

# GKI RANK

63 / 132

GKI  
SCORE

46.5

WORLD  
AVERAGE

46.5

# UKRAINE

## KEY INDICATORS

GDP (US\$ billions): 535.579

Population: 43,531,422

HDI: 0.773

## COUNTRY PERFORMANCE SUMMARY

Ukraine is a moderate performer in terms of its knowledge infrastructure. It ranks 63<sup>rd</sup> out of 132 countries in the Global Knowledge Index 2022 and 8<sup>th</sup> out of the 28 countries with high human development.

## AREAS OF STRENGTH

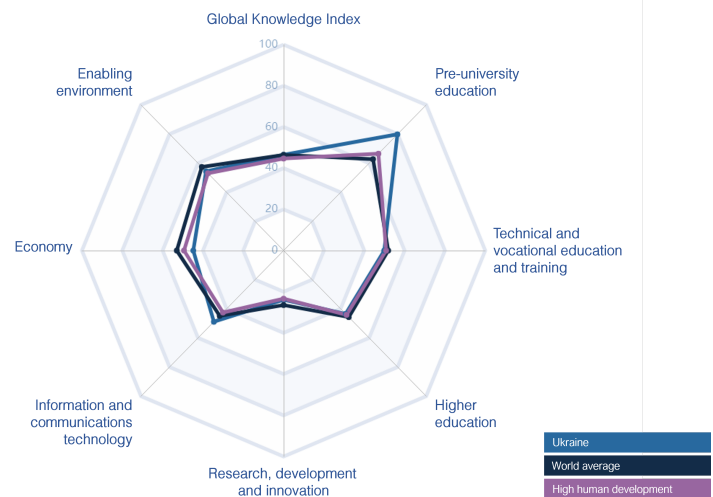
- + Poverty headcount ratio (% population)
- + Adult literacy rate
- + Proportion of children with stimulating home learning environments
- + Government funding per primary student (% GDP per capita)
- + Pupil-trained teacher ratio in secondary education

## AREAS OF IMPROVEMENT

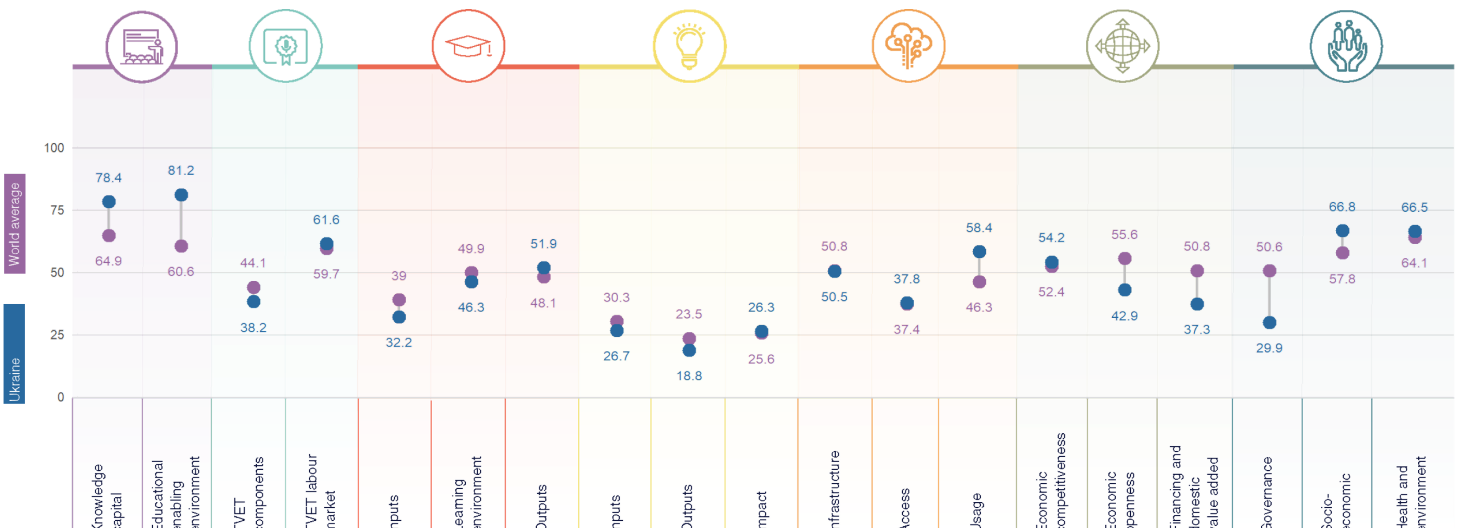
- Chinn-Ito financial openness
- Bank non-performing loans (%)
- Gross fixed capital formation (% GDP)
- Insolvency recovery rate
- Citations per document

