



IMD World Competitiveness Yearbook 2022

COUNTRY
PROFILE

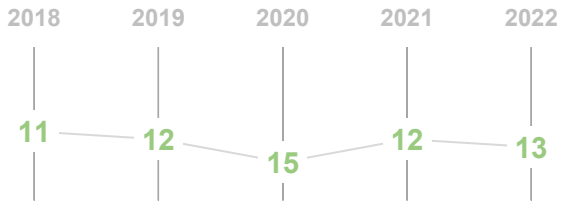
LUXEMBOURG



Luxembourg

Competitiveness Trends – Overall

OVERALL PERFORMANCE (63 countries)



CHALLENGES IN 2022

- Mitigate the effects of rising inflation rates (including the booming prices of raw materials and energy prices) on business profitability and household purchasing power.
- Accelerate the green transition towards a sustainable and decarbonised economy via the development of ecotechnologies.
- Move from an extensive economy to an economy characterised by more qualitative growth, based on a circular development cycle.
- Address difficulties faced by companies to find and retain talents in the short and longer terms.

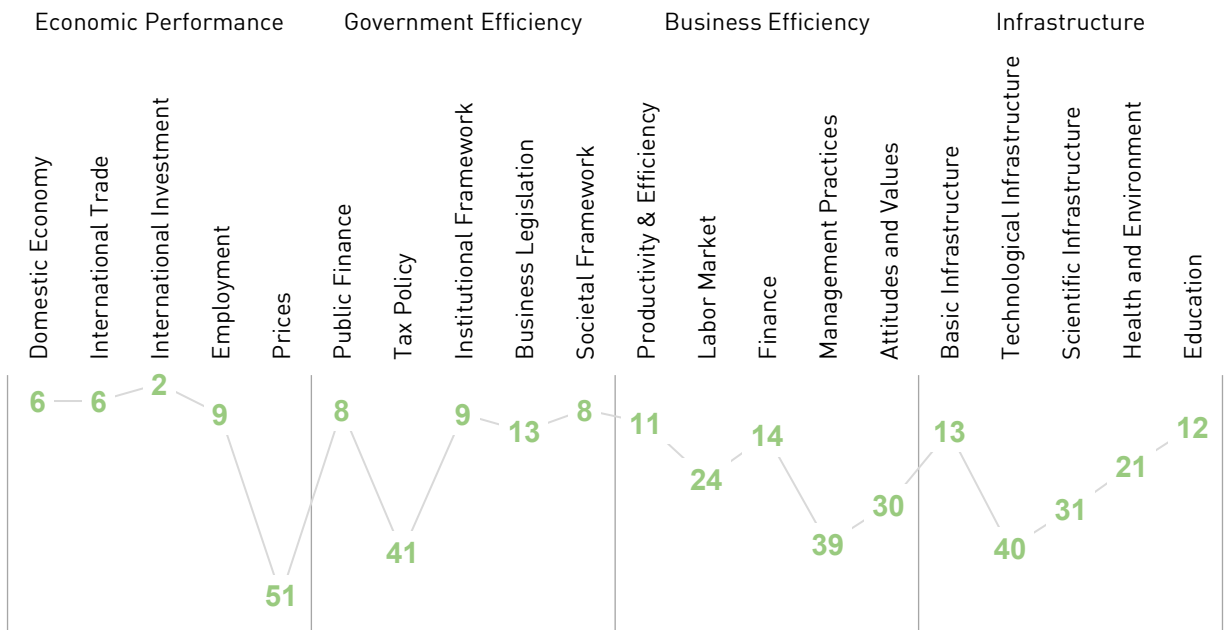
BASIC FACTS

Rank

Indicator	Luxembourg	Rank
Capital		
Land area (square km '000)	3	2021
Exchange Rate (per \$)	0.845	2021
Population - market size (millions)	0.63	2021 62
Gross Domestic Product (GDP) (US\$ billions)	86.7	2021 50
GDP (PPP) per capita (US\$)	131,875	2021 01
Real GDP growth (%)	6.9	2021 19
Consumer price inflation (%)	3.47	2021 39
Unemployment rate (%)	5.58	2021 30
Labor force (millions)	0.51	2021 61
Current account balance (% of GDP)	4.77	2021 17
Direct investment stocks inward (\$bn)	627.4	2020 15
Direct investment flows inward (% of GDP)	84.72	2020 02

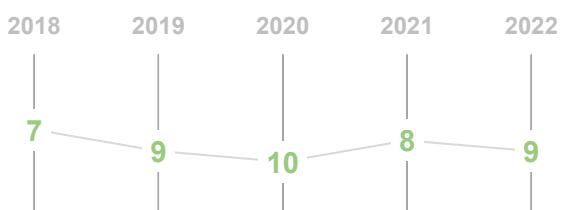
PROVIDED BY: Luxembourg Chamber of Commerce

COMPETITIVENESS LANDSCAPE

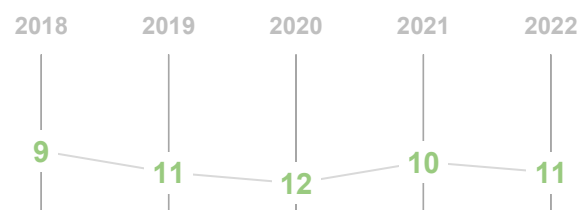


PEER GROUPS RANKINGS

EUROPE - MIDDLE EAST - AFRICA (40 countries)



POPULATIONS < 20 MILLION (36 countries)



