GLOBAL INNOVATION INDEX 2020



TUNISIA

65th Tunisia ranks 65th among the 131 economies featured in the GII 2020.

The Global Innovation Index (GII) ranks world economies according to their innovation capabilities. Consisting of roughly 80 indicators, grouped into innovation inputs and outputs, the GII aims to capture the multi-dimensional facets of innovation.

The following table shows the rankings of Tunisia over the past three years, noting that data availability and changes to the GII model framework influence year-on-year comparisons of the GII rankings. The statistical confidence interval for the ranking of Tunisia in the GII 2020 is between ranks 63 and 75.

Rankings of Tunisia (2018–2020)

	GII	Innovation inputs	Innovation outputs
2020	65	78	59
2019	70	74	65
2018	66	77	63

- Tunisia performs better in innovation outputs than innovation inputs in 2020.
- This year Tunisia ranks 78th in innovation inputs, lower than last year and lower compared to 2018.
- As for innovation outputs, Tunisia ranks 59th. This position is higher than last year and higher compared to 2018.



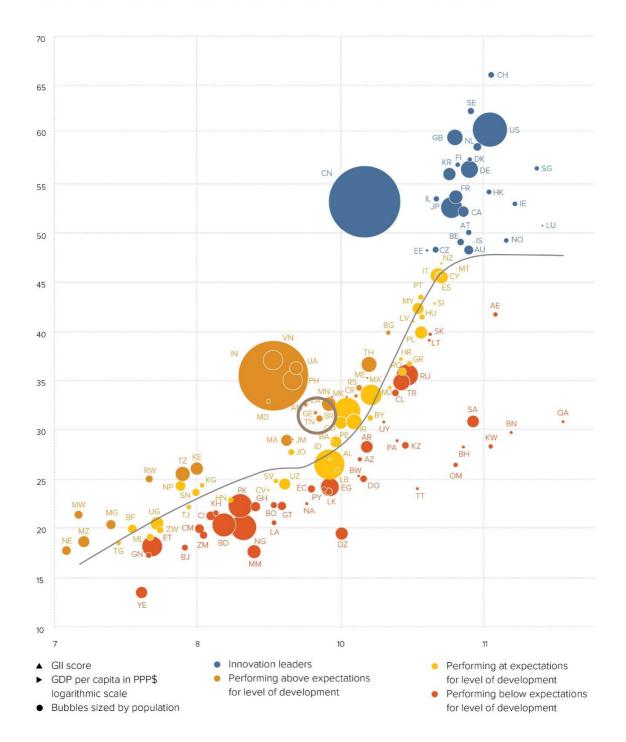
Tunisia ranks 7th among the 19 economies in Northern Africa and Western Asia.



EXPECTED VS. OBSERVED INNOVATION PERFORMANCE

The bubble chart below shows the relationship between income levels (GDP per capita) and innovation performance (GII score). The trend line gives an indication of the expected innovation performance according to income level. Economies appearing above the trend line are performing better than expected and those below are performing below expectations.

Relative to GDP, Tunisia's performance is above expectations for its level of development.



The positive relationship between innovation and development



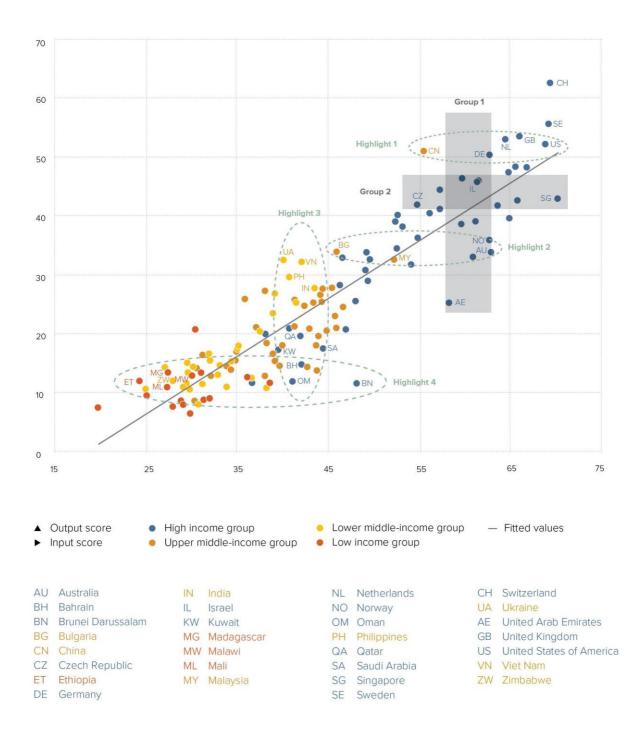


EFFECTIVELY TRANSLATING INNOVATION INVESTMENTS INTO INNOVATION OUTPUTS

The chart below shows the relationship between innovation inputs and innovation outputs. Economies above the line are effectively translating costly innovation investments into more and higher-quality outputs.