## SECTORAL INDICES

	RANK	VALUE
PRE-UNIVERSITY EDUCATION	18	79.8
TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING	85	49.9
HIGHER EDUCATION	73	43.5
RESEARCH, DEVELOPMENT AND INNOVATION	63	23.9
INFORMATION AND COMMUNICATIONS TECHNOLOGY	56	48.9
ECONOMY	97	44.8
ENABLING ENVIRONMENT	66	54.4



## GKI PILLARS



# UKRAINE

	Rank	Value		Rank	Value
<b>PRE-UNIVERSITY EDUCATION</b>			<b>HIGHER EDUCATION</b>		
<b>Knowledge capital</b>	<b>46</b>	<b>78.4</b>	<b>Inputs</b>	<b>100</b>	<b>32.2</b>
Enrolment	69	86.5	Expenditure	96	9.63
Net enrolment rate in primary education	96	70.88	Government expenditure per tertiary student	61	9.63
Net enrolment rate in lower secondary education	66	94.95	Teaching staff compensation (% tertiary expenditure)	n/a	n/a
Net enrolment rate in upper secondary education	31	93.69	Enrolment	46	31.6
Completion	12	84.25	Enrolment in bachelor's or equivalent level (%)	54	28.16
Years of compulsory education in primary and secondary	28	84.62	Enrolment in master's, doctoral or equivalent (%)	44	35.03
Completion rate in upper secondary education	8	96.69	Resources	91	55.23
Gross intake ratio to the last grade of lower secondary education	55	71.44	Pupil-teacher ratio in tertiary education	15	91.6
Outcomes	41	64.55	Researchers in higher education (%)	96	18.85
Assessment of 15-year-old students in math, science and reading	37	57.82	<b>Learning environment</b>	<b>81</b>	<b>46.3</b>
Learning-adjusted years of schooling	38	71.29	Diversity and academic freedom	107	32.01
<b>Educational enabling environment</b>	<b>5</b>	<b>81.2</b>	Teachers in tertiary education, gender parity	92	38.78
Expenditure	25	43.15	Inbound mobility rate	49	13.05
Government expenditure on primary education (% GDP)	72	29.11	Academic freedom	95	44.2
Government expenditure on secondary education (% GDP)	47	33.63	Equity and inclusiveness	13	60.64
Government funding per primary student (% GDP per capita)	6	57.24	Gross attendance ratio for tertiary education, gender parity	15	91.66
Government funding per secondary student (% GDP per capita)	14	52.64	Gross attendance ratio for tertiary education, wealth parity	7	35.12
Resources	25	96.95	Gross attendance ratio for tertiary education, location parity	13	55.13
Pupil-trained teacher ratio in primary education	24	89.63	<b>Outputs</b>	<b>54</b>	<b>51.9</b>
Pupil-trained teacher ratio in secondary education	5	99.4	Attainment	n/a	n/a
Schools with access to computers in primary education (%)	36	98.93	Educational attainment rate, bachelor's or equivalent	n/a	n/a
Schools with access to computers in secondary education (%)	39	99.85	Educational attainment rate, master's or equivalent	n/a	n/a
Early learning	4	92.88	Educational attainment rate, doctoral or equivalent	n/a	n/a
Gross enrolment ratio in early childhood education	n/a	n/a	Employment	110	65.01
Proportion of children who are developmentally on track	8	85.76	Labour force participation rate with advanced education	116	57.66
Proportion of children with stimulating home learning environments	1	100	Unemployment rate with advanced education	95	72.36
Pupil-trained teacher ratio in pre-primary education	n/a	n/a	Impact	55	38.84
Equity and inclusiveness	25	91.85	University-industry collaboration in R&D	71	41.51
Completion rate in upper secondary education, gender parity	23	97.2	Citable documents per R&D personnel in higher education	17	36.17
Completion rate in upper secondary education, wealth parity	24	85.38			
