

GKI  
RANK

1/154

GKI  
SCORE

71.5

WORLD  
AVERAGE

48.4

# SWITZERLAND

## KEY INDICATORS

GDP US\$ billions ..... **573.136**  
Population ..... **8,654,618**  
HDI ..... **0.955**

## COUNTRY PERFORMANCE SUMMARY

Switzerland is a leading performer in terms of its knowledge infrastructure. It ranks 1st out of 154 countries in the Global Knowledge Index 2021 and 1st out of the 61 countries with very high human development.

### AREAS OF STRENGTH

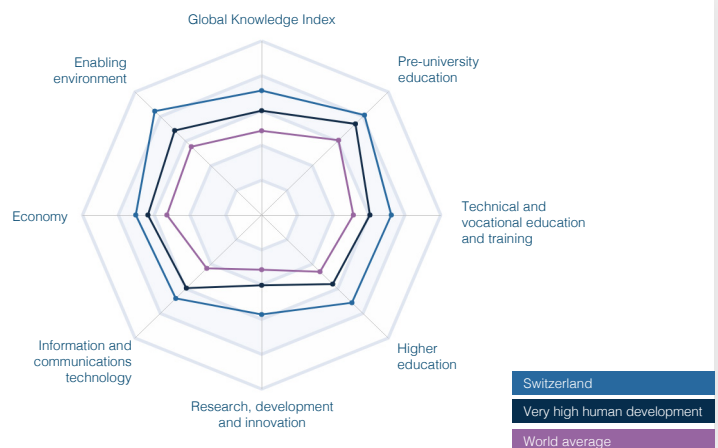
- + Extent of staff training
- + Quality of vocational training
- + Fixed-broadband subscriptions by speed per hundred people
- + Government effectiveness
- + University-industry collaboration in R&D

### AREAS OF IMPROVEMENT

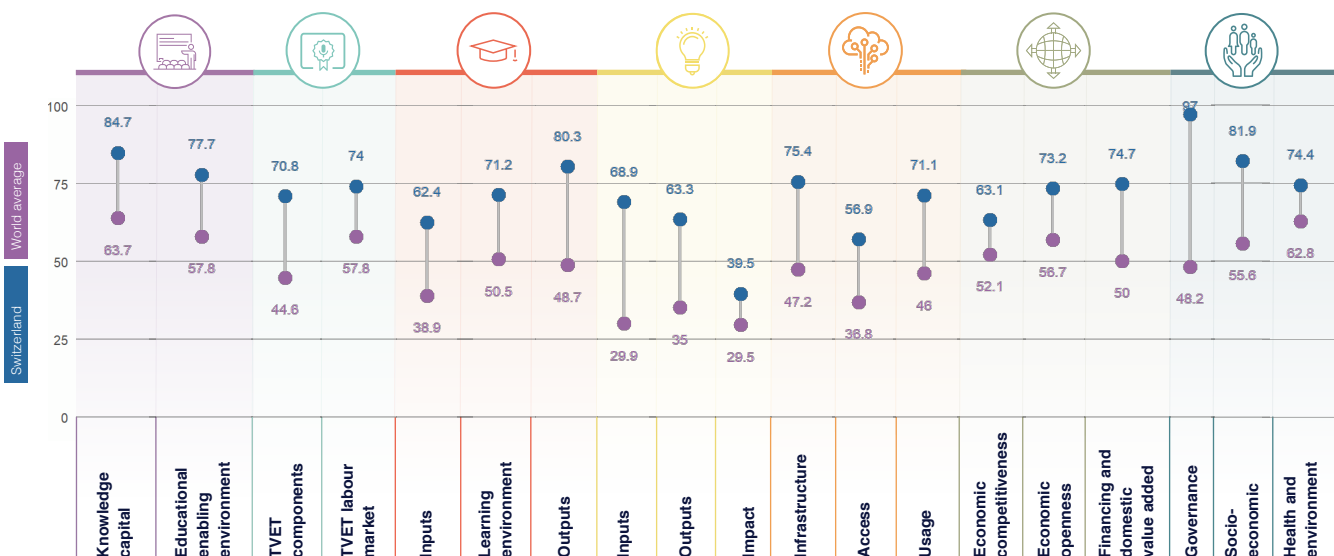
- Years of compulsory education in primary and secondary
- Ecological footprint per capita
- Building quality control
- Share of students enrolled in post-secondary vocational programmes
- Tertiary graduates from ICT programmes (%)