Tunisia produces more innovation outputs relative to its level of innovation investments.

Innovation input to output performance, 2020

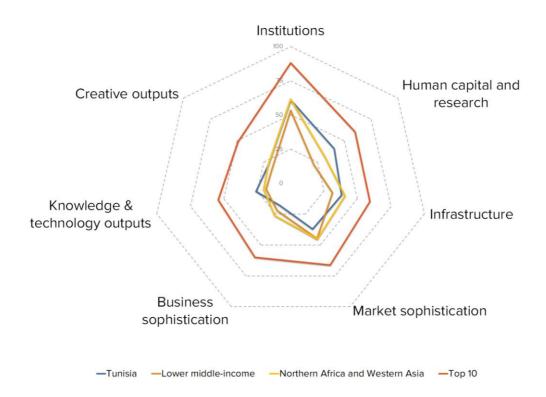






BENCHMARKING TUNISIA AGAINST OTHER LOWER MIDDLE-INCOME GROUP ECONOMIES AND NORTHERN AFRICA AND WESTERN ASIA

Tunisia's scores in the seven GII pillars



Lower middle-income group economies

Tunisia has high scores in five out of the seven GII pillars: Institutions, Human capital & research, Infrastructure, Knowledge & technology outputs and Creative outputs, which are above average for the lower middle-income group.

Conversely, Tunisia scores below average for its income group in two pillars: Market sophistication and Business sophistication.

Northern Africa and Western Asia

Compared to other economies in Northern Africa and Western Asia, Tunisia performs:

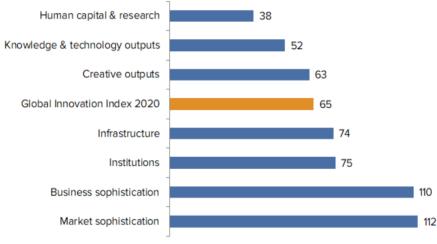
- above average in three out of the seven GII pillars: Human capital & research, Knowledge & technology outputs and Creative outputs; and
- below average in four out of the seven GII pillars: Institutions, Infrastructure, Market sophistication and Business sophistication.



Gil 2020

OVERVIEW OF TUNISIA RANKINGS IN THE SEVEN GII AREAS

Tunisia performs best in Human capital & research and its weakest performance is in Market sophistication.



*The highest possible ranking in each pillar is 1.

INNOVATION STRENGTHS AND WEAKNESSES

The table below gives an overview of the strengths and weaknesses of Tunisia in the GII 2020.

Strengths			Weaknesses				
Code	Indicator name	Rank	Code	Indicator name	Rank		
1.3.1	Ease of starting a business*	18	2.1.4	PISA scales in reading, maths, & science	74		
2	Human capital & research	38	2.3.3	Global R&D companies, top 3, mn US\$	42		
2.1	Education	9	2.3.4	QS university ranking, average score top 3*	77		
2.1.1	Expenditure on education, % GDP	8	3.2	General infrastructure	117		
2.1.2	Government funding/pupil, secondary, % GDP/cap	1	4	Market sophistication	112		
2.2	Tertiary education	21	4.2	Investment	117		
2.2.2	Graduates in science & engineering, %	2	4.3.1	Applied tariff rate, weighted avg., %	110		
6.1	Knowledge creation	38	5	Business sophistication	110		
6.1.4	Scientific & technical articles/bn PPP\$ GDP	13	5.2	Innovation linkages	118		
6.2.3	Computer software spending, % GDP	34	5.2.2	State of cluster development ⁺	104		
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP	41	5.2.4	JV–strategic alliance deals/bn PPP\$ GDP	117		
6.3.2	High-tech net exports, % total trade	37	5.3	Knowledge absorption	114		
6.3.4	FDI net outflows, % GDP	31	5.3.1	Intellectual property payments, % total trade	103		
7.2.5	Creative goods exports, % total trade	29	5.3.5	Research talent, % in business enterprise	72		
			7.1.4	ICTs & organizational model creation ⁺	105		
			7.2.3	Entertainment & Media market/th pop. 15–69	57		





STRENGTHS

Gll strengths for Tunisia are found in four of the seven Gll pillars.