Completion rate in upper secondary education, location parity	30	92.96			
<b>TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING</b>			<b>RESEARCH, DEVELOPMENT AND INNOVATION</b>		
<b>TVET components</b>	<b>97</b>	<b>38.2</b>	<b>Inputs</b>	<b>70</b>	<b>26.7</b>
Continuous training and skilling	113	27.14	Inputs of R&D institutions	79	22.43
Firms offering formal training (%)	74	27.14	GERD (% GDP)	66	7.29
Labour force participation rate with short-cycle tertiary education	n/a	n/a	GERD per researcher	91	6.05
Participation rate in formal and non-formal education and training	n/a	n/a	Researchers per thousand labour force	56	11.36
TVET structure	36	55.17	Tertiary graduates from STEM programmes (%)	42	65.02
Government expenditure on vocational education (%)	n/a	n/a	Inputs of RDI in business enterprises	62	24.04
Share of students enrolled in secondary vocational programmes	81	10.34	GERD performed by business enterprises (%)	46	6.3
Share of students enrolled in post-secondary vocational programmes	1	100	GERD financed by business enterprises (%)	55	37.74
TVET quality and qualifications	122	32.21	Researchers in business enterprises (%)	42	33
Extent of staff training	111	42.5	Firms that spend on R&D (%)	63	19.14
Quality of vocational training	71	50.87	Inputs of societal innovation	48	37.95
Ratio of high-skill TVET occupations earnings to average wage	101	8.26	High-skilled employment (%)	26	52.93
Ratio of medium-skill TVET occupations earnings to average wage	73	27.22	Intellectual property payments (% total trade)	39	20.98
<b>TVET labour market</b>	<b>66</b>	<b>61.6</b>	State of cluster development	103	39.93
Efficiency of the labour market	96	59.17	<b>Outputs</b>	<b>83</b>	<b>18.8</b>
Firms constrained with inadequately educated workforce (%)	96	25.56	Outputs of R&D institutions	101	15.41
Employment educational mismatch (%)	n/a	n/a	Average documents per researcher	61	18.26
Proportion of skilled production workers	8	82.98	Citations per document	129	8.72
Unemployment rate with vocational education	89	68.97	Resident patent applications (per 100 billion GDP)	26	19.26
Post-TVET employment	42	52.97	Outputs of RDI in business enterprises	44	21.32
Share of TVET occupations	57	61.04	Intellectual property receipts (% total trade)	55	2.69
Manufacturing employment (%)	46	44.89	Industrial design applications (per 100 billion GDP)	16	35.39
Equity and inclusiveness	69	72.72	PCT applications (per 100 billion GDP)	44	5.43
Enrolment in vocational education, gender parity	94	60.16	Firms producing new products and services (%)	64	41.79
Vulnerable employment rate	49	85.28	Outputs of societal innovation	56	22.92
			Trademark applications (per 100 billion GDP)	22	52.89
			Cultural goods exports (% exports)	80	2.84
			Printing and publishing output (% manufactured output)	63	13.03
			<b>Impact</b>	<b>56</b>	<b>26.3</b>
			Quality	70	19.85
			Research institutions prominence	25	27.27
			Growth of innovative companies	106	41.18
			ISO 9001 quality certificates (per billion GDP)	77	6.76
			ISO 14001 environmental certificates (per billion GDP)	83	4.17
			Linkages	23	32.38
			GERD financed from abroad (%)	19	41.32
			Joint ventures per strategic alliance deals (per billion GDP)	118	1.69
			Computer software spending (% GDP)	9	54.12
			Business development	87	26.79
			New business density per thousand population	64	6.79
			Firms with products and services new to the market (%)	75	46.79