Luxembourg

Competitiveness Evolution & Attractiveness Indicators

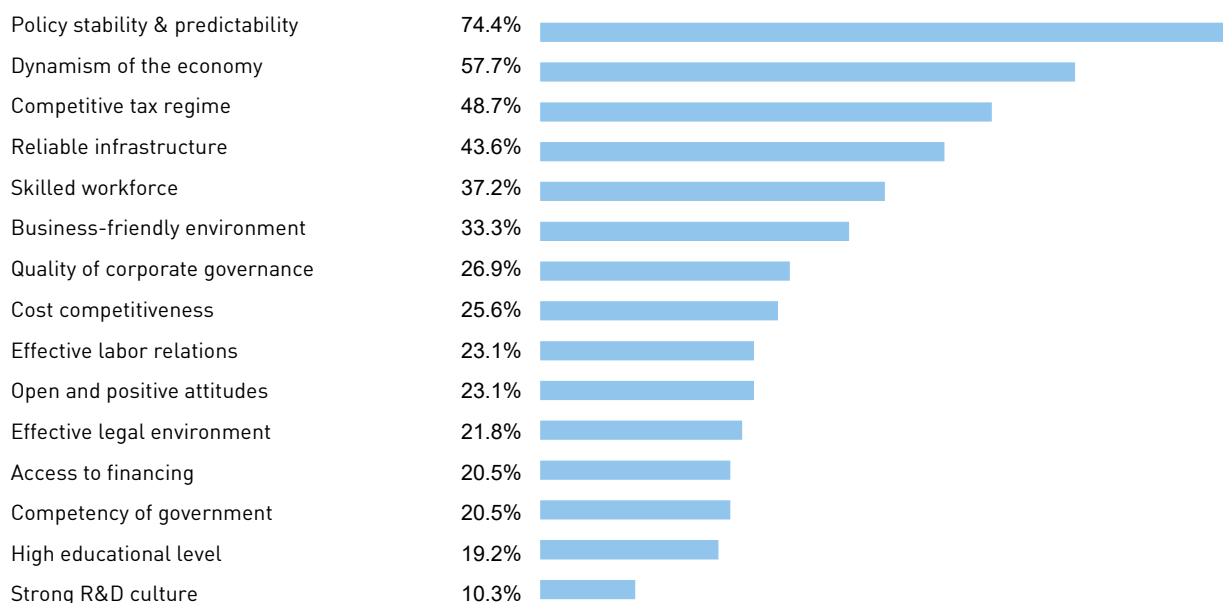
COMPETITIVENESS EVOLUTION

The criteria below highlight the 15 biggest Improvements and the 15 biggest Declines in the overall performance of the economy. They are determined by the largest percentage changes in the value of each criterion from one yearbook to the next.

IMPROVEMENTS	WCY 2021	WCY 2022	DECLINES	WCY 2021	WCY 2022
1.1.14 Real GDP growth	-1.3	6.9	1.5.01 Consumer price inflation	0.00	3.47
1.1.15 Real GDP growth per capita	-3.28	5.46	2.3.08 Exchange rate stability	0.017	0.024
1.1.18 Gross fixed capital formation - real growth	-8.75	12.32	4.1.07 Population - growth	1.99	1.38
2.3.07 Foreign currency reserves per capita	1,898	4,602	3.4.14 Total early-stage Entrepreneurial Activity	10.20	7.25
2.1.02 Government budget surplus/deficit (%)	-4.08	0.89	1.2.18 Export concentration by product	41.2	53.0
3.3.10 Stock market capitalization (%)	47.81	75.66	3.3.16 Credit	7.11	5.37
2.5.02 Homicide	0.34	0.16	4.5.17 University education index	15.70	12.45
1.4.09 Youth unemployment	23.20	16.90	4.4.26 Pollution problems	7.48	6.08
1.2.12 Exports of commercial services (\$bn)	110.69	139.06	3.3.06 Banking and financial services	7.00	5.71
1.2.08 Exports of goods (\$bn)	13.80	16.58	2.3.12 Bureaucracy	5.21	4.26
1.4.07 Unemployment rate	6.80	5.58	1.5.06 Gasoline prices	1.24	1.46
1.1.20 GDP per capita	117,016	136,612	1.4.10 Youth exclusion	5.6	6.6
2.4.07 Government subsidies	1.19	1.02	3.3.17 Venture capital	6.00	4.95
1.2.02 Current account balance	4.29	4.77	3.3.08 Stock markets	6.80	5.65
1.1.09 Gross fixed capital formation (%)	15.6	17.3	2.3.13 Bribery and corruption	7.57	6.31

KEY ATTRACTIVENESS INDICATORS

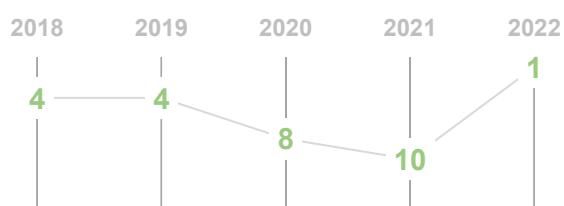
From a list of 15 indicators, respondents of the Executive Opinion Survey were asked to select 5 that they perceived as the key attractiveness factors of their economy. The chart shows the percentage of responses per indicator from the highest number of responses to the lowest.



Luxembourg

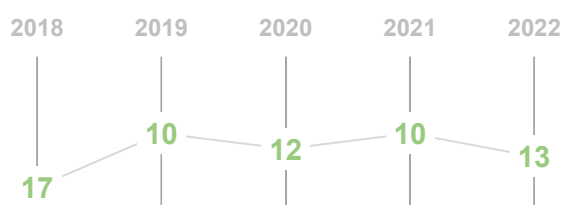
Competitiveness Trends – Factor Breakdown

ECONOMIC PERFORMANCE



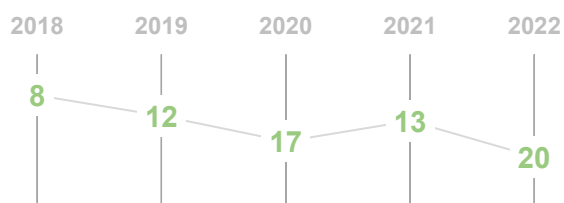
SUB-FACTOR RANKINGS :	2021	2022
Domestic Economy	11	06
International Trade	07	06
International Investment	23	02
Employment	10	09
Prices	44	51

GOVERNMENT EFFICIENCY



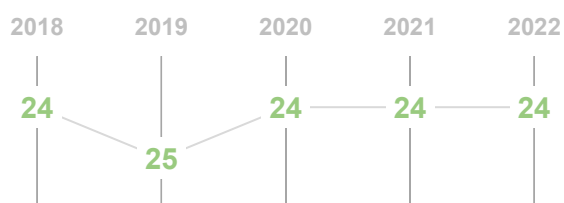
SUB-FACTOR RANKINGS :	2021	2022
Public Finance	06	08
Tax Policy	41	41
Institutional Framework	08	09
Business Legislation	06	13
Societal Framework	07	08

BUSINESS EFFICIENCY



SUB-FACTOR RANKINGS :	2021	2022
Productivity & Efficiency	06	11
Labor Market	13	24
Finance	10	14
Management Practices	20	39
Attitudes and Values	16	30

INFRASTRUCTURE



SUB-FACTOR RANKINGS :	2021	2022
Basic Infrastructure	09	13
Technological Infrastructure	31	40
Scientific Infrastructure	27	31
Health and Environment	19	21
Education	11	12

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Balance Sheet – Factor Breakdown

ECONOMIC PERFORMANCE

STRENGTHS		Rank	WEAKNESSES		Rank
1.1.20	GDP per capita	01	1.2.08	Exports of goods (\$bn)	57
1.1.21	GDP (PPP) per capita	01	1.1.09	Gross fixed capital formation (%)	56
1.3.02	Direct investment flows abroad (% of GDP)	01	1.2.24	Terms of trade index	55
1.4.02	Employment (%)	01	1.2.09	Exports of goods (%)	50
1.2.13	Exports of commercial services (%)	01	1.5.04	Office rent	50
1.3.06	Direct investment flows inward (% of GDP)	02	1.2.17	Export concentration by partner	50
1.2.23	Trade to GDP ratio	02	1.3.13	Relocation threats of business	48
1.3.08	Direct investment stocks inward (% of GDP)	02	1.4.09	Youth unemployment	40
1.3.04	Direct investment stocks abroad (% of GDP)	02	1.5.06	Gasoline prices	39
1.2.25	Tourism receipts	03	1.5.02	Cost-of-living index	36