- Institutions (75): exhibits strengths in the indicator Ease of starting a business (18).
- Human capital & research (38): shows strengths in the sub-pillars Education (9) and Tertiary education (21) and in the indicators Expenditure on education (8), Government funding/pupil (1) and Graduates in science & engineering (2).
- Knowledge & technology outputs (52): reveals strengths in the sub-pillar Knowledge creation (38) and in the indicators Scientific & technical articles (13), Computer software spending (34), ISO 9001 quality certificates (41), High-tech net exports (37) and FDI net outflows (31).
- Creative outputs (63): demonstrates strengths in the indicator Creative goods exports (29).

WEAKNESSES

Gll weaknesses for Tunisia are found in five of the seven Gll pillars.

- Human capital & research (38): exhibits weaknesses in the indicators PISA scales in reading, maths, & science (74), Global R&D companies (42) and QS university ranking (77).
- Infrastructure (74): displays weaknesses in the sub-pillar General infrastructure (117).
- Market sophistication (112): shows weaknesses in the sub-pillar Investment (117) and in the indicator Applied tariff rate (110).
- Business sophistication (110): demonstrates weaknesses in the sub-pillars Innovation linkages (118) and Knowledge absorption (114) and in the indicators State of cluster development (104), JV–strategic alliance deals (117), Intellectual property payments (103) and Research talent (72).
- Creative outputs (63): reveals weaknesses in the indicators ICTs & organizational model creation (105) and Entertainment & Media market (57).