## SECTORAL INDICES

	RANK	VALUE
PRE-UNIVERSITY EDUCATION	4	81.2
TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING	3	72.4
HIGHER EDUCATION	1	71.3
RESEARCH, DEVELOPMENT AND INNOVATION	1	57.2
INFORMATION AND COMMUNICATIONS TECHNOLOGY	13	67.8
ECONOMY	9	70.3
ENABLING ENVIRONMENT	5	84.4



## GKI PILLARS





# SWITZERLAND

	Rank	Value
<b>PRE-UNIVERSITY EDUCATION</b>	<b>4</b>	<b>81.2</b>
<b>Knowledge capital</b>	<b>19</b>	<b>84.7</b>
Enrolment	8	99
Net enrolment rate in primary education	8	99.7
Net enrolment rate in lower secondary education	22	99.2
Net enrolment rate in upper secondary education	15	98
Completion	44	80.6
Years of compulsory education in primary and secondary	67	69.2
Completion rate in upper secondary education	20	93.2
Gross intake ratio to the last grade of lower secondary education	44	79.2
Outcomes	24	74.6
Assessment of 15-year-old students in math, science and reading	19	67
Learning-adjusted years of schooling	24	82.3
<b>Educational enabling environment</b>	<b>15</b>	<b>77.7</b>
Expenditure	31	42.8
Government expenditure on primary education (% GDP)	41	41.1
Government expenditure on secondary education (% GDP)	38	36.4
Government funding per primary student (% GDP per capita)	12	56.8
Government funding per secondary student (% GDP per capita)	39	36.8
Resources	1	100
Pupil-trained teacher ratio in primary education	n/a	n/a
Pupil-trained teacher ratio in secondary education	n/a	n/a
Schools with access to computers in primary education (%)	1	100
Schools with access to computers in secondary education (%)	1	100
Early learning	13	81.9
Gross enrolment ratio in early childhood education	6	81.9
Proportion of children who are developmentally on track	n/a	n/a
Proportion of children with stimulating home learning environments	n/a	n/a
Pupil-trained teacher ratio in pre-primary education	n/a	n/a
Equity and inclusiveness	36	86.2
Completion rate in upper secondary education, gender parity	41	94.3
Completion rate in upper secondary education, wealth parity	41	64.3
Completion rate in upper secondary education, location parity	1	100
<b>TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING</b>	<b>3</b>	<b>72.4</b>
<b>TVET components</b>	<b>5</b>	<b>70.8</b>
Continuous training and skilling	2	93.6
Firms offering formal training (%)	n/a	n/a
Labour force with short-cycle tertiary education (%)	n/a	n/a
Participation rate in formal and non-formal education and training	2	93.6
TVET structure	25	59.9
Government expenditure on vocational education (%)	19	48.3
Share of students enrolled in secondary vocational programmes	12	57.9
Share of students enrolled in post-secondary vocational programmes	74	73.6
TVET quality and qualifications	13	58.9
Extent of staff training	1	79
Quality of vocational training	1	90.8
Ratio of high-skill TVET occupations earnings to average wage	82	20.3
Ratio of medium-skill TVET occupations earnings to average wage	51	45.5
<b>TVET labour market</b>	<b>17</b>	<b>74</b>
Efficiency of the labour market	11	82.8
Firms constrained with inadequately educated workforce (%)	n/a	n/a
Employment educational mismatch (%)	30	78.2
Proportion of skilled production workers	n/a	n/a
Unemployment rate with vocational education	27	87.3
Post-TVET employment	34	57.2
Share of TVET occupations	19	72.3
Manufacturing employment (%)	54	42.1
Equity and inclusiveness	41	82.1
Enrolment in vocational education, gender parity	75	73.4
Vulnerable employment rate	27	90.8