GOVERNMENT EFFICIENCY

STRENGTHS		Rank	WEAKNESSES		Rank
2.5.15	Disposable Income	01	2.2.01	Collected total tax revenues	51
2.3.04	Country credit rating	01	2.2.02	Collected personal income tax	50
2.5.02	Homicide	02	2.4.14	Start-up days	48
2.4.12	New business density	03	2.4.09	State ownership of enterprises	41
2.1.02	Government budget surplus/deficit (%)	04	2.2.10	Employee social security tax rate	40
2.3.03	Interest rate spread	05	2.2.07	Corporate tax rate on profit	38
2.1.04	Total general government debt (%)	05	2.3.15	Sustainable Development Goals	37
2.5.04	Risk of political instability	08	2.5.09	Income distribution - lowest 40%	33
2.3.10	Adaptability of government policy	08	2.2.08	Consumption tax rate	27
2.2.11	Real personal taxes	08			-

BUSINESS EFFICIENCY

STRENGTHS		Rank	WEAKNESSES		Rank
3.2.12	Labor force (%)	01	3.2.03	Remuneration in services professions	57
3.3.01	Banking sector assets	01	3.2.06	Working hours	57
3.1.03	Labor productivity (PPP)	01	3.2.01	Compensation levels	55
3.1.01	Overall productivity (PPP)	01	3.2.04	Remuneration of management	54
3.2.17	Foreign labor force - migrant stock	03	3.2.18	Skilled labor	52
3.2.14	Labor force - long-term growth	06	3.4.11	Women in management	51
3.2.22	Foreign highly-skilled personnel	07	3.2.16	Female labor force	51
3.2.23	International experience	08	3.4.03	Opportunities and threats	50
3.2.20	Attracting and retaining talents	10	3.3.16	Credit	47
3.3.04	Access to financial services	10	3.4.07	Use of big data and analytics	46

INFRASTRUCTURE

STRENGTHS		Rank	WEAKNESSES		Rank
4.5.03	Total public exp. on education per student	01	4.2.01	Investment in Telecommunications	62
4.4.14	Water use efficiency	01	4.2.03	Mobile Telephone costs	58
4.5.04	Pupil-teacher ratio (primary education)	01	4.3.19	Medium- and high-tech value added	56
4.3.18	Number of patents in force	02	4.2.10	Qualified engineers	54
4.3.16	Patent applications per capita	03	4.2.15	High-tech exports (%)	54
4.2.06	Internet users	05	4.2.02	Mobile Broadband subscribers	53
4.2.08	Internet bandwidth speed	06	4.3.11	Graduates in Sciences	51
4.5.19	Language skills	06	4.5.06	Secondary school enrollment	49
4.5.05	Pupil-teacher ratio (secondary education)	07	4.4.01	Total health expenditure	48
4.1.07	Population - growth	07	4.2.16	ICT service exports	46

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Extended Country Profile

1 - Economic Performance

1.1 - Domestic Economy

Value Average Rank Year

1.1.00 - Exchange Rate National currency per US\$ (average)	0.845	21,532.090		2021
1.1.01 - Gross Domestic Product (GDP) US\$ billions	86.7	1,394.4	50	2021
1.1.02 - GDP (PPP) Estimates ; US\$ billions at purchasing power parity	83.7	1,981.9	56	2021
1.1.03 - World GDP contribution Percentage share of world GDP in market prices	0.09	1.44	50	2021
1.1.04 - Household consumption expenditure (\$bn) US\$ billions	25.6	735.2	56	2021
1.1.05 - Household consumption expenditure (%) Percentage of GDP	29.6	53.4	61	2021
1.1.06 - Government consumption expenditure (\$bn) US\$ billions	14.6	232.9	52	2021
1.1.07 - Government consumption expenditure (%) Percentage of GDP	16.9	18.3	39	2021
1.1.08 - Gross fixed capital formation (\$bn) US\$ billions	15.0	351.9	51	2021
1.1.09 - Gross fixed capital formation (%) Percentage of GDP	17.3	22.7	56	2021
1.1.10 - Gross domestic savings (\$bn) US\$ billions	46.4	379.1	45	2021
1.1.11 - Gross domestic savings (%) Percentage of GDP	53.6	28.3	4	2021
1.1.12 - Economic sectors Breakdown of the economic sectors, percentage of GDP				2021
Economic sectors / Agriculture	0.2	3.7		2021
Economic sectors / Industry	12.6	29.1		2021
Economic sectors / Services	87.3	67.0		2021
1.1.13 - Economic complexity index Measures knowledge intensity, by considering exports	-	0.86		
1.1.14 - Real GDP growth Percentage change, based on national currency in constant prices	6.9	5.6	19	2021
1.1.15 - Real GDP growth per capita Percentage change, based on national currency in constant prices	5.46	5.35	26	2021
1.1.16 - Household consumption expenditure - real growth Percentage change, based on constant prices	7.39	4.78	17	2021
1.1.17 - Government consumption expenditure - real growth Percentage change, based on constant prices	4.71	4.01	22	2021
1.1.18 - Gross fixed capital formation - real growth Percentage change, based on constant prices	12.32	6.32	15	2021
1.1.19 - Resilience of the economy Resilience of the economy to economic cycles is strong	6.90	5.88	19	2022
1.1.20 - GDP per capita US\$ per capita	136,612	34,279	1	2021
1.1.21 - GDP (PPP) per capita Estimates; US\$ per capita at purchasing power parity	131,875	44,580	1	2021
1.1.22 - Forecast: Real GDP growth Percentage change, based on national currency in constant prices	3.5	3.7	35	2022
1.1.23 - Forecast: Inflation Percentage change	5.8	38.4	40	2022
1.1.24 - Forecast: Unemployment Percentage of total labor force	4.7	6.3	25	2022
1.1.25 - Forecast: Current account balance Percentage of GDP	4.9	1.7	14	2022

