LATVIA

GII 2019 rank

34

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$	GDP per capita, PPP$	GII 2018 rank
34	36	High	EUR	1.9	57.3	29,901.3	34

		Score/Value	Rank	
	INSTITUTIONS	**77.2**	**32**	
1.1	**Political environment**	**72.5**	**36**	
1.1.1	Political and operational stability*	80.7	35	
1.1.2	Government effectiveness*	68.5	34	
1.2	**Regulatory environment**	**82.2**	**26**	
1.2.1	Regulatory quality*	72.9	28	
1.2.2	Rule of law*	71.0	32	
1.2.3	Cost of redundancy dismissal, salary weeks	13.0	42	
1.3	**Business environment**	**76.9**	**39**	
1.3.1	Ease of starting a business*	94.1	21	
1.3.2	Ease of resolving insolvency*	59.6	49	
	HUMAN CAPITAL & RESEARCH	**36.9**	**44**	
2.1	**Education**	**59.0**	**29**	
2.1.1	Expenditure on education, % GDP	5.3	31	
2.1.2	Government funding/pupil, secondary, % GDP/cap	24.8	25	
2.1.3	School life expectancy, years	16.2	32	
2.1.4	PISA scales in reading, maths, & science	486.8	30	
2.1.5	Pupil-teacher ratio, secondary ⊕	8.1	10	● ◆
2.2	**Tertiary education**	**40.4**	**38**	
2.2.1	Tertiary enrolment, % gross	88.1	9	●
2.2.2	Graduates in science & engineering, %	20.5	60	
2.2.3	Tertiary inbound mobility, %	7.7	30	
2.3	**Research & development (R&D)**	**11.4**	**53**	◇
2.3.1	Researchers, FTE/mn pop.	1,785.9	43	
2.3.2	Gross expenditure on R&D, % GDP	0.5	62	
2.3.3	Global R&D companies, avg. exp. top 3, mn US$	0.0	43	○ ◇
2.3.4	QS university ranking, average score top 3*	13.1	60	
	INFRASTRUCTURE	**50.5**	**51**	◇
3.1	**Information & communication technologies(ICTs)**	**71.3**	**56**	◇
3.1.1	ICT access*	74.5	46	
3.1.2	ICT use*	75.4	28	
3.1.3	Government's online service*	66.7	75	◇
3.1.4	E-participation*	68.5	73	◇
3.2	**General infrastructure**	**31.1**	**82**	○ ◇
3.2.1	Electricity output, kWh/mn pop.	3,882.0	52	
3.2.2	Logistics performance*	34.9	69	◇
3.2.3	Gross capital formation, % GDP	23.3	63	
3.3	**Ecological sustainability**	**49.1**	**33**	
3.3.1	GDP/unit of energy use	9.9	54	
3.3.2	Environmental performance*	66.1	35	
3.3.3	ISO 14001 environmental certificates/bn PPP$ GDP	6.9	15	●
	MARKET SOPHISTICATION	**54.4**	**40**	
4.1	**Credit**	**56.3**	**23**	
4.1.1	Ease of getting credit*	85.0	11	◆
4.1.2	Domestic credit to private sector, % GDP	60.2	54	
4.1.3	Microfinance gross loans, % GDP	n/a	n/a	
4.2	**Investment**	**46.6**	**49**	
4.2.1	Ease of protecting minority investors*	63.3	48	
4.2.2	Market capitalization, % GDP	n/a	n/a	
4.2.3	Venture capital deals/bn PPP$ GDP	0.1	27	
4.3	**Trade, competition, & market scale**	**60.4**	**66**	
4.3.1	Applied tariff rate, weighted avg., %	1.8	23	
4.3.2	Intensity of local competition†	74.3	33	
4.3.3	Domestic market scale, bn PPP$	57.3	94	○ ◇

