

ALGERIA

KEY INDICATORS

 GDP US\$ billions
 468.403

 Population
 43,851,043

 HDI
 0.748

GKI RANK

111/154

GKI SCORE

40.3

WORLD AVERAGE

48.4

COUNTRY PERFORMANCE SUMMARY

Algeria is a modest performer in terms of its knowledge infrastructure. It ranks 111th out of 154 countries in the Global Knowledge Index 2021 and 38th out of the 39 countries with high human development.

AREAS OF STRENGTH

- + Researchers in higher education (%)
- + Poverty headcount ratio (% population)
- Gross fixed capital formation (% GDP)
- + Gross attendance ratio for tertiary education, wealth parity
- + Net enrolment rate in primary education

AREAS OF IMPROVEMENT

- Computer software spending (% GDP)
- Cultural goods exports (% exports)
- Fixed-broadband upload and download speeds
- GERD financed from abroad (%)
- Extent of corporate transparency

SECTORAL INDICES

| | RANK | VALUE |
|---|------|-------|
| PRE-UNIVERSITY EDUCATION | 78 | 66.2 |
| TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING | 108 | 44.7 |
| HIGHER EDUCATION | 111 | 38.6 |
| RESEARCH, DEVELOPMENT AND INNOVATION | 145 | 17 |
| INFORMATION AND COMMUNICATIONS TECHNOLOGY | 106 | 32.8 |
| ECONOMY | 136 | 38.9 |
| ENABLING ENVIRONMENT | 117 | 45.2 |