	Rank	Value
<b>HIGHER EDUCATION</b>	<b>1</b>	<b>71.3</b>
<b>Inputs</b>	<b>7</b>	<b>62.4</b>
Expenditure	5	68.6
Government expenditure per tertiary student	4	92.2
Teaching staff compensation (% tertiary expenditure)	33	45.1
Enrolment	25	47.6
Enrolment in bachelor's or equivalent level (%)	33	33.6
Enrolment in master's, doctoral or equivalent (%)	23	61.6
Resources	40	71.1
Pupil-teacher ratio in tertiary education	11	92.8
Researchers in higher education (%)	48	49.4
<b>Learning environment</b>	<b>19</b>	<b>71.2</b>
Diversity and academic freedom	26	71.2
Teachers in tertiary education, gender parity	78	55
Inbound mobility rate	8	62.7
Academic freedom	9	95.9
Equity and inclusiveness	n/a	n/a
Gross attendance ratio for tertiary education, gender parity	n/a	n/a
Gross attendance ratio for tertiary education, wealth parity	n/a	n/a
Gross attendance ratio for tertiary education, location parity	n/a	n/a
<b>Outputs</b>	<b>1</b>	<b>80.3</b>
Attainment	1	88.2
Educational attainment rate, bachelor's or equivalent	n/a	n/a
Educational attainment rate, master's or equivalent	5	76.3
Educational attainment rate, doctorate or equivalent	1	100
Employment	20	86.3
Labour force participation rate with advanced education	31	81.3
Unemployment rate with advanced education	27	91.4
Impact	15	66.4
University-industry collaboration in R&D	2	77.5
Citable documents per R&D personnel in higher education	22	55.3
<b>RESEARCH, DEVELOPMENT AND INNOVATION</b>	<b>1</b>	<b>57.2</b>
<b>Inputs</b>	<b>4</b>	<b>68.9</b>
Inputs of R&D institutions	6	60.2
GERD (% GDP)	3	68.1
GERD per researcher	8	65.5
Researchers per thousand labour force	19	60.3
Tertiary graduates from STEM programmes (%)	44	46.8
Inputs of RDI in business enterprises	9	69.2
GERD performed by business enterprises (%)	4	64.3
GERD financed by business enterprises (%)	6	82.9
Researchers in business enterprises (%)	21	60.5
Firms that spend on R&D (%)	n/a	n/a
Inputs of societal innovation	1	86
High-skilled employment (%)	n/a	n/a
Intellectual property payments (% total trade)	1	100
State of cluster development	5	71.9
<b>Outputs</b>	<b>2</b>	<b>63.3</b>
Outputs of R&D institutions	8	65
Average documents per researcher	16	72.8
Citations per document	21	40.1
Patent applications (per 100 billion GDP)	5	82.2
Outputs of RDI in business enterprises	7	72.1
Intellectual property receipts (% total trade)	3	88.1
Industrial design applications (per 100 billion GDP)	24	30
PCT applications (per 100 billion GDP)	4	98.2
Firms producing new goods and services (%)	n/a	n/a



