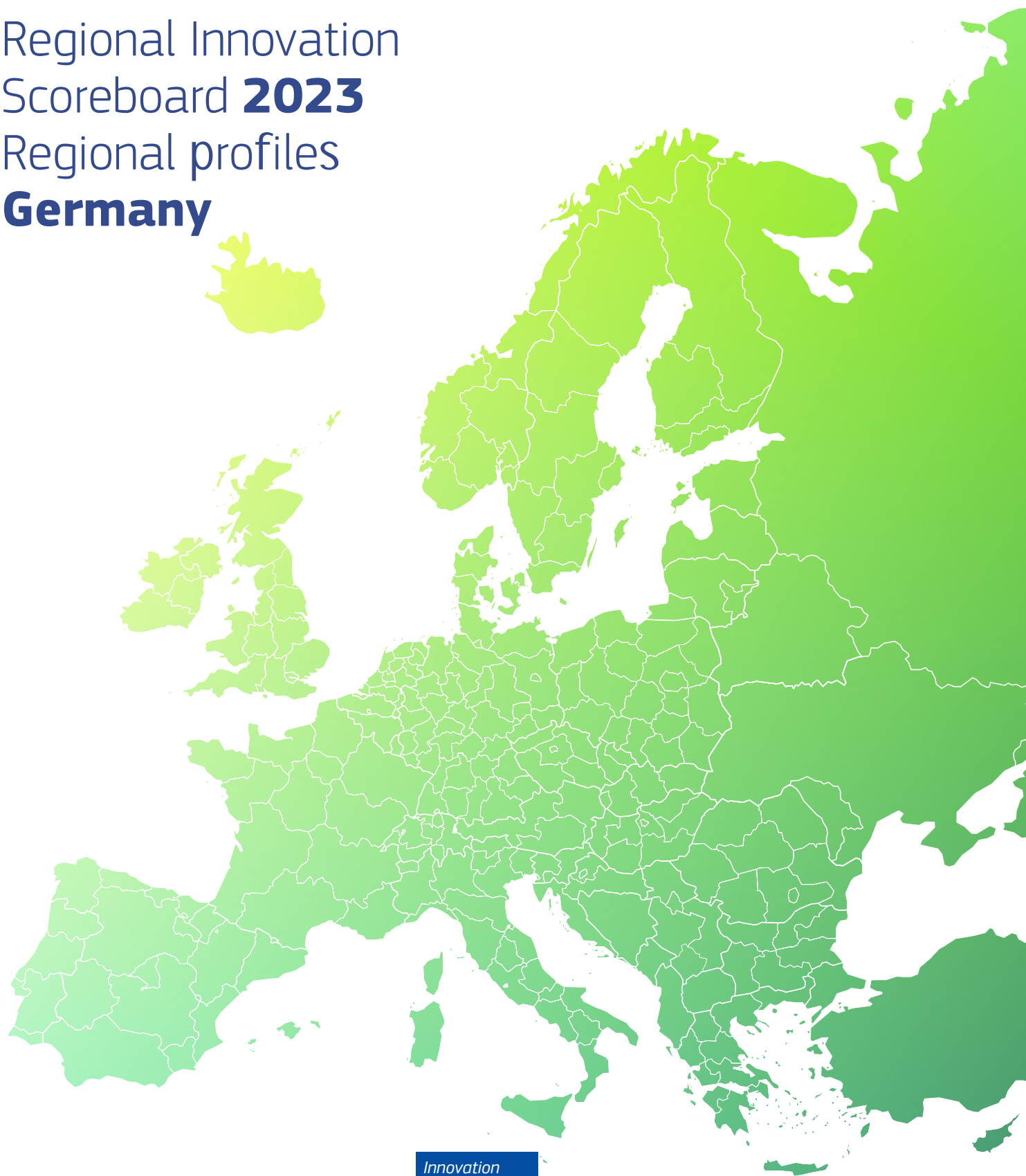# Regional Innovation Scoreboard **2023**
Regional profiles
Germany

Regional Innovation Scoreboard 2023 – Regional profiles Germany

Regional Innovation Scoreboard 2023

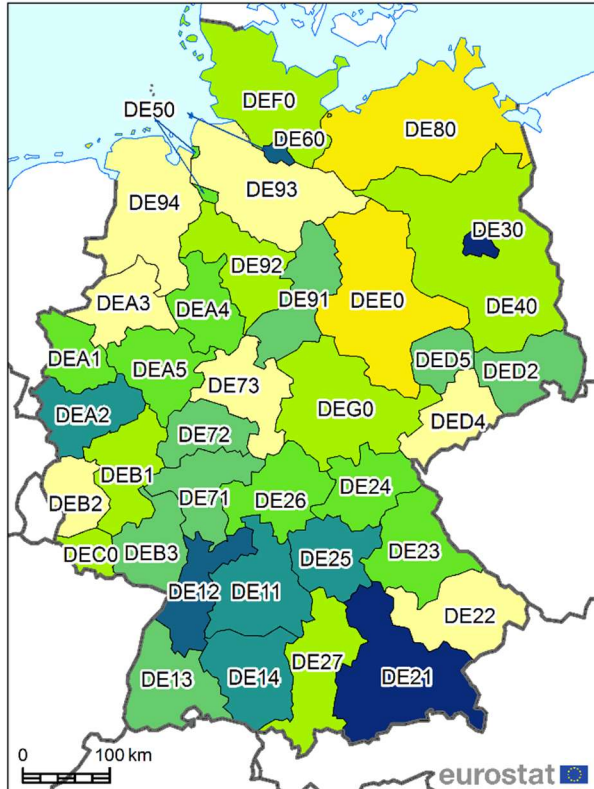# Regional profiles Germany

The report was prepared by

Hugo Hollanders

(Maastricht University – UNU-MERIT)

as part of the European Innovation Scoreboard project

for the European Commission, Directorate-General for Research and Innovation under

Framework Contract N° 2018/RTD/A2/OP/PP-07001-2018 Lot 2 (EDAR)

GERMANY

Map administrative boundaries: ©EuroGeographics ©UN-FAO ©Turkstat

NUTS	Region	RII	Rank	Group	Change
DE	Germany	117.8	--	Strong	7.6
DE11	Stuttgart	126.4	33	Leader -	2.8
DE12	Karlsruhe	142.4	7	Leader	8.0
DE13	Freiburg	124.9	38	Strong +	4.2
DE14	Tübingen	130.6	21	Leader -	3.5
DE21	Oberbayern	151.5	3	Leader +	15.5
DE22	Niederbayern	97.0	116	Moderate +	9.1
DE23	Oberpfalz	112.5	65	Strong	9.9
DE24	Oberfranken	111.6	66	Strong	8.3
DE25	Mittelfranken	130.2	24	Leader -	6.6
DE26	Unterfranken	114.1	59	Strong	1.3
DE27	Schwaben	107.2	77	Strong -	1.5
DE3	Berlin	147.5	5	Leader +	8.6
DE4	Brandenburg	102.9	95	Strong -	10.6
DE5	Bremen	114.4	58	Strong	3.5
DE6	Hamburg	136.5	13	Leader	19.4
DE71	Darmstadt	122.0	47	Strong +	8.9
DE72	Gießen	124.5	40	Strong +	16.8
DE73	Kassel	92.0	127	Moderate +	1.9
DE8	Mecklenburg-Vorpommern	84.5	146	Moderate	-2.3
DE91	Braunschweig	124.5	39	Strong +	6.7
DE92	Hannover	106.6	79	Strong -	0.8
DE93	Lüneburg	97.1	115	Moderate +	12.8
DE94	Weser-Ems	92.3	126	Moderate +	7.9
DEA1	Düsseldorf	110.3	70	Strong	10.2
DEA2	Köln	130.8	19	Leader -	11.5
DEA3	Münster	97.3	114	Moderate +	-2.3
DEA4	Detmold	111.3	68	Strong	9.4
DEA5	Arnsberg	109.7	73	Strong	7.5
DEB1	Koblenz	107.1	78	Strong -	13.3
DEB2	Trier	90.4	131	Moderate +	-1.5
DEB3	Rheinhessen-Pfalz	121.5	49	Strong +	8.6
DEC	Saarland	100.2	106	Strong -	-0.4
DED2	Dresden	124.0	41	Strong +	14.0
DED4	Chemnitz	98.5	109	Moderate +	11.1
DED5	Leipzig	119.9	51	Strong +	9.5
DEE	Sachsen-Anhalt	89.3	134	Moderate	10.4
DEF	Schleswig-Holstein	104.9	88	Strong -	5.7
DEG	Thüringen	105.7	83	Strong -	7.1

Germany is a Strong Innovator and includes 38 regions.

Oberbayern (DE21) is the most innovative German region and third most innovative region in Europe. *Berlin* (DE3), *Karlsruhe* (DE12), *Hamburg* (DE6), *Köln* (DEA2), *Tübingen* (DE14), and *Mittelfranken* (DE25) are among the top-25 most innovative regions in Europe. In total eight regions are Innovation Leaders, 21 regions are Strong Innovators, and nine regions are Moderate Innovators.

Performance relative to the EU has increased for 34 regions, most strongly for *Hamburg* (DE6) and *Gießen* (DE72). Performance has decreased for four regions: Mecklenburg-Vorpommern (DE8), Münster (DEA3), Trier (DEB2), and Saarland (DEC). For 18 regions performance has increased at a higher rate than that of the EU (8.5), for 20 regions performance has increased (or even decreased) at a lower rate.

Stuttgart (DE11)

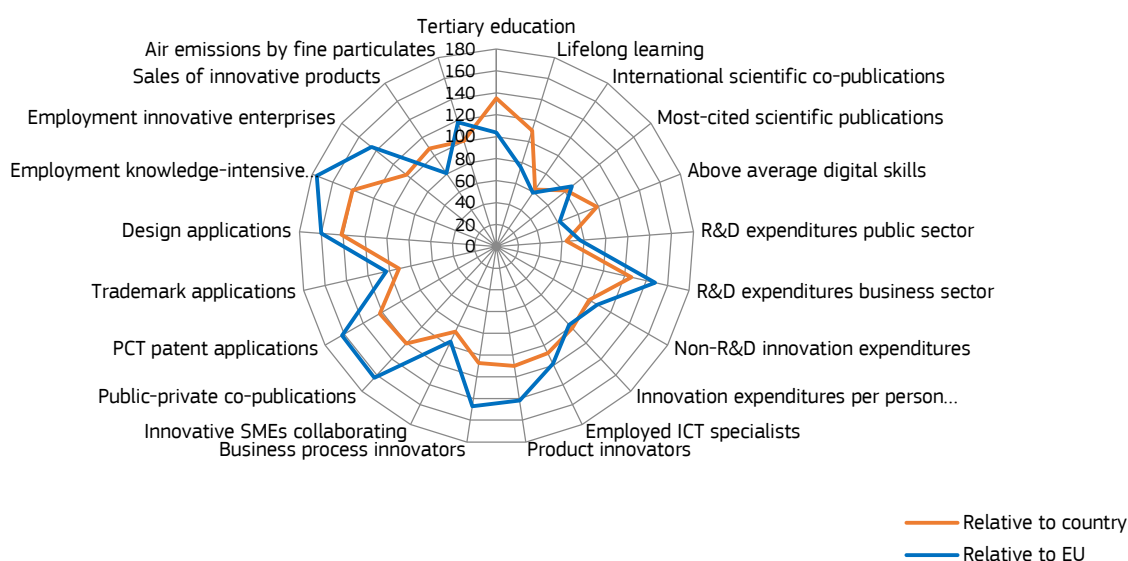|	Data	Normalised score	Relative to DE	Relative to EU
Tertiary education	42.1	0.545	135	104
Lifelong learning	8.4	0.280	110	76
International scientific co-publications	756	0.181	63	59
Most-cited scientific publications	881.8	0.480	82	88
Above average digital skills	18.6	0.291	98	62
R&D expenditures public sector	0.50	0.434	64	76
R&D expenditures business sector	6.88	1.000	126	148
Non-R&D innovation expenditures	±	0.429	97	106
Innovation expenditures per person employed	±	0.587	102	97
Employed ICT specialists	5.2	0.625	108	119
Product innovators	±	0.792	110	142
Business process innovators	±	0.950	107	147
Innovative SMEs collaborating	±	0.469	86	96
Public-private co-publications	369.6	0.641	121	163
PCT patent applications	9.99	1.000	122	162
Trademark applications	7.57	0.513	91	103
Design applications	10.19	0.929	142	160
Employment knowledge-intensive activities	30.2	1.000	141	176
Employment innovative enterprises	±	0.834	105	145
Sales of innovative products	±	0.388	108	81
Air emissions by fine particulates	9.0	0.710	101	118
Average normalised score	--	0.623	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.692	--	--
Performance 2023 relative to EU in 2023	--	--	107.3	126.4
Performance 2023 relative to EU in 2016	--	--	--	137.1
Regional Innovation Index (RII) 2016	--	0.678	--	--
Performance 2016 relative to EU in 2016	--	--	111.8	134.4
Performance change over time	--	--	-4.5	2.8

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

Stuttgart (DE11) is an Innovation Leader -. Innovation performance has increased over time (2.8%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (107.3) and the EU (126.4) in 2023, the RII in 2023 relative to the EU in 2016 (137.1), and the RII in 2016 relative to both Germany (111.8) and the EU in 2016 (134.4). The last row shows performance change between 2016 and 2023 compared to Germany (-4.5%) and to the EU (2.8%).

