

Bulgaria - Country Brief

Global Talent Competitiveness Index (GTCI) 2020

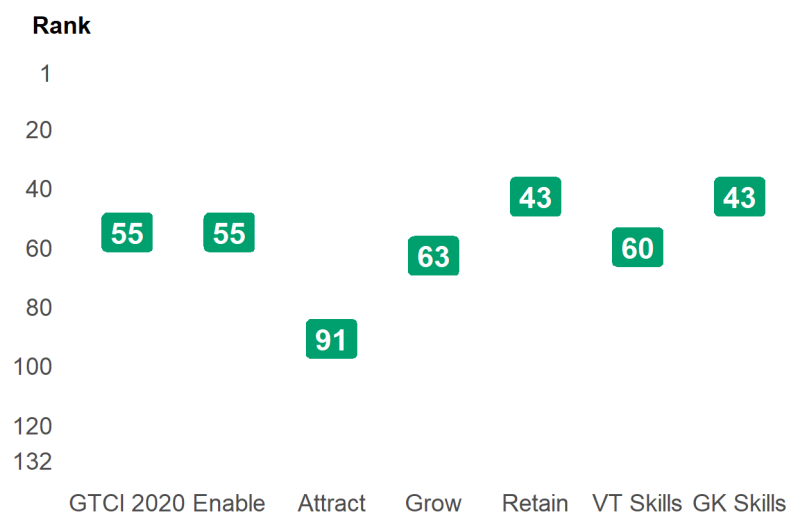


Total population:	7.02 million
GDP:	US\$ 65.13 billion
GDP (PPP) per capita:	US\$ 20,948.10 (56 out of 132 countries)
Country income level:	Upper-middle income
GTCI 2020 ranking:	55 (out of 132)

Global GTCI position

In GTCI 2020, Bulgaria is ranked 55 out of a sample of 132 countries (Figure 1). The country's main strength relates to the pillar Retain, especially the sub-pillar Lifestyle. The greatest scope for improvement, meanwhile, is in the pillar Attract, where External Openness is the weakest sub-pillar.

Figure 1: Bulgaria global ranking (GTCI sample of 132 countries)



Note: VT Skills = Vocational and Technical Skills; GK Skills = General Knowledge Skills.



Comparison with different groups of countries

Bulgaria is situated in Europe and is classified as an upper-middle-income country. Within its region, the country is ranked 30 out of 38 countries (Table 1). With respect to other regions, Bulgaria does not have a higher score than any of the top-scoring countries.

Bulgaria is ranked 9 within the group of upper-middle-income countries (implying that 75 percent of countries rank lower). As for the other income groups, it outperforms the top-ranked country in one of them.