TUNISIA

GII 2020 rank



Out	out rank	Input rank	Income	Regior	า	Pop	oulation (I	mn) GDP, PPP\$	GDP per capita, PPP\$	GII 2	2019 ra	an
	59	78	Lower middle	NAW	A		11.7	149.2	11,053.7		70	
			s	Score/Value	Rank				Sc	ore/Value	Rank	
Ø	INSTITU	TIONS		61.1	75	٠	٩	BUSINESS SOPHIS	STICATION	18.0	110	0
1	Political	environment		52.7	84		5.1	Knowledge workers		22.3	93	
.1			stability*		92		5.1.1		employment, %	20.9	75	
.2	Governm	ent effectivene	ess*	47.8	79		5.1.2		aining, %	28.9	52	
22					12000		5.1.3		usiness, % GDP	0.1	58	
2			nt		90		5.1.4		siness, %	18.9	66	
2.1					101		5.1.5	Females employed w/	advanced degrees, % [@]	7.6	80	
2.2 2.3					60 91	•	5.2	Innevetien linkenen		13.7	118	5
2.3	Cost of re	edundancy disi	missal, salary weeks	21.0	91		5.2.1		earch collaboration+	35.7	95	2
.3	Rusinoss	onvironment		74.4	54		5.2.2		pment+	38.1	104	8
3.1			ess*		18		5.2.2		oad, % GDP [®]	0.0	64	
3.2			ency*		64	•••	5.2.4		eals/bn PPP\$ GDP	0.0	117	3
0.2	Ease of th	conving moorv	citey		04		5.2.5		ces/bn PPP\$ GDP	0.0	92	
225	HUMAN	CAPITAL &	RESEARCH	40.7	38	••	5.3	Knowledge absorptio	n	17.9	114	1
-	and the second	and the second se				1212	5.3.1	• .	ayments, % total trade	0.1	103	
.1	Educatio	n		66.0	9		5.3.2		otal trade	8.9	48	
.1.1			on, % GDP.		8		5.3.3		% total trade	0.4	107	
.1.2			I, secondary, % GDP/cap.		1		5.3.4		»	2.0	83	
.1.3	School life	e expectancy,	years	15.1	49	٠	5.3.5		ousiness enterprise	5.2	72	
2.1.4	PISA scal	es in reading, i	maths, & science	371.4	74	0						
2.1.5	Pupil-tead	cher ratio, seco	ondary.@	13.6	67		5.1			-		ř
.2	Tertiary e	ducation		47.8	21	• •		KNOWLEDGE & TEC	HNOLOGY OUTPUTS	25.8	52	
.2.1			OSS		79		6.1	Knowledge creation		25.8	38	(
.2.2			engineering, %		2		6.1.1		PP\$ GDP	1.2	60	
2.2.3	Tertiary ir	bound mobilit	y, %	2.2	75		6.1.2	PCT patents by origin/	bn PPP\$ GDP	0.1	70	
							6.1.3	Utility models by origin	1/bn PPP\$ GDP	n/a	n/a	
2.3	Research	& developme	ent (R&D)	8.3	64		6.1.4	Scientific & technical a	articles/bn PPP\$ GDP	26.5	13	•
2.3.1			op		43	+	6.1.5	Citable documents H-i	ndex	11.0	69	
.3.2			&D, % GDP		56	•	-	1000 101 10 10 10 100		222212		
2.3.3			vg. exp. top 3, mn \$US			00	6.2				67	
.3.4	QS unive	rsity ranking, a	verage score top 3*	0.0	77	00	6.2.1		DP/worker, %	1.4	56	
							6.2.2		p. 15-64	1.7	60	
							6.2.3		ending, % GDP	0.0	34	1
		TRUCTURE.					6.2.4 6.2.5		cates/bn PPP\$ GDP h-tech manufacturing, %	6.5 14.1	41 68	•
8.1			ation technologies (ICT		65	٠			3,			
3.1.1					78	٠	6.3			28.3	47	
3.1.2					76	٠	6.3.1		eceipts, % total trade	0.1	55	
3.1.3			rvice*		44	٠	6.3.2		% total trade	4.3	37	1
3.1.4	E-particip	ation*		79.8	53	•	6.3.3 6.3.4		% total trade)P	1.5 2.3	68 31	
3.2	General i	nfrastructure.		16.5	117	0	0.0.4	T DI HEL OUTIOWS, 70 OL		2.0	51	
3.2.1	Electricity	output, kWh/r	nn pop	1,785.7	82							-
3.2.2	Logistics	performance*.		23.4	100		1	CREATIVE OUTPU	тѕ	21.1	[63]	
3.2.3	Gross cap	oital formation,	% GDP	20.3	96		~					
	Fastania			20 F	64		7.1				[50]	
3.3			y		61 45		7.1.1 7.1.2	, , ,	bn PPP\$ GDP	n/a	n/a	
3.3.1 3.3.2			Ince*		65		7.1.2		p 5,000, % GDP	n/a	n/a	
3.3.3			certificates/bn PPP\$ GDP		52		7.1.3		prigin/bn PPP\$ GDP model creation+	1.1	63	
	.00 11001			1.0	92	•				42.7	105	
				27.0	140	~	7.2		ervices		[67]	
aî.	MARKE	SOPHISTIC	CATION	37.0	112	0	7.2.1		ces exports, % total trade mn pop. 15-69.	n/a	n/a	
.1	Cradit			22.2	98				construction of the second	1.4	78	1 319
.1.1					98		7.2.3 7.2.4		a market/th pop. 15-69	1.2	57	12
.1.2			te sector, % GDP		94 47		7.2.4		dia, % manufacturing ts, % total trade	n/a	n/a	
1.1.2			s, % GDP		34		1.2.0	Creative goods expor	13, 70 IUIAI II AUE	2.0	29	
		3					7.3			9.1	89	
1.2					117	0	7.3.1		ins (TLDs)/th pop. 15-69	2.8	68	
	Eaco of p	rotecting mino	rity investors*	62.0	60		7.3.2	Country-code TLDs/th	pop. 15-69	1.6	72	
4.2.1		•										
	Market ca	pitalization, %	GDP 1 PPP\$ GDP		55 61		7.3.3 7.3.4		p. 15-69 n PPP\$ GDP	35.3 0.1	89 82	

NOTES:
Indicates a strength;
A weakness;
Indicates a strength;
A weakness;
Indicates that the economy's data are older than the base year; see Appendix II for details, including the year of the data, at http://globalinnovationindex.org. Square brackets [] indicate that the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level.

102 110 O

82 74





DATA AVAILABILITY

The following tables list data that are either missing or outdated for Tunisia.