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

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

	DE11	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	1.0	1.4	4.4
Manufacturing (C)	30.0	19.7	16.4
Utilities & Construction (D-F)	6.8	7.6	8.3
Services (G-N)	56.0	63.6	63.7
Public administration (O-U)	6.2	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	49,500	39,000	32,400
GDP per capita growth (PPS)	0.9	1.7	2.5
Population density	393	233	106
Urbanisation	87.8	81.6	75.8
Population size (000s)	4,150	83,160	447,210

- Relative to country
- Relative to EU

Karlsruhe (DE12)

	Data	Normalised score	Relative to DE	Relative to EU
Tertiary education	39.4	0.486	120	92
Lifelong learning	8.4	0.280	110	76
International scientific co-publications	3429	0.830	287	271
Most-cited scientific publications	1190.3	0.684	116	125
Above average digital skills	18.6	0.291	98	62
R&D expenditures public sector	1.72	0.897	132	158
R&D expenditures business sector	3.63	1.000	126	148
Non-R&D innovation expenditures	±	0.367	83	91
Innovation expenditures per person employed	±	0.611	106	101
Employed ICT specialists	7.3	0.903	156	171
Product innovators	±	0.795	110	142
Business process innovators	±	0.979	111	152
Innovative SMEs collaborating	±	0.473	87	97
Public-private co-publications	841.2	0.967	182	246
PCT patent applications	8.00	0.968	119	157
Trademark applications	8.73	0.592	105	119
Design applications	3.79	0.567	86	98
Employment knowledge-intensive activities	25.3	1.000	141	176
Employment innovative enterprises	±	0.933	117	163
Sales of innovative products	±	0.384	107	80
Air emissions by fine particulates	8.7	0.722	102	120
Average normalised score	--	0.701	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.780	--	--
Performance 2023 relative to EU in 2023	--	--	120.9	142.4
Performance 2023 relative to EU in 2016	--	--	--	154.5
Regional Innovation Index (RII) 2016	--	0.739	--	--
Performance 2016 relative to EU in 2016	--	--	121.9	146.5
Performance change over time	--	--	-1.0	8.0

± Scores are not shown as these would allow recalculating confidential regional CIS data.
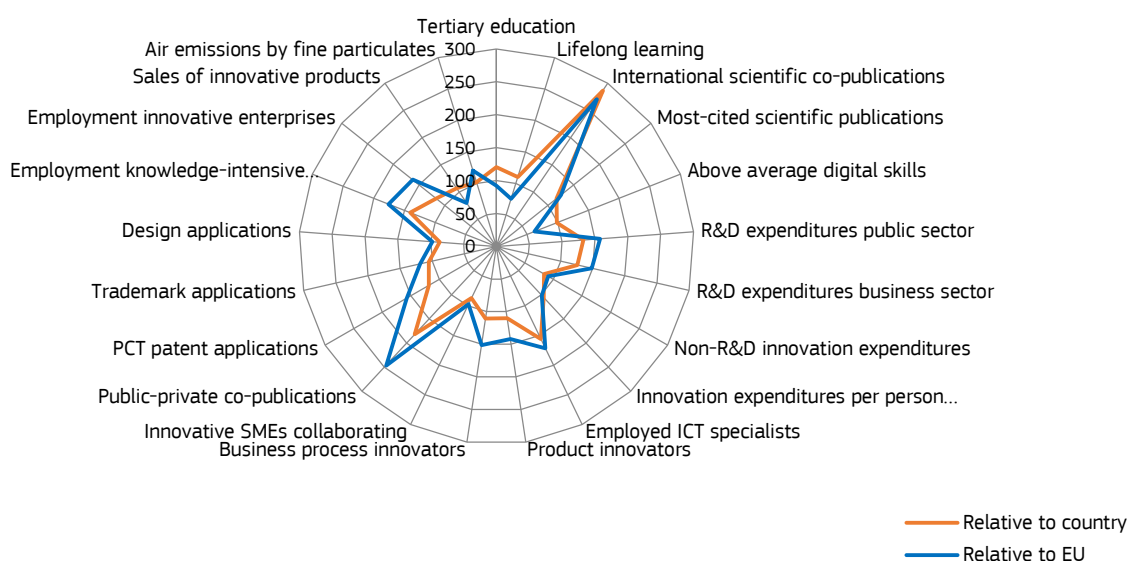
Karlsruhe (DE12) is an Innovation Leader. Innovation performance has increased over time (8%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (120.9) and the EU (142.4) in 2023, the RII in 2023 relative to the EU in 2016 (154.5), and the RII in 2016 relative to both Germany (121.9) and the EU in 2016 (146.5). The last row shows performance change between 2016 and 2023 compared to Germany (-1%) and to the EU (8%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. International scientific co-publications) and weaknesses (e.g. Above average digital skills).

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

	DE12	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	0.7	1.4	4.4
Manufacturing (C)	23.8	19.7	16.4
Utilities & Construction (D-F)	6.5	7.6	8.3
Services (G-N)	62.6	63.6	63.7
Public administration (O-U)	6.5	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	42,400	39,000	32,400
GDP per capita growth (PPS)	1.4	1.7	2.5
Population density	406	233	106
Urbanisation	88.9	81.6	75.8
Population size (000s)	2,810	83,160	447,210

Freiburg (DE13)

	Data	Normalised score	Relative to	
			DE	EU
Tertiary education	40.7	0.514	127	98
Lifelong learning	8.4	0.280	110	76
International scientific co-publications	1891	0.457	158	149
Most-cited scientific publications	1119.2	0.637	108	117
Above average digital skills	18.6	0.291	98	62
R&D expenditures public sector	1.11	0.699	103	123
R&D expenditures business sector	1.82	0.740	93	110
Non-R&D innovation expenditures	±	0.412	94	102
Innovation expenditures per person employed	±	0.606	105	101
Employed ICT specialists	3.1	0.337	58	64
Product innovators	±	0.691	96	124
Business process innovators	±	0.882	100	137
Innovative SMEs collaborating	±	0.509	94	104
Public-private co-publications	610.5	0.823	155	210
PCT patent applications	8.17	0.979	120	159
Trademark applications	7.88	0.534	95	107
Design applications	6.72	0.754	115	130
Employment knowledge-intensive activities	20.5	0.773	109	136
Employment innovative enterprises	±	0.854	107	149
Sales of innovative products	±	0.368	102	77
Air emissions by fine particulates	7.6	0.776	110	129
Average normalised score	--	0.615	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.684	--	--
Performance 2023 relative to EU in 2023	--	--	106.0	124.9
Performance 2023 relative to EU in 2016	--	--	--	135.5
Regional Innovation Index (RII) 2016	--	0.663	--	--
Performance 2016 relative to EU in 2016	--	--	109.3	131.3
Performance change over time	--	--	-3.3	4.2

± Scores are not shown as these would allow recalculating confidential regional CIS data.
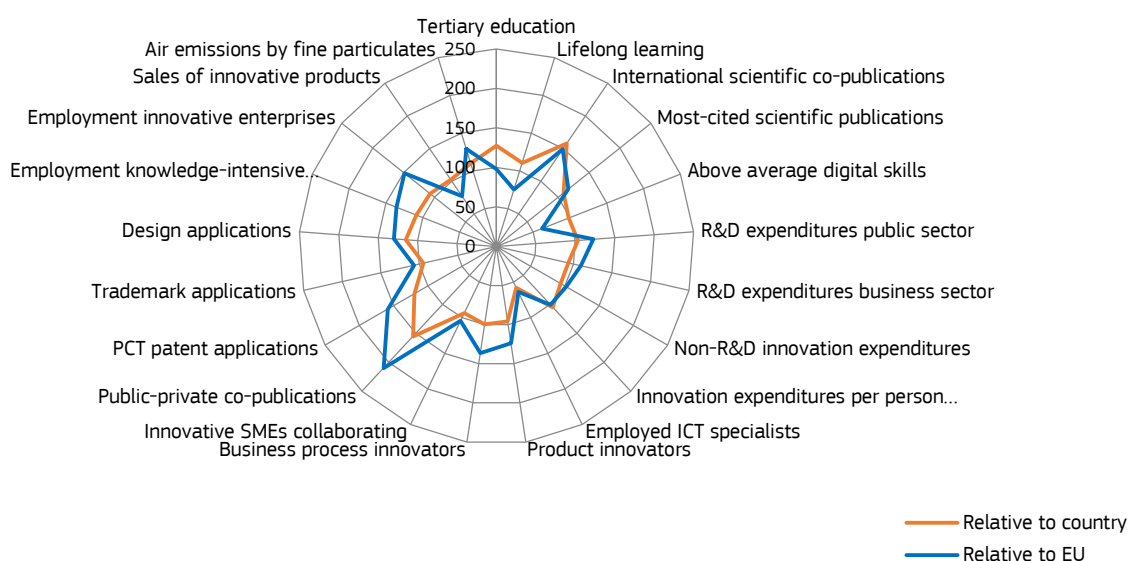
Freiburg (DE13) is a Strong Innovator +. Innovation performance has increased over time (4.2%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (106) and the EU (124.9) in 2023, the RII in 2023 relative to the EU in 2016 (135.5), and the RII in 2016 relative to both Germany (109.3) and the EU in 2016 (131.3). The last row shows performance change between 2016 and 2023 compared to Germany (-3.3%) and to the EU (4.2%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Public-private co-publications) and weaknesses (e.g. Above average digital skills).

