - <50), advancing (Attractiveness Score 50 - <60) and leading (Attractiveness Score >=60)



2

Data sources

# Metric breakdown - Macroeconomics

Data point	Explanation	Owner	Document title	Publishing / viewing date
<b>GDP growth</b>	The country's real gross domestic product (GDP) annual growth rate, adjusted for seasonal unemployment and inflation, for the most recent available year. This is a measure of the overall health of an economy.	Central Intelligence Agency Factbook	Central Intelligence Agency Factbook	August 2022
<b>GDP forecast</b>	The forecasted gross domestic product (GDP) annual growth rate based on April 2022 data. This indicates how quickly an economy is likely to bounce back from the challenges of 2020 and the COVID-19 pandemic.	The World Bank	The World Bank - Global Economic Prospects report	June 2022
<b>Inflation rate</b>	The annual inflation rate, as calculated by the percent change in current consumer prices from the previous year's consumer prices. This gives insight into the stability of prices within a jurisdiction.	Central Intelligence Agency Factbook	Central Intelligence Agency Factbook	August 2022
<b>Consumption expenditure</b>	The sum of total household consumption expenditure and general government consumption expenditure. This metric estimates the health of both public and private finances.	The World Bank	Final consumption expenditure (annual % growth)	2021
<b>Gross national income per capita</b>	The gross national income (GNI), converted to U.S. dollars using the World Bank Atlas method, divided by the midyear population for the most recent available year's data. This indicates the relative wealth of a jurisdiction's population.	The World Bank	Gross national income per capita, Atlas method (current US\$)	2021
<b>Consumer confidence</b>	A measure of public sentiment about the general economic situation in a given jurisdiction and an indication of anticipated consumer spending power.	Organisation for Economic Co-operation and Development	Consumer Confidence Index	August 2022
<b>Productivity growth</b>	A measure of overall changes in living standards within a country measured as growth in GDP per hour worked.	Organisation for Economic Co-operation and Development	Labour Productivity – annual growth rate	2021

# Metric breakdown - Private Business Landscape

Data point	Explanation	Owner	Document title	Publishing / viewing date
<b>Number of investors per country</b>	This is the number of investors (VC firms, PE firms, family offices and corporate venture firms) located within a given jurisdiction. It provides an indication of the availability of equity capital within a given market.	BASE Inc.	Crunchbase	August 2022
<b>Percentage of global MNCs registered</b>	The total number of the world's largest multinational corporations (MNCs) that are registered within a given jurisdiction. This indicates how favourable a given jurisdiction is to large multinational businesses.	Organisation for Economic Co-operation and Development	Measuring Multinational Enterprises	August 2022
<b>Central bank lending rates</b>	The central bank lending rate within a jurisdiction. These rates provide a general indication of how expensive it would be for businesses to raise bank financing, with lower rates more favourable for private businesses looking to access debt financing.	Meridian West	Meridian West Research of Central Bank lending rates	August 2022
<b>Number of deals recorded</b>	The number of mergers and acquisitions deals recorded where the target company is located within the given jurisdiction. This is based on deals completed between January 2018 and June 2022.	Refinitiv United States Holdings Inc.	Thomson One	August 2022
<b>Percentage of "large private business"</b>	The proportion of large businesses (i.e. those with more than 250 employees) that are privately owned rather than publicly listed within a given jurisdiction. This indicates the level of private business ownership relative to the overall business landscape within a jurisdiction.	Dow Jones & Company and The Dun & Bradstreet Corporation	Factiva and Dun & Bradstreet Global Reference Solution	August 2022
<b>FDI Investment</b>	A cumulative metric comprising all direct inward investment into a given jurisdiction, including equity capital, reinvestment of earning and other capital. This metric indicates the level of cross-border economic activity into a given jurisdiction.	World Bank	Foreign direct investment, net inflows (BoP, current US\$)	2021
<b>Monetary sector credit to private sector</b>	The credit available to the private sector in the form of loans, trade credits, non equity securities and other accounts receivable. This indicates the availability of financing for private businesses in a given jurisdiction.	World Bank	Monetary Sector credit to private sector (% GDP)	2021

