Regional Innovation Scoreboard **2023**
Regional profiles
Norway

Regional Innovation Scoreboard 2023 – Regional profiles Norway

Regional Innovation Scoreboard 2023

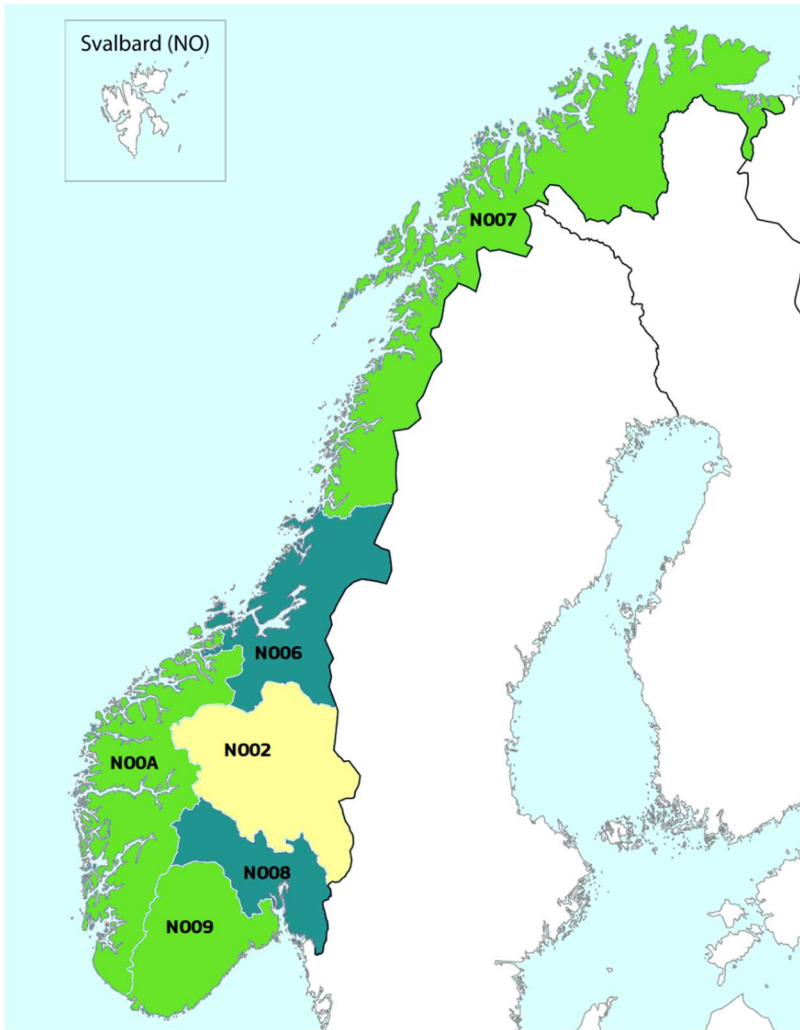# Regional profiles Norway

The report was prepared by

Hugo Hollanders

(Maastricht University – UNU-MERIT)

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NORWAY

Norway is a Strong Innovator and includes seven regions. There are no data for Jan Mayen and Svalbard (NO0B).

Oslo og Viken (NO08), the capital region, is the most innovative region and an Innovation Leader –. *Trøndelag* (NO06) is also an Innovation Leader –. Three regions are Strong Innovators and *Hedmark og Oppland* (NO02) is a Moderate Innovator.

Performance has increased for all regions, most strongly for *Agder og Sør-Østlandet* (NO09). For five regions performance increased at a higher rate than that of the EU (8.5), only for *Trøndelag* (NO06) performance increased at a lower rate.

Administrative boundaries: ©EuroGeographics ©UN-FAO ©Turkstat.
Cartography: Eurostat – IMAGE 06/2023.

NUTS	Region	RII	Rank	Group	Change
NO	Norway	119.4	--	Strong Innovator	16.9
NO02	Hedmark og Oppland	92.8	125	Moderate Innovator +	15.4
NO06	Trøndelag	128.0	29	Innovation Leader -	2.4
NO07	Nord-Norge	109.2	74	Strong Innovator	13.7
NO08	Oslo og Viken	130.6	20	Innovation Leader -	15.7
NO09	Agder og Sør-Østlandet	110.4	69	Strong Innovator	19.2
NO0A	Vestlandet	113.4	61	Strong Innovator	15.4
NO0B	Jan Mayen and Svalbard	N/A	N/A	N/A	N/A

Innlandet (NO02)

