

# World Future Skills Index

**Bulgaria** Spotlight

Transforming higher education for the skills economy



# Higher education's role in future workforce readiness

**Welcome** to the Bulgaria Spotlight on the QS World Future Skills Index, where we explore higher education's critical role in shaping the workforce of tomorrow. This tailored resource empowers you to analyse Bulgaria's future skills supply and demand, benchmark key industry jobs and skills gaps against over 80 countries, and align your higher education system with the skills training required for economic transformation.

By 2030, an estimated 375 million workers will need to switch occupational categories, requiring tailored reskilling initiatives and modular, lifelong learning opportunities.

Source: Jobs Lost, Jobs Gained report from McKinsey

# The QS World Future Skills Index in numbers

190+

countries analysed

4

indicators, informed by 13 sub-indicators

280m+

job postings assessed

5m+

employer skill demands reviewed

5,000+

universities measured

17.5m+

research papers examined

# How to use the QS World Future Skills Index

# **Analyse**

Assess your future skills supply and demand imbalance

# **Benchmark**

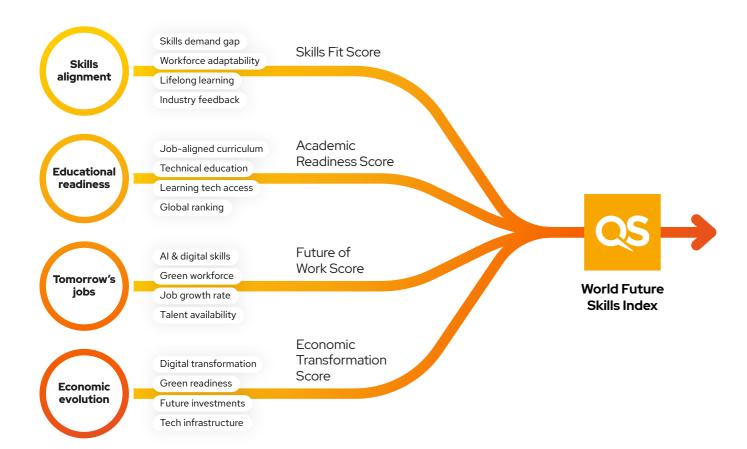
Identify and close key industry jobs and skills gaps in comparison to other countries/regions

# Align

Align your curricula to nurture the necessary future skills and reduce the risk of workforce displacement

The QS World Future Skills Index is designed to assess how prepared countries are to tackle the shifting demands of the global workforce, particularly in the context of digital transformation, AI, sustainability, and the broader economic changes impacting jobs.

Skills like AI proficiency, digital literacy, and environmental sustainability will form the bedrock of the industries of tomorrow. Countries that fail to adapt risk losing their competitive edge and missing opportunities for economic growth.



The QS World Future Skills Index uses data from over 280 million job postings via QS 1Mentor, the QS Global Employer Survey, and economic and demographic statistics from the World Bank Group. The Index assesses countries across four

key indicators: Skills Fit, Academic Readiness, Future of Work, and Economic Transformation. Each indicator plays a vital role in providing a comprehensive view of a country's preparedness to thrive in an increasingly skills-driven global economy.

# **QS World Future Skills Index indicators**

### Skills Fit

The Skills Fit indicator measures how well countries are equipping graduates with the skills that employers desire. This is assessed by determining the gap between what employers find important and their level of satisfaction with the skills provided by graduates.

This is done using data from the QS Global Employer Survey, the largest of its kind, and data from the World Bank Group. Since 2021, over 100,000 employers have rated the importance of certain skills and their satisfaction in their graduate hires.

### **Future of Work**

The Future of Work indicator evaluates a country's readiness to recruit for the skills needed in the jobs of tomorrow. Specifically, it measures how well the job market is prepared to meet the growing

demand for digital, AI, and green skills, all of which are becoming critical as economies transition towards technology-driven and sustainable industries.

### **Academic Readiness**

This dimension measures how well a country is prepared for the future of work. We look at the number of universities assessed for the QS World University Rankings by Subject, and how they perform.

We then measure this in tandem with population size – if a country has a large population but few well-ranked institutions, for example, the country will be penalised.

