GKI RANK

150/154

GKI SCORE

28.6

WORLD AVERAGE

48.4

## **YEMEN**

#### **KEY INDICATORS**

 GDP US\$ billions
 n/a

 Population
 29,825,968

 HDI
 0.47

### **COUNTRY PERFORMANCE SUMMARY**

Yemen is a weak performer in terms of its knowledge infrastructure. It ranks 150th out of 154 countries in the Global Knowledge Index 2021 and 23rd out of the 27 countries with low human development.

### AREAS OF STRENGTH

- + Ecological footprint per capita
- + Intellectual property payments (% total trade)
- + Labour force participation rate with advanced education
- + Government expenditure on primary education (% of GDP)
- + Tax and contribution rate (% profit)

### AREAS OF IMPROVEMENT

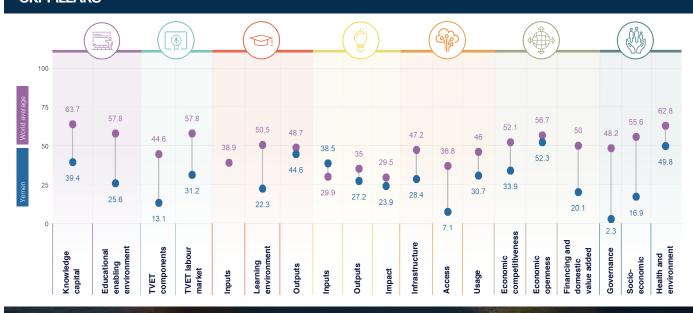
- Extent of corporate transparency
- MSME financing gap (% GDP)
- Government effectiveness
- Female-to-male ratio in parliament
- Youth not in employment, education or training (%)

### **SECTORAL INDICES**

	RANK	VALUE
PRE-UNIVERSITY EDUCATION	143	32.5
TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING	154	22.2
HIGHER EDUCATION	132	33.4
RESEARCH, DEVELOPMENT AND INNOVATION	79	29.9
INFORMATION AND COMMUNICATIONS TECHNOLOGY	142	22.1
ECONOMY	148	35.5
ENABLING ENVIRONMENT	154	23