		Score/Value	Rank	
	BUSINESS SOPHISTICATION	**37.4**	**41**	
5.1	**Knowledge workers**	**44.8**	**46**	
5.1.1	Knowledge-intensive employment, %	42.1	23	
5.1.2	Firms offering formal training, % firms	25.2	64	○
5.1.3	GERD performed by business, % GDP	0.1	56	
5.1.4	GERD financed by business, %	21.6	65	○ ◇
5.1.5	Females employed w/advanced degrees, %	24.8	13	● ◆
5.2	**Innovation linkages**	**32.0**	**44**	
5.2.1	University/industry research collaboration†	38.3	78	○ ◇
5.2.2	State of cluster development†	46.0	70	
5.2.3	GERD financed by abroad, %	27.8	12	● ◆
5.2.4	JV–strategic alliance deals/bn PPP$ GDP	0.0	65	
5.2.5	Patent families 2+ offices/bn PPP$ GDP	0.4	36	
5.3	**Knowledge absorption**	**35.5**	**54**	
5.3.1	Intellectual property payments, % total trade	0.2	84	○ ◇
5.3.2	High-tech imports, % total trade	11.9	19	
5.3.3	ICT services imports, % total trade	1.7	33	
5.3.4	FDI net inflows, % GDP	2.6	68	
5.3.5	Research talent, % in business enterprise	18.6	58	○ ◇
	KNOWLEDGE & TECHNOLOGY OUTPUTS	**27.5**	**45**	
6.1	**Knowledge creation**	**13.0**	**61**	
6.1.1	Patents by origin/bn PPP$ GDP	1.9	45	
6.1.2	PCT patents by origin/bn PPP$ GDP	0.5	34	
6.1.3	Utility models by origin/bn PPP$ GDP	n/a	n/a	
6.1.4	Scientific & technical articles/bn PPP$ GDP	10.2	47	
6.1.5	Citable documents H-index	8.4	77	◇
6.2	**Knowledge impact**	**41.9**	**42**	
6.2.1	Growth rate of PPP$ GDP/worker, %	3.4	20	◆
6.2.2	New businesses/th pop. 15–64	8.0	20	
6.2.3	Computer software spending, % GDP	0.1	86	○ ◇
6.2.4	ISO 9001 quality certificates/bn PPP$ GDP	17.8	19	
6.2.5	High- & medium-high-tech manufactures, %	0.1	80	○ ◇
6.3	**Knowledge diffusion**	**27.8**	**35**	
6.3.1	Intellectual property receipts, % total trade	0.0	69	○
6.3.2	High-tech net exports, % total trade	7.4	22	
6.3.3	ICT services exports, % total trade	3.8	21	
6.3.4	FDI net outflows, % GDP	1.0	52	
	CREATIVE OUTPUTS	**42.8**	**22**	
7.1	**Intangible assets**	**48.0**	**44**	
7.1.1	Trademarks by origin/bn PPP$ GDP	72.3	27	
7.1.2	Industrial designs by origin/bn PPP$ GDP	3.5	35	
7.1.3	ICTs & business model creation†	66.1	46	
7.1.4	ICTs & organizational model creation†	62.7	37	
7.2	**Creative goods & services**	**46.9**	**3**	● ◆
7.2.1	Cultural & creative services exports, % total trade	1.5	13	●
7.2.2	National feature films/mn pop. 15–69	15.4	7	● ◆
7.2.3	Entertainment & Media market/th pop. 15–69	n/a	n/a	
7.2.4	Printing & other media, % manufacturing	2.8	8	● ◆
7.2.5	Creative goods exports, % total trade	3.1	18	●
7.3	**Online creativity**	**28.3**	**27**	
7.3.1	Generic top-level domains (TLDs)/th pop. 15–69	9.5	41	
7.3.2	Country-code TLDs/th pop. 15–69	25.6	24	
7.3.3	Wikipedia edits/mn pop. 15–69 ⊕	99.7	7	● ◆
7.3.4	Mobile app creation/bn PPP$ GDP	10.9	41	

NOTES: ● indicates a strength; ○ a weakness; ◆ an income group strength; ◇ an income group weakness; * an index; † a survey question. ⊕ 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.