### **Economic Transformation**

Economic Transformation uses a weighted formula to assess a country's readiness to support the growth and future of work and skills by examining various key indicators. The Index highlights whether a country has the infrastructure, investment power,

and talent available to transition to industries driven by AI, digital transformation, green technologies, and high-skilled work, using data from the World Bank Group, UNESCO Institute for Statistics and the Education Policy Institute.



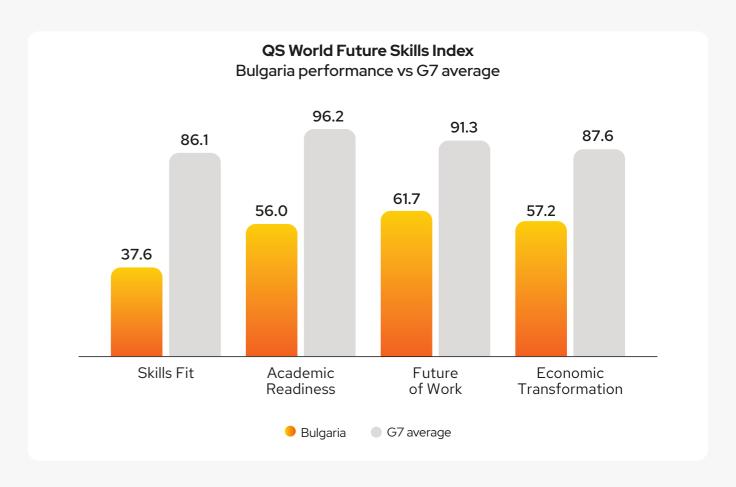
# Bulgaria | Performance overview

Bulgaria's higher education system has the potential to drive economic transformation, yet structural misalignments remain. Its Academic Readiness score (56.0) is supported by strengths in Al-related disciplines, but digital education lags behind, limiting its ability to fully meet industry needs. Meanwhile, Bulgaria's Future of Work score (61.7) reflects strong employer demand for digital skills, yet its Skills Fit score (37.6) suggests that graduates are not adequately prepared for these

roles. Compared to Romania, which has made strides in digital upskilling and workforce adaptability, Bulgaria faces greater challenges in ensuring that education translates into economic opportunity. Without targeted reforms in digital curricula and industry collaboration, Bulgaria risks falling behind in high-value job creation and talent retention. Strengthening university-business partnerships and integrating applied digital training will be essential to closing these gaps.



# Overall score: **53.1/100**



### **Skills** Fit 37.6/100

Skills Fit measures the alignment between workforce skills and employer needs. It highlights how effectively education systems prepare graduates for key industries, especially in emerging fields like Al, green technology, and digital innovation. Addressing gaps here boosts employability, drives economic transformation, and ensures the workforce remains competitive internationally.

### Academic Readiness 56.0/100

**Academic Readiness** reflects the capacity of a country's higher education system to equip students with relevant skills for future jobs. A robust system fosters innovation, aligns curricula with industry demands. This ensures graduates are not only employable but also capable of adapting to a rapidly changing global economy.

## **Future** of Work 61.7/100

Future of Work assesses a country's preparedness for jobs of the future, focusing on adaptability to technological and industrial changes. It reflects innovation, R&D investments, and sustainable practices in education. Higher education plays a vital role in fostering a future-ready workforce equipped with the skills required for evolving global industries.

### **Economic Transformation** 57.2/100

Economic

Transformation examines the interplay between education, workforce skills, and industrial growth. Higher education underpins this by driving productivity, innovation, and sustainability. Universities that align their programmes with industry needs not only strengthen national competitiveness but also ensure a balance between economic momentum and

workforce adaptability.