### **GKI PILLARS**



# YEMEN

	Rank	Value
PRE-UNIVERSITY EDUCATION	143	32.5
Knowledge capital	132	39.4
Enrolment	131	49.1
Net enrolment rate in primary education	126	52.5
Net enrolment rate in lower secondary education	113	60.4
Net enrolment rate in upper secondary education	117	34.5
Completion	113	50.5
Years of compulsory education in primary and secondary	67	69.2
Completion rate in upper secondary education	89	44.8
Gross intake ratio to the last grade of lower secondary education	116	37.4
Outcomes	142	18.6
Assessment of 15-year-old students in math, science and reading	n/a	n/a
Learning-adjusted years of schooling	142	18.6
Educational enabling environment	149	25.6
Expenditure	68	32.7
Government expenditure on primary education (% GDP)	13	62.2
Government expenditure on secondary education (% GDP)	112	11.7
Government funding per primary student (% GDP per capita)	47	43.3
Government funding per secondary student (% GDP per capita)	103	13.8
Resources	n/a	n/a
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 (%)	n/a	n/a
Schools with access to computers in secondary education (%)	n/a	n/a
Early learning	144	0
Gross enrolment ratio in early childhood education	133	0
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	102	44.2
Completion rate in upper secondary education, gender parity	117	64.4
Completion rate in upper secondary education, gender parity  Completion rate in upper secondary education, wealth parity	117 86	64.4 18
Completion rate in upper secondary education, gender parity  Completion rate in upper secondary education, wealth parity  Completion rate in upper secondary education, location parity	117 86 79	64.4 18 50.2
Completion rate in upper secondary education, gender parity  Completion rate in upper secondary education, wealth parity  Completion rate in upper secondary education, location parity  TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING	117 86 79 154	64.4 18 50.2 22.2
Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components	117 86 79 154 153	64.4 18 50.2 22.2 13.1
Completion rate in upper secondary education, gender parity  Completion rate in upper secondary education, wealth parity  Completion rate in upper secondary education, location parity  TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING  TVET components  Continuous training and skilling	117 86 79 154 153 143	64.4 18 50.2 22.2 13.1 8.9
Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%)	117 86 79 154 153 143	64.4 18 50.2 22.2 13.1 8.9
Completion rate in upper secondary education, gender parity  Completion rate in upper secondary education, wealth parity  Completion rate in upper secondary education, location parity  TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING  TVET components  Continuous training and skilling  Firms offering formal training (%)  Labour force with short-cycle tertiary education (%)	117 86 79 154 153 143 114 n/a	64.4 18 50.2 22.2 13.1 8.9 16 n/a
Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity  TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING  TVET components  Continuous training and skilling  Firms offering formal training (%)  Labour force with short-cycle tertiary education (%)  Participation rate in formal and non-formal education and training	117 86 79 154 153 143 114 n/a 82	64.4 18 50.2 22.2 13.1 8.9 16 n/a 1.8
Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force with short-cycle tertiary education (%) Participation rate in formal and non-formal education and training TVET structure	117 86 79 154 153 143 114 n/a 82	64.4 18 50.2 22.2 13.1 8.9 16 n/a 1.8
Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force with short-cycle tertiary education (%) Participation rate in formal and non-formal education and training TVET structure Government expenditure on vocational education (%)	117 86 79 154 153 143 114 n/a 82 148 n/a	64.4 18 50.2 22.2 13.1 8.9 16 n/a 1.8 0.4 n/a
Completion rate in upper secondary education, gender parity  Completion rate in upper secondary education, wealth parity  Completion rate in upper secondary education, location parity  TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING  TVET components  Continuous training and skilling  Firms offering formal training (%)  Labour force with short-cycle tertiary education (%)  Participation rate in formal and non-formal education and training  TVET structure  Government expenditure on vocational education (%)  Share of students enrolled in secondary vocational programmes	117 86 79 154 153 143 114 n/a 82 148 n/a 136	64.4 18 50.2 22.2 13.1 8.9 16 n/a 1.8 0.4 n/a
Completion rate in upper secondary education, gender parity  Completion rate in upper secondary education, wealth parity  Completion rate in upper secondary education, location parity  TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING  TVET components  Continuous training and skilling  Firms offering formal training (%)  Labour force with short-cycle tertiary education (%)  Participation rate in formal and non-formal education and training  TVET structure  Government expenditure on vocational education (%)  Share of students enrolled in secondary vocational programmes  Share of students enrolled in post-secondary vocational programmes	117 86 79 154 153 143 114 n/a 82 148 n/a	64.4 18 50.2 22.2 13.1 8.9 16 n/a 1.8 0.4 n/a
Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity  TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING  TVET components  Continuous training and skilling  Firms offering formal training (%)  Labour force with short-cycle tertiary education (%)  Participation rate in formal and non-formal education and training  TVET structure  Government expenditure on vocational education (%)  Share of students enrolled in secondary vocational programmes  Share of students enrolled in post-secondary vocational programmes  TVET quality and qualifications	117 86 79 154 153 143 114 n/a 82 148 n/a 136	64.4 18 50.2 22.2 13.1 8.9 16 n/a 1.8 0.4 n/a 0.4
