

# PwC's EMEA Private Business Heatmap '21

## Methodology and data sources

November 2021



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Methodology

# Attractiveness of jurisdictions for private businesses across EMEA

## Introducing PwC's EPB Heatmap

PwC's EMEA Private Business Heatmap (EPB Heatmap) provides an overview of the relative attractiveness of **34 EMEA jurisdictions** as locations to foster private businesses and entrepreneurship. The attractiveness rankings are based on scores obtained **across 37 metrics** within **seven different categories**.

The EPB Heatmap 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.

**34** Jurisdictions

**37** Data points

**7** Data categories

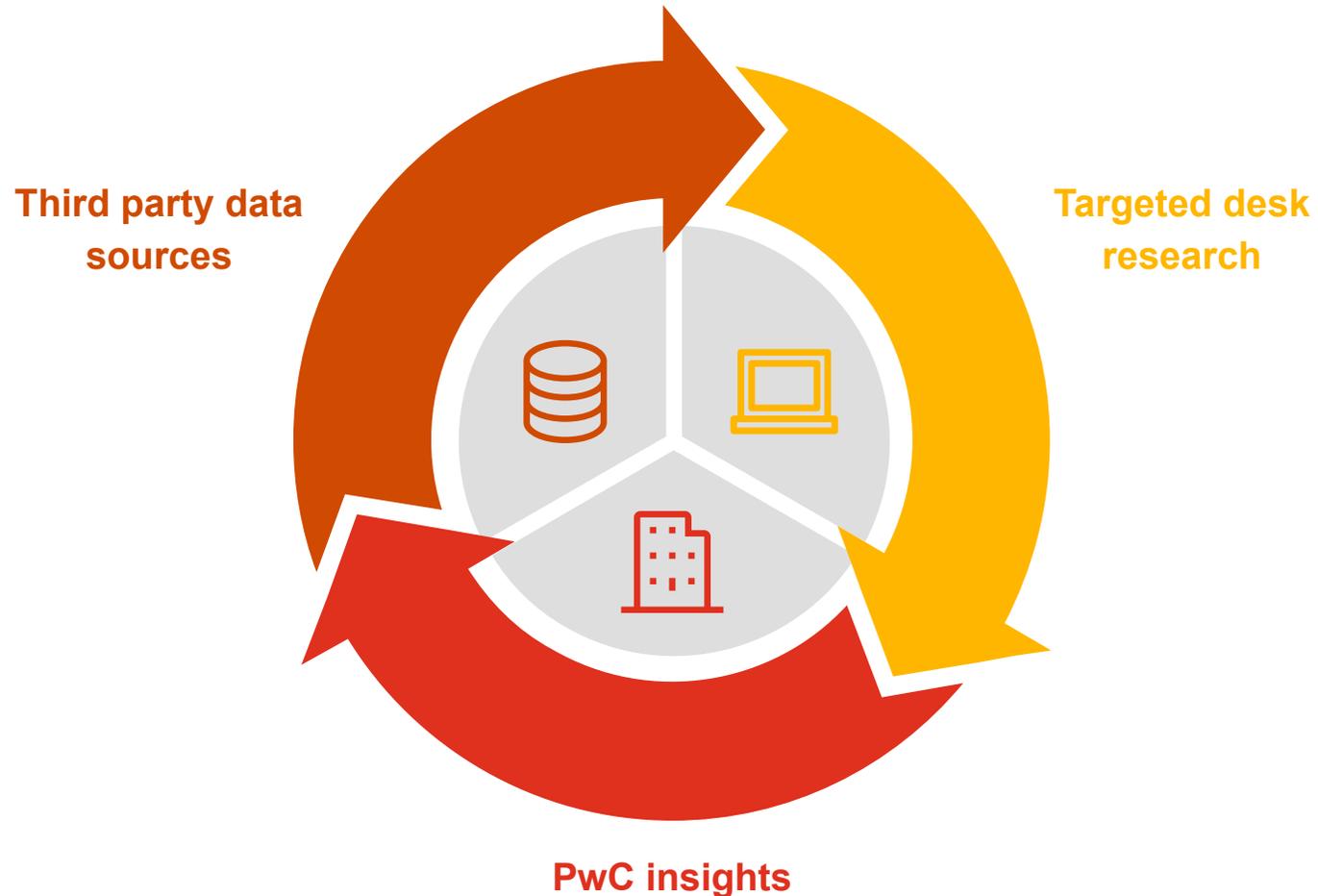
# The Heatmap has been applied across 34 jurisdictions within EMEA