	Data	Normalised score	Relative to	
			NO	EU
Tertiary education	46.8	0.650	78	124
Lifelong learning	18.2	0.652	93	176
International scientific co-publications	1560	0.376	47	123
Most-cited scientific publications	953.3	0.527	84	96
Above average digital skills	43.2	0.853	102	181
R&D expenditures public sector	0.41	0.383	57	67
R&D expenditures business sector	0.47	0.376	62	56
Non-R&D innovation expenditures	±	0.431	96	107
Innovation expenditures per person employed	±	0.770	88	128
Employed ICT specialists	n/a	n/a	n/a	n/a
Product innovators	±	0.816	85	146
Business process innovators	±	0.719	88	111
Innovative SMEs collaborating	±	1.000	100	205
Public-private co-publications	226.3	0.501	60	128
PCT patent applications	0.74	0.294	50	48
Trademark applications	1.51	0.101	48	20
Design applications	0.00	0.000	0	0
Employment knowledge-intensive activities	4.5	0.014	3	3
Employment innovative enterprises	±	0.716	93	125
Sales of innovative products	±	0.304	111	63
Air emissions by fine particulates	3.1	1.000	108	167
Average normalised score	--	0.524	--	--
Country EIS-RIS correction factor	--	0.970	--	--
Regional Innovation Index (RII) 2023	--	0.508	--	--
Performance 2023 relative to EU in 2023	--	--	77.7	92.8
Performance 2023 relative to EU in 2016	--	--	--	100.7
Regional Innovation Index (RII) 2016	--	0.430	--	--
Performance 2016 relative to EU in 2016	--	--	75.7	85.2
Performance change over time	--	--	2.0	15.4

± Scores are not shown as these would allow recalculating confidential regional CIS data.

Innlandet (NO02) is a Moderate Innovator +. Innovation performance has increased over time (15.4%).

The first 21 rows and two data columns in the table on the left show the values and the normalised scores per indicator. The last two data columns show relative performance of the normalised scores compared to Norway and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Norway (77.7) and the EU (92.8) in 2023, the RII in 2023 relative to the EU in 2016 (100.7), and the RII in 2016 relative to both Norway (75.7) and the EU in 2016 (85.2). The last row shows performance change between 2016 and 2023 compared to Norway (2%) and to the EU (15.4%).

The radar graph shows relative strengths compared to Norway (orange line) and the EU (blue line), showing relative strengths (e.g. Innovative SMEs collaborating) and weaknesses (e.g. Design applications).

The table below shows data highlighting possible structural differences, e.g. Employment in Utilities & Construction (above EU average) and Population density (below EU average).

	NO02	NO	EU
Share of employment in:			
Agriculture & Mining (A-B)	5.0	4.4	4.4
Manufacturing (C)	9.5	7.6	16.4
Utilities & Construction (D-F)	11.1	9.5	8.3
Services (G-N)	67.2	72.3	63.7
Public administration (O-U)	7.2	6.2	7.2
Average number of employed persons per enterprise	n/a	5.7	5.1
GDP per capita (PPS)	30,000	42,700	32,400
GDP per capita growth (PPS)	2.5	0.9	2.5
Population density	7	14	106
Urbanisation	39.8	71.5	75.8
Population size (000s)	370	5,390	447,210
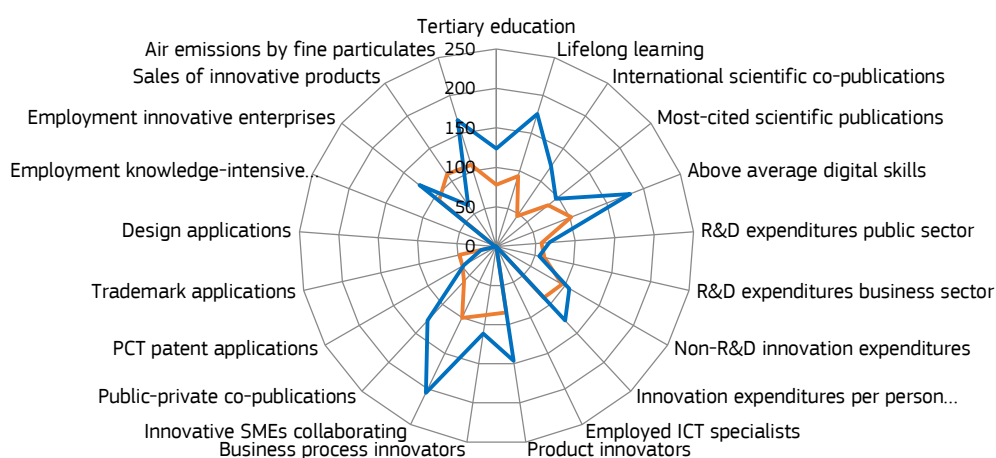
Trøndelag (NO06)