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

	DE13	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	1.2	1.4	4.4
Manufacturing (C)	27.4	19.7	16.4
Utilities & Construction (D-F)	7.5	7.6	8.3
Services (G-N)	57.6	63.6	63.7
Public administration (O-U)	6.3	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	37,000	39,000	32,400
GDP per capita growth (PPS)	1.7	1.7	2.5
Population density	243	233	106
Urbanisation	81.2	81.6	75.8
Population size (000s)	2,280	83,160	447,210

Tübingen (DE14)

	Data	Normalised score	Relative to DE	Relative to EU
Tertiary education	34.1	0.368	91	70
Lifelong learning	7.9	0.261	103	70
International scientific co-publications	2688	0.650	225	212
Most-cited scientific publications	1031.2	0.579	99	106
Above average digital skills	18.6	0.291	98	62
R&D expenditures public sector	1.12	0.703	104	124
R&D expenditures business sector	4.19	1.000	126	148
Non-R&D innovation expenditures	±	0.464	105	115
Innovation expenditures per person employed	±	0.605	105	100
Employed ICT specialists	3.5	0.394	68	75
Product innovators	±	0.705	98	126
Business process innovators	±	0.966	109	150
Innovative SMEs collaborating	±	0.466	86	96
Public-private co-publications	770.8	0.925	174	236
PCT patent applications	9.06	1.000	122	162
Trademark applications	7.78	0.527	94	106
Design applications	5.34	0.672	102	116
Employment knowledge-intensive activities	24.1	0.943	133	166
Employment innovative enterprises	±	0.879	110	153
Sales of innovative products	±	0.366	102	76
Air emissions by fine particulates	8.3	0.742	105	124
Average normalised score	--	0.643	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.715	--	--
Performance 2023 relative to EU in 2023	--	--	110.8	130.6
Performance 2023 relative to EU in 2016	--	--	--	141.6
Regional Innovation Index (RII) 2016	--	0.697	--	--
Performance 2016 relative to EU in 2016	--	--	114.9	138.1
Performance change over time	--	--	-4.1	3.5

± Scores are not shown as these would allow recalculating confidential regional CIS data.
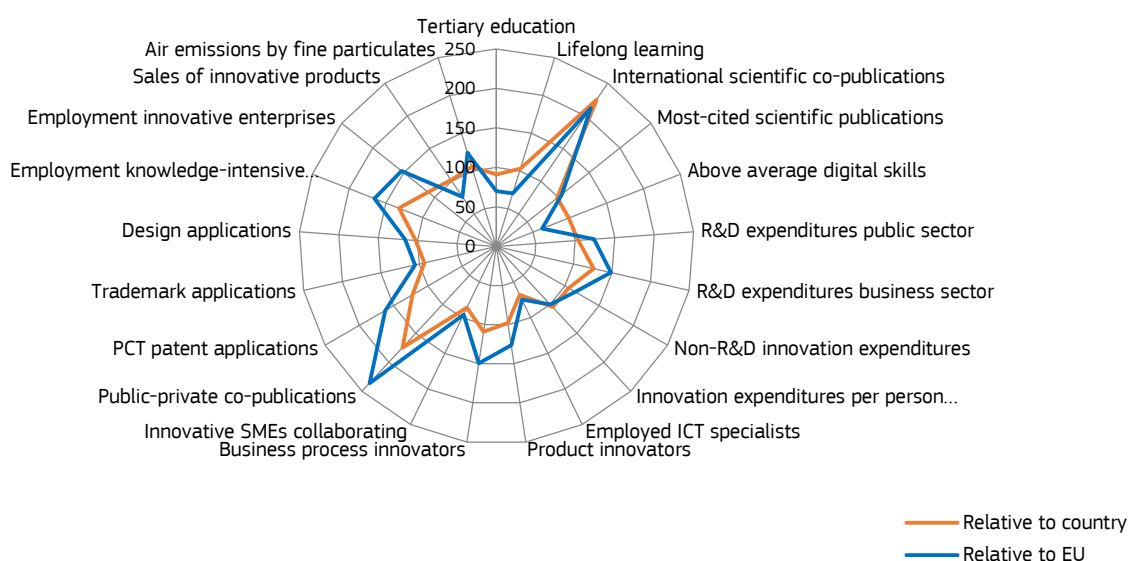
Tübingen (DE14) is an Innovation Leader -. Innovation performance has increased over time (3.5%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (110.8) and the EU (130.6) in 2023, the RII in 2023 relative to the EU in 2016 (141.6), and the RII in 2016 relative to both Germany (114.9) and the EU in 2016 (138.1). The last row shows performance change between 2016 and 2023 compared to Germany (-4.1%) and to the EU (3.5%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Public-private co-publications) and weaknesses (e.g. Above average digital skills).

The table below shows data highlighting possible structural differences, e.g. Employment in Manufacturing (above EU average) and Employment in Public administration (below EU average).

	DE14	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	1.6	1.4	4.4
Manufacturing (C)	30.5	19.7	16.4
Utilities & Construction (D-F)	7.3	7.6	8.3
Services (G-N)	54.8	63.6	63.7
Public administration (O-U)	5.8	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	42,500	39,000	32,400
GDP per capita growth (PPS)	1.9	1.7	2.5
Population density	209	233	106
Urbanisation	72.6	81.6	75.8
Population size (000s)	1,870	83,160	447,210

Legend:
- Relative to country (orange)
- Relative to EU (blue)

Oberbayern (DE21)

	Data	Normalised score	Relative to DE	Relative to EU
Tertiary education	46.4	0.641	159	122
Lifelong learning	8.1	0.269	106	72
International scientific co-publications	3042	0.736	254	240
Most-cited scientific publications	1193.7	0.687	117	126
Above average digital skills	19.0	0.300	101	64
R&D expenditures public sector	1.25	0.749	111	132
R&D expenditures business sector	3.31	0.998	126	148
Non-R&D innovation expenditures	±	0.354	80	88
Innovation expenditures per person employed	±	0.575	99	95
Employed ICT specialists	8.3	1.000	172	190
Product innovators	±	1.000	139	179
Business process innovators	±	1.000	113	155
Innovative SMEs collaborating	±	0.729	134	150
Public-private co-publications	896.1	0.998	188	254
PCT patent applications	10.46	1.000	122	162
Trademark applications	12.25	0.831	148	167
Design applications	6.91	0.765	117	132
Employment knowledge-intensive activities	26.8	1.000	141	176
Employment innovative enterprises	±	0.840	105	146
Sales of innovative products	±	0.504	140	105
Air emissions by fine particulates	9.3	0.692	98	115
Average normalised score	--	0.746	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.829	--	--
Performance 2023 relative to EU in 2023	--	--	128.6	151.5
Performance 2023 relative to EU in 2016	--	--	--	164.3
Regional Innovation Index (RII) 2016	--	0.751	--	--
Performance 2016 relative to EU in 2016	--	--	123.9	148.8
Performance change over time	--	--	4.7	15.5

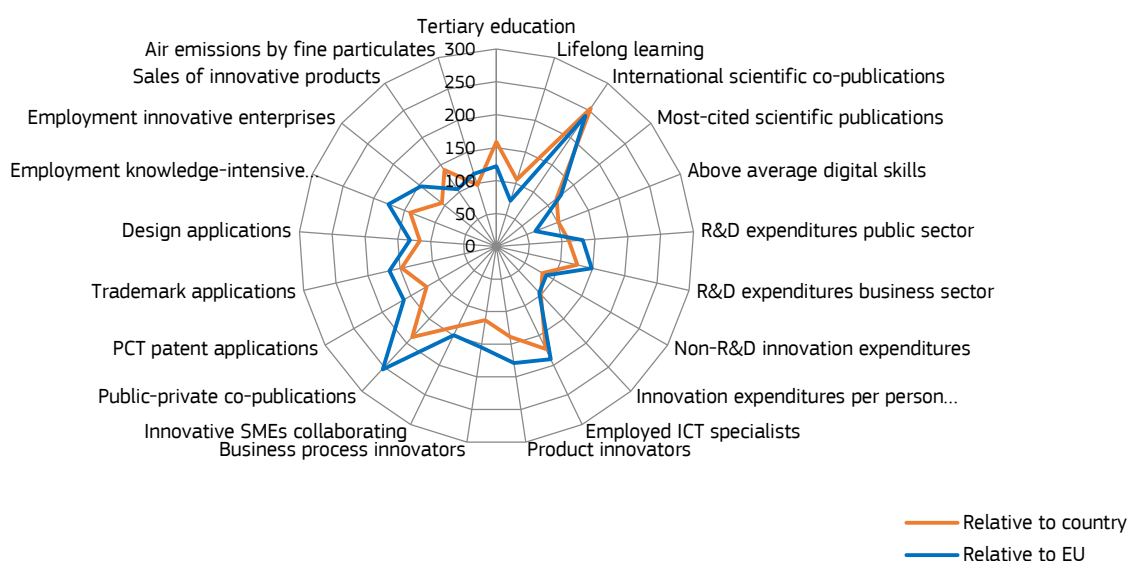± Scores are not shown as these would allow recalculating confidential regional CIS data.

Oberbayern (DE21) is an Innovation Leader +. Innovation performance has increased over time (15.5%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (128.6) and the EU (151.5) in 2023, the RII in 2023 relative to the EU in 2016 (164.3), and the RII in 2016 relative to both Germany (123.9) and the EU in 2016 (148.8). The last row shows performance change between 2016 and 2023 compared to Germany (4.7%) and to the EU (15.5%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Public-private co-publications) and weaknesses (e.g. Above average digital skills).

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

	DE21	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	1.2	1.4	4.4
Manufacturing (C)	20.0	19.7	16.4
Utilities & Construction (D-F)	6.6	7.6	8.3
Services (G-N)	65.2	63.6	63.7
Public administration (O-U)	7.0	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	56,600	39,000	32,400
GDP per capita growth (PPS)	1.5	1.7	2.5
Population density	269	233	106
Urbanisation	80.7	81.6	75.8
Population size (000s)	4,720	83,160	447,210

Niederbayern (DE22)

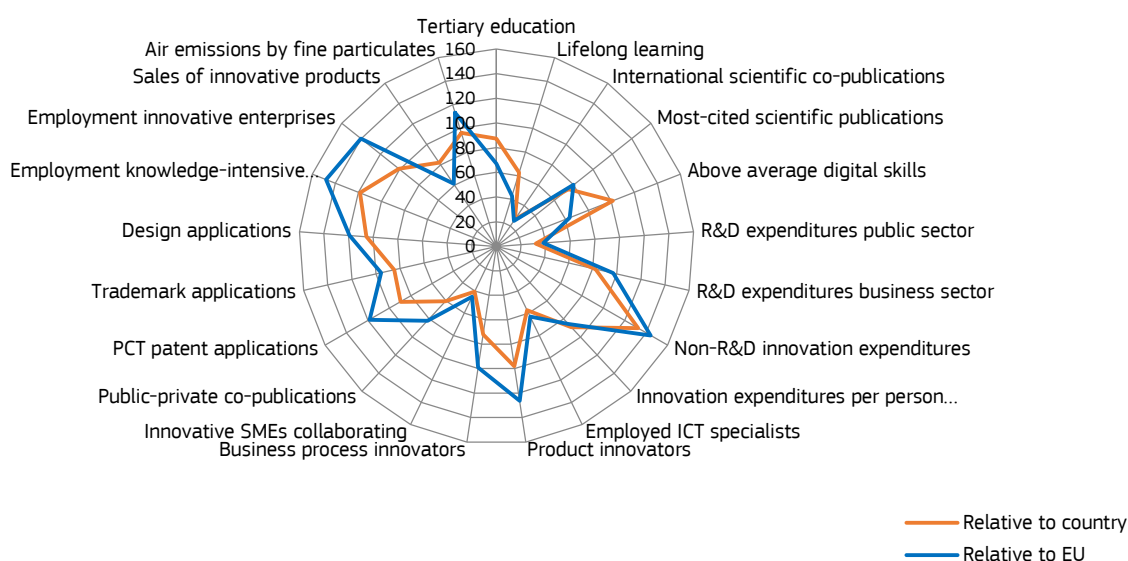|	Data	Normalised score	Relative to	
			DE	EU
Tertiary education	33.4	0.353	87	67
Lifelong learning	5.2	0.159	63	43
International scientific co-publications	326	0.077	27	25
Most-cited scientific publications	817.5	0.437	74	80
Above average digital skills	19.0	0.300	101	64
R&D expenditures public sector	0.18	0.217	32	38
R&D expenditures business sector	1.42	0.654	82	97
Non-R&D innovation expenditures	±	0.582	132	144
Innovation expenditures per person employed	±	0.515	89	86
Employed ICT specialists	3.0	0.332	57	63
Product innovators	±	0.705	98	126
Business process innovators	±	0.639	72	99
Innovative SMEs collaborating	±	0.221	41	45
Public-private co-publications	93.3	0.322	61	82
PCT patent applications	4.56	0.731	90	119
Trademark applications	7.05	0.478	85	96
Design applications	5.67	0.693	106	119
Employment knowledge-intensive activities	22.0	0.844	119	148
Employment innovative enterprises	±	0.804	101	140
Sales of innovative products	±	0.295	82	61
Air emissions by fine particulates	9.6	0.680	96	113
Average normalised score	--	0.478	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.531	--	--
Performance 2023 relative to EU in 2023	--	--	82.4	97.0
Performance 2023 relative to EU in 2016	--	--	--	105.3
Regional Innovation Index (RII) 2016	--	0.486	--	--
Performance 2016 relative to EU in 2016	--	--	80.1	96.2
Performance change over time	--	--	2.3	9.1

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

Niederbayern (DE22) is a Moderate Innovator +. Innovation performance has increased over time (9.1%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (82.4) and the EU (97) in 2023, the RII in 2023 relative to the EU in 2016 (105.3), and the RII in 2016 relative to both Germany (80.1) and the EU in 2016 (96.2). The last row shows performance change between 2016 and 2023 compared to Germany (2.3%) and to the EU (9.1%).