## Jurisdiction coverage

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

# The EPB Heatmap data is derived from a series of highly credible data sources



## Third party data sources:

- Factiva, Eurostat, BA Factsheet & SME Portal
- CIA World Factbook
- Crunchbase
- GSMA
- International Monetary Fund
- Refinitiv
- OECD 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 Heatmap is based on 37 data points across seven data categories



## Five metrics (15%):

- GDP growth
- GDP forecast
- Inflation rate
- Consumption expenditure
- GNI per capita

## 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

## Three metrics (15%):

- Corporate tax rate
- Income tax rate
- Indirect tax rate

## Four metrics (15%):

- Global corruption index
- Percentage of energy from non fossil fuels
- Global gender gap
- CO2 emissions per capita

## Seven metrics (10%):

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

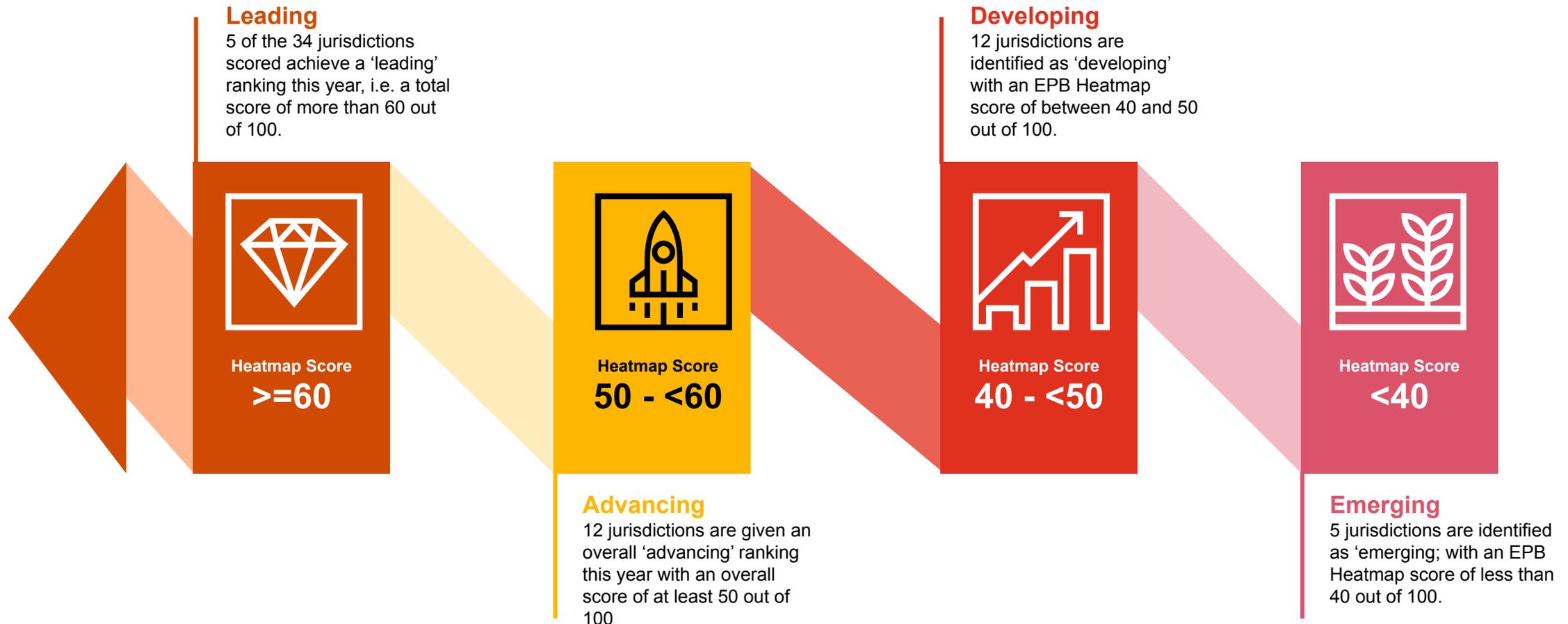
## Seven metrics (15%):