GKI PILLARS



| PRE-UNIVERSITY EDUCATION | Rank 78 | Value 66.2 |
|---|--|--|
| Knowledge capital | 88 | 63.5 |
| Enrolment | 4 | 99.5 |
| Net enrolment rate in primary education | 16 | 99.5 |
| Net enrolment rate in journally education | n/a | n/a |
| Net enrolment rate in upper secondary education | n/a | n/a |
| Completion | 100 | 62.3 |
| Years of compulsory education in primary and secondary | 42 | 76.9 |
| Completion rate in upper secondary education | 90 | 43.3 |
| Gross intake ratio to the last grade of lower secondary education | 84 | 66.7 |
| Outcomes | 114 | 28.7 |
| Assessment of 15-year-old students in math, science and reading | 75 | 11.3 |
| Learning-adjusted years of schooling | 92 | 46.1 |
| Educational enabling environment | 47 | 69 |
| Expenditure | n/a | n/a |
| Government expenditure on primary education (% GDP) | n/a | n/a |
| Government expenditure on secondary education (% GDP) | n/a | n/a |
| Government funding per primary student (% GDP per capita) | n/a | n/a |
| Government funding per secondary student (% GDP per capita) | n/a | n/a |
| Resources | 52 | 84.9 |
| Pupil-trained teacher ratio in primary education | 46 | 82.6 |
| 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 (%) | 59 | 87.2 |
| Early learning | 47 | 68.5 |
| Gross enrolment ratio in early childhood education | 34 | 63 |
| Proportion of children who are developmentally on track | 32 | 64.6 |
| Proportion of children with stimulating home learning environments | 23 | 78 |
| Pupil-trained teacher ratio in pre-primary education | n/a | n/a |
| Equity and inclusiveness | 87 | 53.6 |
| | | |
| Completion rate in upper secondary education, gender parity | 120 | 59 |
| Completion rate in upper secondary education, wealth parity | 120 70 | 59 33.3 |
| Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity | 120 70 62 | 59 33.3 68.4 |
| Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING | 120 70 62 108 | 59 33.3 68.4 44.7 |
| Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components | 120 70 62 108 133 | 59 33.3 68.4 44.7 30 |
| 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 | 120 70 62 108 133 n/a | 59 33.3 68.4 44.7 30 n/a |
| 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 (%) | 120 70 62 108 133 n/a n/a | 59 33.3 68.4 44.7 30 n/a |
| 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 (%) | 120 70 62 108 133 n/a n/a | 59 33.3 68.4 44.7 30 n/a n/a |
| 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 | 120 70 62 108 133 n/a n/a n/a | 59 33.3 68.4 44.7 30 n/a n/a n/a n/a |
| 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 | 120 70 62 108 133 n/a n/a n/a n/a 127 | 59 33.3 68.4 44.7 30 n/a n/a n/a 13.2 |
| 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 (%) | 120 70 62 108 133 n/a n/a n/a n/a n/a n/a | 59 33.3 68.4 44.7 30 n/a n/a n/a 13.2 n/a |
| 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 | 120 70 62 108 133 n/a n/a n/a n/a 127 n/a 84 | 59 33.3 68.4 44.7 30 n/a n/a n/a 13.2 n/a 13.2 |
| 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 | 120 70 62 108 133 n/a n/a n/a n/a n/a n/a | 59 33.3 68.4 44.7 30 n/a n/a n/a n/a 13.2 n/a 13.2 n/a |
| 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 | 120 70 62 108 133 n/a n/a n/a n/a 127 n/a 84 n/a | 59 33.3 68.4 44.7 30 n/a n/a n/a 13.2 n/a 13.2 |
| 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 | 120 70 62 108 133 n/a n/a n/a n/a n/a 127 n/a 84 n/a 68 | 59 33.3 68.4 44.7 30 n/a n/a n/a 13.2 n/a 13.2 n/a 46.7 |