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

The table below shows data highlighting possible structural differences, e.g. Employment in Manufacturing (above EU average) and Urbanisation (below EU average).

	DE22	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	3.3	1.4	4.4
Manufacturing (C)	27.5	19.7	16.4
Utilities & Construction (D-F)	9.7	7.6	8.3
Services (G-N)	52.7	63.6	63.7
Public administration (O-U)	6.8	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	38,100	39,000	32,400
GDP per capita growth (PPS)	1.4	1.7	2.5
Population density	121	233	106
Urbanisation	41.2	81.6	75.8
Population size (000s)	1,250	83,160	447,210

Relative to country
Relative to EU

Oberpfalz (DE23)

	Data	Normalised score	Relative to DE	Relative to EU
Tertiary education	38.1	0.457	113	87
Lifelong learning	6.6	0.212	84	57
International scientific co-publications	1066	0.257	89	84
Most-cited scientific publications	983.8	0.547	93	100
Above average digital skills	19.0	0.300	101	64
R&D expenditures public sector	0.64	0.505	75	89
R&D expenditures business sector	2.18	0.810	102	120
Non-R&D innovation expenditures	±	0.433	98	107
Innovation expenditures per person employed	±	0.505	87	84
Employed ICT specialists	3.7	0.417	72	79
Product innovators	±	0.704	98	126
Business process innovators	±	0.715	81	111
Innovative SMEs collaborating	±	0.621	114	128
Public-private co-publications	308.9	0.586	110	149
PCT patent applications	8.51	0.999	122	162
Trademark applications	5.54	0.375	67	75
Design applications	3.27	0.527	80	91
Employment knowledge-intensive activities	23.3	0.905	127	159
Employment innovative enterprises	±	0.619	78	108
Sales of innovative products	±	0.463	129	96
Air emissions by fine particulates	9.5	0.682	97	114
Average normalised score	--	0.554	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.616	--	--
Performance 2023 relative to EU in 2023	--	--	95.5	112.5
Performance 2023 relative to EU in 2016	--	--	--	122.0
Regional Innovation Index (RII) 2016	--	0.566	--	--
Performance 2016 relative to EU in 2016	--	--	93.4	112.2
Performance change over time	--	--	2.1	9.9

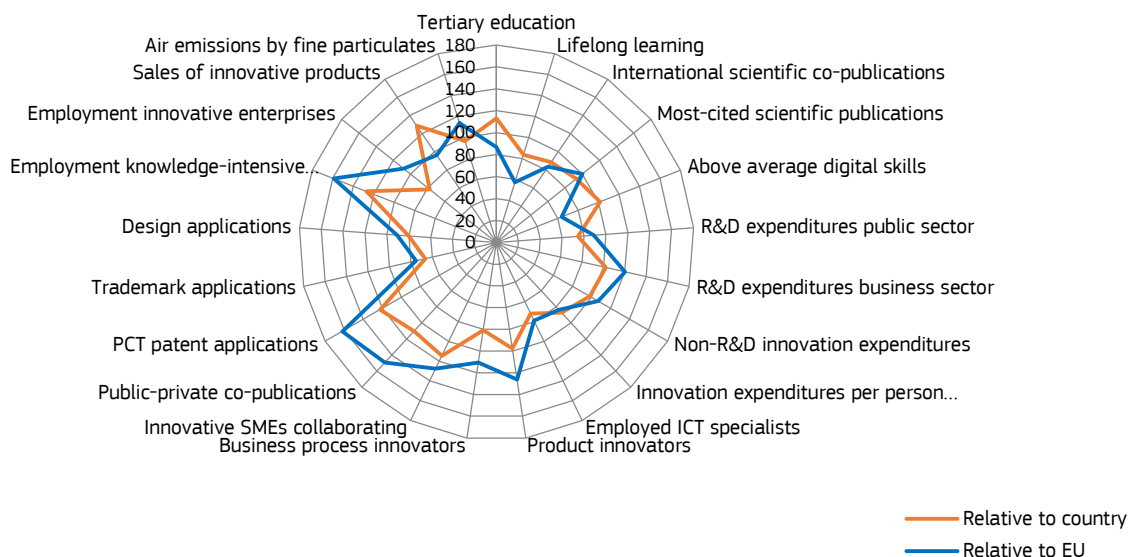± Scores are not shown as these would allow recalculating confidential regional CIS data.

Oberpfalz (DE23) is a Strong Innovator. Innovation performance has increased over time (9.9%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (95.5) and the EU (112.5) in 2023, the RII in 2023 relative to the EU in 2016 (122), and the RII in 2016 relative to both Germany (93.4) and the EU in 2016 (112.2). The last row shows performance change between 2016 and 2023 compared to Germany (2.1%) and to the EU (9.9%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. PCT patent applications) and weaknesses (e.g. Lifelong learning).

The table below shows data highlighting possible structural differences, e.g. Employment in Manufacturing (above EU average) and Urbanisation (below EU average).

	DE23	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	2.8	1.4	4.4
Manufacturing (C)	27.4	19.7	16.4
Utilities & Construction (D-F)	8.2	7.6	8.3
Services (G-N)	53.7	63.6	63.7
Public administration (O-U)	7.9	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	41,400	39,000	32,400
GDP per capita growth (PPS)	1.7	1.7	2.5
Population density	115	233	106
Urbanisation	62.4	81.6	75.8
Population size (000s)	1,110	83,160	447,210

Oberfranken (DE24)

	Data	Normalised score	Relative to DE	Relative to EU
Tertiary education	38.0	0.455	113	86
Lifelong learning	6.3	0.201	79	54
International scientific co-publications	1099	0.264	91	86
Most-cited scientific publications	1059.5	0.598	102	109
Above average digital skills	19.0	0.300	101	64
R&D expenditures public sector	0.60	0.485	72	85
R&D expenditures business sector	1.94	0.764	96	113
Non-R&D innovation expenditures	±	0.362	82	89
Innovation expenditures per person employed	±	0.507	88	84
Employed ICT specialists	3.1	0.342	59	65
Product innovators	±	0.787	109	141
Business process innovators	±	0.736	83	114
Innovative SMEs collaborating	±	0.544	100	112
Public-private co-publications	259.9	0.537	101	137
PCT patent applications	5.98	0.837	103	136
Trademark applications	7.05	0.477	85	96
Design applications	6.89	0.764	116	132
Employment knowledge-intensive activities	18.4	0.673	95	118
Employment innovative enterprises	±	0.742	93	129
Sales of innovative products	±	0.464	129	97
Air emissions by fine particulates	9.2	0.700	99	117
Average normalised score	--	0.549	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.611	--	--
Performance 2023 relative to EU in 2023	--	--	94.7	111.6
Performance 2023 relative to EU in 2016	--	--	--	121.0
Regional Innovation Index (RII) 2016	--	0.569	--	--
Performance 2016 relative to EU in 2016	--	--	93.8	112.7
Performance change over time	--	--	0.9	8.3

± Scores are not shown as these would allow recalculating confidential regional CIS data.
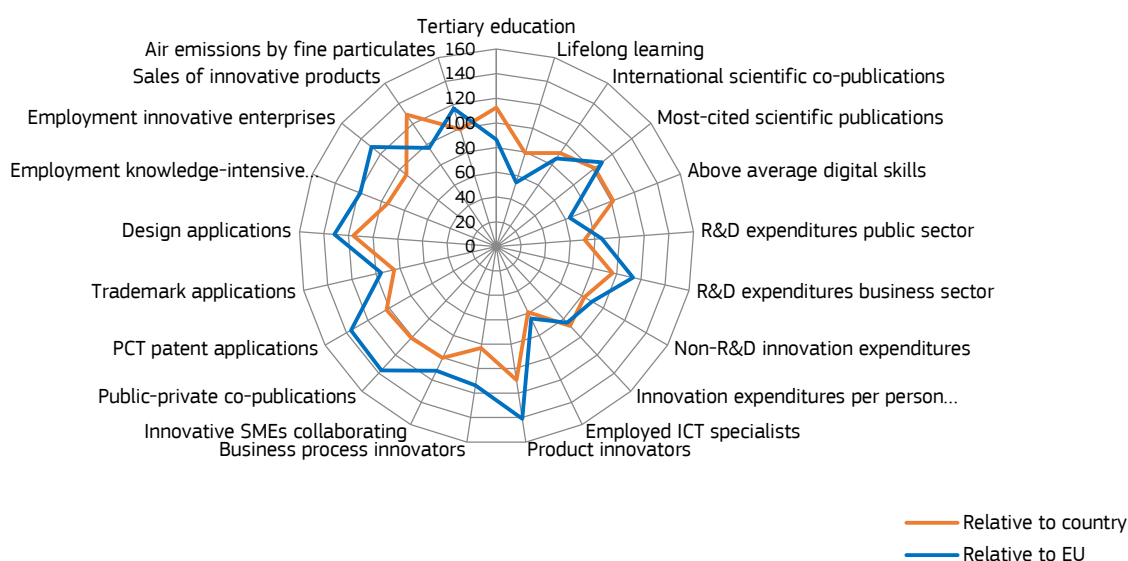
Oberfranken (DE24) is a Strong Innovator. Innovation performance has increased over time (8.3%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (94.7) and the EU (111.6) in 2023, the RII in 2023 relative to the EU in 2016 (121), and the RII in 2016 relative to both Germany (93.8) and the EU in 2016 (112.7). The last row shows performance change between 2016 and 2023 compared to Germany (0.9%) and to the EU (8.3%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Product innovators) and weaknesses (e.g. Lifelong learning).

The table below shows data highlighting possible structural differences, e.g. Employment in Manufacturing (above EU average) and Urbanisation (below EU average).