	Data	Normalised score	Relative to NO	Relative to EU
Tertiary education	54.2	0.814	98	155
Lifelong learning	20.9	0.754	108	203
International scientific co-publications	8291	1.000	124	326
Most-cited scientific publications	1162.6	0.666	106	122
Above average digital skills	43.1	0.852	101	181
R&D expenditures public sector	2.30	1.000	149	176
R&D expenditures business sector	2.74	0.908	150	135
Non-R&D innovation expenditures	±	0.586	130	145
Innovation expenditures per person employed	±	0.859	99	143
Employed ICT specialists	4.8	0.568	88	108
Product innovators	±	0.821	85	147
Business process innovators	±	0.731	89	113
Innovative SMEs collaborating	±	1.000	100	205
Public-private co-publications	2809.4	1.000	121	255
PCT patent applications	6.00	0.838	142	136
Trademark applications	2.42	0.163	77	33
Design applications	0.30	0.159	67	27
Employment knowledge-intensive activities	11.0	0.322	66	57
Employment innovative enterprises	±	0.796	104	139
Sales of innovative products	±	0.356	130	74
Air emissions by fine particulates	3.3	0.990	107	165
Average normalised score	--	0.723	--	--
Country EIS-RIS correction factor	--	0.970	--	--
Regional Innovation Index (RII) 2023	--	0.701	--	--
Performance 2023 relative to EU in 2023	--	--	107.2	128.0
Performance 2023 relative to EU in 2016	--	--	--	138.9
Regional Innovation Index (RII) 2016	--	0.689	--	--
Performance 2016 relative to EU in 2016	--	--	121.2	136.5
Performance change over time	--	--	-14.0	2.4

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Trøndelag (NO06) is an Innovation Leader -. Innovation performance has increased over time (2.4%).

The first 21 rows and two data columns in the table on the left show the values and the normalised scores per indicator. The last two data columns show relative performance of the normalised scores compared to Norway and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Norway (107.2) and the EU (128) in 2023, the RII in 2023 relative to the EU in 2016 (138.9), and the RII in 2016 relative to both Norway (121.2) and the EU in 2016 (136.5). The last row shows performance change between 2016 and 2023 compared to Norway (-14%) and to the EU (2.4%).

The radar graph shows relative strengths compared to Norway (orange line) and the EU (blue line), showing relative strengths (e.g. International scientific co-publications) and weaknesses (e.g. Design applications).

The table below shows data highlighting possible structural differences, e.g. Employment in Utilities & Construction (above EU average) and Population density (below EU average).

	NO06	NO	EU
Share of employment in:			
Agriculture & Mining (A-B)	4.7	4.4	4.4
Manufacturing (C)	6.8	7.6	16.4
Utilities & Construction (D-F)	11.3	9.5	8.3
Services (G-N)	71.1	72.3	63.7
Public administration (O-U)	6.0	6.2	7.2
Average number of employed persons per enterprise	n/a	5.7	5.1
GDP per capita (PPS)	35,500	42,700	32,400
GDP per capita growth (PPS)	1.8	0.9	2.5
Population density	11	14	106
Urbanisation	58.9	71.5	75.8
Population size (000s)	470	5,390	447,210
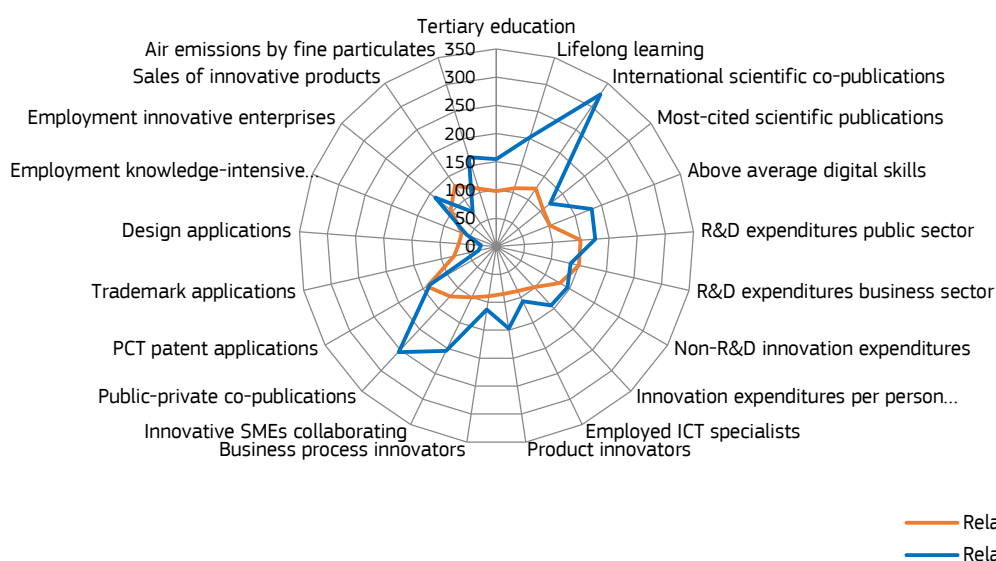
Nord-Norge (NO07)