Completion rate in upper secondary education, gender parity  Completion rate in upper secondary education, wealth parity  Completion rate in upper secondary education, location parity  TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING  TVET components  Continuous training and skilling  Firms offering formal training (%)  Labour force with short-cycle tertiary education (%)  Participation rate in formal and non-formal education and training  TVET structure  Government expenditure on vocational education (%)  Share of students enrolled in secondary vocational programmes  Share of students enrolled in post-secondary vocational programmes	117 86 79 154 153 143 114 n/a 82 148 n/a 136 n/a	64.4 18 50.2 22.2 13.1 8.9 16 n/a 1.8 0.4 n/a 0.4 n/a 30
Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity  TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING  TVET components  Continuous training and skilling  Firms offering formal training (%) Labour force with short-cycle tertiary education (%)  Participation rate in formal and non-formal education and training  TVET structure  Government expenditure on vocational education (%)  Share of students enrolled in secondary vocational programmes  Share of students enrolled in post-secondary vocational programmes  TVET quality and qualifications  Extent of staff training	117 86 79 154 153 143 114 n/a 82 148 n/a 136 n/a 146	64.4 18 50.2 22.2 13.1 8.9 16 n/a 1.8 0.4 n/a 0.4 n/a 30 31.8
Completion rate in upper secondary education, gender parity  Completion rate in upper secondary education, wealth parity  Completion rate in upper secondary education, location parity  TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING  TVET components  Continuous training and skilling  Firms offering formal training (%)  Labour force with short-cycle tertiary education (%)  Participation rate in formal and non-formal education and training  TVET structure  Government expenditure on vocational education (%)  Share of students enrolled in secondary vocational programmes  Share of students enrolled in post-secondary vocational programmes  TVET quality and qualifications  Extent of staff training  Quality of vocational training	117 86 79 154 153 143 114 n/a 82 148 n/a 136 n/a 146 144	64.4 18 50.2 22.2 13.1 8.9 16 n/a 1.8 0.4 n/a 0.4 n/a 30 31.8 28.1
Completion rate in upper secondary education, gender parity  Completion rate in upper secondary education, wealth parity  Completion rate in upper secondary education, location parity  TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING  TVET components  Continuous training and skilling  Firms offering formal training (%)  Labour force with short-cycle tertiary education (%)  Participation rate in formal and non-formal education and training  TVET structure  Government expenditure on vocational education (%)  Share of students enrolled in secondary vocational programmes  Share of students enrolled in post-secondary vocational programmes  TVET quality and qualifications  Extent of staff training  Quality of vocational training  Ratio of high-skill TVET occupations earnings to average wage	117 86 79 154 153 143 114 n/a 82 148 n/a 136 n/a 146 144 137	64.4 18 50.2 22.2 13.1 8.9 16 n/a 1.8 0.4 n/a 0.4 n/a 30 31.8 28.1 n/a
Completion rate in upper secondary education, gender parity  Completion rate in upper secondary education, wealth parity  Completion rate in upper secondary education, location parity  TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING  TVET components  Continuous training and skilling  Firms offering formal training (%)  Labour force with short-cycle tertiary education (%)  Participation rate in formal and non-formal education and training  TVET structure  Government expenditure on vocational education (%)  Share of students enrolled in secondary vocational programmes  Share of students enrolled in post-secondary vocational programmes  TVET quality and qualifications  Extent of staff training  Quality of vocational training  Ratio of high-skill TVET occupations earnings to average wage	117 86 79 154 153 143 114 n/a 82 148 n/a 136 n/a 146 144 137 n/a	64.4 18 50.2 22.2 13.1 8.9 16 n/a 1.8 0.4 n/a 0.4 n/a 30 31.8 28.1 n/a
Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity  TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components  Continuous training and skilling Firms offering formal training (%)  Labour force with short-cycle tertiary education (%) Participation rate in formal and non-formal education and training TVET structure  Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes Share of students enrolled in post-secondary vocational programmes TVET quality and qualifications  Extent of staff training Quality of vocational training Ratio of high-skill TVET occupations earnings to average wage Ratio of medium-skill TVET occupations earnings to average wage TVET labour market	117 86 79 154 153 143 114 n/a 82 148 n/a 136 n/a 146 144 137 n/a 147	64.4 18 50.2 22.2 13.1 8.9 16 n/a 1.8 0.4 n/a 0.4 n/a 30 31.8 28.1 n/a n/a 31.2
Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity  TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components  Continuous training and skilling Firms offering formal training (%) Labour force with short-cycle tertiary education (%) Participation rate in formal and non-formal education and training TVET structure  Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes Share of students enrolled in post-secondary vocational programmes TVET quality and qualifications  Extent of staff training Quality of vocational training Ratio of high-skill TVET occupations earnings to average wage Ratio of medium-skill TVET occupations earnings to average wage TVET labour market  Efficiency of the labour market	117 86 79 154 153 143 114 n/a 82 148 n/a 136 n/a 146 144 137 n/a n/a 147	64.4 18 50.2 22.2 13.1 8.9 16 n/a 1.8 0.4 n/a 0.4 n/a 30 31.8 28.1 n/a n/a 1.8
Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity  TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components  Continuous training and skilling  Firms offering formal training (%) Labour force with short-cycle tertiary education (%)  Participation rate in formal and non-formal education and training  TVET structure  Government expenditure on vocational education (%)  Share of students enrolled in secondary vocational programmes  Share of students enrolled in post-secondary vocational programmes  TVET quality and qualifications  Extent of staff training  Quality of vocational training  Ratio of high-skill TVET occupations earnings to average wage  TVET labour market  Efficiency of the labour market  Firms constrained with inadequately educated workforce (%)	117 86 79 154 153 143 114 n/a 82 148 n/a 136 n/a 146 144 137 n/a 147 137 87	64.4 18 50.2 22.2 13.1 8.9 16 n/a 1.8 0.4 n/a 30 31.8 28.1 n/a n/a 41.9 49.1
Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity  TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING  TVET components  Continuous training and skilling  Firms offering formal training (%)  Labour force with short-cycle tertiary education (%)  Participation rate in formal and non-formal education and training  TVET structure  Government expenditure on vocational education (%)  Share of students enrolled in secondary vocational programmes  Share of students enrolled in post-secondary vocational programmes  TVET quality and qualifications  Extent of staff training  Quality of vocational training  Ratio of high-skill TVET occupations earnings to average wage  TVET labour market  Efficiency of the labour market  Firms constrained with inadequately educated workforce (%)  Employment educational mismatch (%)	117 86 79 154 153 143 114 n/a 82 148 n/a 136 n/a 144 137 n/a 147 137 87	64.4 18 50.2 22.2 13.1 8.9 16 n/a 1.8 0.4 n/a 0.4 n/a 30 31.8 28.1 n/a n/a 41.9 49.1 45.2
Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force with short-cycle tertiary education (%) Participation rate in formal and non-formal education and training TVET structure Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes TVET quality and qualifications Extent of staff training Quality of vocational training Ratio of high-skill TVET occupations earnings to average wage Ratio of medium-skill TVET occupations earnings to average wage TVET labour market Efficiency of the labour market Firms constrained with inadequately educated workforce (%) Employment educational mismatch (%) Proportion of skilled production workers	117 86 79 154 153 143 114 n/a 82 148 n/a 136 n/a 144 137 n/a 147 137 87	64.4 18 50.2 22.2 13.1 8.9 16 n/a 1.8 0.4 n/a 0.4 n/a 30 31.8 28.1 n/a n/a 41.9 49.1 45.2 18.2
Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force with short-cycle tertiary education (%) Participation rate in formal and non-formal education and training TVET structure Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes Share of students enrolled in post-secondary vocational programmes TVET quality and qualifications Extent of staff training Quality of vocational training Ratio of high-skill TVET occupations earnings to average wage Ratio of medium-skill TVET occupations earnings to average wage TVET labour market Efficiency of the labour market Firms constrained with inadequately educated workforce (%) Employment educational mismatch (%) Proportion of skilled production workers Unemployment rate with vocational education	117 86 79 154 153 143 114 n/a 82 148 n/a 136 n/a 146 144 137 n/a 147 137 87 86 113 103	64.4 18 50.2 22.2 13.1 8.9 16 n/a 1.8 0.4 n/a 30 31.8 28.1 n/a n/a 31.2 41.9 49.1 45.2 18.2 55
Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force with short-cycle tertiary education (%) Participation rate in formal and non-formal education and training TVET structure Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes Share of students enrolled in post-secondary vocational programmes TVET quality and qualifications Extent of staff training Quality of vocational training Ratio of high-skill TVET occupations earnings to average wage Ratio of medium-skill TVET occupations earnings to average wage TVET labour market Efficiency of the labour market Firms constrained with inadequately educated workforce (%) Employment educational mismatch (%) Proportion of skilled production workers Unemployment rate with vocational education Post-TVET employment	117 86 79 154 153 143 114 n/a 82 148 n/a 136 n/a 146 144 137 n/a 147 137 87 86 113 103 130	64.4 18 50.2 22.2 13.1 8.9 16 n/a 1.8 0.4 n/a 30 31.8 28.1 n/a n/a 31.2 41.9 49.1 45.2 18.2 55 24.5
Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity  TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components  Continuous training and skilling Firms offering formal training (%)  Labour force with short-cycle tertiary education (%) Participation rate in formal and non-formal education and training TVET structure  Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes Share of students enrolled in post-secondary vocational programmes TVET quality and qualifications  Extent of staff training Quality of vocational training Ratio of high-skill TVET occupations earnings to average wage Ratio of medium-skill TVET occupations earnings to average wage  TVET labour market  Efficiency of the labour market  Firms constrained with inadequately educated workforce (%) Employment educational mismatch (%) Proportion of skilled production workers Unemployment rate with vocational education  Post-TVET employment Share of TVET occupations	117 86 79 154 153 143 114 n/a 82 148 n/a 136 n/a 146 144 137 n/a n/a 147 137 87 86 113 103 130 117	64.4 18 50.2 22.2 13.1 8.9 16 n/a 1.8 0.4 n/a 30 31.8 28.1 n/a n/a 31.2 41.9 49.1 45.2 18.2 55 24.5 35.1
Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force with short-cycle tertiary education (%) Participation rate in formal and non-formal education and training TVET structure Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes Share of students enrolled in post-secondary vocational programmes TVET quality and qualifications Extent of staff training Quality of vocational training Ratio of high-skill TVET occupations earnings to average wage Ratio of medium-skill TVET occupations earnings to average wage TVET labour market Efficiency of the labour market Firms constrained with inadequately educated workforce (%) Employment educational mismatch (%) Proportion of skilled production workers Unemployment rate with vocational education Post-TVET employment Share of TVET occupations Manufacturing employment (%)	117 86 79 154 153 143 114 n/a 82 148 n/a 136 n/a 146 144 137 n/a 147 137 87 86 113 103 130 117	64.4 18 50.2 22.2 13.1 8.9 16 n/a 1.8 0.4 n/a 0.4 n/a 30 31.8 28.1 n/a n/a 31.2 41.9 49.1 45.2 18.2 55 24.5 35.1 13.8