# Bulgaria | Detailed performance

### Skills Fit 84.1 88.5 84.0 86.0 G7 OECD 76.1 76.2 78.1 75.8 75.8 72.7 73.9 69.7 70.4 G20 69.7 71.4 69.6 69.0 69.6 EU APAC 67.9 72.2 66.6 67.8 58.4 60.5 55.1 55.3 **ASEAN** 58.7 54.5 BRICS 59.4 54.4 51.0 50.4 50.3 51.3 50.0 Latin America 41.3 45.7 40.2 41.0 MENA 38.7 36.7 38.1 36.1 Bulgaria 28.0 28.3 29.4 27.1 27.5 Africa Overall Skills Fit Score Adaptive Life Long Skills Entrepreneurial and Sustainable and Human-centred

### **QS** Analysis

Bulgaria's Skills Fit score (37.6) highlights the need to strengthen lifelong learning and workplace adaptability. With the OECD stating that 50% of jobs are at risk of automation, universities can play a key role in equipping graduates with Adaptive Lifelong Skills (38.7) to navigate career shifts. However, low Entrepreneurial & Innovative Mindset (36.1) suggests a gap in problem-solving and adaptability within companies. Strengthening industry-aligned learning and embedding real-world collaboration in university curricula will be crucial to preparing graduates for the evolving job market.

Note: The Skills Fit score is derived from over five million skills nominations, reflecting insights from more than 100,000 employer responses to the QS Global Employer Survey over the past four years. Employers identified key skills they value and their satisfaction levels. By analysing this data at the country level, and integrating it with the World Bank's Human Capital Index, the QS Insights and Consulting team developed the final scores. Skills nominated by employers have been grouped based on the findings.

### **Academic Readiness** G7 96.2 91.0 91.6 82.3 82.9 G20 90.2 82.9 770 76.6 76.9 BRICS 882 **OECD** 86.2 86.4 86.4 87.0 APAC 80.5 80.7 86.1 81.7 EU 81.9 83.3 82.2 81.2 78.2 77.8 ASFAN 79.1 78.7 Latin America 76.7 73.4 76.6 77.3 MENA 61.3 58.1 60.0 59.4 64.3 43.8 41.2 Bulgaria Africa 39.1 38.6 38.4 38.6 Overall Academic ΑI Digital Green Readiness Score

### **QS** Analysis

Universities in the country demonstrate emerging strength in AI (64.3) but lag in Digital (43.8), despite employer demand for digital expertise. This suggests that academic programmes must better reflect the digital transformation needs of the economy. With growing demand across Europe for AI and digital specialists, universities have an opportunity to expand interdisciplinary digital training and enhance collaboration with industry to embed job-relevant digital skills into curricula. Further investment in applied research and employer-linked education will be critical to aligning academic readiness and the economy's transformation trajectory.

Note: This chart draws on data from the QS World University Rankings by Subject 2024, analysing over 5,000 universities globally. The Academic Readiness score is calculated using the median subject rankings score for each country, adjusted for performance in key areas such as Al, digital, and green-related disciplines. Population size and the number of universities ranked are used as weighting factors to ensure a balanced assessment of scale and quality. This provides a comprehensive view of how effectively higher education systems are preparing for future workforce demands.

### **Future of Work** 85.2 83.8 G7 78.9 75.1 79.7 G20 84.3 76.1 74.6 77.1 APAC 82.9 69.5 71.4 75.3 80.1 ASEAN 60.2 71.5 71.3 BRICS 57.6 63.2 69.7 Latin America 73.0 68.2 63.9 60.9 72.9 OECD 68.2 64.5 57.1 53.7 EU 43.4 50.0 Bulgaria 38.4 38.9 Africa 49.6 31.9 40.2 MENA 40.6 Overall Future of Work Score Digital Green

### **QS** Analysis

Bulgaria's Future of Work score (61.7) highlights a limited demand from businesses for Al, Digital, and Green expertise, alongside a mismatch between employer expectations and workforce preparedness. The relatively low score in digital skills (57.1) suggests that businesses have yet to fully embrace digital transformation and the Skills Fit score (37.6) indicates that graduates are not fully equipped with skills that employers seek. This dual challenge risks slowing Bulgaria's productivity and innovation. To address this, universities must enhance digital curricula and industry-driven training and foster stronger employer recognition of the value of specialist expertise.