Table 1: Bulgaria performance vs. income groups and regions

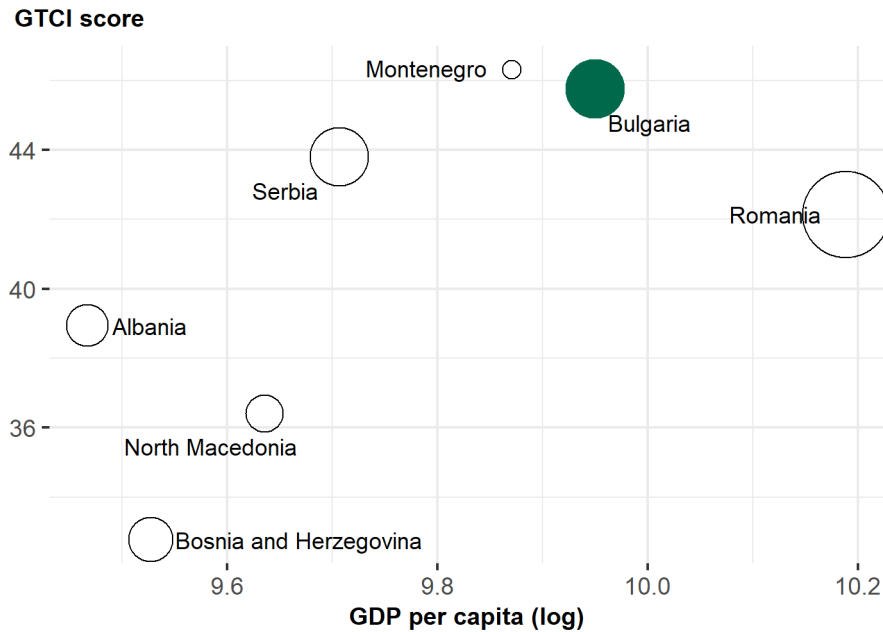
Comparison group	Top 3 scorers of the group	Score GAP: Bulgaria score minus group highest score	Share of countries in the group ranked below Bulgaria
Region			
Central and Southern Asia	Kazakhstan, India, Sri Lanka	-0.3	90%
Eastern, Southeastern Asia and Oceania	Singapore, Australia, New Zealand	-32.7	40%
Europe	Switzerland, Sweden, Denmark	-35.5	21%
Latin America and the Caribbean	Chile, Costa Rica, Trinidad and Tobago	-8.2	80%
Northern America	United States, Canada	-33.3	0%
Northern Africa and Western Asia	Israel, United Arab Emirates, Qatar	-19.9	56%
Sub-Saharan Africa	Mauritius, South Africa, Botswana	-1.2	97%
Income group			
High-income countries	Switzerland, United States, Singapore	-35.5	6%
Upper-middle-income countries	Malaysia, Costa Rica, China	-14.3	75%
Lower-middle-income countries	Philippines, Indonesia, Ukraine	-1.8	97%
Low-income countries	Tajikistan, Gambia, Rwanda	8.9	100%

Comparison with group of competitors

Bulgaria's group of competitors is defined as lower-middle-income and upper-middle-income countries located in Eastern and Southern Europe (excl. post-Soviet republics). In all, the comparison group consists of 7 countries and Figure 2 plots how Bulgaria fares against each competitor in terms of GTCI score and GDP per capita.

As can be seen, Bulgaria's GTCI score and GDP per capita are both greater than the corresponding medians of its group of competitors. Thus, the country's talent competitiveness is in line with what would be expected given its income level.

Figure 2: GTCI score and GDP per capita (log) of Bulgaria and its identified competitors

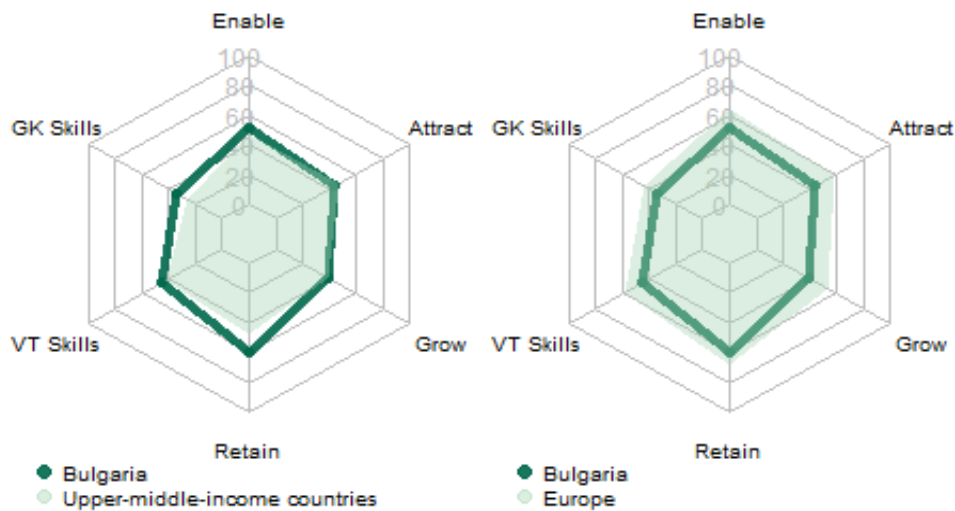


Note: Bubble size indicates country population.