	Rank	Value
HIGHER EDUCATION	132	33.4
Inputs	n/a	n/a
Expenditure	n/a	n/a
Government expenditure per tertiary student	n/a	n/a
Teaching staff compensation (% tertiary expenditure)	n/a	n/a
Enrolment	n/a	n/a
Enrolment in bachelor's or equivalent level (%)	n/a	n/a
Enrolment in master's, doctoral or equivalent (%)	n/a	n/a
Resources	n/a	n/a
Pupil-teacher ratio in tertiary education	n/a	n/a
Researchers in higher education (%)	n/a	n/a
Learning environment	148	22.3
Diversity and academic freedom	151	14.5
Teachers in tertiary education, gender parity	n/a	n/a
Inbound mobility rate	59	15
Academic freedom	135	13.9
Equity and inclusiveness	76	30.2
Gross attendance ratio for tertiary education, gender parity	83	54.2
Gross attendance ratio for tertiary education, wealth parity	50	29
Gross attendance ratio for tertiary education, location parity	47	7.5
Outputs	96	44.6
Attainment	n/a	n/a
Educational attainment rate, bachelor's or equivalent	n/a	n/a
Educational attainment rate, master's or equivalent	n/a	n/a
Educational attainment rate, doctorate or equivalent	n/a	n/a
Employment	79	71.4
Labour force participation rate with advanced education	13	87.2
Unemployment rate with advanced education	116	55.7
Impact	143	17.7
University-industry collaboration in R&D	144	17.7
Citable documents per R&D personnel in higher education	n/a	n/a
RESEARCH, DEVELOPMENT AND INNOVATION		29.9
Inputs	31	38.5
Inputs of R&D institutions	n/a	n/a
GERD (% GDP)	n/a	n/a
GERD per researcher	n/a	n/a
Researchers per thousand labour force	n/a	n/a
Tertiary graduates from STEM programmes (%)	n/a	n/a
Inputs of RDI in business enterprises	114	11.6
GERD performed by business enterprises (%)	n/a	n/a
GERD financed by business enterprises (%)	n/a	n/a
Researchers in business enterprises (%)	n/a	n/a
Firms that spend on R&D (%)	93	11.6
Inputs of societal innovation	13	65.4
High-skilled employment (%)	n/a	n/a
Intellectual property payments (% total trade)	1	100
State of cluster development	134	30.8
Outputs	107	27.2
Outputs of R&D institutions	102	33.5
Average documents per researcher	n/a	n/a
Citations per document	35	33.5
Patent applications (per 100 billion GDP)	n/a	n/a
Outputs of RDI in business enterprises	71	32.6
Intellectual property receipts (% total trade)	69	9
Industrial design applications (per 100 billion GDP)	n/a	n/a
PCT applications (per 100 billion GDP)	n/a	n/a
Firms producing new goods and services (%)	40	56.1