Note: The Future of Work Score measures the extent to which future-focused skills—such as digital, AI, and green competencies—have permeated global job advertisements compared to traditional skillsets. This score is derived from an analysis of over 280 million job postings worldwide, leveraging the QS proprietary skills taxonomy. Over 9,500 emerging skills were identified and benchmarked against conventional skills, providing a clear indicator of how deeply future-oriented capabilities are being prioritised by employers in the global labour market.

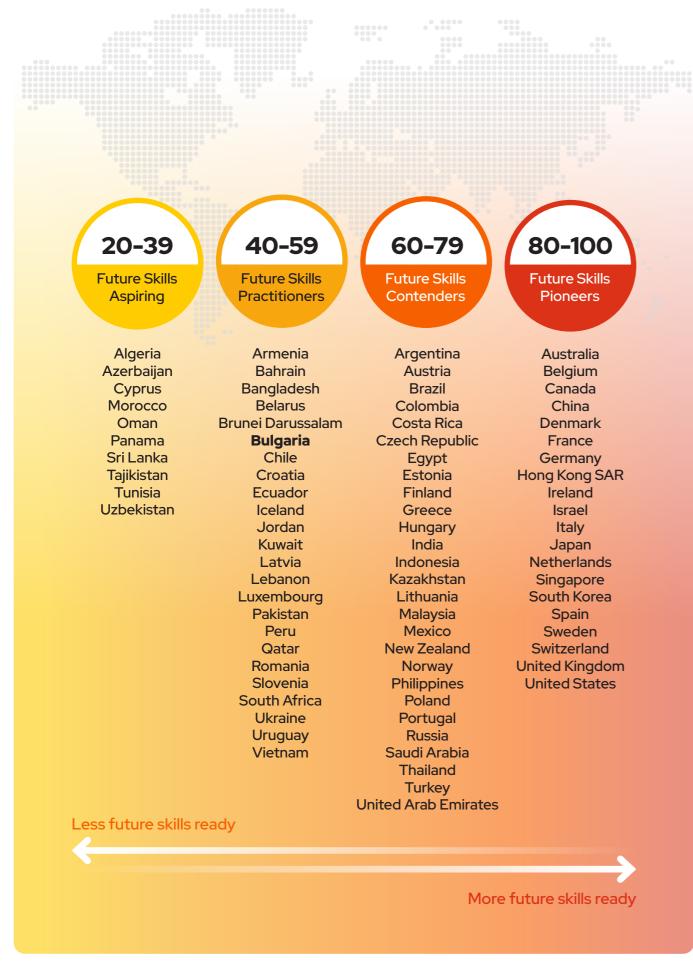
### **Economic Transformation** G7 70.7 69.1 68.3 47.0 67.1 64.7 OECD 77.3 40.9 EU 64.5 59.0 G20 60.2 62.1 49.2 65.1 57.4 58.9 42.2 APAC 61.2 **BRICS** 54.0 32.8 35.2 23.6 739 Bulgaria ASEAN 44.9 42.3 46.8 27.4 33.7 43.6 29.8 MFNA 24.6 47.4 27.1 Latin America 33.6 Africa 26.1 31.7 25.4 Overall Economic Economic Capacity Workforce Readiness Future-oriented Innovation Transformation Score and Sustainability

### **QS** Analysis

The Economic Transformation score (57.2) highlights an economy in transition, where Workforce Readiness (73.9) is strong, but Economic Capacity (23.6) is weak. To remain competitive, Bulgaria must shift from a low-labour-cost model to a high-productivity workforce, especially given pressures of emigration and an ageing population. However, Future-Oriented Innovation & Sustainability (35.2) indicates that research is not yet driving industry growth at scale. Bulgaria lags behind neighbouring economies, which have invested more in aligning higher education with innovation-led job creation. Universities need to strengthen business partnerships, scale digital and automation training, and ensure applied research translates into workforce-ready skills.

Note: The Economic Transformation indicator is built on three core dimensions: Economic Capacity, Workforce Readiness, and Future-Oriented Innovation and Sustainability. It combines data on GDP growth, labour productivity, employment rates, R&D investment, and infrastructure development. These indicators are weighted and benchmarked globally to assess a country's ability to adapt to skills-driven industrial change, with a focus on AI, digital, and green industries. The methodology ensures a comprehensive view of how effectively economic fundamentals and future-focused investments align with evolving workforce demands.