	DE24	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	1.6	1.4	4.4
Manufacturing (C)	26.4	19.7	16.4
Utilities & Construction (D-F)	7.1	7.6	8.3
Services (G-N)	57.8	63.6	63.7
Public administration (O-U)	7.1	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	37,000	39,000	32,400
GDP per capita growth (PPS)	1.7	1.7	2.5
Population density	147	233	106
Urbanisation	66.5	81.6	75.8
Population size (000s)	1,060	83,160	447,210

Mittelfranken (DE25)

	Data	Normalised score	Relative to	
			DE	EU
Tertiary education	38.8	0.472	117	90
Lifelong learning	7.3	0.239	94	64
International scientific co-publications	2207	0.533	184	174
Most-cited scientific publications	1058.2	0.597	102	109
Above average digital skills	19.0	0.300	101	64
R&D expenditures public sector	1.01	0.662	98	116
R&D expenditures business sector	2.79	0.917	116	136
Non-R&D innovation expenditures	±	0.448	102	111
Innovation expenditures per person employed	±	0.560	97	93
Employed ICT specialists	6.5	0.795	137	151
Product innovators	±	0.688	96	123
Business process innovators	±	0.821	93	127
Innovative SMEs collaborating	±	0.477	88	98
Public-private co-publications	743.3	0.909	171	232
PCT patent applications	10.46	1.000	122	162
Trademark applications	7.54	0.511	91	102
Design applications	9.26	0.886	135	153
Employment knowledge-intensive activities	22.0	0.844	119	148
Employment innovative enterprises	±	0.754	95	131
Sales of innovative products	±	0.381	106	79
Air emissions by fine particulates	9.8	0.672	95	112
Average normalised score	--	0.641	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.713	--	--
Performance 2023 relative to EU in 2023	--	--	110.5	130.2
Performance 2023 relative to EU in 2016	--	--	--	141.2
Regional Innovation Index (RII) 2016	--	0.679	--	--
Performance 2016 relative to EU in 2016	--	--	112.0	134.6
Performance change over time	--	--	-1.5	6.6

± Scores are not shown as these would allow recalculating confidential regional CIS data.
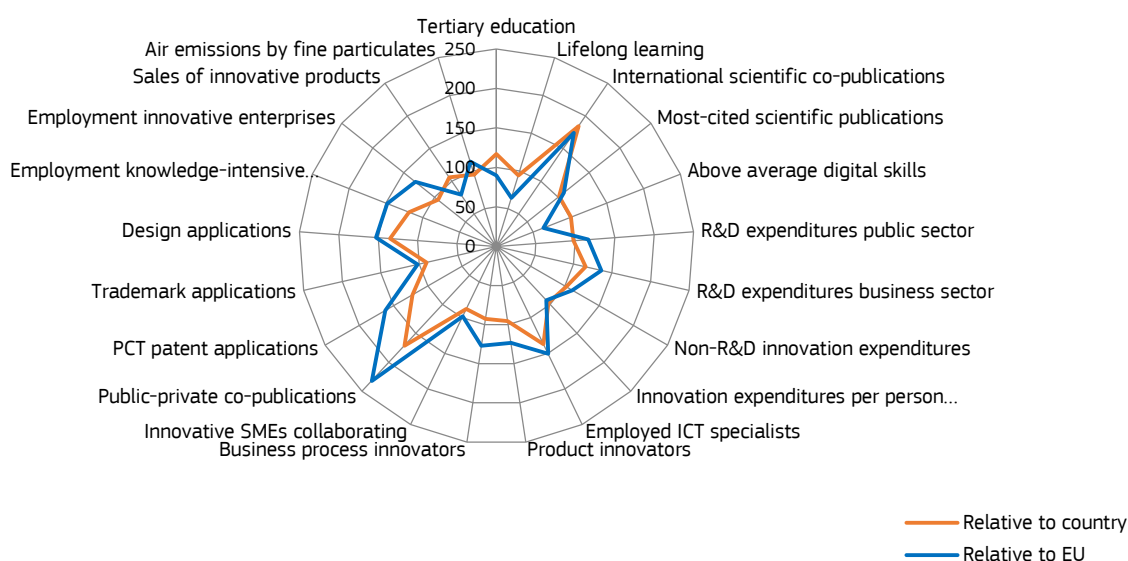
Mittelfranken (DE25) is an Innovation Leader –. Innovation performance has increased over time (6.6%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (110.5) and the EU (130.2) in 2023, the RII in 2023 relative to the EU in 2016 (141.2), and the RII in 2016 relative to both Germany (112) and the EU in 2016 (134.6). The last row shows performance change between 2016 and 2023 compared to Germany (-1.5%) and to the EU (6.6%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Public-private co-publications) and weaknesses (e.g. Above average digital skills).

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

	DE25	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	1.8	1.4	4.4
Manufacturing (C)	24.0	19.7	16.4
Utilities & Construction (D-F)	7.2	7.6	8.3
Services (G-N)	60.0	63.6	63.7
Public administration (O-U)	7.0	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	43,600	39,000	32,400
GDP per capita growth (PPS)	1.7	1.7	2.5
Population density	245	233	106
Urbanisation	83.5	81.6	75.8
Population size (000s)	1,780	83,160	447,210

Unterfranken (DE26)

	Data	Normalised score	Relative to DE	Relative to EU
Tertiary education	37.5	0.443	110	84
Lifelong learning	6.7	0.216	85	58
International scientific co-publications	1833	0.442	153	144
Most-cited scientific publications	1129.4	0.644	110	118
Above average digital skills	19.0	0.300	101	64
R&D expenditures public sector	0.75	0.556	82	98
R&D expenditures business sector	2.19	0.812	102	120
Non-R&D innovation expenditures	±	0.351	80	87
Innovation expenditures per person employed	±	0.523	91	87
Employed ICT specialists	3.3	0.365	63	69
Product innovators	±	0.594	82	106
Business process innovators	±	0.734	83	114
Innovative SMEs collaborating	±	0.404	74	83
Public-private co-publications	433.9	0.694	131	177
PCT patent applications	6.32	0.860	105	140
Trademark applications	6.54	0.442	79	89
Design applications	6.46	0.740	113	127
Employment knowledge-intensive activities	20.3	0.763	107	134
Employment innovative enterprises	±	0.898	113	156
Sales of innovative products	±	0.314	87	65
Air emissions by fine particulates	9.1	0.706	100	118
Average normalised score	--	0.562	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.625	--	--
Performance 2023 relative to EU in 2023	--	--	96.8	114.1
Performance 2023 relative to EU in 2016	--	--	--	123.8
Regional Innovation Index (RII) 2016	--	0.618	--	--
Performance 2016 relative to EU in 2016	--	--	101.9	122.5
Performance change over time	--	--	-5.1	1.3

± Scores are not shown as these would allow recalculating confidential regional CIS data.
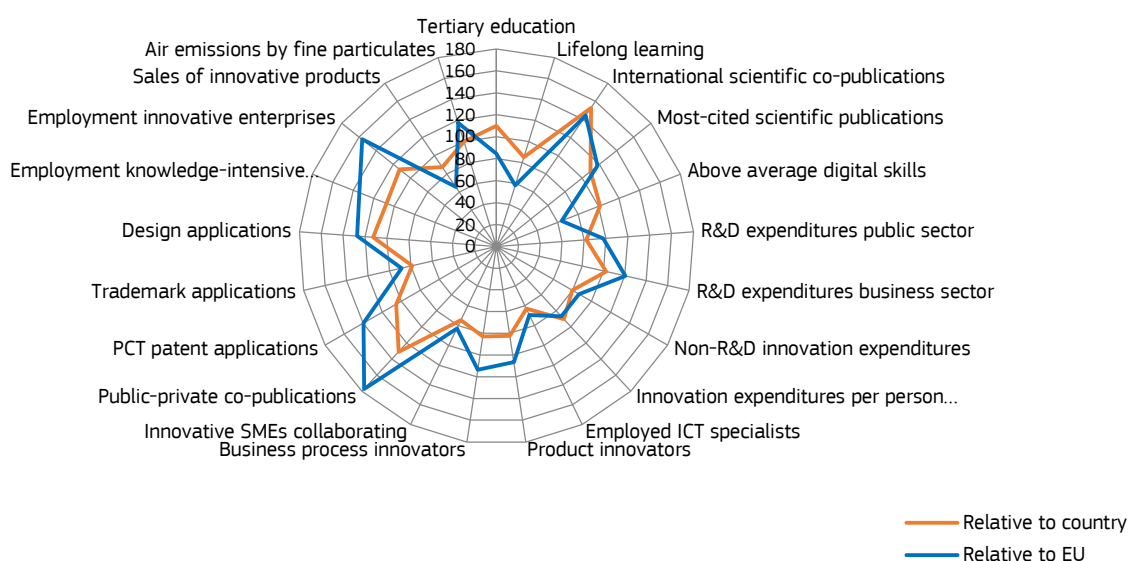
Unterfranken (DE26) is a Strong Innovator. Innovation performance has increased over time (1.3%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (96.8) and the EU (114.1) in 2023, the RII in 2023 relative to the EU in 2016 (123.8), and the RII in 2016 relative to both Germany (101.9) and the EU in 2016 (122.5). The last row shows performance change between 2016 and 2023 compared to Germany (-5.1%) and to the EU (1.3%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Public-private co-publications) and weaknesses (e.g. Lifelong learning).

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

	DE26	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	1.8	1.4	4.4
Manufacturing (C)	25.7	19.7	16.4
Utilities & Construction (D-F)	8.0	7.6	8.3
Services (G-N)	57.7	63.6	63.7
Public administration (O-U)	6.9	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	38,900	39,000	32,400
GDP per capita growth (PPS)	1.3	1.7	2.5
Population density	154	233	106
Urbanisation	57.9	81.6	75.8
Population size (000s)	1,320	83,160	447,210

Relative to country
Relative to EU

Schwaben (DE27)

	Data	Normalised score	Relative to	
			DE	EU
Tertiary education	35.8	0.406	101	77
Lifelong learning	6.4	0.205	81	55
International scientific co-publications	954	0.229	79	75
Most-cited scientific publications	930.4	0.512	87	94
Above average digital skills	19.0	0.300	101	64
R&D expenditures public sector	0.26	0.283	42	50
R&D expenditures business sector	1.41	0.652	82	97
Non-R&D innovation expenditures	±	0.446	101	110
Innovation expenditures per person employed	±	0.527	91	88
Employed ICT specialists	3.3	0.372	64	70
Product innovators	±	0.713	99	128
Business process innovators	±	0.890	101	138
Innovative SMEs collaborating	±	0.442	81	91
Public-private co-publications	310.2	0.587	111	150
PCT patent applications	5.65	0.813	100	132
Trademark applications	8.47	0.574	102	115
Design applications	5.75	0.698	106	120
Employment knowledge-intensive activities	20.5	0.773	109	136
Employment innovative enterprises	±	0.711	89	124
Sales of innovative products	±	0.231	64	48
Air emissions by fine particulates	8.7	0.723	103	121
Average normalised score	--	0.528	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.587	--	--
Performance 2023 relative to EU in 2023	--	--	91.0	107.2
Performance 2023 relative to EU in 2016	--	--	--	116.2
Regional Innovation Index (RII) 2016	--	0.579	--	--
Performance 2016 relative to EU in 2016	--	--	95.5	114.8
Performance change over time	--	--	-4.5	1.5

± Scores are not shown as these would allow recalculating confidential regional CIS data.
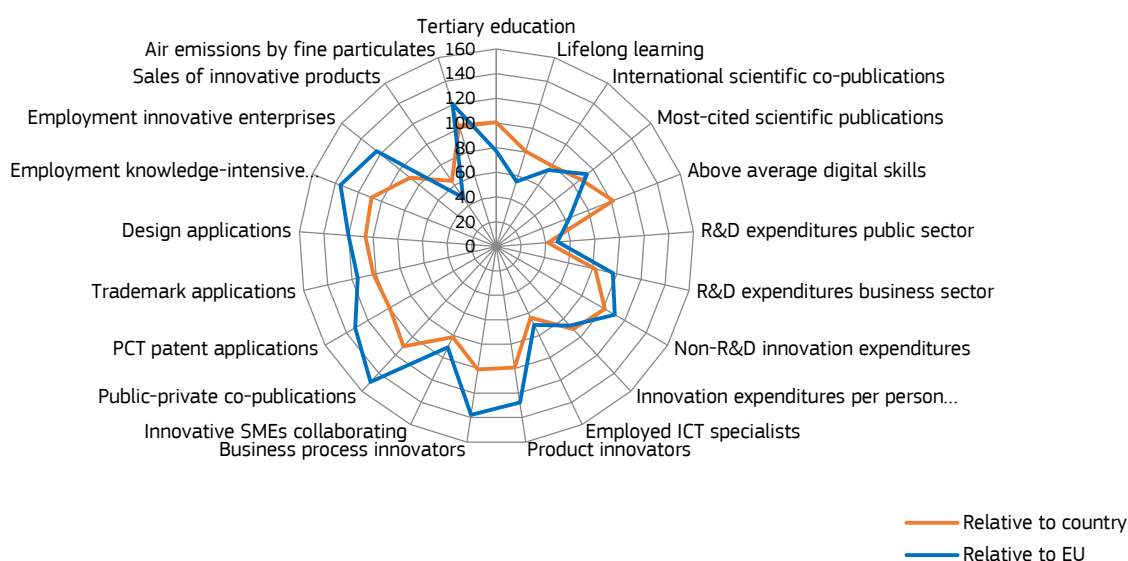
Schwaben (DE27) is a Strong Innovator –. Innovation performance has increased over time (1.5%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (91) and the EU (107.2) in 2023, the RII in 2023 relative to the EU in 2016 (116.2), and the RII in 2016 relative to both Germany (95.5) and the EU in 2016 (114.8). The last row shows performance change between 2016 and 2023 compared to Germany (-4.5%) and to the EU (1.5%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Public-private co-publications) and weaknesses (e.g. R&D expenditures public sector).