1.2 · International Trade

Value Average Rank Year

1.2.01 · Current account balance (\$bn) US\$ billions (minus sign = deficit)	4.1	10.4	23	2021
1.2.02 · Current account balance Percentage of GDP	4.77	1.64	17	2021
1.2.03 · Balance of trade (\$bn) US\$ billions (minus sign = deficit)	-9.1	-2.5	45	2021
1.2.04 · Balance of trade (%) Percentage of GDP	-10.46	0.27	57	2021
1.2.05 · Balance of commercial services (\$bn) US\$ billions (minus sign = deficit)	28.69	8.39	8	2021
1.2.06 · Balance of commercial services (%) Percentage of GDP	33.09	1.84	1	2021
1.2.07 · World exports contribution Percentage share of world exports (goods and commercial services)	0.55	1.45	35	2021
1.2.08 · Exports of goods (\$bn) US\$ billions	16.58	321.20	57	2021
1.2.09 · Exports of goods (%) Percentage of GDP	19.12	41.98	50	2021
1.2.10 · Exports of goods per capita US\$ per capita	26,123	15,049	11	2021
1.2.11 · Exports of goods - growth Percentage change, based on US\$ values	19.81	27.30	45	2021
1.2.12 · Exports of commercial services (\$bn) US\$ billions	139.06	88.34	11	2021
1.2.13 · Exports of commercial services (%) Percentage of GDP	160.37	15.10	1	2021
1.2.14 · Exports of commercial services - growth Percentage change, based on US\$ values	14.68	17.14	32	2021
1.2.15 · Exports of goods & commercial services US\$ billions	155.64	408.43	35	2021
1.2.16 · Exports breakdown by economic sector Percentage of total exports				2020
Exports breakdown by economic sector / Agriculture	1.1	11.3		2020
Exports breakdown by economic sector / Industry	9.1	64.4		2020
Exports breakdown by economic sector / Services	89.8	24.3		2020
1.2.17 · Export concentration by partner Exports to top 5 countries, percentage of total exports	63.3	55.0	50	2020
1.2.18 · Export concentration by product Top 5 products, percentage of total exports	53.0	57.6	29	2020
1.2.19 · Imports of goods & commercial services (\$bn) US\$ billions	136.0	402.5	27	2021
1.2.20 · Imports of goods & commercial services (%) Percentage of GDP	156.9	54.7	61	2021
1.2.21 · Imports of goods & commerc. services growth Percentage change, based on US\$ values	15.29	24.33	10	2021
1.2.22 · Imports breakdown by economic sector Percentage of total imports				2020
Imports breakdown by economic sector / Agriculture	2.7	9.0		2020
Imports breakdown by economic sector / Industry	15.3	67.7		2020
Imports breakdown by economic sector / Services	82.1	23.3		2020
1.2.23 · Trade to GDP ratio (Exports + Imports) / GDP	345.03	102.61	2	2020
1.2.24 · Terms of trade index Unit value of exports over unit value of imports	92.9	99.4	55	2020
1.2.25 · Tourism receipts International tourism receipts as a percentage of GDP	6.07	1.54	3	2020

1.3 · International Investment

Value Average Rank Year

1.3.01 · Direct investment flows abroad (\$bn) US\$ billions	127.09	14.96	4	2020
1.3.02 · Direct investment flows abroad (% of GDP) Percentage of GDP	173.25	4.62	1	2020
1.3.03 · Direct investment stocks abroad (\$bn) US\$ billions	887.0	612.1	13	2020
1.3.04 · Direct investment stocks abroad (% of GDP) Percentage of GDP	1,209.27	109.57	2	2020
1.3.05 · Direct investment flows inward (\$bn) US\$ billions	62.14	16.61	9	2020
1.3.06 · Direct investment flows inward (% of GDP) Percentage of GDP	84.72	4.86	2	2020
1.3.07 · Direct investment stocks inward (\$bn) US\$ billions	627.4	613.9	15	2020
1.3.08 · Direct investment stocks inward (% of GDP) Percentage of GDP	855.26	122.21	2	2020
1.3.09 · Balance of direct investment flows (\$bn) US\$ billions (flows abroad minus flows inward)	64.94	-1.64	4	2020
1.3.10 · Balance of direct investment flows (%) Percentage of GDP (flows abroad minus flows inward)	88.53	-0.24	1	2020
1.3.11 · Net position in direct investment stocks (\$bn) US\$ billions (stocks abroad minus stocks inward)	259.7	-1.8	8	2020
1.3.12 · Net position in direct investment stocks (%) Percentage of GDP (stocks abroad minus stocks inward)	354.01	-12.64	1	2020
1.3.13 · Relocation threats of business Relocation of business is not a threat to the future of your economy	4.87	5.36	48	2022
1.3.14 · Portfolio investment assets US\$ billions	209.67	38.51	4	2020
1.3.15 · Portfolio investment liabilities US\$ billions	178.28	34.92	5	2020

1.4 · Employment

Value Average Rank Year

1.4.01 · Employment Total employment in millions	0.49	38.16	61	2021
1.4.02 · Employment (%) Percentage of population	76.68	47.14	1	2021
1.4.03 · Employment - growth Estimates: percentage change	3.07	1.54	15	2021
1.4.04 · Employment - long-term growth Estimates: five year percentage change	4.33	-0.41	7	2021
1.4.05 · Employment by sector Percentage of total employment				2021
Employment by sector / Agriculture	0.8	7.7		2021
Employment by sector / Industry	18.4	23.5		2021
Employment by sector / Services	80.8	68.8		2021
1.4.06 · Employment in the public sector Percentage of total employment	10.63	17.83	17	2020
1.4.07 · Unemployment rate Percentage of labor force	5.58	8.00	30	2021
1.4.08 · Long-term unemployment Percentage of labor force	1.80	2.81	32	2021
1.4.09 · Youth unemployment Percentage of youth labor force (under the age of 25)	16.90	17.13	40	2021
1.4.10 · Youth exclusion Share of youth population (15-24) not in education, employment or training	6.6	14.6	8	2020

1.5 · Prices

Value Average Rank Year

1.5.01 · Consumer price inflation	3.47	29.25	39	2021
Average annual rate				
1.5.02 · Cost-of-living index	80.30	78.37	36	2021
Index of a basket of goods & services in the main city, including housing (New York City = 100)				
1.5.03 · Apartment rent	2,629	1,530	53	2018
3-room apartment monthly rent in major cities, US\$				
1.5.04 · Office rent	845	656	50	2021
Total occupation cost in the main city (US\$/Sq.M. per year)				
1.5.05 · Food costs	-	17.58		
Percentage of household final consumption expenditures				
1.5.06 · Gasoline prices	1.46	1.26	39	2021
Premium unleaded gasoline (95 Ron) US\$ per litre				

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Extended Country Profile

2 · Government Efficiency

2.1 · Public Finance

	Value	Average	Rank	Year
2.1.01 · Government budget surplus/deficit (\$bn) US\$ billions	0.77	-91.93	6	2021
2.1.02 · Government budget surplus/deficit (%) Percentage of GDP	0.89	-4.00	4	2021
2.1.03 · Total general government debt (\$bn) US\$ billions	21.76	1,436.31	8	2021
2.1.04 · Total general government debt (%) Percentage of GDP	25.09	71.59	5	2021
2.1.05 · Total general government debt-real growth Percentage change, based on national currency in constant prices	11.85	8.58	47	2021
2.1.06 · Interest payment (%) Percentage of current revenue	0.36	5.98	3	2021
2.1.07 · Public finances Public finances are being efficiently managed	6.79	4.92	10	2022
2.1.08 · Tax evasion Tax evasion is not a threat to your economy	6.31	5.05	16	2022
2.1.09 · Pension funding Pension funding is adequately addressed for the future	5.95	4.77	13	2022
2.1.10 · General government expenditure Percentage of GDP	42.3	38.2	34	2021