# Bulgaria | Full results summary



Note: The scores reflect the final results of the QS World Future Skills Index. Categories are organised alphabetically by economy for clarity and ease of comparison.

Country/Location	Skills Fit	Academic Readiness	Future Of Work	Economic Transformation	Final Score
United States	94.4	98.2	100.0	97.9	97.6
United Kingdom	100.0	100.0	95.6	92.7	97.1
Germany	89.2	99.6	94.7	94.7	94.6
Australia	87.2	98.9	96.5	90.6	93.3
Canada	90.9	97.8	97.4	78.1	91.0
Netherlands	88.6	99.3	90.4	81.2	89.9
Switzerland	80.7	97.1	82.6	96.8	89.3
France	84.8	92.6	91.3	84.3	88.2
Singapore	83.2	91.7	92.2	85.4	88.1
South Korea	84.4	88.4	76.5	100.0	87.3
China	78.5	93.9	87.8	88.5	87.2
Spain	76.4	96.3	93.0	70.8	84.1
Israel	70.6	93.0	73.0	98.9	83.9
Sweden	80.4	95.1	72.2	86.4	83.5
Japan	73.4	87.9	74.7	95.8	83.0
Belgium	72.4	95.9	71.3	91.6	82.8
Ireland	81.8	95.5	86.1	67.7	82.8
Denmark	73.0	96.7	66.1	93.7	82.4
Hong Kong SAR	77.0	98.6	69.5	80.2	81.3
Italy	70.3	97.4	85.2	69.7	80.7
Finland	76.1	93.4	62.6	87.5	79.9
New Zealand	75.6	94.7	80.0	63.5	78.5
Norway		94.3	56.5	83.3	78.0
Poland	68.5	85.3	86.9	68.7	77.3
India	59.1	89.9	99.1	58.3	76.6
Portugal	71.0	92.1	66.9	76.0	76.5
Czech Republic	72.4	77.5	82.6	71.8	76.1
Austria	66.5	90.8	64.3	82.2	75.9
United Arab Emirates	71.6	90.3	77.4	60.4	74.9

# Bulgaria | Full results summary

Country/Location	Skills Fit	Academic Readiness	Future Of Work	Economic Transformation	Final Score
Greece	62.3	85.9	65.2	72.9	71.6
Brazil	44.1	83.1	78.2	77.0	70.6
Malaysia	64.0	91.2	88.6	35.4	69.8
Thailand	58.1	81.4	80.8	52.0	68.1
Mexico	54.8	80.8	98.2	37.5	67.8
Lithuania	61.4	87.4	52.2	66.6	66.9
Hungary	59.3	84.2	68.6	54.1	66.6
Russia	73.4	84.8	33.8	73.9	66.5
Saudi Arabia	56.9	82.5	73.8	51.0	66.1
Türkiye	62.1	73.3	60.0	64.5	65.0
Colombia	58.3	82.0	89.5	27.0	64.2
Costa Rica		67.5	79.1	45.8	64.1
Argentina	57.8	83.7	84.3	23.9	62.4
Philippines	47.6	66.6	93.8	40.6	62.2
Estonia		70.1	53.0	61.4	61.5
Kazakhstan	67.8	75.5	40.8	59.3	60.9
Egypt	45.4	76.9	75.6	44.7	60.6
Indonesia	60.0	74.0	67.8	39.5	60.3
Lebanon	45.9	86.4	46.9		59.7
Chile	63.1	88.9	70.4	13.5	59.0
Qatar	45.5	79.5	59.1	47.9	58.0
Romania	43.0	72.5	58.2	48.9	55.7
Vietnam	58.1	74.7	57.4	31.2	55.4
Jordan	49.2	78.2	49.5	41.6	54.6
Slovenia		49.1	35.6	79.1	54.6
Bulgaria	37.6	56.0	61.7	57.2	53.1
Peru	51.0	80.1	54.7	26.0	53.0
Latvia	56.4	60.7	46.1	46.8	52.5
South Africa	28.3	89.4	81.7	10.4	52.4