	Data	Normalised score	Relative to	
			NO	EU
Tertiary education	43.4	0.574	69	109
Lifelong learning	19.7	0.708	101	191
International scientific co-publications	4179	1.000	124	326
Most-cited scientific publications	1153.0	0.660	105	121
Above average digital skills	43.0	0.848	101	180
R&D expenditures public sector	1.34	0.779	116	137
R&D expenditures business sector	0.57	0.414	68	61
Non-R&D innovation expenditures	±	0.528	117	131
Innovation expenditures per person employed	±	0.648	74	108
Employed ICT specialists	n/a	n/a	n/a	n/a
Product innovators	±	0.687	71	123
Business process innovators	±	0.763	93	118
Innovative SMEs collaborating	±	1.000	100	205
Public-private co-publications	556.1	0.786	95	200
PCT patent applications	1.33	0.395	67	64
Trademark applications	1.19	0.079	37	16
Design applications	0.31	0.161	67	28
Employment knowledge-intensive activities	5.8	0.076	16	13
Employment innovative enterprises	±	0.652	85	114
Sales of innovative products	±	0.574	209	120
Air emissions by fine particulates	3.0	1.000	108	167
Average normalised score	--	0.617	--	--
Country EIS-RIS correction factor	--	0.970	--	--
Regional Innovation Index (RII) 2023	--	0.598	--	--
Performance 2023 relative to EU in 2023	--	--	91.4	109.2
Performance 2023 relative to EU in 2016	--	--	--	118.4
Regional Innovation Index (RII) 2016	--	0.529	--	--
Performance 2016 relative to EU in 2016	--	--	93.0	104.7
Performance change over time	--	--	-1.5	13.7

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Nord-Norge (NO07) is a Strong Innovator. Innovation performance has increased over time (13.7%).

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The radar graph shows relative strengths compared to Norway (orange line) and the EU (blue line), showing relative strengths (e.g. International scientific co-publications) and weaknesses (e.g. Employment knowledge-intensive activities).

The table below shows data highlighting possible structural differences, e.g. Employment in Agriculture & Mining (above EU average) and Population density (below EU average).

	NO07	NO	EU
Share of employment in:			
Agriculture & Mining (A-B)	5.4	4.4	4.4
Manufacturing (C)	6.5	7.6	16.4
Utilities & Construction (D-F)	10.7	9.5	8.3
Services (G-N)	68.6	72.3	63.7
Public administration (O-U)	8.8	6.2	7.2
Average number of employed persons per enterprise	n/a	5.7	5.1
GDP per capita (PPS)	33,800	42,700	32,400
GDP per capita growth (PPS)	0.8	0.9	2.5
Population density	4	14	106
Urbanisation	55.8	71.5	75.8
Population size (000s)	480	5,390	447,210
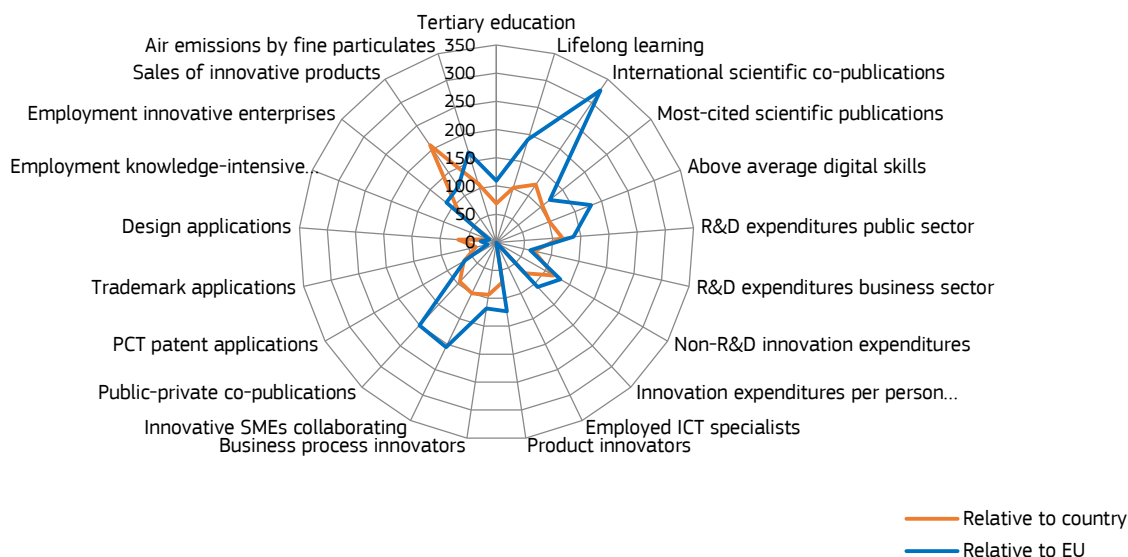
Oslo og Viken (NO08)