- 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

## Four metrics (15%):

- Internet usage
- Cell phone access
- Broadband access
- Mobile Connectivity Index

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



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

-  We have collated each of the raw data points from the 37 different metrics. 
-  Each jurisdiction is then ranked according to favourability (e.g. the jurisdiction with the largest GDP growth is ranked 34, and the lowest is ranked 1). 
-  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. 
-  This is repeated across each of the seven categories. 
-  Each of the seven category scores add together to produce a total EMEA Private Business Heatmap Score out of 100. The jurisdiction with the highest total score is ranked top. 
-  The jurisdictions are then divided into categories based on their total score: emerging (heatmap Score <40), developing (heatmap Score 40 - <50), advancing (heatmap Score 50 - <60) and leading (heatmap Score >=60) 

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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.	CIA Factbook	CIA Factbook	2019
<b>GDP forecast</b>	The forecasted gross domestic product (GDP) annual growth rate based on April 2021 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	jun-21
<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.	CIA Factbook	CIA Factbook	2019
<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)	2020
<b>GNI 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	GNI per capita, Atlas method (current US\$)	2020

# Metric breakdown - Private Business Landscape

Data point	Explanation	Owner	Document title	Publishing / viewing date
<b>Number of investors per country</b>	The number of investors (VC firms, PE firms, family offices and corporate venture firms) located within a given jurisdiction. This is an indication of the availability of equity capital within a given market.	BASE Inc.	Crunchbase	15-7-2021
<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.	OECD	Measuring Multinational Enterprises	jul-21
<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	MW Research of Central Bank lending rates	sep-21
<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 2021.	Refinitiv US Holdings Inc.	Thomson One	26-10-2021
<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 Global Reference Solution	8-6-2021
<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\$)	2019
<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)	2020

# 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	sep-21
<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	sep-21
<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	sep-21

# 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	28-1-2021
<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.	CIA Factbook	CIA Factbook	2017
<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	WEF - Global Gender Gap Report	2020
<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)	2018

# 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.	CIA Factbook	CIA Factbook	2021
<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 2021. This indicates the speed of the vaccine roll-out within a given jurisdiction.	Our World in Data	Coronavirus (COVID-19) Vaccinations	11-10-2021
<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	11-10-2021
<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 2021. 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	11-10-2021
<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.	CIA Factbook	CIA Factbook	2021
<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.	CIA Factbook	CIA Factbook	2018
<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	2019

# Metric breakdown - Private Business Landscape

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.	OECD / MW Research (for Nigeria and Kenya)	OECD Employment Outlook	2021
<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.	CIA Factbook	CIA Factbook	2019
<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.	CIA Factbook	CIA 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.	UNESCO Institute for Statistics	Government expenditure on education, total (% of GDP)	sep-21
<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	sep-18
<b>Number of universities in top 200</b>	The proportion of the population aged 25 and over who have completed tertiary level education. This indicates the level of advanced skills and training within a given jurisdiction's population.	THE University Rankings top 200 2012	World University Rankings 2021	2021
<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.	UNESCO Institute for Statistics	Educational attainment, at least completed short-cycle tertiary, population 25+, total (%) (cumulative)	sep-21

# 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.	CIA Factbook	CIA Factbook	2018
<b>Cell phone access</b>	The total number of mobile cellular telephone subscriptions expressed per 100 inhabitants of a given jurisdiction.	CIA Factbook	CIA Factbook	2019
<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.	CIA Factbook	CIA Factbook	2019
<b>Mobile Connectivity Index</b>	A composite metric derived from GSMA 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.	GSMA Association	GSMA Mobile Connectivity Index	29-6-2021

# Thank you

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