| 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 | 120 70 62 108 133 n/a n/a n/a 127 n/a 84 n/a 68 88 | 59 33.3 68.4 44.7 30 n/a n/a n/a 13.2 n/a 13.2 n/a 46.7 |
| 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 | 120 70 62 108 133 n/a n/a n/a 127 n/a 84 n/a 68 88 92 | 59 33.3 68.4 44.7 30 n/a n/a n/a 13.2 n/a 13.2 n/a 46.7 46.9 46.5 |
| 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 TVET quality and qualifications Extent of staff training Quality of vocational training Ratio of high-skill TVET occupations earnings to average wage | 120 70 62 108 133 n/a n/a n/a n/a 127 n/a 84 n/a 68 88 92 n/a | 59 33.3 68.4 44.7 30 n/a n/a n/a n/a 13.2 n/a 13.2 n/a 46.7 46.9 46.5 n/a |
| 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 | 120 70 62 108 133 n/a n/a n/a n/a 127 n/a 84 n/a 68 88 92 n/a n/a | 59 33.3 68.4 44.7 30 n/a n/a n/a 13.2 n/a 13.2 n/a 46.7 46.9 46.5 n/a n/a |
| 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 | 120 70 62 108 133 n/a n/a n/a n/a 127 n/a 84 n/a 68 88 92 n/a n/a 175 | 59 33.3 68.4 44.7 30 n/a n/a n/a 13.2 n/a 13.2 n/a 46.7 46.9 46.5 n/a n/a 159.5 |
| 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 | 120 70 62 108 133 n/a n/a n/a n/a 127 n/a 84 n/a 68 88 92 n/a n/a 75 | 33.3 68.4 44.7 30 n/a n/a n/a 13.2 n/a 13.2 n/a 46.7 46.9 46.5 n/a n/a |
| 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 (%) | 120 70 62 108 133 n/a n/a n/a n/a 127 n/a 84 n/a 68 88 92 n/a n/a 75 n/a | 33.3 68.4 44.7 30 n/a n/a n/a 13.2 n/a 13.2 n/a 46.7 46.9 46.5 n/a n/a |
| 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 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 (%) | 120 70 62 108 133 n/a n/a n/a n/a 127 n/a 84 n/a 68 88 92 n/a n/a 75 n/a n/a | 59 33.3 68.4 44.7 30 n/a n/a n/a 13.2 n/a 13.2 n/a 46.7 46.9 46.5 n/a n/a 59.5 n/a n/a |
| 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 | 120 70 62 108 133 n/a n/a n/a 127 n/a 84 n/a 68 88 92 n/a n/a 75 n/a n/a | 59 33.3 68.4 44.7 30 n/a n/a n/a n/a 13.2 n/a 13.2 n/a 46.7 46.9 46.5 n/a n/a 59.5 n/a n/a |
| 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 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 (%) Proportion of skilled production workers Unemployment rate with vocational education | 120 70 62 108 133 n/a n/a n/a n/a 127 n/a 84 n/a 68 88 92 n/a n/a n/a n/a n/a n/a | 59 33.3 68.4 44.7 30 n/a n/a n/a n/a 13.2 n/a 13.2 n/a 46.7 46.9 46.5 n/a n/a 59.5 n/a n/a n/a |
| 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 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 | 120 70 62 108 133 n/a n/a n/a n/a 127 n/a 84 n/a 68 88 92 n/a n/a n/a n/a n/a n/a 66 | 59 33.3 68.4 44.7 30 n/a n/a n/a n/a 13.2 n/a 13.2 n/a 46.7 46.9 46.5 n/a n/a 59.5 n/a n/a n/a 13.4 13.5 13.6 13.6 13.6 13.6 13.6 13.6 13.6 13.6 |
| 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 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 | 120 70 62 108 133 n/a n/a n/a n/a 127 n/a 84 n/a 68 88 92 n/a n/a n/a n/a n/a 66 66 64 | 59 33.3 68.4 44.7 30 n/a n/a n/a 13.2 n/a 13.2 n/a 46.7 46.9 46.5 n/a n/a n/a 13.4 60.4 |
| 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 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 (%) Proportion of skilled production workers Unemployment rate with vocational education Post-TVET employment Share of TVET occupations Manufacturing employment (%) | 120 70 62 108 133 n/a n/a n/a n/a 127 n/a 84 n/a 68 88 92 n/a n/a n/a n/a n/a 66 64 73 | 59 33.3 68.4 44.7 30 n/a n/a n/a n/a 13.2 n/a 13.2 n/a 46.7 46.9 46.5 n/a n/a 59.5 n/a n/a 148.1 60.4 35.8 |