	Data	Normalised score	Relative to NO	Relative to EU
Tertiary education	61.3	0.971	117	185
Lifelong learning	20.0	0.720	103	194
International scientific co-publications	4222	1.000	124	326
Most-cited scientific publications	1135.1	0.648	103	119
Above average digital skills	41.8	0.822	98	175
R&D expenditures public sector	1.03	0.668	100	117
R&D expenditures business sector	1.42	0.654	108	97
Non-R&D innovation expenditures	±	0.394	87	98
Innovation expenditures per person employed	±	0.982	113	163
Employed ICT specialists	8.7	1.000	155	190
Product innovators	±	1.000	104	179
Business process innovators	±	0.892	109	138
Innovative SMEs collaborating	±	1.000	100	205
Public-private co-publications	823.2	0.956	115	244
PCT patent applications	2.69	0.561	95	91
Trademark applications	5.08	0.344	163	69
Design applications	1.30	0.331	139	57
Employment knowledge-intensive activities	18.3	0.668	137	118
Employment innovative enterprises	±	0.789	103	137
Sales of innovative products	±	0.224	82	47
Air emissions by fine particulates	5.8	0.865	94	144
Average normalised score	--	0.738	--	--
Country EIS-RIS correction factor	--	0.970	--	--
Regional Innovation Index (RII) 2023	--	0.715	--	--
Performance 2023 relative to EU in 2023	--	--	109.3	130.6
Performance 2023 relative to EU in 2016	--	--	--	141.7
Regional Innovation Index (RII) 2016	--	0.636	--	--
Performance 2016 relative to EU in 2016	--	--	111.8	125.9
Performance change over time	--	--	-2.5	15.7

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Oslo og Viken (NO08) is an Innovation Leader -. Innovation performance has increased over time (15.7%).

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The radar graph shows relative strengths compared to Norway (orange line) and the EU (blue line), showing relative strengths (e.g. International scientific co-publications) and weaknesses (e.g. Design applications).

The table below shows data highlighting possible structural differences, e.g. Employment in Services (above EU average) and Employment in Agriculture & Mining (below EU average).

	NO08	NO	EU
Share of employment in:			
Agriculture & Mining (A-B)	1.4	4.4	4.4
Manufacturing (C)	5.3	7.6	16.4
Utilities & Construction (D-F)	8.6	9.5	8.3
Services (G-N)	78.1	72.3	63.7
Public administration (O-U)	6.7	6.2	7.2
Average number of employed persons per enterprise	n/a	5.7	5.1
GDP per capita (PPS)	44,300	42,700	32,400
GDP per capita growth (PPS)	1.6	0.9	2.5
Population density	78	14	106
Urbanisation	87.7	71.5	75.8
Population size (000s)	1,950	5,390	447,210
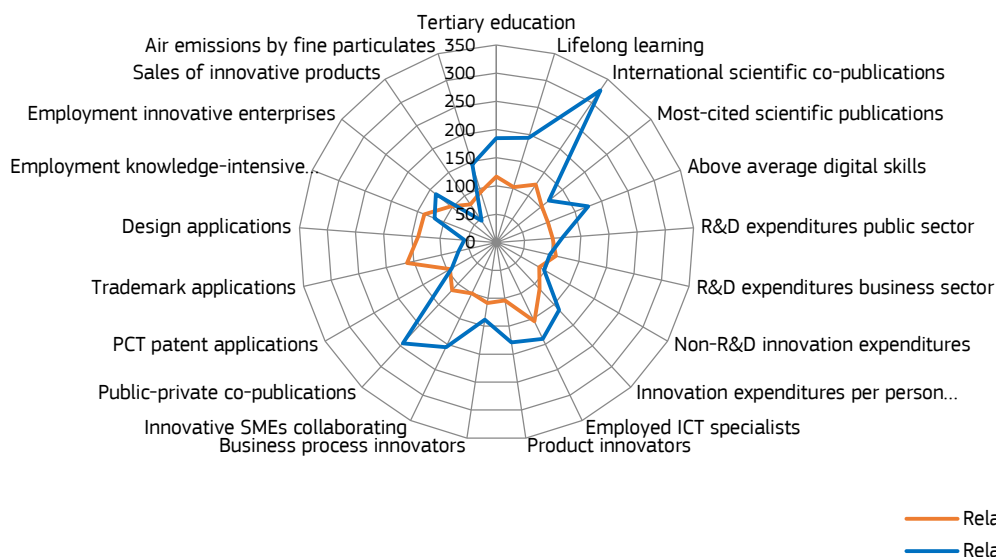
Radar graph legend:
— Relative to country
— Relative to EU