2.2 · Tax Policy

	Value	Average	Rank	Year
2.2.01 · Collected total tax revenues Percentage of GDP	38.23	27.09	51	2020
2.2.02 · Collected personal income tax On profits, income and capital gains, as a percentage of GDP	9.73	6.00	50	2020
2.2.03 · Collected corporate taxes On profits, income and capital gains, as a percentage of GDP	4.60	2.70	57	2020
2.2.04 · Collected indirect tax revenues Taxes on goods and services as a percentage of GDP	8.81	9.41	24	2020
2.2.05 · Collected capital and property taxes Percentage of GDP	3.83	1.47	58	2020
2.2.06 · Collected social security contribution Compulsory contribution of employees and employers as a percentage of GDP	11.21	7.28	44	2020
2.2.07 · Corporate tax rate on profit Maximum tax rate, calculated on profit before tax	24.94	22.34	38	2021
2.2.08 · Consumption tax rate Standard rate of VAT/GST	17.00	16.37	27	2021
2.2.09 · Employer social security tax rate %	15.2	16.0	33	2021
2.2.10 · Employee social security tax rate %	12.5	10.4	40	2021
2.2.11 · Real personal taxes Real personal taxes do not discourage people from working or seeking advancement	6.67	5.12	8	2022

2.3 · Institutional Framework

Value Average Rank Year

2.3.01 · Real short-term interest rate Real discount / bank rate	-3.82	-3.07	6	2021
2.3.02 · Cost of capital Cost of capital encourages business development	6.21	5.63	23	2022
2.3.03 · Interest rate spread Lending rate minus deposit rate	1.07	3.49	5	2021
2.3.04 · Country credit rating Index (0-60) of three country credit ratings: Fitch, Moody's and S&P	60.0	43.0	1	2021
2.3.05 · Central bank policy Central bank policy has a positive impact on the economy	6.55	6.31	31	2022
2.3.06 · Foreign currency reserves US\$ billions	2.92	216.77	59	2021
2.3.07 · Foreign currency reserves per capita US\$ per capita	4,602	9,199	18	2021
2.3.08 · Exchange rate stability Parity change from national currency to SDR, 2021 / 2019	0.024	0.072	9	2021
2.3.09 · Legal and regulatory framework The legal and regulatory framework encourages the competitiveness of enterprises	6.31	5.37	18	2022
2.3.10 · Adaptability of government policy Adaptability of government policy to changes in the economy is high	6.62	4.83	8	2022
2.3.11 · Transparency Transparency of government policy is satisfactory	6.03	4.87	17	2022
2.3.12 · Bureaucracy Bureaucracy does not hinder business activity	4.26	3.72	24	2022
2.3.13 · Bribery and corruption Bribery and corruption do not exist	6.31	4.77	21	2022
2.3.14 · Rule of law Rule of Law Index	95.67	72.47	10	2020
2.3.15 · Sustainable Development Goals Country performance on the 17 SDGs	74.2	75.1	37	2021
2.3.16 · Democracy Index EIU Overall Democracy Index, © The Economist Intelligence Unit Limited 2021	8.68	6.97	13	2021

2.4 · Business Legislation

Value Average Rank Year

2.4.01 · Tariff barriers	1.48	2.32	11	2020
Tariffs on imports: Applied weighted mean tariff rate for all products				
2.4.02 · Protectionism	6.91	5.74	19	2022
Protectionism of your government does not impair the conduct of your business				
2.4.03 · Public sector contracts	6.89	5.96	19	2022
Public sector contracts are sufficiently open to foreign bidders				
2.4.04 · Foreign investors	7.58	6.82	20	2022
Foreign investors are free to acquire control in domestic companies				
2.4.05 · Capital markets	6.84	6.57	31	2022
Capital markets (foreign and domestic) are easily accessible				
2.4.06 · Investment incentives	7.14	5.93	8	2022
Investment incentives are attractive to foreign investors				
2.4.07 · Government subsidies	1.02	2.02	16	2021
To private and public companies as a percentage of GDP				
2.4.08 · Subsidies	6.60	5.52	14	2022
Subsidies do not distort fair competition and economic development				
2.4.09 · State ownership of enterprises	5.85	6.04	41	2022
State ownership of enterprises is not a threat to business activities				
2.4.10 · Competition legislation	6.26	5.84	26	2022
Competition legislation is efficient in preventing unfair competition				
2.4.11 · Parallel economy	6.36	5.14	19	2022
Parallel (black-market, unrecorded) economy does not impair economic development				
2.4.12 · New business density	17.2	5.8	3	2018
Registered new businesses per 1'000 people aged 15-64				
2.4.13 · Creation of firms	7.08	6.63	27	2022
Creation of firms is supported by legislation				
2.4.14 · Start-up days	16.5	15.1	48	2019
Number of days to start a business				
2.4.15 · Start-up procedures	5.0	6.0	24	2019
Number of procedures to start a business				
2.4.16 · Labor regulations	6.44	5.50	21	2022
Labor regulations (hiring/firing practices, minimum wages, etc.) do not hinder business activities				
2.4.17 · Unemployment legislation	5.85	4.99	18	2022
Unemployment legislation provides an incentive to look for work				
2.4.18 · Immigration laws	6.87	5.83	11	2022
Immigration laws do not prevent your company from employing foreign labor				
2.4.19 · Redundancy costs	4.3	9.4	21	2019
Number of weeks of salary				

2.5 · Societal Framework

Value Average Rank Year

2.5.01 · Justice Justice is fairly administered	6.85	5.72	21	2022
2.5.02 · Homicide Intentional homicide, rate per 100'000 population	0.16	4.28	2	2020
2.5.03 · Ageing of population Population over 65, percentage of total population	14.6	14.8	25	2021
2.5.04 · Risk of political instability The risk of political instability is very low	8.49	5.80	8	2022
2.5.05 · Social cohesion Social cohesion is high	7.03	5.68	16	2022
2.5.06 · Gini coefficient Equal distribution of income scale: 0 (absolute equality) to 100 (absolute inequality)	34.20	35.03	31	2019
2.5.07 · Income distribution - lowest 10% Percentage of household incomes going to lowest 10% of households	2.70	2.75		2019
2.5.08 · Income distribution - highest 10% Percentage of household incomes going to highest 10% of households	25.00	26.98		2019
2.5.09 · Income distribution - lowest 40% Percentile going to the lowest 40% of households	18.50	18.99	33	2018
2.5.10 · Income distribution - lowest 40% growth Percentile going to the lowest 40% of households - growth	-1.07	0.34	31	2018
2.5.11 · Equal opportunity Equal opportunity legislation in your economy encourages economic development	7.05	6.17	17	2022
2.5.12 · Females in parliament Percentage of total seats in Parliament	35.00	29.11	22	2021
2.5.13 · Unemployment rate - gender ratio Ratio of the female and male unemployment rates	1.14	1.25	44	2021
2.5.14 · Gender inequality Gender Inequality Index (UNDP)	0.065	0.183	13	2019
2.5.15 · Disposable Income Female / male ratio	98.5	72.2	1	2020
2.5.16 · Freedom of the Press Reporters Without Borders: World Press Freedom Score	17.56	27.85	17	2021