Country/Location	Skills Fit	Academic Readiness	Future Of Work	Economic Transformation	Final Score
Bahrain	47.2	62.7	33.0	55.2	49.6
Ukraine	57.9	71.8	51.3	15.6	49.1
Bangladesh	39.1	65.7	42.6		49.1
Luxembourg		54.8	47.8	43.7	48.7
Kuwait	36.3	69.3	40.0		48.5
Belarus	57.6	40.4	29.5	65.6	48.3
Iceland		31.6	20.0	89.5	47.0
Pakistan	35.7	78.9	63.4	4.1	45.5
Croatia		36.4	35.6	62.5	44.8
Uruguay	40.6	59.5	60.8	17.7	44.7
Brunei Darussalam	29.8	70.9		30.2	43.6
Ecuador	30.6	64.8	41.7	34.3	42.8
Armenia	25.3		45.2	50.0	40.2
Uzbekistan	48.1	57.2	29.5	16.6	37.9
Cyprus	45.2	44.2	37.4	18.7	36.4
Azerbaijan	31.8	50.6	27.8	29.1	34.8
Oman	32.5	42.5	29.5	33.3	34.4
Panama	24.2		50.4	28.1	34.2
Sri Lanka	43.5		42.6	6.2	30.8
Morocco	17.0		53.8	20.8	30.5
Tunisia		29.0	37.4	19.7	28.7
Algeria	21.3		22.6	32.2	25.4
Tajikistan	16.7		26.9	21.8	21.8

# Bulgaria | Conclusion

Bulgaria's higher education system faces structural misalignments that limit its ability to meet industry needs. Academic Readiness (56.0) is lower than many European peers, particularly in Digital (43.8), despite employer demand (Future of Work: 61.7). However, Skills Fit (37.6) suggests graduates lack the expertise businesses require. To transition from a low-labour-cost to a high-productivity economy, Bulgaria must modernise curricula, strengthen university-business partnerships, and enhance digital skills training, ensuring higher education supports workforce development and long-term economic resilience.

### Our analysis and recommendations:

# 1

# Universities as Drivers of Economic Growth

Bulgaria's higher education system has the potential to fuel economic transformation. By expanding R&D investment, integrating innovation-led teaching, and supporting university spin-offs, institutions can play a direct role in job creation.

# 2

# Bridging Skills Gaps and Industry Demands

To accelerate future skills adoption, AI, Digital, and Green programmes should align with employer needs. Links between academia and industry, work-based learning, and research-commercialisation will ensure graduates contribute effectively to the economy.

# 3

### Building an Innovation-Driven Talent Pipeline

Bulgaria has an opportunity to position itself as a hub for tech-driven talent. Investing in knowledge-based sectors, fostering digital transformation, and incentivising graduate retention will be key to unlocking sustainable growth.

# Bulgaria | Future skills ecosystem



# Your future workforce and skills partner

# Connecting higher education, government policy, employer demands and student needs

Speak to your QS partnership director to gain access to more insight and advice.

### Assess economic risk

We can help you analyse skills supply and demand by industry or region to identify skills shortages Access data on the industries, occupations and skills driving growth to set your labour market strategy

### Address skills gaps

Benchmark your skills shortages against peer nations to assess your relative risk

Identify the countries providing the most skills-aligned talent for your high-growth industries to set a talent attraction strategy

### Align higher education with future skills

Assess the top performing universities within your country or region to deliver future skills ready graduates

Evaluate performance at the subject level to develop an internal benchmark and skills performance improvement strategy Establish a future skills strategy for higher education institutions within your country or region, and enhance curricula and learning modes to deliver the skills of tomorrow

# 1

### Assess economic risks:

Analyse supply and demand imbalances to identify skill shortages and develop strategies to safeguard your economy against workforce misalignment.

# 2

### Address skills gaps:

Benchmark job and skill requirements globally to ensure graduates are equipped to meet industry needs and strengthen economic resilience.

# 3

# Align higher education with future skills:

Transform higher education to embed future skills, ensuring graduates contribute to innovation, economic growth, and reduced workforce displacement.





# Read the full <u>QS World Future</u> <u>Skills Index briefing paper</u>



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