The table below shows data highlighting possible structural differences, e.g. Employment in Manufacturing (above EU average) and Employment in Public administration (below EU average).

	DE27	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	2.8	1.4	4.4
Manufacturing (C)	26.6	19.7	16.4
Utilities & Construction (D-F)	7.8	7.6	8.3
Services (G-N)	56.8	63.6	63.7
Public administration (O-U)	6.1	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	38,000	39,000	32,400
GDP per capita growth (PPS)	1.4	1.7	2.5
Population density	191	233	106
Urbanisation	65.2	81.6	75.8
Population size (000s)	1,910	83,160	447,210

Berlin (DE3)

	Data	Normalised score	Relative to DE	Relative to EU
Tertiary education	51.1	0.745	185	142
Lifelong learning	10.9	0.375	148	101
International scientific co-publications	3344	0.809	280	264
Most-cited scientific publications	1129.5	0.644	110	118
Above average digital skills	19.3	0.307	104	65
R&D expenditures public sector	2.04	0.987	146	173
R&D expenditures business sector	1.33	0.633	80	94
Non-R&D innovation expenditures	±	0.564	128	140
Innovation expenditures per person employed	±	0.675	117	112
Employed ICT specialists	11.8	1.000	172	190
Product innovators	±	0.789	110	141
Business process innovators	±	0.944	107	146
Innovative SMEs collaborating	±	0.883	163	181
Public-private co-publications	890.8	0.995	187	254
PCT patent applications	4.28	0.708	87	115
Trademark applications	16.68	1.000	178	200
Design applications	3.32	0.531	81	91
Employment knowledge-intensive activities	21.4	0.815	115	143
Employment innovative enterprises	±	0.734	92	128
Sales of innovative products	±	0.516	144	107
Air emissions by fine particulates	11.2	0.600	85	100
Average normalised score	--	0.726	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.808	--	--
Performance 2023 relative to EU in 2023	--	--	125.2	147.5
Performance 2023 relative to EU in 2016	--	--	--	160.0
Regional Innovation Index (RII) 2016	--	0.764	--	--
Performance 2016 relative to EU in 2016	--	--	126.0	151.4
Performance change over time	--	--	-0.8	8.6

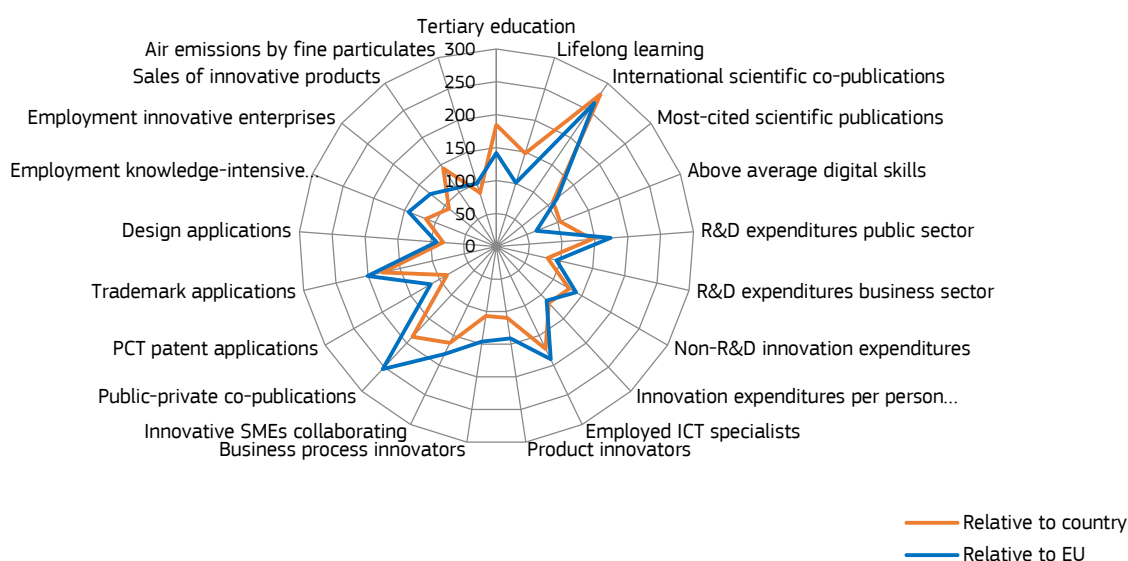± Scores are not shown as these would allow recalculating confidential regional CIS data.

Berlin (DE3) is an Innovation Leader +. Innovation performance has increased over time (8.6%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (125.2) and the EU (147.5) in 2023, the RII in 2023 relative to the EU in 2016 (160), and the RII in 2016 relative to both Germany (126) and the EU in 2016 (151.4). The last row shows performance change between 2016 and 2023 compared to Germany (-0.8%) and to the EU (8.6%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. International scientific co-publications) and weaknesses (e.g. Above average digital skills).

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

	DE3	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	0.2	1.4	4.4
Manufacturing (C)	7.5	19.7	16.4
Utilities & Construction (D-F)	5.8	7.6	8.3
Services (G-N)	77.0	63.6	63.7
Public administration (O-U)	9.5	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	40,200	39,000	32,400
GDP per capita growth (PPS)	2.6	1.7	2.5
Population density	4,112	233	106
Urbanisation	100.0	81.6	75.8
Population size (000s)	3,660	83,160	447,210

Relative to country
Relative to EU

Brandenburg (DE4)

	Data	Normali sed score	Relative to DE	Relative to EU
Tertiary education	28.2	0.237	59	45
Lifelong learning	5.7	0.178	70	48
International scientific co-publications	1737	0.419	145	137
Most-cited scientific publications	1440.4	0.850	145	156
Above average digital skills	18.0	0.278	94	59
R&D expenditures public sector	1.23	0.742	110	130
R&D expenditures business sector	0.64	0.439	55	65
Non-R&D innovation expenditures	±	0.578	131	143
Innovation expenditures per person employed	±	0.628	109	104
Employed ICT specialists	3.3	0.369	64	70
Product innovators	±	0.601	83	108
Business process innovators	±	0.774	87	120
Innovative SMEs collaborating	±	0.727	134	149
Public-private co-publications	305.8	0.583	110	149
PCT patent applications	2.42	0.533	65	87
Trademark applications	4.62	0.312	55	63
Design applications	1.49	0.356	54	61
Employment knowledge-intensive activities	12.0	0.370	52	65
Employment innovative enterprises	±	0.683	86	119
Sales of innovative products	±	0.325	90	68
Air emissions by fine particulates	10.0	0.660	94	110
Average normalised score	--	0.507	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.563	--	--
Performance 2023 relative to EU in 2023	--	--	87.3	102.9
Performance 2023 relative to EU in 2016	--	--	--	111.6
Regional Innovation Index (RII) 2016	--	0.510	--	--
Performance 2016 relative to EU in 2016	--	--	84.0	101.0
Performance change over time	--	--	3.3	10.6

± Scores are not shown as these would allow recalculating confidential regional CIS data.
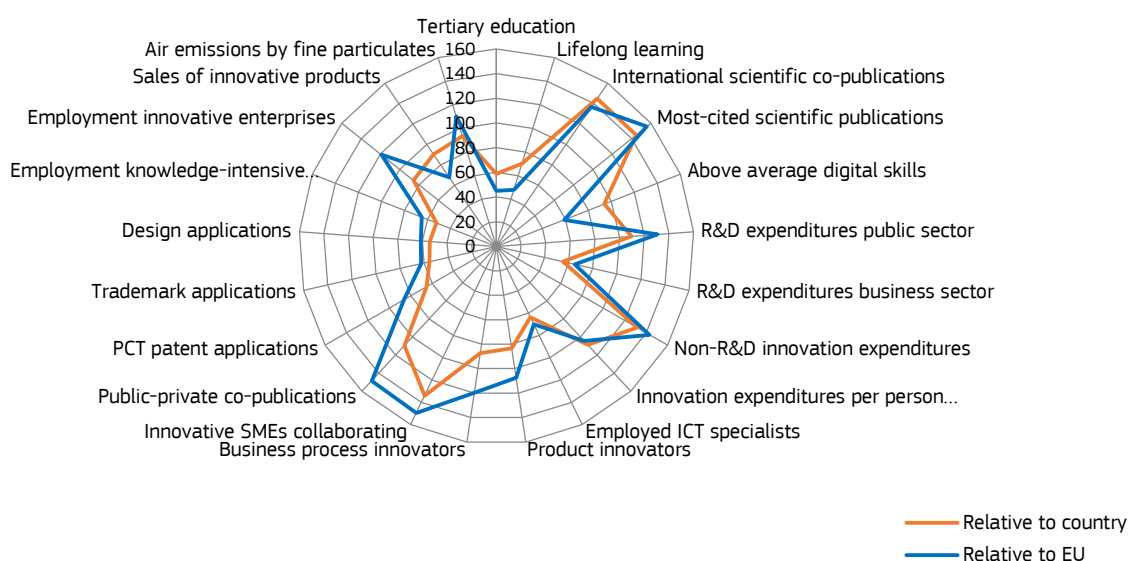
Brandenburg (DE4) is a Strong Innovator -. Innovation performance has increased over time (10.6%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (87.3) and the EU (102.9) in 2023, the RII in 2023 relative to the EU in 2016 (111.6), and the RII in 2016 relative to both Germany (84) and the EU in 2016 (101). The last row shows performance change between 2016 and 2023 compared to Germany (3.3%) and to the EU (10.6%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Most-cited scientific publications) and weaknesses (e.g. Tertiary education).

The table below shows data highlighting possible structural differences, e.g. Employment in Public administration (above EU average) and Employment in Manufacturing (below EU average).