LUXEMBOURG

Extended Country Profile

3 · Business Efficiency

3.1 · Productivity & Efficiency

	Value	Average	Rank	Year
3.1.01 · Overall productivity (PPP) Estimates: GDP (PPP) per person employed, US\$	164,510	84,576	1	2021
3.1.02 · Overall productivity (PPP) - real growth Estimates: Percentage change of GDP (PPP) per person employed	5.62	2.84	11	2021
3.1.03 · Labor productivity (PPP) Estimates: GDP (PPP) per person employed per hour, US\$	109.77	48.28	1	2021
3.1.04 · Agricultural productivity (PPP) Estimates: Related GDP (PPP) per person employed in agriculture, US\$	45,246	55,834	32	2021
3.1.05 · Productivity in industry (PPP) Estimates: Related GDP (PPP) per person employed in industry, US\$	117,579	107,180	23	2021
3.1.06 · Productivity in services (PPP) Estimates: Related GDP (PPP) per person employed in services, US\$	185,893	86,235	1	2021
3.1.07 · Workforce productivity Workforce productivity is competitive by international standards	6.49	6.15	25	2022
3.1.08 · Large corporations Large corporations are efficient by international standards	6.57	6.67	36	2022
3.1.09 · Small and medium-size enterprises Small and medium-size enterprises are efficient by international standards	6.68	6.12	22	2022
3.1.10 · Use of digital tools and technologies Companies are very good at using digital tools and technologies to improve performance	6.28	6.29	29	2022

3.2 · Labor Market

Value Average Rank Year

3.2.01 · Compensation levels	30.63	15.09	55	2021
Total hourly compensation in manufacturing (wages + supplementary benefits), US\$				
3.2.02 · Unit labor costs for total economy	1.27	1.59	28	2021
Percentage change				
3.2.03 · Remuneration in services professions	64,767	28,619	57	2018
Gross annual income including supplements such as bonuses, US\$				
Remuneration in services professions / Call center agent	37,622	19,099		2018
Remuneration in services professions / Nurse	103,003	30,277		2018
Remuneration in services professions / Primary school	109,276	30,970		2018
Remuneration in services professions / Product Manager	58,941	49,302		2018
Remuneration in services professions / Sales Assistant	34,612	19,165		2018
Remuneration in services professions / Secretary / Personal	45,146	22,903		2018
3.2.04 · Remuneration of management	263,271	169,169	54	2019
Total base salary plus bonuses and long-term incentives, US\$				
Remuneration of management / CEO	431,606	306,535		2019
Remuneration of management / Director manufacturing	267,820	149,356		2019
Remuneration of management / Engineer	144,048	80,327		2019
Remuneration of management / Human resources director	209,611	140,455		2019
3.2.05 · Remuneration spread	9.97	17.99	16	2018
Ratio of CEO to personal assistant remuneration				
3.2.06 · Working hours	1,499	1,843	57	2021
Average number of working hours per year				
3.2.07 · Worker motivation	6.08	5.87	27	2022
Worker motivation in companies is high				
3.2.08 · Industrial disputes	0.00	12.21	1	2017
Working days lost per 1,000 inhabitants per year (average 2018-2020)				
3.2.09 · Apprenticeships	5.51	5.20	26	2022
Apprenticeships are sufficiently implemented				
3.2.10 · Employee training	6.26	6.03	29	2022
Employee training is a high priority in companies				
3.2.11 · Labor force	0.51	40.47	61	2021
Employed and registered unemployed (millions)				
3.2.12 · Labor force (%)	80.41	50.09	1	2021
Percentage of population				
3.2.13 · Labor force growth	2.83	1.18	13	2021
Percentage change				
3.2.14 · Labor force - long-term growth	3.73	-0.67	6	2021
Estimates: five year percentage change				
3.2.15 · Part-time employment	12.76	15.19	34	2020
Percentage of total employment				
3.2.16 · Female labor force	39.51	42.68	51	2019
Percentage of total labor force				
3.2.17 · Foreign labor force - migrant stock	57.60	17.76	3	2020
Migrant stock, age 20-64, % of population				
3.2.18 · Skilled labor	4.05	5.21	52	2022
Skilled labor is readily available				
3.2.19 · Finance skills	6.24	6.07	32	2022
Finance skills are readily available				
3.2.20 · Attracting and retaining talents	7.82	6.82	10	2022
Attracting and retaining talents is a priority in companies				
3.2.21 · Brain drain	5.64	4.93	23	2022
Brain drain (well-educated and skilled people) does not hinder competitiveness in your economy				
3.2.22 · Foreign highly-skilled personnel	7.46	5.39	7	2022
Foreign highly-skilled personnel are attracted to your country's business environment				
3.2.23 · International experience	7.05	5.62	8	2022
International experience of senior managers is generally significant				
3.2.24 · Competent senior managers	4.87	5.45	45	2022
Competent senior managers are readily available				

3.3 · Finance

Value Average Rank Year

3.3.01 · Banking sector assets Percentage of GDP	751.90	157.54	1	2021
3.3.02 · Financial cards in circulation Number of cards per capita	5.08	3.45	12	2020
3.3.03 · Financial card transactions US\$ per capita	19,931	11,334	7	2020
3.3.04 · Access to financial services Proportion of adults with a bank account or mobile-money-service provider	98.77	82.66	10	2017
3.3.05 · Access to financial services - gender ratio Ratio of the female and male access to a bank account or mobile-money-service provider	0.99	0.96	30	2017
3.3.06 · Banking and financial services Banking and financial services do support business activities efficiently	5.71	6.24	46	2022
3.3.07 · Regulatory compliance (banking laws) Regulatory compliance is sufficiently developed	7.82	6.92	15	2022
3.3.08 · Stock markets Stock markets provide adequate financing to companies	5.65	5.83	35	2022
3.3.09 · Stock market capitalization (\$bn) US\$ billions	65.6	1,470.4	44	2021
3.3.10 · Stock market capitalization (%) Percentage of GDP	75.66	105.47	25	2021
3.3.11 · Value traded on stock markets US\$ per capita	77	23,478	52	2020
3.3.12 · Listed domestic companies Number of listed domestic companies	29	718	56	2020
3.3.13 · Stock market index Percentage change on index in national currency	61.80	26.39	2	2021
3.3.14 · Shareholders' rights Shareholders' rights are sufficiently implemented	7.18	6.91	28	2022
3.3.15 · Initial Public Offerings By acquiror nation (average 2019-2021) US\$ millions	1,233.6	4,258.5	24	2021
3.3.16 · Credit Credit is easily available for business	5.37	6.05	47	2022
3.3.17 · Venture capital Venture capital is easily available for business	4.95	5.34	40	2022
3.3.18 · M&A Activity Deals per listed company (average 2018-2020)	8.314	1.193	1	2020
3.3.19 · Corporate debt Corporate debt does not restrain the ability of enterprises to compete	6.24	5.83	27	2022