| | Rank | Value |
|---|--|---|
| HIGHER EDUCATION | 111 | 38.6 |
| Inputs | 38 | 48.9 |
| Expenditure | n/a | n/a |
| Government expenditure per tertiary student | n/a | n/a |
| Teaching staff compensation (% tertiary expenditure) | n/a | n/a |
| Enrolment | 59 | 23.3 |
| Enrolment in bachelor's or equivalent level (%) | 68 | 23.3 |
| Enrolment in master's, doctoral or equivalent (%) | n/a | n/a |
| Resources | 35 | 74.5 |
| Pupil-teacher ratio in tertiary education | 107 | 55.3 |
| Researchers in higher education (%) | 3 | 93.7 |
| Learning environment | 96 | 44.5 |
| | | |
| Diversity and academic freedom | 117 | 37.1 |
| Teachers in tertiary education, gender parity | 41 | 79.2 |
| Inbound mobility rate | 102 | 2 |
| Academic freedom | 126 | 30.3 |
| Equity and inclusiveness | 24 | 51.9 |
| Gross attendance ratio for tertiary education, gender parity | 77 | 61.4 |
| Gross attendance ratio for tertiary education, wealth parity | 10 | 63.9 |
| Gross attendance ratio for tertiary education, location parity | 12 | 30.3 |
| Outputs | 149 | 22.3 |
| 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 | n/a | n/a |
| Labour force participation rate with advanced education | n/a | n/a |
| Unemployment rate with advanced education | n/a | n/a |
| Impact | 130 | 22.3 |
| | | |
| university-industry collaboration in R&D | 90 | 37.1 |
| | 90 96 | 7.5 |
| Citable documents per R&D personnel in higher education | 96 | 7.5 |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION | 96 145 | 7.5 17 |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION Inputs | 96 145 109 | 7.5 17 20.9 |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION Inputs Inputs of R&D institutions | 96 145 109 68 | 7.5 17 20.9 25.6 |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION Inputs Inputs of R&D institutions GERD (% GDP) | 96 145 109 68 58 | 7.5 17 20.9 25.6 10.8 |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION Inputs Inputs of R&D institutions GERD (% GDP) GERD per researcher | 96 145 109 68 58 66 | 7.5 17 20.9 25.6 10.8 19 |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION Inputs Inputs of R&D institutions GERD (% GDP) GERD per researcher | 96 145 109 68 58 66 46 | 7.5 17 20.9 25.6 10.8 19 |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION Inputs Inputs of R&D institutions GERD (% GDP) GERD per researcher Researchers per thousand labour force | 96 145 109 68 58 66 | 7.5 17 20.9 25.6 10.8 19 |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION Inputs Inputs of R&D institutions GERD (% GDP) GERD per researcher Researchers per thousand labour force Tertiary graduates from STEM programmes (%) | 96 145 109 68 58 66 46 | 7.5 17 20.9 25.6 10.8 19 |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION Inputs Inputs of R&D institutions GERD (% GDP) GERD per researcher Researchers per thousand labour force Tertiary graduates from STEM programmes (%) Inputs of RDI in business enterprises | 96 145 109 68 58 66 46 23 | 7.5 17 20.9 25.6 10.8 19 18 54.6 |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION Inputs Inputs Inputs of R&D institutions GERD (% GDP) GERD per researcher Researchers per thousand labour force Tertiary graduates from STEM programmes (%) Inputs of RDI in business enterprises GERD performed by business enterprises (%) | 96 145 109 68 58 66 46 23 | 7.5 17 20.9 25.6 10.8 19 18 54.6 3.2 |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION Inputs Inputs Inputs of R&D institutions GERD (% GDP) GERD per researcher Researchers per thousand labour force Tertiary graduates from STEM programmes (%) Inputs of RDI in business enterprises GERD performed by business enterprises (%) GERD financed by business enterprises (%) | 96 145 109 68 58 66 46 23 140 75 | 7.5 17 20.9 25.6 10.8 19 18 54.6 3.2 |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION Inputs Inputs Inputs of R&D institutions GERD (% GDP) GERD per researcher Researchers per thousand labour force Tertiary graduates from STEM programmes (%) Inputs of RDI in business enterprises GERD performed by business enterprises (%) GERD financed by business enterprises (%) Researchers in