Agder og Sør-Østlandet (NO09)

	Data	Normalised score	Relative to NO	Relative to EU
Tertiary education	49.1	0.701	84	133
Lifelong learning	19.3	0.693	99	187
International scientific co-publications	1655	0.399	49	130
Most-cited scientific publications	1165.7	0.668	106	122
Above average digital skills	41.0	0.802	96	171
R&D expenditures public sector	0.39	0.370	55	65
R&D expenditures business sector	1.19	0.597	99	89
Non-R&D innovation expenditures	±	0.605	134	150
Innovation expenditures per person employed	±	0.816	94	135
Employed ICT specialists	3.6	0.412	64	78
Product innovators	±	0.897	93	161
Business process innovators	±	0.804	98	125
Innovative SMEs collaborating	±	1.000	100	205
Public-private co-publications	311.2	0.588	71	150
PCT patent applications	6.12	0.847	143	137
Trademark applications	3.27	0.220	105	44
Design applications	0.16	0.117	49	20
Employment knowledge-intensive activities	13.7	0.450	92	79
Employment innovative enterprises	±	0.789	103	138
Sales of innovative products	±	0.410	149	85
Air emissions by fine particulates	5.1	0.902	97	150
Average normalised score	--	0.623	--	--
Country EIS-RIS correction factor	--	0.970	--	--
Regional Innovation Index (RII) 2023	--	0.604	--	--
Performance 2023 relative to EU in 2023	--	--	92.4	110.4
Performance 2023 relative to EU in 2016	--	--	--	119.7
Regional Innovation Index (RII) 2016	--	0.508	--	--
Performance 2016 relative to EU in 2016	--	--	89.3	100.5
Performance change over time	--	--	3.1	19.2

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Agder og Sør-Østlandet (NO09) is a Strong Innovator. Innovation performance has increased over time (19.2%). The first 21 rows and two data columns in the table on the left show the values and the normalised scores per indicator. The last two data columns show relative performance of the normalised scores compared to Norway and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Norway (92.4) and the EU (110.4) in 2023, the RII in 2023 relative to the EU in 2016 (119.7), and the RII in 2016 relative to both Norway (89.3) and the EU in 2016 (100.5). The last row shows performance change between 2016 and 2023 compared to Norway (3.1%) and to the EU (19.2%).

The radar graph shows relative strengths compared to Norway (orange line) and the EU (blue line), showing relative strengths (e.g. Innovative SMEs collaborating) and weaknesses (e.g. Design applications).

The table below shows data highlighting possible structural differences, e.g. Employment in Utilities & Construction (above EU average) and Employment in Agriculture & Mining (below EU average).

	NO09	NO	EU
Share of employment in:			
Agriculture & Mining (A-B)	3.6	4.4	4.4
Manufacturing (C)	10.0	7.6	16.4
Utilities & Construction (D-F)	10.3	9.5	8.3
Services (G-N)	70.6	72.3	63.7
Public administration (O-U)	5.4	6.2	7.2
Average number of employed persons per enterprise	n/a	5.7	5.1
GDP per capita (PPS)	29,700	42,700	32,400
GDP per capita growth (PPS)	1.4	0.9	2.5
Population density	22	14	106
Urbanisation	79.5	71.5	75.8
Population size (000s)	730	5,390	447,210
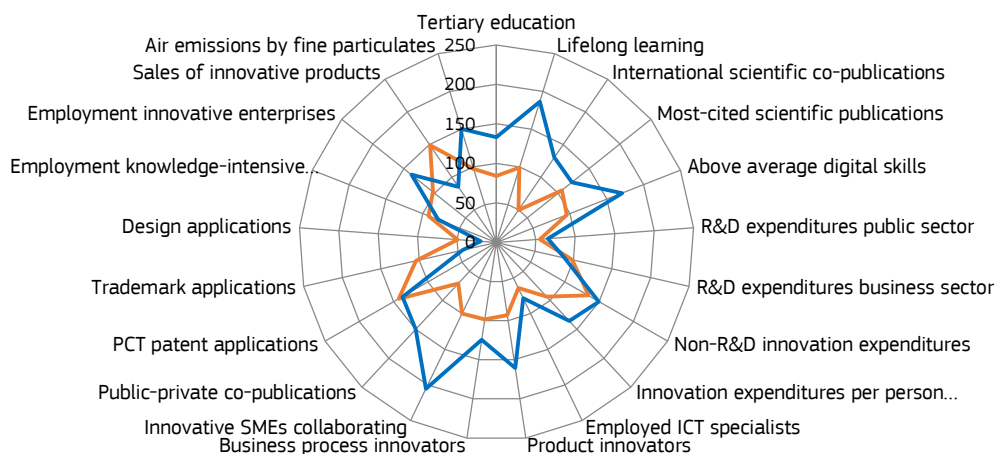
Vestlandet (NOOA)