## YEMEN

	Rank	Value
Outputs of societal innovation	121	9
Trademark applications (per 100 billion GDP)	n/a	n/a
Cultural goods exports (% exports)	120	1.4
Printing and publishing output (% manufactured output)	76	16.6
Impact	98	23.9
Quality	130	12.2
Research institutions prominence	101	5 41
Growth of innovative companies  ISO 9001 quality certificates (% GDP)	139	1.1
ISO 14001 environmental certificates (% GDP)	118	1.7
Linkages	128	4
GERD financed from abroad (%)	n/a	n/a
Joint ventures per strategic alliance deals (% GDP)	107	3.8
Computer software spending (% GDP)	99	4.1
Business development	26	55.6
New business density per thousand population	n/a	n/a
Firms with new product/service (%)	97	55.6
INFORMATION AND COMMUNICATIONS TECHNOLOGY	142	22.1
Infrastructure	135	28.4
Coverage	145	20.3
3G/4G mobile network coverage (% population)	138	40.3
Secure Internet servers per 1 million population	151	0.2
Investment in telecommunication services (% GDP)	n/a	n/a
Quality	n/a	n/a
Mobile upload and download speeds	n/a	n/a
Fixed-broadband upload and download speeds	n/a	n/a
Fixed-broadband subscriptions by speed per hundred people	n/a	n/a
Affordability	147	36.6
Fixed broadband basket (% GNI per capita)	89	70.6
Mobile broadband basket (% GNI per capita)	142	22.5
Internet and telephony competition	149	16.7
Access	150	7.1
Subscriptions	150	7.1
Active mobile-broadband subscriptions per hundred inhabitants	152	1.4
International Internet bandwidth per user	141	13.9
Households with Internet access at home (%)	144	6
Skills and employment	n/a	n/a
Individuals with standard ICT skills (%)	n/a	n/a
Tertiary graduates from ICT programmes (%)	n/a	n/a
ICT employment (%)	n/a 120	n/a 30.7
Usage Services	113	27.5
Government online services	134	32.4
Fixed broadband Internet traffic per subscription	n/a	n/a
Mobile broadband Internet traffic per subscription	n/a	n/a
Internet users (%)	124	22.7
Outcomes	123	33.8
ICT PCT patent applications (per 100 billion GDP)	n/a	n/a
E-participation	135	31
Internet activities by individuals (%)	n/a	n/a
Trade in digitally deliverable services (% total trade)	80	36.7
ECONOMY	148	35.5
Economic competitiveness	143	33.9
Infrastructure investment	143	34.6
Gross fixed capital formation (% GDP)	n/a	n/a
Logistics performance	133	31.6
Transport productive capacity	100	22.2
Building quality control	134	50