business enterprises (%) | 96 145 109 68 58 66 46 23 140 75 83 | 7.5 17 20.9 25.6 10.8 19 18 54.6 3.2 1 |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION Inputs Inputs Inputs of R&D institutions GERD (% GDP) GERD per researcher Researchers per thousand labour force Tertiary graduates from STEM programmes (%) Inputs of RDI in business enterprises GERD performed by business enterprises (%) GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) | 96 145 109 68 58 66 46 23 140 75 83 82 | 7.5 17 20.9 25.6 10.8 19 18 54.6 3.2 1 8.3 0.2 |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION Inputs Inputs of R&D institutions GERD (% GDP) GERD per researcher Researchers per thousand labour force Tertiary graduates from STEM programmes (%) Inputs of RDI in business enterprises GERD performed by business enterprises (%) GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation | 96 145 109 68 58 66 46 23 140 75 83 82 n/a | 7.5 17 20.9 25.6 10.8 19 18 54.6 3.2 1 8.3 0.2 n/a |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION Inputs Inputs of R&D institutions GERD (% GDP) GERD per researcher Researchers per thousand labour force Tertiary graduates from STEM programmes (%) Inputs of RDI in business enterprises GERD performed by business enterprises (%) GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) | 96 145 109 68 58 66 46 23 140 75 83 82 n/a | 7.5 17 20.9 25.6 10.8 19 18 54.6 3.2 1 8.3 0.2 n/a 29.1 |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION Inputs Inputs of R&D institutions GERD (% GDP) GERD per researcher Researchers per thousand labour force Tertiary graduates from STEM programmes (%) Inputs of RDI in business enterprises GERD performed by business enterprises (%) GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) | 96 145 109 68 58 66 46 23 140 75 83 82 n/a 92 | 7.5 17 20.9 25.6 10.8 19 18 54.6 3.2 1 8.3 0.2 n/a 29.1 n/a |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION Inputs Inputs of R&D institutions GERD (% GDP) GERD per researcher Researchers per thousand labour force Tertiary graduates from STEM programmes (%) Inputs of RDI in business enterprises GERD performed by business enterprises (%) GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development | 96 145 109 68 58 66 46 23 140 75 83 82 n/a 92 n/a 82 | 7.5 17 20.9 25.6 10.8 19 18 54.6 3.2 1 8.3 0.2 n/a 29.1 n/a 9.8 |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION Inputs Inputs Inputs of R&D institutions GERD (% GDP) GERD per researcher Researchers per thousand labour force Tertiary graduates from STEM programmes (%) Inputs of RDI in business enterprises GERD performed by business enterprises (%) GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs | 96 145 109 68 58 66 46 23 140 75 83 82 n/a 92 n/a 82 59 | 7.5 17 20.9 25.6 10.8 19 18 54.6 3.2 1 8.3 0.2 n/a 29.1 n/a 9.8 48.3 |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION Inputs Inputs Inputs of R&D institutions GERD (% GDP) GERD per researcher Researchers per thousand labour force Tertiary graduates from STEM programmes (%) Inputs of RDI in business enterprises GERD performed by business enterprises (%) GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs of R&D institutions | 96 145 109 68 58 66 46 23 140 75 83 82 n/a 92 n/a 82 59 127 | 7.5 17 20.9 25.6 10.8 19 18 54.6 3.2 1 8.3 0.2 n/a 29.1 n/a 9.8 48.3 22.6 32.4 |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION Inputs Inputs Inputs of R&D institutions GERD (% GDP) GERD per researcher Researchers per thousand labour force Tertiary graduates from STEM programmes (%) Inputs of RDI in business enterprises GERD performed by business enterprises (%) GERD financed by business enterprises (%) Researchers in business enterprises (%) Researchers in business enterprises (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs of R&D institutions Average documents per researcher | 96 145 109 68 58 66 46 23 140 75 83 82 n/a 92 n/a 82 59 127 108 | 7.5 17 20.9 25.6 10.8 19 18 54.6 3.2 1 8.3 0.2 n/a 29.1 n/a 9.8 48.3 22.6 32.4 38.2 |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION Inputs Inputs of R&D institutions GERD (% GDP) GERD per researcher Researchers per thousand labour force Tertiary graduates from STEM programmes (%) Inputs of RDI in business enterprises GERD performed by business enterprises (%) GERD financed by business enterprises (%) Researchers in business enterprises (%) Researchers in business enterprises (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs of R&D institutions Average documents per researcher Citations per document | 96 145 109 68 58 66 46 23 140 75 83 82 n/a 92 127 108 97 | 7.5 17 20.9 25.6 10.8 19 18 54.6 3.2 1 8.3 0.2 n/a 29.1 n/a 9.8 48.3 22.6 32.4 38.2 18.6 |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION Inputs Inputs of R&D institutions GERD (% GDP) GERD per researcher Researchers per thousand labour force Tertiary graduates from STEM programmes (%) Inputs of RDI in business enterprises GERD performed by business enterprises (%) GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs of R&D institutions Average documents per researcher Citations per document Patent applications (per 100 billion GDP) | 96 145 109 68 58 66 46 23 140 75 83 82 n/a 92 127 108 97 92 85 | 7.5 17 20.9 25.6 10.8 19 18 54.6 3.2 1 8.3 0.2 n/a 29.1 n/a 9.8 48.3 22.6 32.4 38.2 18.6 40.4 |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION Inputs Inputs of R&D institutions GERD (% GDP) GERD per researcher Researchers per thousand labour force Tertiary graduates from STEM programmes (%) Inputs of RDI in business enterprises GERD performed by business enterprises (%) GERD performed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs of R&D institutions Average documents per researcher Citations per document Patent applications (per 100 billion GDP) Outputs of RDI in business enterprises | 96 145 109 68 58 66 46 23 140 75 83 82 n/a 92 n/a 82 59 127 108 97 92 85 | 7.5 17 20.9 25.6 10.8 19 18 54.6 3.2 1 8.3 0.2 n/a 29.1 n/a 9.8 48.3 22.6 32.4 38.2 18.6 40.4 18.3 |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION Inputs Inputs of R&D institutions GERD (% GDP) GERD per researcher Researchers per thousand labour force Tertiary graduates from STEM programmes (%) Inputs of RDI in business enterprises GERD performed by business enterprises (%) GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs of R&D institutions Average documents per researcher Citations per document Patent applications (per 100 billion GDP) Outputs of RDI in business enterprises Intellectual property receipts (% total trade) | 96 145 109 68 58 66 46 23 140 75 83 82 n/a 92 127 108 97 92 85 134 102 | 7.5 17 20.9 25.6 10.8 19 18 54.6 3.2 1 8.3 0.2 n/a 29.1 n/a 9.8 48.3 22.6 32.4 38.2 18.6 40.4 18.3 2.3 |
| Citable documents per R&D personnel in higher education RESEARCH, DEVELOPMENT AND INNOVATION Inputs Inputs Inputs of R&D institutions GERD (% GDP) GERD per researcher Researchers per thousand labour force Tertiary graduates from STEM programmes (%) Inputs of RDI in business enterprises GERD performed by business enterprises (%) GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs of R&D institutions Average documents per researcher Citations per document Patent applications (per 100 billion GDP) Outputs of RDI in business enterprises Intellectual property receipts (% total trade) Industrial design applications (per 100 billion GDP) | 96 145 109 68 58 66 46 23 140 75 83 82 n/a 92 127 108 97 92 85 134 102 43 | 7.5 17 20.9 25.6 10.8 19 18 54.6 3.2 1 8.3 0.2 n/a 29.1 n/a 9.8 48.3 22.6 32.4 38.2 18.6 40.4 18.3 2.3 15.6 |
| Inputs Inputs of R&D institutions GERD (% GDP) GERD per researcher Researchers per thousand labour force Tertiary graduates from STEM programmes (%) Inputs of RDI in business enterprises GERD performed by business enterprises (%) GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs of R&D institutions Average documents per researcher Citations per document Patent applications (per 100 billion GDP) Outputs of RDI in business enterprises Intellectual property receipts (% total trade) | 96 145 109 68 58 66 46 23 140 75 83 82 n/a 92 127 108 97 92 85 134 102 | 7.5 17 20.9 25.6 10.8 19 18 54.6 3.2 1 8.3 0.2 n/a 29.1 n/a 9.8 48.3 22.6 32.4 38.2 18.6 40.4 18.3 2.3 |