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	Rank	Value
<b>Outputs of societal innovation</b>	9	51
Trademark applications (per 100 billion GDP)	25	54.2
Cultural goods exports (% exports)	6	71
Printing and publishing output (% manufactured output)	45	27.9
<b>Impact</b>	32	39.5
<b>Quality</b>	22	49.3
Research institutions prominence	18	46.1
Growth of innovative companies	10	67
ISO 9001 quality certificates (% GDP)	25	51.3
ISO 14001 environmental certificates (% GDP)	27	32.7
<b>Linkages</b>	5	46.8
GERD financed from abroad (%)	68	9.9
Joint ventures per strategic alliance deals (% GDP)	11	69.1
Computer software spending (% GDP)	2	61.5
<b>Business development</b>	132	22.5
New business density per thousand population	33	22.5
Firms with new product/service (%)	n/a	n/a
<b>INFORMATION AND COMMUNICATIONS TECHNOLOGY</b>	13	67.8
<b>Infrastructure</b>	5	75.4
<b>Coverage</b>	7	64.5
3G/4G mobile network coverage (% population)	13	100
Secure Internet servers per 1 million population	6	65.7
Investment in telecommunication services (% GDP)	81	27.7
<b>Quality</b>	7	73.6
Mobile upload and download speeds	9	59.9
Fixed-broadband upload and download speeds	6	60.8
Fixed-broadband subscriptions by speed per hundred people	1	100
<b>Affordability</b>	24	88.1
Fixed broadband basket (% GNI per capita)	24	89
Mobile broadband basket (% GNI per capita)	35	75.3
Internet and telephony competition	1	100
<b>Access</b>	22	56.9
<b>Subscriptions</b>	34	60
Active mobile-broadband subscriptions per hundred inhabitants	37	44.5
International Internet bandwidth per user	52	43.8
Households with Internet access at home (%)	26	91.7
<b>Skills and employment</b>	17	53.7
Individuals with standard ICT skills (%)	5	82.1
Tertiary graduates from ICT programmes (%)	101	19.7
ICT employment (%)	13	59.4
<b>Usage</b>	14	71.1
<b>Services</b>	35	59.7
Government online services	35	82.9
Fixed broadband Internet traffic per subscription	27	33
Mobile broadband Internet traffic per subscription	19	30
Internet users (%)	16	92.8
<b>Outcomes</b>	6	82.5
ICT PCT patent applications (per 100 billion GDP)	11	76.4
E-participation	17	90.5
Internet activities by individuals (%)	11	84.9
Trade in digitally deliverable services (% total trade)	5	78.3
<b>ECONOMY</b>	9	70.3
<b>Economic competitiveness</b>	31	63.1
Infrastructure investment	35	57.8
Gross fixed capital formation (% GDP)	36	57.6
Logistics performance	12	72.5
Transport productive capacity	29	41.1
Building quality control	115	60

	Rank	Value
<b>Business agility</b>	36	68.5
Ease of starting a business	73	88.4
Insolvency recovery rate	47	50.7
Entrepreneurial employee activity rate	8	63.4
Extent of corporate transparency	50	71.4
<b>Economic openness</b>	24	73.2
<b>Trade and diversification</b>	33	67.4
Trade (% GDP)	27	49.2
High-technology trade (% total trade)	40	54.7
Product concentration	86	72.7
Market concentration	44	92.9
<b>Financial openness</b>	23	79
Chinn-Ito financial openness	1	100
Foreign direct investment, net inflows (% GDP)	97	36.9
Debt dynamics	1	100
<b>Financing and domestic value added</b>	4	74.7
<b>Financing and taxes</b>	4	80.5
Domestic credit to private sector (% GDP)	5	64.8
MSME financing gap (% GDP)	n/a	n/a
Tax and contribution rate (% profit)	37	78.8
Bank non-performing loans (%)	5	97.8
<b>Domestic value added</b>	6	68.9
Medium- and high-tech activities value added	3	77
Industry and services value added (% GDP)	10	78.5
Labour underutilization rate	71	69.3
Output per worker	7	50.8
<b>ENABLING ENVIRONMENT</b>	5	84.4
<b>Governance</b>	3	97
<b>Political environment</b>	3	96
Peace and stability	6	93.4
Voice and accountability	4	98.6
<b>Quality of institutions</b>	5	98.1
Rule of law	6	97.6
Control of corruption	7	97.1
Government effectiveness	2	99.5
<b>Socio-economic</b>	7	81.9
<b>Gender equity</b>	12	84.3
Female-to-male ratio in parliament	19	72.4
Female-to-male labour force participation	38	84.4
Female-to-male ratio in Internet usage	69	96
<b>Social inclusion</b>	18	92.5
Social protection coverage (% population)	24	92.5
Adult literacy rate	n/a	n/a
Youth not in employment, education or training (%)	14	92.5
<b>Standard of living</b>	6	69
Poverty headcount ratio (% population)	39	78
GDP per capita	6	59.9
<b>Health and environment</b>	7	74.4
<b>Health</b>	7	92
Universal health coverage	12	83
Healthy life expectancy (years)	4	94.7
Under-five mortality rate	28	98.2
<b>Environmental performance</b>	61	56.8
Renewable energy consumption (%)	73	25.1
Ecological footprint per capita	112	68.3
Natural hazard exposure	20	77

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