Performance across pillars

The performance of Bulgaria is higher than the average of upper-middle income countries in five of the six pillars: Enable, Grow, Retain, Vocational and Technical Skills and Global Knowledge Skills. Its greatest showing, comparatively speaking, is in the pillar related to Retain. With respect to its region, Bulgaria trails Europe in each of the six pillars. Just as it does against its income group, Bulgaria performs particularly well against its region in the pillar that relates to Retain.

Figure 3: Bulgaria pillar scores vs. averages of relevant income group and region



Note: VT Skills = Vocational and Technical Skills; GK Skills = General Knowledge Skills.



Talent competitiveness and technology adoption

This year's GTCI introduces a new component—Technology Adoption—in the Business and Labour Landscape sub-pillar (within the Enable pillar). It aims to capture the extent to which countries are taking steps to be ready at the advent of the Fourth Industrial Revolution. It therefore provides a measure of how well countries are enabling the development of talents associated with advanced technologies such as artificial intelligence and Internet of Things.

Figure 4 depicts the rankings of countries in the GTCI 2020 and in the three variables that relate to the Technology Adoption component. Bulgaria, ranked 55th overall, finds itself in the second quartile with respect to both Technology utilisation (70th) and Robot density (44th), whereas it is placed in the third quartile when it comes to Investment in emerging technologies (49th).

Figure 4: Performance in GTCI 2020 and Technology Adoption variables

	GTCI 2020	Technology utilisation	Investment in emerging technologies	Robot density		GTCI 2020	Technology utilisation	Investment in emerging technologies	Robot density
Switzerland	1	3	4	17	Thailand	67	46	36	27
United States	2	1	1	7	Georgia	68	106	95	
Singapore	3	12	13	7	Mexico	69	52	62	32
Sweden	4	2	3	5	South Africa	70	42	39	35
Denmark	5	8	14	6	Botswana	71	104	94	
Netherlands	6	7	5	10	India	72	50	26	51
Finland	7	6	6	18	Namibia	73	73	81	
Luxembourg	8	9	10		Colombia	74	79	64	60
Norway	9	15	15	25	Mongolia	75	88	89	
Australia	10	25	23	23	Albania	76	81	116	
Germany	11	10	7	1	Peru	77	95	107	61
United Kingdom	12	13	8	21	Turkey	78	65	102	34
Canada	13	22	19	13	Tunisia	79	107	78	53
Iceland	14	4	24	38	Brazil	80	57	63	42
Ireland	15	17	17	31	Dominican Republic	81	67	96	
New Zealand	16	16	18	28	Ecuador	82	74	111	
Austria	17	20	25	11	Sri Lanka	83	93	67	
Belgium	18	28	20	9	Tajikistan	84	92	56	
Japan	19	11	9	4	Gambia	85	66	73	
Israel	20	5	2	29	Moldova	86	101	118	64
France	21	27	21	16	Ghana	87	85	44	
United Arab Emirates	22	18	11	54	Kenya	88	32	31	
Malta	23	30	37	33	North Macedonia	89	111	123	
Estonia	24	23	34	39	Cabo Verde	90	89	83	
Czech Republic	25	34	35	19	Kyrgyzstan	91	125	119	
Malaysia	26	14	12	26	Bhutan	92	96	77	
South Korea	27	21	33	1	Rwanda	93	63	41	
Portugal	28	24	38	24	Honduras	94	55	75	
Qatar	29	33	16	65	Guatemala	95	36	69	
Cyprus	30	51	91		Vietnam	96	102	65	41
Slovenia	31	40	40	12	Egypt	97	78	71	59
Spain	32	47	54	14	Laos	98	97	50	
Latvia	33	35	52	47	Paraguay	99	100	120	
Chile	34	37	66	56	Morocco	100	60	80	49
Lithuania	35	19	28	43	Bosnia and Herzegovina	101	105	124	57
Italy	36	59	59	8	Iran	102	117	101	63
Costa Rica	37	41	47		Zambia	103	113	90	
Brunei Darussalam	38	76	112		Senegal	104	43	58	
Slovakia	39	38	43	15	Algeria	105	118	84	
Saudi Arabia	40	26	29	58	Pakistan	106	72	48	68
Bahrain	41	31			Bolivia	107	121	127	
China	42	56	32	20	Côte d'Ivoire	108	54	98	
Oman	43	48	42	62	Nicaragua	109	114	125	
Poland	44	61	70	30	El Salvador	110	108	121	
Azerbaijan	45	44	22		Tanzania	111	99	57	
Philippines	46	39	30	50	Nigeria	112	90	113	
Greece	47	84	109	36	Uganda	113	109	74	
Russia	48	62	46	48	Venezuela	114	123	129	67
Mauritius	49	53	79		Eswatini	115	122	128	
Trinidad and Tobago	50	77	115		Cameroon	116	112	87	
Uruguay	51	71	103		Cambodia	117	94	53	
Hungary	52	68	99	22	Liberia	118	128	114	
Montenegro	53	75	86		Lesotho	119	130	76	
Kazakhstan	54	87	72		Malawi	120	124	117	
Bulgaria	55	70	49	44	Nepal	121	120	104	
Argentina	56	86	82	40	Burkina Faso	122	119	108	
Jamaica	57	58	68		Ethiopia	123	126	100	
Serbia	58	98	92	52	Bangladesh	124	80	97	
Croatia	59	82	106	45	Mali	125	110	88	
Armenia	60	69	51		Madagascar	126	83	85	
Jordan	61	45	45		Zimbabwe	127	115	126	
Panama	62	49	61		Mozambique	128	116	105	
Kuwait	63	64	55	66	Burundi	129	131	110	
Romania	64	103	93	37	DR Congo	130	127	122	
Indonesia	65	29	27	46	Angola	131	129	131	
Ukraine	66	91	60	55	Yemen	132	132	130	