	Data	Normalised score	Relative to	
			NO	EU
Tertiary education	50.1	0.723	87	138
Lifelong learning	18.8	0.674	96	182
International scientific co-publications	3202	0.775	96	253
Most-cited scientific publications	1075.9	0.608	97	111
Above average digital skills	41.3	0.810	97	172
R&D expenditures public sector	0.91	0.623	93	110
R&D expenditures business sector	1.05	0.561	93	83
Non-R&D innovation expenditures	±	0.519	115	128
Innovation expenditures per person employed	±	0.780	89	129
Employed ICT specialists	3.3	0.369	57	70
Product innovators	±	0.920	95	165
Business process innovators	±	0.771	94	119
Innovative SMEs collaborating	±	1.000	100	205
Public-private co-publications	584.4	0.806	97	205
PCT patent applications	3.71	0.659	111	107
Trademark applications	2.59	0.174	82	35
Design applications	0.56	0.217	91	37
Employment knowledge-intensive activities	13.6	0.445	91	78
Employment innovative enterprises	±	0.747	97	130
Sales of innovative products	±	0.312	114	65
Air emissions by fine particulates	4.1	0.952	103	159
Average normalised score	--	0.640	--	--
Country EIS-RIS correction factor	--	0.970	--	--
Regional Innovation Index (RII) 2023	--	0.621	--	--
Performance 2023 relative to EU in 2023	--	--	94.9	113.4
Performance 2023 relative to EU in 2016	--	--	--	123.0
Regional Innovation Index (RII) 2016	--	0.543	--	--
Performance 2016 relative to EU in 2016	--	--	95.5	107.6
Performance change over time	--	--	-0.6	15.4

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Vestlandet (NOOA) is a Strong Innovator. Innovation performance has increased over time (15.4%).
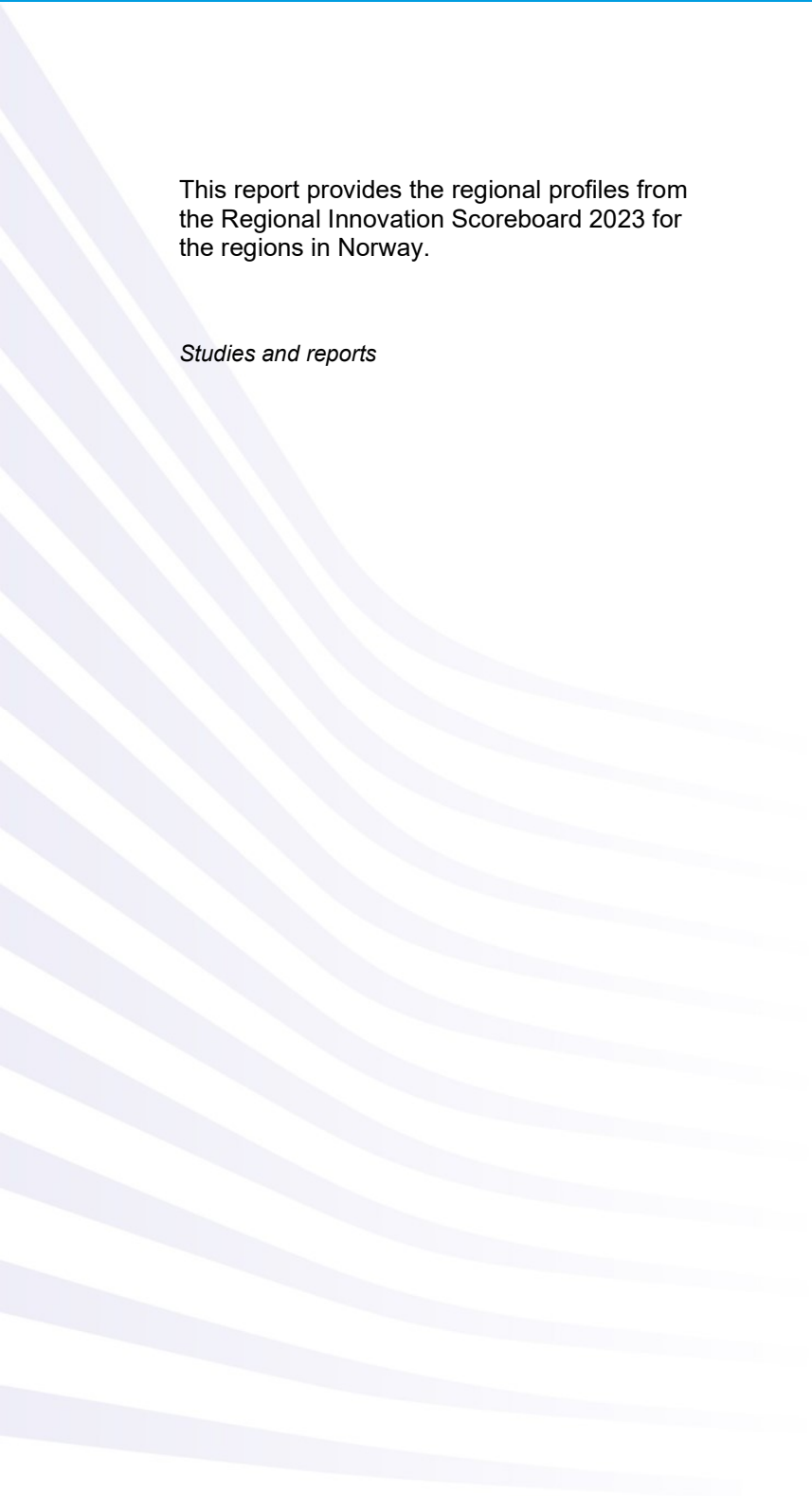
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The radar graph shows relative strengths compared to Norway (orange line) and the EU (blue line), showing relative strengths (e.g. International scientific co-publications) and weaknesses (e.g. Trademark applications).