	Rank	Value
Business agility	142	33.2
Ease of starting a business	132	76.8
insolvency recovery rate	119	22.8
Entrepreneurial employee activity rate	n/a	n/a
Extent of corporate transparency	118	0
Economic openness	85	52.3
rade and diversification	130	47.5
rade (% GDP)	n/a	n/a
ligh-technology trade (% total trade)	78	44.4
Product concentration	144	29.7
Market concentration	138	68.4
inancial openness	71	57.1
Chinn-Ito financial openness	1	100
Foreign direct investment, net inflows (% GDP)	146	21.4
Debt dynamics	62	50
inancing and domestic value added	154	20.1
inancing and taxes	149	27.4
Domestic credit to private sector (% GDP)	151	1
ISME financing gap (% GDP)	108	0
ax and contribution rate (% profit)	31	81.1
ank non-performing loans (%)	n/a	n/a
omestic value added	154	12.9
fedium- and high-tech activities value added	135	2.1
nedium- and night-tech activities value added	151	21.2
abour underutilization rate	141	25.5
	128	2.9
Output per worker ENABLING ENVIRONMENT	154	2.9
Governance	154	2.3
olitical environment	154	2.6
leace and stability	153	0.9
oice and accountability	152	4.3
Quality of institutions	154	1.9
dule of law	151	3.4
Control of corruption	154	1.9
Sovernment effectiveness	154	0.5
Socio-economic	154	16.9
Gender equity	154	0
Female-to-male ratio in parliament	151	0
emale-to-male labour force participation	153	0
emale-to-male ratio in Internet usage		
	n/a	n/a
	152	19.1
Social protection coverage (% population)	152 71	19.1 38.3
social inclusion social protection coverage (% population) solute literacy rate	152 71 n/a	19.1 38.3 n/a
ocial protection coverage (% population) dult literacy rate fouth not in employment, education or training (%)	152 71 n/a 153	19.1 38.3 n/a
ocial protection coverage (% population) dult literacy rate outh not in employment, education or training (%) tandard of living	152 71 n/a 153	19.1 38.3 n/a 0 31.5
dult literacy rate outh not in employment, education or training (%) tandard of living overty headcount ratio (% population)	152 71 n/a 153 105	19.1 38.3 n/a 0 31.5 31.5
ocial protection coverage (% population) dult literacy rate outh not in employment, education or training (%) tandard of living overty headcount ratio (% population)	152 71 n/a 153 105 115 n/a	19.1 38.3 n/a 0 31.5 31.5
ocial protection coverage (% population) dult literacy rate outh not in employment, education or training (%) tandard of living overty headcount ratio (% population)	152 71 n/a 153 105	19.1 38.3 n/a 0 31.5 31.5
ocial protection coverage (% population)  dult literacy rate  outh not in employment, education or training (%)  tandard of living  overty headcount ratio (% population)  DP per capita	152 71 n/a 153 105 115 n/a	19.1 38.3 n/a 0 31.5 31.5
dult literacy rate outh not in employment, education or training (%) standard of living overty headcount ratio (% population) DP per capita lealth and environment	152 71 n/a 153 105 115 n/a 148	19.1 38.3 n/a 0 31.5 31.5 n/a 49.8
dult literacy rate fouth not in employment, education or training (%) standard of living foverty headcount ratio (% population) fod per capita fealth and environment fealth	152 71 n/a 153 105 115 n/a 148	19.1 38.3 n/a 0 31.5 31.5 n/a <b>49.8</b> 45.9
ocial protection coverage (% population) dult literacy rate outh not in employment, education or training (%) tandard of living overty headcount ratio (% population) DP per capita lealth and environment lealth niversal health coverage lealthy life expectancy (years)	152 71 n/a 153 105 115 n/a 148 130	19.1 38.3 n/a 0 31.5 31.5 n/a <b>49.8</b> 45.9
ocial protection coverage (% population) dult literacy rate outh not in employment, education or training (%) tandard of living	152 71 n/a 153 105 115 n/a 148 130 136	19.1 38.3 n/a 0 31.5 31.5 n/a <b>49.8</b> 45.9 42
ocial protection coverage (% population) dult literacy rate outh not in employment, education or training (%) tandard of living overty headcount ratio (% population) DP per capita lealth and environment lealth inversal health coverage lealthy life expectancy (years)	152 71 n/a 153 105 115 n/a 148 130 136 123	19.1 38.3 n/a 0 31.5 31.5 n/a <b>49.8</b> 45.9 42 44.5 51.1
ocial protection coverage (% population) dult literacy rate outh not in employment, education or training (%) tandard of living overty headcount ratio (% population) DP per capita lealth and environment lealth iniversal health coverage lealthy life expectancy (years) inder-five mortality rate invironmental performance	152 71 n/a 153 105 115 n/a 148 130 136 123 131	19.1 38.3 n/a 0 31.5 31.5 n/a <b>49.8</b> 45.9 42 44.5 51.1

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