# Metric breakdown - Tax and regulatory environment

Data point	Explanation	Owner	Document title	Publishing / viewing date
<b>Corporate tax rate</b>	Corporate tax rate measures the direct tax liability incurred by businesses on their annual profits. This is paid on their taxable income. This is a measure that varies less than other tax metrics across the jurisdictions tested	MW Research Corporate Tax rate	Country corporate tax rate	August 2022
<b>Income tax rate</b>	Income tax rate measures the direct tax liability incurred by individuals on their income or profits. This is paid on their taxable income. This measure varies significantly across the jurisdictions tested.	MW Research Individual Income Tax Rate	Income tax rate	August 2022
<b>Indirect tax rate</b>	This is a measure of the sum of taxes that is levied upon goods and services before they reach the consumer, such as sales tax, VAT etc.	MW Research Indirect Tax Rate	Indirect tax rate	August 2022
<b>Regulatory quality</b>	A measure of the ability of a government to formulate and implement sound policies and regulations to permit and promote private sector development.	The World Bank	Worldwide Governance Indicators	2020
<b>Days to obtain an operating licence</b>	The average wait, in days, for a business to obtain a licence to operate. This measure gives an indication of how easy it is for new businesses to operate in the jurisdiction.	The World Bank	Enterprise Surveys	2022
<b>Senior management time spent dealing with regulation</b>	A measure of the average percentage of senior management time that is spent in a typical week dealing with requirements imposed by government regulation.	The World Bank	Enterprise Surveys	2022

# Metric breakdown - Environmental, Social & Governance

Data point	Explanation	Owner	Document title	Publishing / viewing date
<b>Global corruption index</b>	A score derived from Transparency International's Global Corruption Index, which measures the levels of corruption within a given jurisdiction. Countries that are perceived to be "cleaner" (i.e. have more transparent business practices) are given a higher score on the index.	Transparency International	Corruption Perceptions Index	2021
<b>Percentage of energy from non fossil fuels</b>	The proportion of energy usage from "clean" energy sources within a given jurisdiction. Jurisdictions with a higher proportion of solar, wind, nuclear and other renewable sources rate higher than those with a high dependency on fossil fuels.	Central Intelligence Agency Factbook	Central Intelligence Agency Factbook	2021
<b>Global gender gap</b>	A metric derived from the World Bank's Global Gender Gap Index. It looks at differences between men and women across a range of indicators including economic participation, educational attainment, health and political power. Jurisdictions with a smaller gap between gender receive a higher score.	World bank	World Economic Forum - Global Gender Gap Report	July 2022
<b>CO2 emissions per capita</b>	The carbon dioxide output in metric tons per capita. Jurisdictions with a lower CO2 output are given a higher score in the Index.	World bank	CO2 emissions (metric tons per capita)	2021
<b>Free press rating</b>	A measure of the level of press freedom within a given country based on a quantitative tally of abuses against journalists and media outlets and a qualitative analysis of the situation in each country.	Reporters Without Borders	2022 Press Freedom Index	August 2022
<b>Percentage of CO2 emissions reduction</b>	A measure of the reduction on CO2 emissions within a given country, indicating the rate of progress in decarbonising the economy.	Integrated Carbon Observation System	Global Carbon Budget 2021	2021
<b>Trust in government</b>	A measure of the proportion of people who report having confidence in the national government of a given country.	Organisation for Economic Co-operation and Development	Trust in government	2021, or latest available

# Metric breakdown - Public health

Data point	Explanation	Owner	Document title	Publishing / viewing date
<b>Infant mortality</b>	The number of deaths of infants under one year old per 1,000 live births. This indicates the overall level of health within a given jurisdiction.	Central Intelligence Agency Factbook	Central Intelligence Agency Factbook	2022
<b>Percentage of population COVID-19 vaccinated</b>	The percentage of a population to have received at least one COVID-19 vaccination as of the beginning of August 2022. This indicates the speed of the vaccine roll-out within a given jurisdiction.	Our World in Data	Coronavirus (COVID-19) Vaccinations	August 2022
<b>Number of COVID-19 cases</b>	The daily new confirmed COVID-19 cases per million people of the population. It is taken as a 7-day rolling average as at the start of August 2021. This indicates the prevalence of the COVID-19 virus within a given country.	Our World in Data	Coronavirus (COVID-19) Vaccinations	August 2022
<b>Cumulative case fatality rate</b>	The ratio of confirmed COVID-related deaths to the number of confirmed cases as at the start of August 2022. This indicates how effective a jurisdiction's health services are at keeping individuals diagnosed with COVID-19 alive.	Our World in Data	Coronavirus (COVID-19) Vaccinations	August 2022
<b>Life expectancy</b>	The average number of years the average newborn infant can expect to live within a given jurisdiction. This indicates the overall quality of life and health service provision within a given jurisdiction.	Central Intelligence Agency Factbook	Central Intelligence Agency Factbook	2022
<b>Health spending</b>	The current levels of spending on healthcare services relative to the overall size of an economy (based on the gross domestic product) within a given jurisdiction.	Central Intelligence Agency Factbook	Central Intelligence Agency Factbook	2022
<b>Cancer death rate</b>	The number of deaths from cancer per 100,000 deaths in a jurisdiction's population.	Our world in data	Cancer	2021