The table below shows data highlighting possible structural differences, e.g. Employment in Agriculture & Mining (above EU average) and GDP per capita growth (below EU average).

	NOOA	NO	EU
Share of employment in:			
Agriculture & Mining (A-B)	8.7	4.4	4.4
Manufacturing (C)	9.7	7.6	16.4
Utilities & Construction (D-F)	9.0	9.5	8.3
Services (G-N)	67.7	72.3	63.7
Public administration (O-U)	4.9	6.2	7.2
Average number of employed persons per enterprise	n/a	5.7	5.1
GDP per capita (PPS)	37,600	42,700	32,400
GDP per capita growth (PPS)	0.7	0.9	2.5
Population density	24	14	106
Urbanisation	61.5	71.5	75.8
Population size (000s)	1,390	5,390	447,210
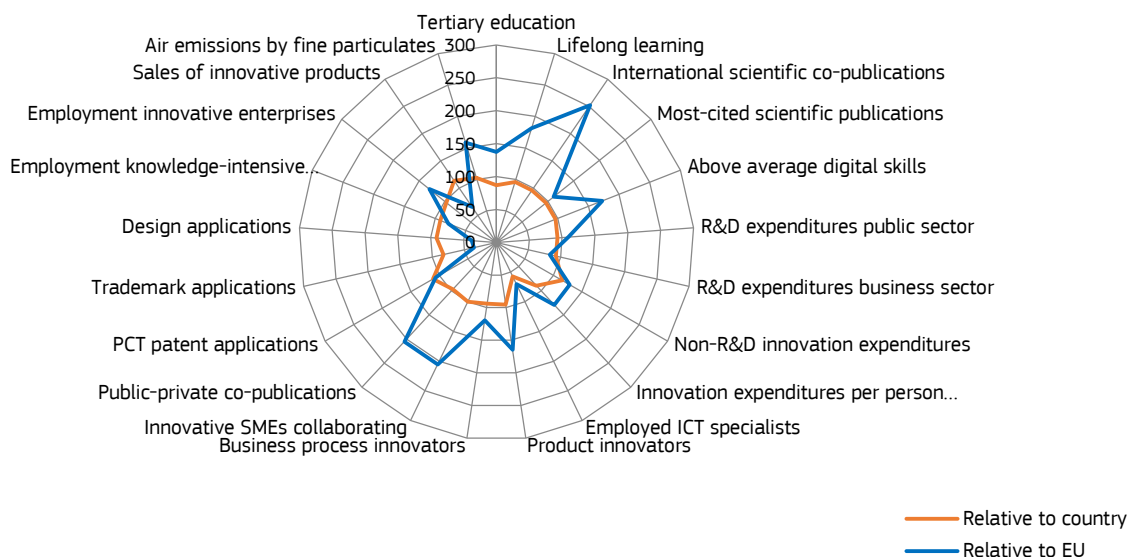
This report provides the regional profiles from the Regional Innovation Scoreboard 2023 for the regions in Norway.

Studies and reports