• ALGERIA

| | | Value |
|--|-----------|--------------|
| Outputs of societal innovation | 124 | 7.2 |
| Trademark applications (per 100 billion GDP) | 82 | 18 |
| Cultural goods exports (% exports) | 140 | 0 |
| Printing and publishing output (% manufactured output) | 104 | 3.7 |
| Impact | 149 | 7.5 |
| Quality | 87 | 19.8 |
| Research institutions prominence | 46 | 25.5 |
| Growth of innovative companies | 90 | 46.6 |
| ISO 9001 quality certificates (% GDP) | 113 | 3.8 |
| ISO 14001 environmental certificates (% GDP) | 100 | 3.3 |
| Linkages | 139 | 1 |
| GERD financed from abroad (%) | 101 | 0 |
| Joint ventures per strategic alliance deals (% GDP) | 123 | 2.5 |
| Computer software spending (% GDP) | 123 | 0.4 |
| Business development | 148 | 1.7 |
| New business density per thousand population | 113 | 1.7 |
| Firms with new product/service (%) | n/a | n/a |
| INFORMATION AND COMMUNICATIONS TECHNOLOGY | 106 | 32.8 |
| Infrastructure | 111 | 36.2 |
| Coverage | 107 | 39.3 |
| 3G/4G mobile network coverage (% population) | 89 | 85.9 |
| Secure Internet servers per 1 million population | 126 | 1.1 |
| Investment in telecommunication services (% GDP) | 67 | 31 |
| Quality | 126 | 5.3 |
| Mobile upload and download speeds | n/a | n/a |
| Fixed-broadband upload and download speeds | 115 | 0 |
| Fixed-broadband subscriptions by speed per hundred people | 87 | 10.6 |
| Affordability | 101 | 63.9 |
| Fixed broadband basket (% GNI per capita) | 92 | 69.9 |
| Mobile broadband basket (% GNI per capita) | 45 | 71.7 |
| Internet and telephony competition | 131 | 50 |
| Access | 93 | 31.5 |
| Subscriptions | 72 | 48.9 |
| Active mobile-broadband subscriptions per hundred inhabitants | 56 | 39.6 |
| International Internet bandwidth per user | 103 | 32.5 |
| Households with Internet access at home (%) | 69 | 74.5 |
| Skills and employment | 116 | 14.1 |
| Individuals with standard ICT skills (%) | 64 | 15.5 |
| Tertiary graduates from ICT programmes (%) | 97 | 21.9 |
| ICT employment (%) | 100 | 4.9 |
| Usage | 118 | 30.9 |
| Services | 114 | 27.3 |
| Government online services | 142 | 27.7 |
| Fixed broadband Internet traffic per subscription | 59 | 18.2 |
| Mobile broadband Internet traffic per subscription | 81 | 8.3 |
| Internet users (%) | 94 | 55.2 |
| Outcomes ICT DCT natural applications (nos 100 billion CDD) | 121 98 | 34.4 27.2 |
| ICT PCT patent applications (per 100 billion GDP) E-participation | 150 | 15.5 |
| Internet activities by individuals (%) | 50 | 37.5 |
| Trade in digitally deliverable services (% total trade) | 31 | 57.4 |
| ECONOMY | 136 | 38.9 |
| Economic competitiveness | 112 | 43.4 |
| Infrastructure investment | 61 | 52.6 |
| Gross fixed capital formation (% GDP) | 7 | 86.5 |
| Logistics performance | 114 | 36.2 |
| Transport productive capacity | 147 | 7.5 |
| Building quality control | 47 | 80 |
| - • • | | |