	DE4	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	2.2	1.4	4.4
Manufacturing (C)	11.2	19.7	16.4
Utilities & Construction (D-F)	10.9	7.6	8.3
Services (G-N)	64.2	63.6	63.7
Public administration (O-U)	11.5	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	28,000	39,000	32,400
GDP per capita growth (PPS)	1.8	1.7	2.5
Population density	85	233	106
Urbanisation	71.5	81.6	75.8
Population size (000s)	2,530	83,160	447,210

Bremen (DE5)

	Data	Normalised score	Relative to DE	Relative to EU
Tertiary education	32.6	0.335	83	64
Lifelong learning	9.7	0.330	130	89
International scientific co-publications	3152	0.762	263	249
Most-cited scientific publications	1122.3	0.639	109	117
Above average digital skills	16.4	0.240	81	51
R&D expenditures public sector	2.78	1.000	148	176
R&D expenditures business sector	0.98	0.543	68	81
Non-R&D innovation expenditures	±	0.307	70	76
Innovation expenditures per person employed	±	0.541	94	90
Employed ICT specialists	n/a	n/a	n/a	n/a
Product innovators	±	0.663	92	119
Business process innovators	±	0.774	88	120
Innovative SMEs collaborating	±	0.489	90	101
Public-private co-publications	749.5	0.912	172	233
PCT patent applications	2.44	0.534	65	87
Trademark applications	6.06	0.410	73	82
Design applications	1.64	0.372	57	64
Employment knowledge-intensive activities	17.7	0.640	90	113
Employment innovative enterprises	±	0.813	102	142
Sales of innovative products	±	0.271	76	56
Air emissions by fine particulates	9.3	0.692	98	116
Average normalised score	--	0.564	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.627	--	--
Performance 2023 relative to EU in 2023	--	--	97.1	114.4
Performance 2023 relative to EU in 2016	--	--	--	124.1
Regional Innovation Index (RII) 2016	--	0.609	--	--
Performance 2016 relative to EU in 2016	--	--	100.4	120.6
Performance change over time	--	--	-3.3	3.5

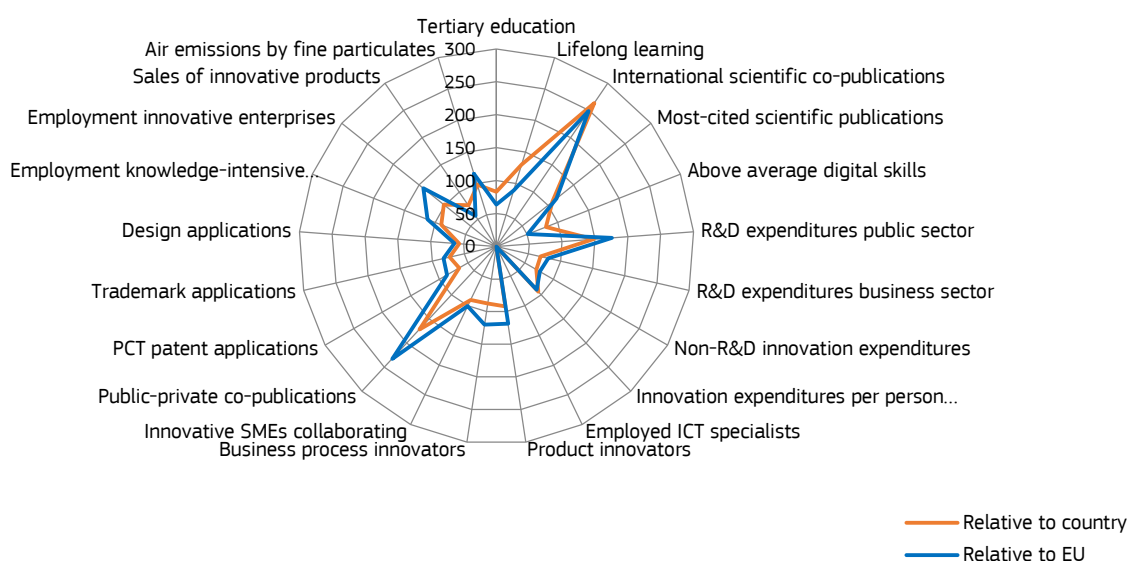± Scores are not shown as these would allow recalculating confidential regional CIS data.

Bremen (DE5) is a Strong Innovator. Innovation performance has increased over time (3.5%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (97.1) and the EU (114.4) in 2023, the RII in 2023 relative to the EU in 2016 (124.1), and the RII in 2016 relative to both Germany (100.4) and the EU in 2016 (120.6). The last row shows performance change between 2016 and 2023 compared to Germany (-3.3%) and to the EU (3.5%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. International scientific co-publications) and weaknesses (e.g. Above average digital skills).

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

	DE5	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	0.4	1.4	4.4
Manufacturing (C)	13.7	19.7	16.4
Utilities & Construction (D-F)	6.5	7.6	8.3
Services (G-N)	73.0	63.6	63.7
Public administration (O-U)	6.4	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	45,600	39,000	32,400
GDP per capita growth (PPS)	1.0	1.7	2.5
Population density	1,619	233	106
Urbanisation	100.0	81.6	75.8
Population size (000s)	680	83,160	447,210

Hamburg (DE6)

	Data	Normalised score	Relative to DE	Relative to EU
Tertiary education	45.6	0.623	154	119
Lifelong learning	10.3	0.352	139	95
International scientific co-publications	3264	0.790	273	258
Most-cited scientific publications	1104.3	0.627	107	115
Above average digital skills	19.6	0.312	106	66
R&D expenditures public sector	1.04	0.673	99	118
R&D expenditures business sector	1.22	0.606	76	90
Non-R&D innovation expenditures	±	0.446	101	110
Innovation expenditures per person employed	±	0.589	102	98
Employed ICT specialists	8.5	1.000	172	190
Product innovators	±	0.787	109	141
Business process innovators	±	1.000	113	155
Innovative SMEs collaborating	±	0.393	72	81
Public-private co-publications	789.1	0.936	176	239
PCT patent applications	2.59	0.551	67	89
Trademark applications	15.23	1.000	178	200
Design applications	2.97	0.501	76	86
Employment knowledge-intensive activities	21.8	0.834	117	147
Employment innovative enterprises	±	1.000	125	174
Sales of innovative products	±	0.415	115	86
Air emissions by fine particulates	9.5	0.684	97	114
Average normalised score	--	0.672	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.748	--	--
Performance 2023 relative to EU in 2023	--	--	115.9	136.5
Performance 2023 relative to EU in 2016	--	--	--	148.1
Regional Innovation Index (RII) 2016	--	0.650	--	--
Performance 2016 relative to EU in 2016	--	--	107.1	128.7
Performance change over time	--	--	8.8	19.4

± Scores are not shown as these would allow recalculating confidential regional CIS data.
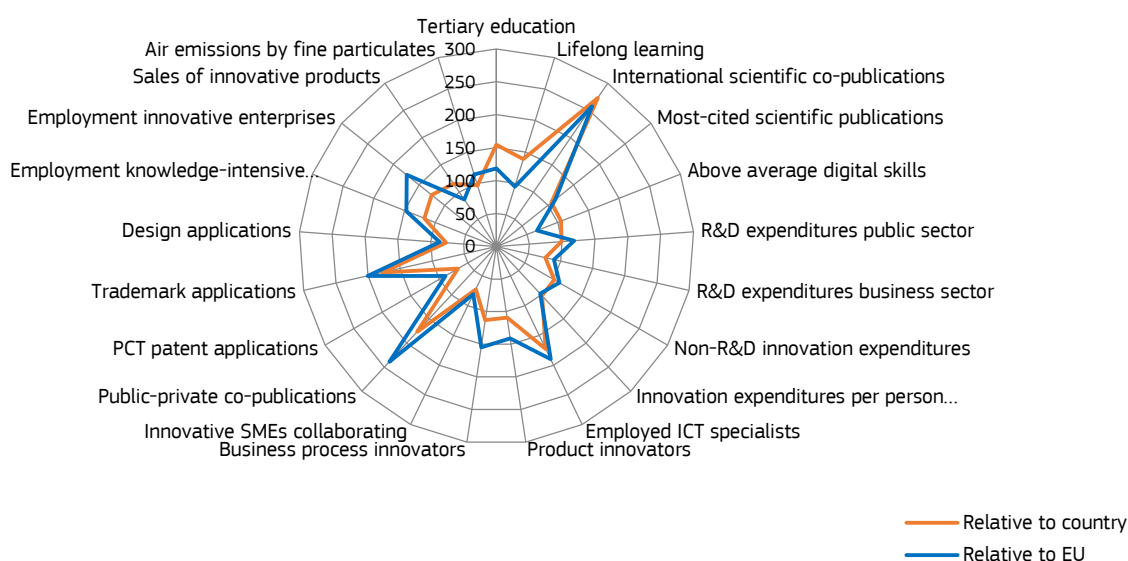
Hamburg (DE6) is an Innovation Leader. Innovation performance has increased over time (19.4%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (115.9) and the EU (136.5) in 2023, the RII in 2023 relative to the EU in 2016 (148.1), and the RII in 2016 relative to both Germany (107.1) and the EU in 2016 (128.7). The last row shows performance change between 2016 and 2023 compared to Germany (8.8%) and to the EU (19.4%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. International scientific co-publications) and weaknesses (e.g. Above average digital skills).

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

	DE6	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	1.0	1.4	4.4
Manufacturing (C)	10.8	19.7	16.4
Utilities & Construction (D-F)	5.1	7.6	8.3
Services (G-N)	77.7	63.6	63.7
Public administration (O-U)	5.4	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	61,900	39,000	32,400
GDP per capita growth (PPS)	1.2	1.7	2.5
Population density	2,454	233	106
Urbanisation	100.0	81.6	75.8
Population size (000s)	1,850	83,160	447,210

Darmstadt (DE71)

	Data	Normalised score	Relative to DE	Relative to EU
Tertiary education	39.1	0.479	119	91
Lifelong learning	8.5	0.284	112	77
International scientific co-publications	1461	0.352	122	115
Most-cited scientific publications	922.6	0.507	86	93
Above average digital skills	19.4	0.309	105	66
R&D expenditures public sector	0.85	0.598	88	105
R&D expenditures business sector	2.67	0.897	113	133
Non-R&D innovation expenditures	±	0.399	91	99
Innovation expenditures per person employed	±	0.631	109	105
Employed ICT specialists	6.0	0.726	125	138
Product innovators	±	0.795	110	142
Business process innovators	±	0.892	101	138
Innovative SMEs collaborating	±	0.461	85	95
Public-private co-publications	506.4	0.750	141	191
PCT patent applications	5.31	0.789	97	128
Trademark applications	9.05	0.614	109	123
Design applications	4.08	0.588	90	101
Employment knowledge-intensive activities	20.5	0.773	109	136
Employment innovative enterprises	±	0.730	92	127
Sales of innovative products	±	0.355	99	74
Air emissions by fine particulates	9.4	0.691	98	115
Average normalised score	--	0.601	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.668	--	--
Performance 2023 relative to EU in 2023	--	--	103.6	122.0
Performance 2023 relative to EU in 2016	--	--	--	132.3
Regional Innovation Index (RII) 2016	--	0.623	--	--
Performance 2016 relative to EU in 2016	--	--	102.7	123.4
Performance change over time	--	--	0.8	8.9

± Scores are not shown as these would allow recalculating confidential regional CIS data.
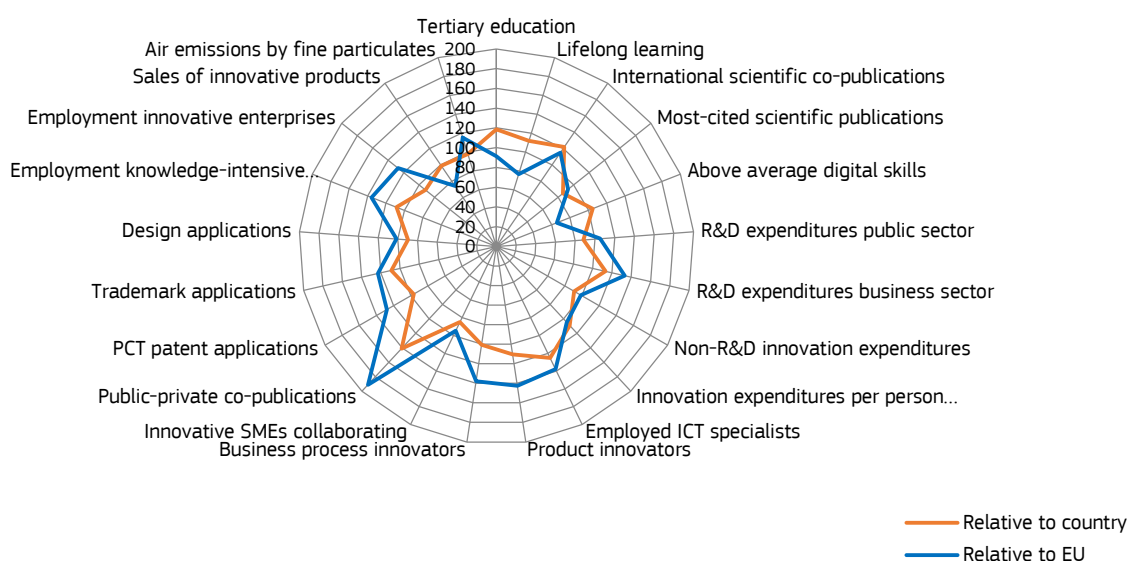
Darmstadt (DE71) is a Strong Innovator +. Innovation performance has increased over time (8.9%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (103.6) and the EU (122) in 2023, the RII in 2023 relative to the EU in 2016 (132.3), and the RII in 2016 relative to both Germany (102.7) and the EU in 2016 (123.4). The last row shows performance change between 2016 and 2023 compared to Germany (0.8%) and to the EU (8.9%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Public-private co-publications) and weaknesses (e.g. Above average digital skills).

