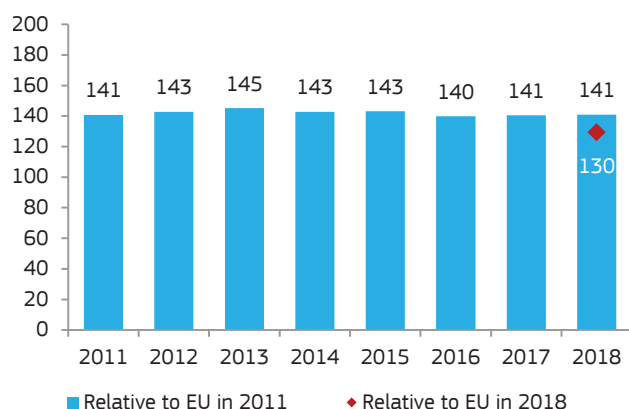


Denmark is an **Innovation Leader**. Over time, performance has remained the same compared to that of the EU in 2011.



Denmark	Relative to EU 2018 in 2018	Performance relative to EU 2011 in 2011	Performance relative to EU 2011 in 2018
SUMMARY INNOVATION INDEX	129.5	140.7	140.9
Human resources	180.4	192.5	220.6
New doctorate graduates	157.2	146.2	228.3
Population with tertiary education	143.1	167.2	170.9
Lifelong learning	262.2	267.7	267.7
Attractive research systems	183.8	160.0	207.0
International scientific co-publications	265.1	257.0	385.6
Most cited publications	143.5	144.1	157.1
Foreign doctorate students	174.0	120.2	166.4
Innovation-friendly environment	182.3	244.6	288.1
Broadband penetration	177.8	266.7	355.6
Opportunity-driven entrepreneurship	187.0	229.6	242.2
Finance and support	106.7	128.2	116.7
R&D expenditure in the public sector	174.7	141.1	161.6
Venture capital expenditures	49.1	112.9	63.5
Firm investments	104.5	119.7	124.6
R&D expenditure in the business sector	145.7	166.1	166.9
Non-R&D innovation expenditures	45.3	45.9	52.9
Enterprises providing ICT training	126.3	153.3	160.0
Innovators	95.7	103.4	86.9
SMEs product/process innovations	96.1	109.1	93.3
SMEs marketing/organizational innovations	114.2	100.2	97.5
SMEs innovating in-house	77.5	100.9	69.8
Linkages	139.2	175.5	144.6
Innovative SMEs collaborating with others	109.8	215.5	117.2
Public-private co-publications	315.1	349.3	369.7
Private co-funding of public R&D exp.	70.5	71.5	67.7
Intellectual assets	163.8	152.4	159.3
PCT patent applications	175.1	171.7	159.3
Trademark applications	142.6	135.2	158.9
Design applications	173.2	146.5	159.7
Employment impacts	100.7	127.3	105.1
Employment in knowledge-intensive activities	110.6	120.5	120.5
Employment fast-growing enterprises	93.0	132.1	94.0
Sales impacts	75.3	91.2	77.6
Medium and high-tech product exports	79.8	68.1	86.1
Knowledge-intensive services exports	112.8	123.1	116.4
Sales of new-to-market/firm innovations	23.7	82.0	22.9

The colours show normalised performance in 2018 relative to that of the EU in 2018: dark green: above 120%; light green: between 90% and 120%; yellow: between 50% and 90%; orange: below 50%. Normalised performance uses the data after a possible imputation of missing data and transformation of the data.

Attractive research systems, Innovation-friendly environment and Human resources are the strongest innovation dimensions. Denmark scores particularly well on Public-private co-publications, International scientific co-publications, and Lifelong learning. *Sales impacts* and *Innovators* are the weakest innovation dimensions. Overall, Denmark's lowest indicator scores comprise Sales of new-to-market and new-to-firm product innovations, Non-R&D innovation expenditures, and Venture capital expenditures.

Structural differences with the EU are shown in the table below. GDP per capita and top R&D spending enterprises per 10 million population are well above the EU average. Enterprise births and FDI net inflows are well below the EU average.

	DK	EU
Performance and structure of the economy		
GDP per capita (PPS)	37,400	29,500
Average annual GDP growth (%)	1.8	2.2
Employment share manufacturing (NACE C) (%)	11.8	15.5
of which High and medium high-tech (%)	42.9	37.5
Employment share services (NACE G-N) (%)	41.4	41.8
of which Knowledge-intensive services (%)	34.8	35.0
Turnover share SMEs (%)	40.7	37.9
Turnover share large enterprises (%)	40.7	44.4
Foreign-controlled enterprises – share of value added (%)	10.6	12.6
Business and entrepreneurship		
Enterprise births (10+ employees) (%)	0.5	1.5
Total Entrepreneurial Activity (TEA) (%)	n/a	6.7
FDI net inflows (% GDP)	1.3	4.3
Top R&D spending enterprises per 10 million population	63.1	19.6
Buyer sophistication (1 to 7 best)	3.7	3.7
Governance and policy framework		
Ease of starting a business (0 to 100 best)	84.0	76.8
Basic-school entrepreneurial education and training (1 to 5 best)	n/a	1.9
Govt. procurement of advanced tech products (1 to 7 best)	3.5	3.5
Rule of law (-2.5 to 2.5 best)	1.9	1.2
Demography		
Population size (millions)	5.7	511.3
Average annual population growth (%)	0.6	0.2
Population density (inhabitants/km ²)	135.4	117.5

EU targets for 2020

Indicator	2014	Latest	Target ¹
Gross domestic expenditure on R&D (% of GDP)	2.91	3.05	3.00
Tertiary educational attainment (% of population aged 30-34)	44.9	49.1	40.0

¹ Sources are provided in the introduction to the country profiles.

European Semester country report and country specific recommendations:

<https://rio.jrc.ec.europa.eu/en/library/research-and-innovation-analysis-european-semester-2019-country-reports>

<https://rio.jrc.ec.europa.eu/en/library/country-specific-recommendations-2019-research-and-innovation-analysis>