| | Rank Va | lue |
|--|--|--|
| Business agility | | 4.2 |
| Ease of starting a business | 128 7 | 78 |
| Insolvency recovery rate | 43 5 | 5.2 |
| Entrepreneurial employee activity rate | 77 3 | .6 |
| Extent of corporate transparency | 118 | 0 |
| Economic openness | 131 42 | 2.5 |
| Frade and diversification | 106 5 | 54 |
| Frade (% GDP) | 119 16 | 6.4 |
| High-technology trade (% total trade) | 49 5 | 1.8 |
| Product concentration | 124 5 | 5.8 |
| Market concentration | 57 9 | 92 |
| Financial openness | 136 3 | 1.1 |
| Chinn-Ito financial openness | 137 10 | 6.4 |
| oreign direct investment, net inflows (% GDP) | 130 | 32 |
| Debt dynamics | 109 | 15 |
| inancing and domestic value added | 145 30 | 0.8 |
| inancing and taxes | 145 33 | 2.4 |
| Domestic credit to private sector (% GDP) | 107 10 | 0.4 |
| ISME financing gap (% GDP) | n/a n | /a |
| ax and contribution rate (% profit) | 146 40 | 0.9 |
| ank non-performing loans (%) | 106 4 | 5.9 |
| Oomestic value added | 131 29 | 9.2 |
| Medium- and high-tech activities value added | 130 2 | .9 |
| ndustry and services value added (% GDP) | 87 59 | 9.7 |
| abour underutilization rate | 135 36 | 6.6 |
| Output per worker | 68 1 | 7.4 |
| ENABLING ENVIRONMENT | 117 49 | 5.2 |
| Governance | 128 2 | 2.9 |
| olitical environment | 131 1 | 7.9 |
| eace and stability | 125 1 | 7.5 |
| oice and accountability | 128 18 | 3.4 |
| Quality of institutions | 117 2 | 7.9 |
| Rule of law | 123 2 | 1.6 |
| Control of corruption | 110 28 | 3.4 |
| Sovernment effectiveness | 104 33 | 3.7 |
| Socio-economic | 95 50 | 0.9 |
| Gender equity | 145 34 | 4.9 |
| | | _ |
| emale-to-male ratio in parliament | 143 8 | .8 |
| • | | 3.1 |
| emale-to-male labour force participation | 149 18 | |
| emale-to-male labour force participation | 149 18 100 7 | 3.1 |
| emale-to-male labour force participation emale-to-male ratio in Internet usage social inclusion | 149 18 100 7 72 60 | 3.1 7.7 |
| remale-to-male ratio in parliament female-to-male labour force participation female-to-male ratio in Internet usage focial inclusion focial protection coverage (% population) focial protection rate | 149 18 100 7 72 60 n/a n | 3.1 7.7 3.8 |
| remale-to-male labour force participation female-to-male ratio in Internet usage focial inclusion focial protection coverage (% population) | 149 11 100 7 72 60 n/a n 86 70 | 3.1 7.7 6.8 |
| remale-to-male labour force participation female-to-male ratio in Internet usage focial inclusion focial protection coverage (% population) fodult literacy rate fouth not in employment, education or training (%) | 149 11 100 7 72 60 n/a n 86 70 98 5 | 3.1 7.7 6.8 //a 6.1 |
| remale-to-male labour force participation female-to-male ratio in Internet usage focial inclusion focial protection coverage (% population) fould literacy rate fouth not in employment, education or training (%) | 149 11 100 7 72 60 n/a n 86 7 98 5 44 5 | 3.1 7.7 6.8 //a 6.1 7.6 |
| remale-to-male labour force participation female-to-male ratio in Internet usage focial inclusion focial protection coverage (% population) | 149 11 100 7 72 60 n/a n 86 70 98 5 44 5 | 3.1 7.7 5.8 //a 5.1 7.6 |
| emale-to-male labour force participation emale-to-male ratio in Internet usage social inclusion social protection coverage (% population) dult literacy rate south not in employment, education or training (%) standard of living soverty headcount ratio (% population) | 149 11 100 7' 72 66 n/a n 86 76 98 5 44 5 7 5 91 9 | 8.1 7.7 6.8 //a 6.1 7.6 51 |
| emale-to-male labour force participation emale-to-male ratio in Internet usage social inclusion social protection coverage (% population) dult literacy rate outh not in employment, education or training (%) standard of living soverty headcount ratio (% population) SDP per capita | 149 11 100 7' 72 61 1/4 n 86 70 98 5' 44 5 7 5 91 9 91 6 | 3.1 7.7 6.8 4/a 6.1 7.6 51 |
| emale-to-male labour force participation emale-to-male ratio in Internet usage cocial inclusion cocial protection coverage (% population) dult literacy rate couth not in employment, education or training (%) tandard of living coverty headcount ratio (% population) SDP per capita lealth and environment lealth | 149 11 100 7 72 60 100 10 86 70 98 50 44 5 7 69 91 9 91 66 | 3.1 7.7 6.8 //a 6.1 7.6 51 93 |
| emale-to-male labour force participation emale-to-male ratio in Internet usage social inclusion social protection coverage (% population) dult literacy rate south not in employment, education or training (%) standard of living soverty headcount ratio (% population) SDP per capita sealth and environment sealth shiversal health coverage | 149 11 100 7' 72 60 10 | 3.1 7.7 3.8 3.1 7.6 51 33 1.1 1.8 |
| emale-to-male labour force participation emale-to-male ratio in Internet usage social inclusion social protection coverage (% population) dult literacy rate south not in employment, education or training (%) standard of living soverty headcount ratio (% population) soDP per capita sealth and environment lealth shiversal health coverage lealthy life expectancy (years) | 149 11 100 7 72 66 10 | 3.1 7.7 3.8 8 3.1 7.6 5.1 3.3 1.1 1.1 8 8 |
| remale-to-male labour force participation female-to-male ratio in Internet usage social inclusion social protection coverage (% population) solut literacy rate fouth not in employment, education or training (%) standard of living coverty headcount ratio (% population) sDP per capita Health and environment Health Universal health coverage Healthy life expectancy (years) | 149 11 100 7 72 66 10 | 3.1 7.7 3.8 3.1 3.1 7.6 51 33 1.1 1.8 7.9 |
| remale-to-male labour force participation remale-to-male ratio in Internet usage remale-to-male ratio (% population) remainded of living reverty headcount ratio (% population) representation remainded to remainded | 149 11 100 7' 72 66 101 101 101 102 101 103 101 104 101 105 105 101 105 105 101 105 105 101 105 10 | 3.1 7.7 7.3 3.8 3.1 7.6 5.1 93 1.1 1.8 7.9 78 |
| Female-to-male labour force participation Female-to-male ratio in Internet usage Social inclusion Social protection coverage (% population) Adult literacy rate | 149 11 100 7' 72 61 1/4 n 86 70 98 5' 44 5 7 6 91 9 91 6' 74 7' 30 7 60 7, 97 8 120 41 | 3.1 7.7 3.8 3.8 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 |

All values are normalized to a scale from 0 (worst) to 100 (bes