



Lithuania is a **Moderate Innovator**. Over time, performance has increased by 21.0% relative to that of the EU in 2010.

### Innovation system

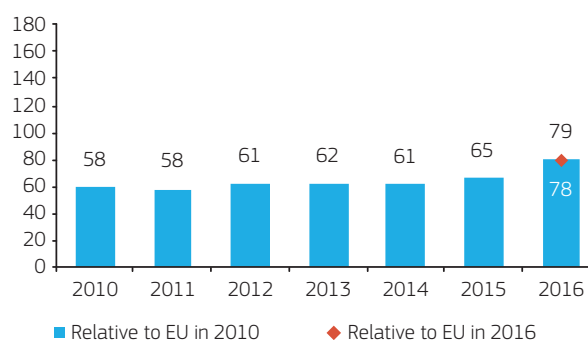
Relative strengths of the innovation system are in Innovation-friendly environment, Human resources, and Linkages. Relative weaknesses are in Sales impacts, Attractive research systems, and Intellectual assets.

### Structural differences

Notable differences are a larger share of employment in Agriculture & Mining, a smaller share of employment in High and Medium high-tech manufacturing, a larger share of SMEs in turnover, a smaller share of large enterprises in turnover, a larger share of foreign controlled enterprises, a larger share of enterprise births, lower GDP per capita, a higher growth rate of GDP, a lower and negative growth rate of population, and lower population density.

	LT	EU
<b>Structure of the economy</b>		
Composition of employment, average 2011-15		
- Agriculture & Mining (NACE A-B) (%)	9.0	5.1
- Manufacturing (NACE C) (%)	15.4	15.6
of which High and Medium high-tech (%)	12.1	36.4
- Utilities and Construction (NACE D-F) (%)	9.4	8.6
- Services (NACE G-N) (%)	60.2	63.6
of which Knowledge-intensive services (%)	50.0	58.0
- Public administration, etc. (NACE O-U) (%)	6.0	7.1
<b>Business indicators</b>		
Composition of turnover, average 2011-2014		
- Micro enterprises (0-9 employees) (%)	17.0	17.3
- SMEs (10-249 employees) (%)	48.2	38.0
- Large enterprises (250+ employees) (%)	34.7	44.1
Share of foreign controlled enterprises, 2014 (%)	2.23	1.18
Top R&D spending enterprises		
- average number per 10 mln population, 2011-15	none	29.9
- average R&D spending, mln Euros, 2011-15	none	165.8
Enterprise births (10+ empl.) (%), avg 2012-14	2.4	1.5
Buyer sophistication 1-7 (best), 2013-14	3.2	3.6
Ease of starting a business, Doing Business 2017	78.8	76.5
<b>Socio-demographic indicators</b>		
GDP per capita, PPS, avg 2011-13	18,100	25,400
Change in GDP between 2010 and 2015, (%)	20.1	5.4
Population size, avg 2011-15 (millions)	3.0	505.5
Change in population between 2010 and 2015 (%)	-7.0	1.1
Population aged 15-64, avg 2011-2015 (%)	67.0	66.1
Population density, average 2011-15	47.2	116.4
Degree of urbanisation, average 2011-15 (%)	42.6	74.4

Values in green show performance above 120% of EU, values in red show performance below 80% of EU.



Lithuania	Performance relative to EU 2010 in		Change 2010-2016
	2010	2016	
<b>SUMMARY INNOVATION INDEX</b>	<b>58.3</b>	<b>79.4</b>	<b>21.0</b>
<b>Human resources</b>	<b>96.2</b>	<b>138.0</b>	<b>27.8</b>
New doctorate graduates	61.5	70.7	9.1
Population with tertiary education	105.5	205.1	56.6
Lifelong learning	33.7	50.5	16.8
<b>Attractive research systems</b>	<b>36.5</b>	<b>34.6</b>	<b>-1.9</b>
International scientific co-publications	48.8	119.7	70.8
Most cited publications	56.1	26.6	-29.5
Foreign doctorate students	3.8	15.9	12.1
<b>Innovation-friendly environment</b>	<b>107.0</b>	<b>138.9</b>	<b>31.9</b>
Broadband penetration	177.8	233.3	55.6
Opportunity-driven entrepreneurship	57.0	72.3	15.3
<b>Finance and support</b>	<b>49.2</b>	<b>97.2</b>	<b>48.0</b>
R&D expenditure in the public sector	82.2	107.1	24.9
Venture capital expenditures	7.5	84.8	77.2
<b>Firm investments</b>	<b>49.0</b>	<b>100.3</b>	<b>51.3</b>
R&D expenditure in the business sector	15.0	21.9	6.9
Non-R&D innovation expenditures	109.1	300.8	171.6
Enterprises providing ICT training	35.7	35.7	0.0
<b>Innovators</b>	<b>43.0</b>	<b>79.4</b>	<b>36.4</b>
SMEs product/process innovations	43.2	93.8	50.6
SMEs marketing/organizational innovations	35.5	44.5	9.0
SMEs innovating in-house	50.5	100.7	50.2
<b>Linkages</b>	<b>99.9</b>	<b>108.6</b>	<b>8.7</b>
Innovative SMEs collaborating with others	68.5	140.5	71.8
Public-private co-publications	39.1	2.4	-36.7
Private co-funding of public R&D exp.	173.8	173.8	-3.9
<b>Intellectual assets</b>	<b>34.9</b>	<b>52.9</b>	<b>18.0</b>
PCT patent applications	38.5	46.4	7.9
Trademark applications	57.0	93.0	36.0
Design applications	13.0	30.9	17.9
<b>Employment impacts</b>	<b>66.7</b>	<b>66.6</b>	<b>-0.2</b>
Employment in knowledge-intensive activities	38.5	51.3	12.8
Employment fast-growing enterprises	87.4	77.7	-9.7
<b>Sales impacts</b>	<b>32.2</b>	<b>33.5</b>	<b>1.4</b>
Medium and high tech product exports	37.0	43.0	5.9
Knowledge-intensive services exports	0.3	6.7	6.4
Sales of new-to-market/firm innovations	63.7	53.7	-10.0

Dark green: normalised performance above 120% of EU; light green: normalised performance between 90% and 120% of EU; yellow: normalised performance between 50% and 90% of EU; orange: normalised performance below 50% of EU. Normalised performance uses the data after a possible imputation of missing data and transformation of the data.

Change highlighted in green is positive; change highlighted in light red is negative.