3.4 · Management Practices	Value	Average	Rank	Year
3.4.01 · Agility of companies Companies are agile	6.00	6.08	30	2022
3.4.02 · Changing market conditions Companies are generally extremely aware of changing market conditions	6.56	6.69	38	2022
3.4.03 · Opportunities and threats Companies are very good at responding quickly to opportunities and threats	5.79	6.29	50	2022
3.4.04 · Credibility of managers Credibility of managers in society is strong	6.42	6.15	26	2022
3.4.05 · Corporate boards Corporate boards do supervise the management of companies effectively	6.26	6.17	30	2022
3.4.06 · Auditing and accounting practices Auditing and accounting practices are adequately implemented in business	7.74	7.25	22	2022
3.4.07 · Use of big data and analytics Companies are very good at using big data and analytics to support decision-making	4.65	5.33	46	2022
3.4.08 · Customer satisfaction Customer satisfaction is emphasized in companies	6.69	6.95	43	2022
3.4.09 · Entrepreneurship Entrepreneurship of managers is widespread in business	6.05	6.07	35	2022
3.4.10 · Social responsibility Social responsibility of business leaders is high	6.46	6.16	24	2022
3.4.11 · Women in management Female share of senior and middle management (% of management)	16.07	31.46	51	2017
3.4.12 · Women on boards Boardmembers of all companies analyzed by MSCI	24.70	24.22	29	2021
3.4.13 · Entrepreneurial fear of failure % indicating that fear of failure would prevent them from setting up a business	43.04	42.81	20	2021
3.4.14 · Total early-stage Entrepreneurial Activity % who are either a nascent entrepreneur or owner-manager of a new business	7.25	12.11	39	2021

3.5 · Attitudes and Values	Value	Average	Rank	Year
3.5.01 · Attitudes toward globalization Attitudes toward globalization are generally positive in your society	6.26	6.47	38	2022
3.5.02 · Image abroad or branding The image abroad of your country encourages business development	7.17	6.44	22	2022
3.5.03 · National culture The national culture is open to foreign ideas	7.30	6.82	22	2022
3.5.04 · Flexibility and adaptability Flexibility and adaptability of people are high when faced with new challenges	6.18	6.63	45	2022
3.5.05 · Need for economic and social reforms The need for economic and social reforms is generally well understood	5.74	5.88	36	2022
3.5.06 · Digital transformation in companies Digital transformation in companies is generally well implemented	5.79	5.95	32	2022
3.5.07 · Value system The value system in your society supports competitiveness	6.72	6.23	23	2022

LUXEMBOURG

Extended Country Profile

4 · Infrastructure

4.1 · Basic Infrastructure

Value Average Rank Year

4.1.01 · Land area Square kilometers ('000)	3	1,207	60	2021
4.1.02 · Arable area Square meters per capita	1,035	2,704	45	2019
4.1.03 · Water resources Total internal renewable per capita in cubic meters	1,655	18,375	43	2018
4.1.04 · Access to water Access to water is adequately ensured and managed	9.03	7.90	15	2022
4.1.05 · Management of cities Management of cities supports business development	7.69	6.61	13	2022
4.1.06 · Population - market size Estimates in millions	0.63	81.51	62	2021
4.1.07 · Population - growth Percentage change	1.38	0.30	7	2021
4.1.08 · Dependent Population Percentage of total population	30.2	33.6		2021
Population over 65 years	14.6	14.8		2021
Population under 15 years	15.5	18.7		2021
4.1.09 · Dependency ratio Population under 15 and over 64 years old, divided by active population (15 to 64 years)	43.2	51.2	9	2021
4.1.10 · Roads Density of the network, km roads/square km land area	1.13	1.39	24	2019
4.1.11 · Railroads Density of the network, km per square km	0.105	0.049	5	2020
4.1.12 · Air transportation Number of passengers carried by main companies, thousands	753	27,297	53	2020
4.1.13 · Quality of air transportation Quality of air transportation encourages business development	8.08	7.07	17	2022
4.1.14 · Distribution infrastructure The distribution infrastructure of goods and services is generally efficient	8.15	7.12	19	2022
4.1.15 · Energy infrastructure Energy infrastructure is adequate and efficient	8.21	6.81	15	2022
4.1.16 · Total indigenous energy production Millions MTOE	0.23	169.14	61	2019
4.1.17 · Total indigenous energy production (%) Percentage of total requirements in tons of oil equivalent	5.8	106.4	61	2019
4.1.18 · Total final energy consumption Millions MTOE	3.84	122.04	5	2019
4.1.19 · Total final energy consumption per capita MTOE per capita	6.25	2.46	61	2019
4.1.20 · Electricity costs for industrial clients US\$ per kwh	0.085	0.107	17	2020

4.2 · Technological Infrastructure

Value Average Rank Year

4.2.01 · Investment in Telecommunications Percentage of GDP	0.12	0.42	62	2021
4.2.02 · Mobile Broadband subscribers 4G & 5G market, % of mobile market	52.2	71.5	53	2020
4.2.03 · Mobile Telephone costs Monthly Blended Average Revenue per User	29.6	15.7	58	2020
4.2.04 · Communications technology Communications technology (voice and data) meets business requirements	8.44	7.67	19	2022
4.2.05 · Secure internet servers publicly-trusted TLS/SSL certificates, Netcraft Secure Server Survey.	44,772	36,109	16	2020
4.2.06 · Internet users Number of internet users per 1000 people	983	839	5	2021
4.2.07 · Broadband subscribers Number of subscriptions per 1000 inhabitants	441	381	22	2020
4.2.08 · Internet bandwidth speed Average speed	171.3	93.5	6	2021
4.2.09 · Digital/Technological skills Digital/Technological skills are readily available	6.62	6.79	38	2022
4.2.10 · Qualified engineers Qualified engineers are available in your labor market	5.27	6.35	54	2022
4.2.11 · Public-private partnerships Public and private sector ventures are supporting technological development	6.24	6.08	28	2022
4.2.12 · Development & application of tech. Development and application of technology are supported by the legal environment	7.03	6.46	20	2022
4.2.13 · Funding for technological development Funding for technological development is readily available	6.21	5.98	32	2022
4.2.14 · High-tech exports (\$) US\$ millions	619	47,160	51	2020
4.2.15 · High-tech exports (%) Percentage of manufactured exports	5.62	18.12	54	2020
4.2.16 · ICT service exports Percentage of service exports	4.3	9.7	46	2018
4.2.17 · Cyber security Cyber security is being adequately addressed by corporations	6.36	5.89	24	2022