# Metric breakdown - Education, skills and talent

Data point	Explanation	Owner	Document title	Publishing / viewing date
<b>Employment rate</b>	The proportion of employed people as a proportion of the overall working age population. This indicates both the economic prosperity of a jurisdiction and the level of skills within the labour force.	Organisation for Economic Co-operation and Development / MW research	Organisation for Economic Co-operation and Development Employment Outlook	2022
<b>Youth unemployment rate</b>	The percentage of the total workforce aged 15 to 24 who were unemployed during the most recently available year's data. This indicates the level of opportunities available for those at the start of their working life.	Central Intelligence Agency Factbook	Central Intelligence Agency Factbook	2020
<b>Size of working age population</b>	A country's total population that is within the 15 to 65 age group. This indicates how large the economically active population is relative to the overall size of the population.	Central Intelligence Agency Factbook	Central Intelligence Agency Factbook	2020
<b>Spending on education</b>	The current levels of spending on education services relative to the overall size of an economy (based on the gross domestic product) within a given jurisdiction.	The United Nations Educational, Scientific and Cultural Organization Institute for Statistics	Government expenditure on education, total (% of GDP)	August 2022
<b>Literacy rate</b>	The proportion of a country's population aged 14 and over who are able to read and write. This estimates the overall levels of education within a given jurisdiction.	Our World in Data	Literacy	2021
<b>Educational attainment</b>	This metric calculates the proportion of the population aged 25 and over who have completed tertiary level education. It provides a good indication of the level of advanced skills and training within a given jurisdiction's population.	The United Nations Educational, Scientific and Cultural Organization Institute for Statistics	Educational attainment, total (%)	August 2022
<b>Educational attainment</b>	The number of universities among the leading 200 global universities located within a given jurisdiction. This is based on the Times Higher Education (THE) ranking which looks at a range of indicators including teaching quality, research, influence, international outlook and industry income.	Times Higher Education Top 200 University Rankings	World University Rankings 2022	2022



# Metric breakdown - Technology Infrastructure

Data point	Explanation	Owner	Document title	Publishing / viewing date
<b>Internet usage</b>	The proportion of a given country's population that can access the internet at home via any device or type of connection. This measures how widespread internet usage is within a given jurisdiction.	Central Intelligence Agency Factbook	Central Intelligence Agency Factbook	2020
<b>Cell phone access</b>	The total number of mobile cellular telephone subscriptions expressed per 100 inhabitants of a given jurisdiction.	Central Intelligence Agency Factbook	Central Intelligence Agency Factbook	2020
<b>Broadband access</b>	The total number of broadband subscriptions at speed equal to 256 kilobit per second expressed per 100 inhabitants of a given jurisdiction.	Central Intelligence Agency Factbook	Central Intelligence Agency Factbook	2020
<b>Mobile Connectivity Index</b>	A composite metric derived from Global System for Mobile Communications Association data, which covers the availability of high-performance mobile internet coverage, the availability of mobile services at an affordable price point, citizen's awareness and readiness to adopt these new technologies and online security.	Global System for Mobile Communications Association	Global System for Mobile Communications Association Mobile Connectivity Index	August 2022
<b>Cyber security</b>	A measure of the commitment of countries to addressing cybersecurity threats that takes into account legal measures, technical measures, organisational measures, capacity development and cooperation.	International Telecommunication Union	Global Cybersecurity Index 2020	2020
<b>Supply chain resilience</b>	A measure of the resilience of supply chain infrastructure quality, control of corruption, corporate governance, supply chain visibility and supply chain timeliness within a given country.	FM Global	FM Global Resilience Index	2022

# Metric breakdown - Startup ecosystem

Data point	Explanation	Owner	Document title	Publishing / viewing date
<b>Number of startups</b>	A measure of the number of newly founded businesses within a given market. This gives an indication of how easy and attractive it is for entrepreneurs to start new businesses within the country.	Pitchbook	Number of startups	August 2022
<b>Number of women founders</b>	A measure of the number of women who are founders of start-up businesses. This gives an indication of the gender balance of the start-up ecosystem.	Pitchbook	Number of women founders	August 2022
<b>Innovation index</b>	An aggregate measurement of 81 different indicators of a jurisdiction's innovation capability. This metric provides a good indication of the relative innovation capability of different countries and hence their attractiveness for entrepreneurial businesses.	World Intellectual Property Organization	Global Innovation Index	September 2021
<b>Number of unicorns as percentage of population</b>	A measure of the number of unicorns (i.e. start-ups with a value of over US\$1bn in the country) divided by the population of the country.	Pitchbook	Number of unicorns as percentage of population	August 2022

# Thank you

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