# UKRAINE

	Rank	Value		Rank	Value
<b>INFORMATION AND COMMUNICATIONS TECHNOLOGY</b>			<b>ENABLING ENVIRONMENT</b>		
<b>Infrastructure</b>	<b>67</b>	<b>50.5</b>	<b>Governance</b>	<b>99</b>	<b>29.9</b>
Coverage	84	38.69	Political environment	93	30.53
3G/4G mobile network coverage (% population)	86	89.57	Peace and stability	119	11.79
Secure Internet servers per 1 million population	43	7.73	Voice and accountability	65	49.28
Investment in telecommunication services (% GDP)	67	18.78	Quality of institutions	103	29.17
<b>Quality</b>	<b>62</b>	<b>22.93</b>	Rule of law	109	26.44
Mobile upload and download speeds	67	9.55	Control of corruption	105	24.52
Fixed-broadband upload and download speeds	43	20.37	Government effectiveness	94	36.54
Fixed-broadband subscriptions by speed per hundred people	57	38.88	<b>Socio-economic</b>	<b>38</b>	<b>66.8</b>
<b>Affordability</b>	<b>71</b>	<b>89.85</b>	Gender equity	81	64.85
Fixed broadband basket (% GNI per capita)	49	90.84	Female-to-male ratio in parliament	92	25.52
Mobile broadband basket (% GNI per capita)	76	91.21	Female-to-male labour force participation	72	75.93
Internet and telephony competition	93	87.5	Female-to-male ratio in Internet usage	81	93.1
<b>Access</b>	<b>67</b>	<b>37.8</b>	Social inclusion	41	80.51
<b>Subscriptions</b>	<b>74</b>	<b>50.99</b>	Social protection coverage (% population)	42	72.22
Active mobile-broadband subscriptions per hundred inhabitants	78	32.31	Adult literacy rate	1	100
International Internet bandwidth per user	65	41.64	Youth not in employment, education or training (%)	56	69.3
Households with Internet access at home (%)	71	79.04	<b>Standard of living</b>	<b>26</b>	<b>55.18</b>
<b>Skills and employment</b>	<b>69</b>	<b>24.67</b>	Poverty headcount ratio (% population)	1	100
Individuals with standard ICT skills (%)	69	12.04	GDP per capita	77	10.36
Tertiary graduates from ICT programmes (%)	23	42.08	<b>Health and environment</b>	<b>57</b>	<b>66.5</b>
ICT employment (%)	49	19.88	Health	68	78.56
<b>Usage</b>	<b>33</b>	<b>58.4</b>	Universal health coverage	55	72.95
<b>Services</b>	<b>8</b>	<b>77.45</b>	Healthy life expectancy (years)	78	68.44
Government online services	31	81.48	Under-five mortality rate	52	94.28
Fixed broadband Internet traffic per subscription	n/a	n/a	<b>Environmental performance</b>	<b>62</b>	<b>54.47</b>
Mobile broadband Internet traffic per subscription	n/a	n/a	Renewable energy consumption (%)	111	7.73
Internet users (%)	72	73.42	Ecological footprint per capita	60	87.69
<b>Outcomes</b>	<b>75</b>	<b>39.44</b>	Natural hazard exposure	39	68
ICT PCT patent applications (per 100 billion GDP)	76	30.8			
E-participation	54	60.23			
Internet activities by individuals (%)	62	23.61			
Trade in digitally deliverable services (% total trade)	57	43.12			
<b>ECONOMY</b>	<b>97</b>	<b>44.8</b>			
<b>Economic competitiveness</b>	<b>54</b>	<b>54.2</b>			
Infrastructure investment	100	41.39			
Gross fixed capital formation (% GDP)	126	13.22			
Logistics performance	64	45.75			
Transport productive capacity	58	26.59			
Building quality control	44	80			
<b>Business agility</b>	<b>41</b>	<b>66.96</b>			
Ease of starting a business	52	91.08			
Insolvency recovery rate	123	9.79			
Entrepreneurial employee activity rate	n/a	n/a			
Extent of corporate transparency	1	100			
<b>Economic openness</b>	<b>102</b>	<b>42.9</b>			
Trade and diversification	43	56.15			
Trade (% GDP)	57	22.76			
High-technology trade (% total trade)	64	22.82			
Product concentration	38	83.33			
Market concentration	9	95.69			
<b>Financial openness</b>	<b>131</b>	<b>29.72</b>			
Chinn-Ito financial openness	123	0			
Foreign direct investment, net inflows (% GDP)	58	49.16			
Debt dynamics	103	40			
<b>Financing and domestic value added</b>	<b>115</b>	<b>37.3</b>			
Financing and taxes	131	30.73			
Domestic credit to private sector (% GDP)	98	8.6			
MSME financing gap (% GDP)	86	52.15			
Tax and contribution rate (% profit)	94	62.16			
Bank non-performing loans (%)	106	0			
<b>Domestic value added</b>	<b>60</b>	<b>43.95</b>			
Medium- and high-tech activities value added	45	39.64			
Industry and services value added (% GDP)	102	42.31			
Labour underutilization rate	30	82.03			
Output per worker	82	11.83			

\*All values are normalized to a scale from 0 (worst) to 100 (best).