4.3 · Scientific Infrastructure

Value Average Rank Year

4.3.01 · Total expenditure on R&D (\$) US\$ millions	828	31,953	48	2020
4.3.02 · Total expenditure on R&D (%) Percentage of GDP	1.13	1.63	38	2020
4.3.03 · Total expenditure on R&D per capita (\$) US\$ per capita	1,322.2	647.1	13	2020
4.3.04 · Business expenditure on R&D (\$) US\$ millions	445	24,238	44	2020
4.3.05 · Business expenditure on R&D (%) Percentage of GDP	0.61	1.11	37	2020
4.3.06 · Total R&D personnel Full-time work equivalent (FTE thousands)	5.7	233.3	50	2020
4.3.07 · Total R&D personnel per capita Full-time work equivalent (FTE) per 1000 people	9.08	5.37	11	2020
4.3.08 · Total R&D personnel in business enterprise Full-time work equivalent (FTE thousands)	3.2	183.3	50	2020
4.3.09 · Total R&D personnel in business per capita Full-time work equivalent (FTE) per 1000 people	5.03	3.31	14	2020
4.3.10 · Researchers in R&D per capita Full-time work equivalent (FTE) per 1000 people	4.9	3.6	17	2020
4.3.11 · Graduates in Sciences % of graduates in ICT, Engineering, Math & Natural Sciences	18.96	24.75	51	2019
4.3.12 · Scientific articles Scientific articles published by origin of author	909	39,473	58	2019
4.3.13 · Nobel prizes Awarded in physics, chemistry, physiology or medicine and economics since 1950	0	9	28	2021
4.3.14 · Nobel prizes per capita Awarded in physics, chemistry, physiology or medicine and economics since 1950 per million people	0.00	0.19	28	2021
4.3.15 · Patent applications Number of applications filed by applicant's origin	2,686	52,962	29	2020
4.3.16 · Patent applications per capita Number of applications filed by applicant's origin, per 100,000 inhabitants	429.00	80.01	3	2020
4.3.17 · Patent grants Number of patents granted by applicant's origin (average 2018-2020)	2,193	25,007	29	2020
4.3.18 · Number of patents in force by applicant's origin, per 100,000 inhabitants	3,324.3	491.7	2	2020
4.3.19 · Medium- and high-tech value added Proportion of total manufacturing value added, expressed as a percentage	20.77	38.63	56	2019
4.3.20 · Scientific research legislation Laws relating to scientific research do encourage innovation	6.88	5.97	20	2022
4.3.21 · Intellectual property rights Intellectual property rights are adequately enforced	7.58	6.59	15	2022
4.3.22 · Knowledge transfer Knowledge transfer is highly developed between companies and universities	5.71	5.52	24	2022

4.4 · Health and Environment

Value Average Rank Year

4.4.01 · Total health expenditure Percentage of GDP	5.4	7.5	48	2019
4.4.02 · Total health expenditure per capita US\$ per capita	6,140	2,614	4	2019
4.4.03 · Public expenditure on health (%) Percentage of total health expenditure	85.87	65.44	1	2019
4.4.04 · Health infrastructure Health infrastructure meets the needs of society	7.74	5.97	13	2022
4.4.05 · Universal health coverage index Coverage index for essential health services (0-100)	86	78	8	2019
4.4.06 · Life expectancy at birth Average estimate	81.7	78.4	18	2020
4.4.07 · Healthy life expectancy Average estimate	71.2	68.3	17	2021
4.4.08 · Infant mortality Under five mortality rate per 1000 live births	2.8	7.9	10	2020
4.4.09 · Medical assistance Number of inhabitants per physician and per nurse			22	2021
Medical assistance / Per nurse	88.16	302.83		2021
Medical assistance / Per physician	340.52	533.91		2021
4.4.10 · Urban population Percentage of total population	92	77		2021
4.4.11 · Human development index Combines economic - social - educational indicators/ Source: Human Development Report	0.916	0.862	22	2019
4.4.12 · Energy intensity Total energy consumed for each 1000 US\$ of GDP in MTOE	53	102	9	2018
4.4.13 · Safely treated waste water Percentage of waste water	96.3	76.7	10	2020
4.4.14 · Water use efficiency US\$ per cubic meter	1,189.98	97.67	1	2019
4.4.15 · CO2 emissions Metric tons of carbon dioxide from fuel combustion	7.5	420.2	5	2020
4.4.16 · CO2 emissions intensity CO2 emissions from fuel combustion in metric tons per one million US\$ of GDP	102.0	354.2	9	2020
4.4.17 · Exposure to particle pollution Mean population exposure to PM2.5, Micrograms per cubic metre	10.09	20.45	16	2019
4.4.18 · Renewable energies (%) Share of renewables in total energy requirements, %	8.1	16.8	44	2019
4.4.19 · Forest area growth Five year percentage change of hectares	0.0	0.4	30	2020
4.4.20 · Total biocapacity Global hectares per capita of biologically productive space	1.21	3.26	39	2018
4.4.21 · Ecological footprint Global hectares per person	13.0	5.0	59	2018
4.4.22 · Ecological balance (reserve/deficit) Total biocapacity minus total footprint in global hectares per capita	-11.74	-1.73	59	2018
4.4.23 · Environment-related technologies Development of environment-related technologies, % inventions worldwide	0.04	1.60	39	2019
4.4.24 · Environmental agreements Multilateral agreements on hazardous waste, proportion fulfilled	79.17	83.34	44	2015
4.4.25 · Sustainable development Sustainable development is a priority in companies	6.59	6.21	21	2022
4.4.26 · Pollution problems Pollution problems do not seriously affect your economy	6.08	5.71	25	2022
4.4.27 · Environmental laws Environmental laws and compliance do not hinder the competitiveness of businesses	6.13	6.17	33	2022
4.4.28 · Quality of life Quality of life is high	8.62	6.76	10	2022

4.5 · Education

Value Average Rank Year

4.5.01 · Total public expenditure on education Percentage of GDP	5.0	5.0	31	2020
4.5.02 · Total public expenditure on education per capita US\$ per capita	5,820	1,562	1	2020
4.5.03 · Total public exp. on education per student Spending per enrolled pupil/student, all levels	29,423	6,944	1	2019
4.5.04 · Pupil-teacher ratio (primary education) Ratio of students to teaching staff	8.97	15.95	1	2019
4.5.05 · Pupil-teacher ratio (secondary education) Ratio of students to teaching staff	9.24	13.74	7	2019
4.5.06 · Secondary school enrollment Percentage of relevant age group receiving full-time education	89.3	92.7	49	2019
4.5.07 · Higher education achievement Percentage of population that has attained at least tertiary education for persons 25-34	58.2	44.2	10	2020
4.5.08 · Women with degrees Share of women who have a degree in the population 25-65	52.5	39.7	11	2020
4.5.09 · Student mobility inbound Foreign tertiary-level students per 1000 inhabitants	5.63	4.01	12	2019
4.5.10 · Student mobility outbound National tertiary-level students studying abroad per 1000 inhabitants	19.75	2.62	2	2019
4.5.11 · Educational assessment - PISA PISA survey of 15-year olds	477	471	34	2018
Educational assessment - PISA / Mathematics	483	472		2018
Educational assessment - PISA / Reading	470	468		2018
Educational assessment - PISA / Sciences	477	472		2018
4.5.12 · Students who are not low achievers - PISA % of students who are not low achievers in maths, sciences and reading	61.4	58.5	33	2018
4.5.13 · English proficiency - TOEFL TOEFL scores	98	92	7	2020
4.5.14 · Primary and secondary education Primary and secondary education meets the needs of a competitive economy	6.51	6.10	27	2022
4.5.15 · University education University education meets the needs of a competitive economy	6.26	6.40	38	2022
4.5.16 · Management education Management education meets the needs of the business community	6.49	6.34	35	2022
4.5.17 · University education index Country score calculated from Times Higher Education university ranking	12.45	14.07	25	2021
4.5.18 · Illiteracy Adult (over 15 years) illiteracy rate as a percentage of population	1.0	2.4	1	2020
4.5.19 · Language skills Language skills are meeting the needs of enterprises	8.64	6.41	6	2022

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