Missing data

Code	Indicator name	Country Model		Source	
Coue	indicator name	year	year	Source	
6.1.3	Utility models by origin/bn PPP\$ GDP	n/a	2018	World Intellectual Property Organization	
7.1.1	Trademarks by origin/bn PPP\$ GDP	n/a	2018	World Intellectual Property Organization	
7.1.2	Global brand value, top 5000, % GDP	n/a	2019	Brand Finance	
7.2.1	Cultural & creative services exports, % total trade	n/a	2018	World Trade Organization	
7.2.4	Printing and other media, % manufacturing	n/a	2017	United Nations Industrial Development Organization	

Outdated data

Code	Indicator name	Country	Model	Source	
Code	indicator fiame	year	year		
2.1.1	Expenditure on education, % GDP	2015	2018	UNESCO Institute for Statistics	
2.1.2	Government funding/pupil, secondary, % GDP/cap	2015	2016	UNESCO Institute for Statistics	
2.1.3	School life expectancy, years	2016	2017	UNESCO Institute for Statistics	
2.1.4	PISA scales in reading, maths, & science	2015	2018	OECD Programme for International Student Assessment (PISA)	
2.1.5	Pupil-teacher ratio, secondary	2011	2018	UNESCO Institute for Statistics	
4.3.1	Applied tariff rate, weighted avg., %	2016	2018	World Bank	
5.1.1	Knowledge-intensive employment, %	2012	2018	International Labour Organization	
5.1.2	Firms offering formal training, %	2012	2018	World Bank	
5.1.3	GERD performed by business, % GDP	2014	2018	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators	
5.1.4	GERD financed by business, %	2015	2017	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators	
5.1.5	Females employed w/advanced degrees, %	2015	2018	International Labour Organization	
5.2.3	GERD financed by abroad, % GDP	2015	2017	UNESCO Institute for Statistics	
5.3.1	Intellectual property payments, % total trade	2017	2018	World Trade Organization	
5.3.2	High-tech imports, % total trade	2017	2018	United Nations, COMTRADE	
5.3.3	ICT services imports, % total trade	2017	2018	World Trade Organization	
6.2.5	High- and medium-high-tech manufacturing, $\%$	2015	2017	United Nations Industrial Development Organization	
6.3.1	Intellectual property receipts, % total trade	2017	2018	World Trade Organization	
6.3.2	High-tech net exports, % total trade	2017	2018	United Nations, COMTRADE	
6.3.3	ICT services exports, % total trade	2017	2018	World Trade Organization	
7.2.2	National feature films/mn pop. 15–69	2015	2017	UNESCO Institute for Statistics	
7.2.5	Creative goods exports, % total trade	2017	2018	United Nations, COMTRADE	

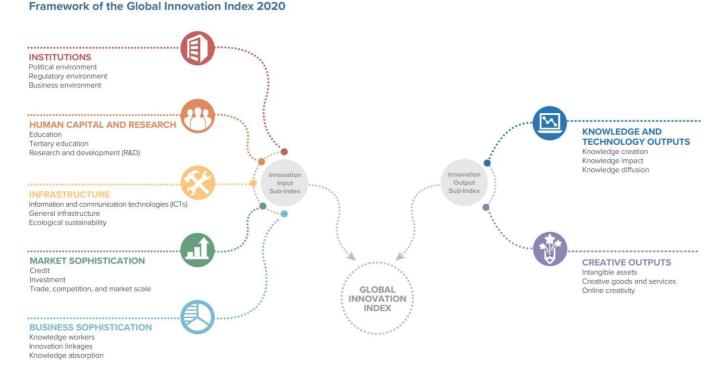




ABOUT THE GLOBAL INNOVATION INDEX

The Global Innovation Index (GII) is co-published by Cornell University, INSEAD, and the World Intellectual Property Organization (WIPO), a specialized agency of the United Nations. In 2020, the GII presents its 13th edition devoted to the theme *Who Will Finance Innovation?*

Recognizing that innovation is a key driver of economic development, the GII aims to provide an innovation ranking and rich analysis referencing around 130 economies. Over the last decade, the GII has established itself as both a leading reference on innovation and a "tool for action" for economies that incorporate the GII into their innovation agendas.



The Index is a ranking of the innovation capabilities and results of world economies. It measures innovation based on criteria that include institutions, human capital and research, infrastructure, credit, investment, linkages; the creation, absorption and diffusion of knowledge; and creative outputs.

The GII has two sub-indices: the Innovation Input Sub-Index and the Innovation Output Sub-Index, and seven pillars, each consisting of three sub-pillars.