Note: Performances are highlighted by shades of green, where a higher ranking is associated with a darker colour. A blank cell denotes that data is not available.



Sources

- Berry, B. (2019). *berryFunctions: Function Collection Related to Plotting and Hydrology*. R package version 1.18.2. URL: <https://CRAN.R-project.org/package=berryFunctions>
- Gohel, D. (2019). *officer: Manipulation of Microsoft Word and PowerPoint Documents*. R package version 0.3.6. URL: <https://CRAN.R-project.org/package=officer>
- Gohel, D. (2019). *flextable: Functions for Tabular Reporting*. R package version 0.5.6. URL: <https://CRAN.R-project.org/package=flextable>
- Lanvin, B., & Monteiro, F. (eds.) (2020). *The Global Talent Competitiveness Index 2020: Global Talent in the Age of Artificial Intelligence*. Fontainebleau: INSEAD.
- Milton Bache, S. & Wickham, H. (2014). *magrittr: A Forward-Pipe Operator for R*. R package version 1.5. URL: <https://CRAN.R-project.org/package=magrittr>
- Nakazawa, M. (2019). *fmsb: Functions for Medical Statistics Book with some Demographic Data*. R package version 0.7.0. URL: <https://CRAN.R-project.org/package=fmsb>
- R Core Team (2018). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing, Vienna, Austria. URL: <https://www.R-project.org/>.
- Slowikowski, K. (2019). *ggrepel: Automatically Position Non-Overlapping Text Labels with 'ggplot2'*. R package version 0.8.1. URL: <https://CRAN.R-project.org/package=ggrepel>
- Wickham, H. (2007). Reshaping Data with the reshape Package. *Journal of Statistical Software*, 21(12), 1-20. URL: <http://www.jstatsoft.org/v21/i12/>.
- Wickham, H. (2016). *ggplot2: Elegant Graphics for Data Analysis*. Springer-Verlag. New York.
- Wickham et al., (2019). Welcome to the tidyverse. *Journal of Open Source Software*, 4(43), 1686, URL: <https://doi.org/10.21105/joss.01686>
- Wikimedia Commons, the free media repository. Map attribution: NuclearVacuum - File:Location European nation states.svg, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=8105030>