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

	DE71	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	0.6	1.4	4.4
Manufacturing (C)	15.1	19.7	16.4
Utilities & Construction (D-F)	6.4	7.6	8.3
Services (G-N)	71.3	63.6	63.7
Public administration (O-U)	6.7	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	48,900	39,000	32,400
GDP per capita growth (PPS)	1.1	1.7	2.5
Population density	541	233	106
Urbanisation	93.6	81.6	75.8
Population size (000s)	4,030	83,160	447,210

Legend: Relative to country (orange) — Relative to EU (blue)

Gießen (DE72)

	Data	Normalised score	Relative to	
			DE	EU
Tertiary education	37.2	0.437	108	83
Lifelong learning	10.5	0.360	142	97
International scientific co-publications	2406	0.582	201	190
Most-cited scientific publications	927.0	0.510	87	93
Above average digital skills	19.4	0.309	105	66
R&D expenditures public sector	1.35	0.782	116	138
R&D expenditures business sector	1.41	0.652	82	97
Non-R&D innovation expenditures	±	0.422	96	104
Innovation expenditures per person employed	±	0.599	104	99
Employed ICT specialists	n/a	n/a	n/a	n/a
Product innovators	±	0.708	98	127
Business process innovators	±	0.821	93	127
Innovative SMEs collaborating	±	0.750	138	154
Public-private co-publications	563.4	0.791	149	202
PCT patent applications	4.15	0.698	85	113
Trademark applications	6.93	0.469	83	94
Design applications	12.23	1.000	152	172
Employment knowledge-intensive activities	13.6	0.445	63	78
Employment innovative enterprises	±	0.939	118	164
Sales of innovative products	±	0.272	76	57
Air emissions by fine particulates	8.8	0.719	102	120
Average normalised score	--	0.613	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.682	--	--
Performance 2023 relative to EU in 2023	--	--	105.7	124.5
Performance 2023 relative to EU in 2016	--	--	--	135.0
Regional Innovation Index (RII) 2016	--	0.597	--	--
Performance 2016 relative to EU in 2016	--	--	98.4	118.3
Performance change over time	--	--	7.2	16.8

± Scores are not shown as these would allow recalculating confidential regional CIS data.
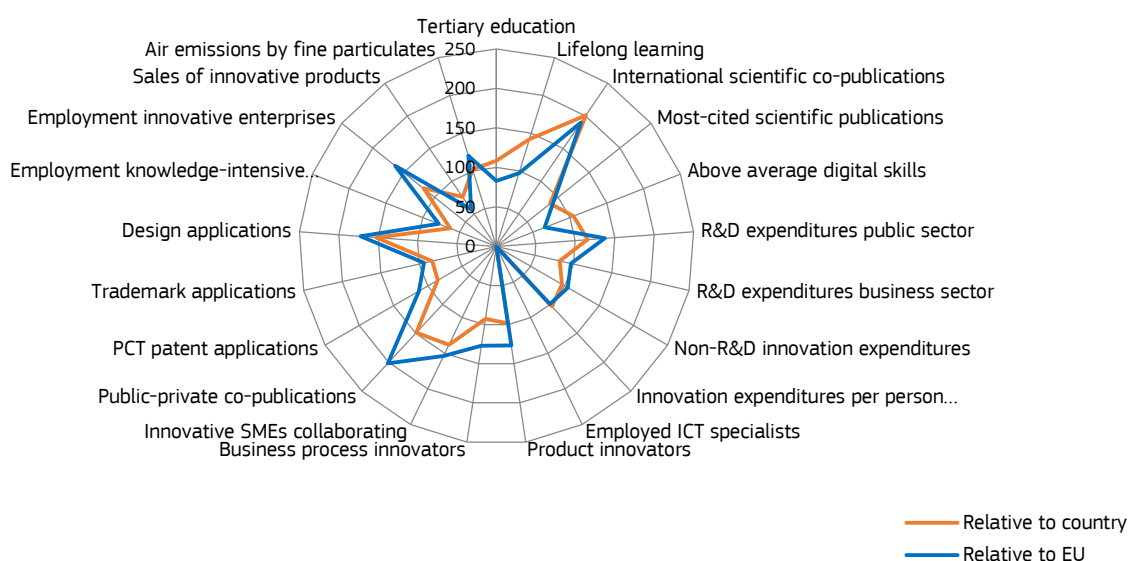
Gießen (DE72) is a Strong Innovator +. Innovation performance has increased over time (16.8%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (105.7) and the EU (124.5) in 2023, the RII in 2023 relative to the EU in 2016 (135), and the RII in 2016 relative to both Germany (98.4) and the EU in 2016 (118.3). The last row shows performance change between 2016 and 2023 compared to Germany (7.2%) and to the EU (16.8%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Public-private co-publications) and weaknesses (e.g. Above average digital skills).

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

	DE72	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	1.0	1.4	4.4
Manufacturing (C)	20.7	19.7	16.4
Utilities & Construction (D-F)	6.8	7.6	8.3
Services (G-N)	63.8	63.6	63.7
Public administration (O-U)	7.7	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	33,600	39,000	32,400
GDP per capita growth (PPS)	2.0	1.7	2.5
Population density	195	233	106
Urbanisation	74.3	81.6	75.8
Population size (000s)	1,050	83,160	447,210

Kassel (DE73)

	Data	Normalised score	Relative to	
			DE	EU
Tertiary education	28.0	0.233	58	44
Lifelong learning	7.0	0.227	90	61
International scientific co-publications	465	0.111	38	36
Most-cited scientific publications	721.1	0.373	64	68
Above average digital skills	19.4	0.309	105	66
R&D expenditures public sector	0.47	0.417	62	73
R&D expenditures business sector	1.18	0.596	75	88
Non-R&D innovation expenditures	±	0.329	75	81
Innovation expenditures per person employed	±	0.551	95	91
Employed ICT specialists	3.3	0.363	63	69
Product innovators	±	0.702	97	126
Business process innovators	±	0.818	92	127
Innovative SMEs collaborating	±	0.542	100	111
Public-private co-publications	128.1	0.377	71	96
PCT patent applications	2.85	0.578	71	94
Trademark applications	3.82	0.258	46	52
Design applications	2.18	0.430	66	74
Employment knowledge-intensive activities	17.8	0.645	91	113
Employment innovative enterprises	±	0.660	83	115
Sales of innovative products	±	0.265	74	55
Air emissions by fine particulates	8.6	0.730	104	122
Average normalised score	--	0.453	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.504	--	--
Performance 2023 relative to EU in 2023	--	--	78.1	92.0
Performance 2023 relative to EU in 2016	--	--	--	99.8
Regional Innovation Index (RII) 2016	--	0.494	--	--
Performance 2016 relative to EU in 2016	--	--	81.4	97.9
Performance change over time	--	--	-3.4	1.9

± Scores are not shown as these would allow recalculating confidential regional CIS data.
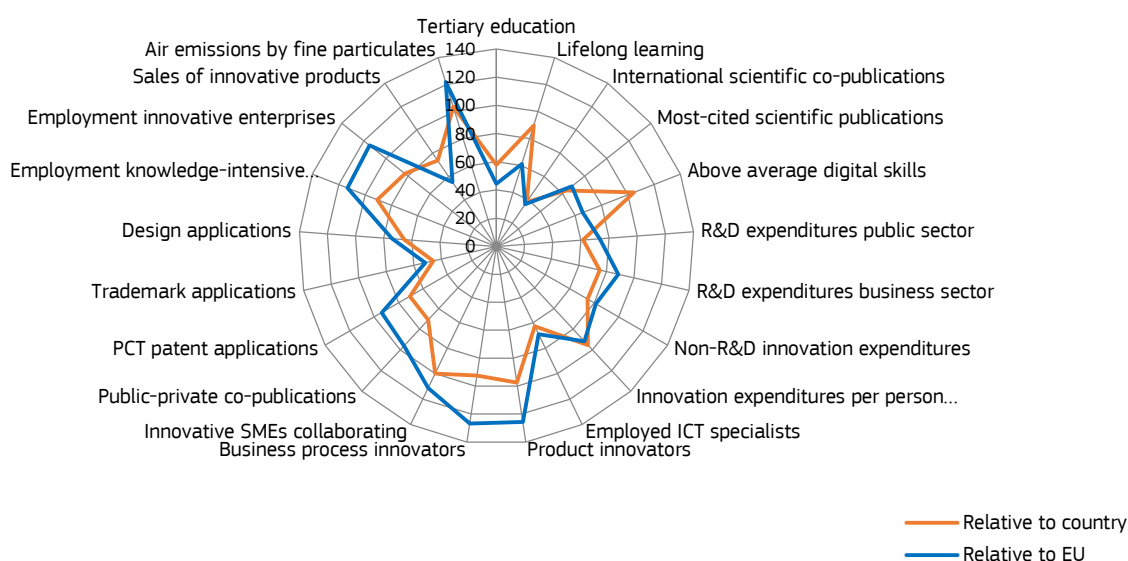
Kassel (DE73) is a Moderate Innovator +. Innovation performance has increased over time (1.9%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (78.1) and the EU (92) in 2023, the RII in 2023 relative to the EU in 2016 (99.8), and the RII in 2016 relative to both Germany (81.4) and the EU in 2016 (97.9). The last row shows performance change between 2016 and 2023 compared to Germany (-3.4%) and to the EU (1.9%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Business process innovators) and weaknesses (e.g. International scientific co-publications).

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

	DE73	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	2.5	1.4	4.4
Manufacturing (C)	21.0	19.7	16.4
Utilities & Construction (D-F)	6.7	7.6	8.3
Services (G-N)	60.8	63.6	63.7
Public administration (O-U)	9.0	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	35,000	39,000	32,400
GDP per capita growth (PPS)	1.4	1.7	2.5
Population density	147	233	106
Urbanisation	64.9	81.6	75.8
Population size (000s)	1,220	83,160	447,210

Relative to country
Relative to EU

Mecklenburg–Vorpommern (DE8)

	Data	Normalised score	Relative to DE	Relative to EU
Tertiary education	28.4	0.242	60	46
Lifelong learning	5.8	0.182	72	49
International scientific co-publications	1549	0.374	129	122
Most-cited scientific publications	896.9	0.490	83	90
Above average digital skills	17.0	0.253	86	54
R&D expenditures public sector	1.33	0.776	115	136
R&D expenditures business sector	0.51	0.392	49	58
Non-R&D innovation expenditures	±	0.462	105	114
Innovation expenditures per person employed	±	0.646	112	107
Employed ICT specialists	2.5	0.257	44	49
Product innovators	±	0.210	29	38
Business process innovators	±	0.515	58	80
Innovative SMEs collaborating	±	0.738	136	151
Public-private co-publications	427.0	0.689	130	176
PCT patent applications	1.18	0.372	46	60
Trademark applications	3.00	0.201	36	40
Design applications	0.52	0.211	32	36
Employment knowledge-intensive activities	10.3	0.289	41	51
Employment innovative enterprises	±	0.591	74	103
Sales of innovative products	±	0.126	35	26
Air emissions by fine particulates	8.8	0.721	102	120
Average normalised score	--	0.416	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.463	--	--
Performance 2023 relative to EU in 2023	--	--	71.7	84.5
Performance 2023 relative to EU in 2016	--	--	--	91.6
Regional Innovation Index (RII) 2016	--	0.474	--	--
Performance 2016 relative to EU in 2016	--	--	78.1	93.9
Performance change over time	--	--	-6.5	-2.3

± Scores are not shown as these would allow recalculating confidential regional CIS data.
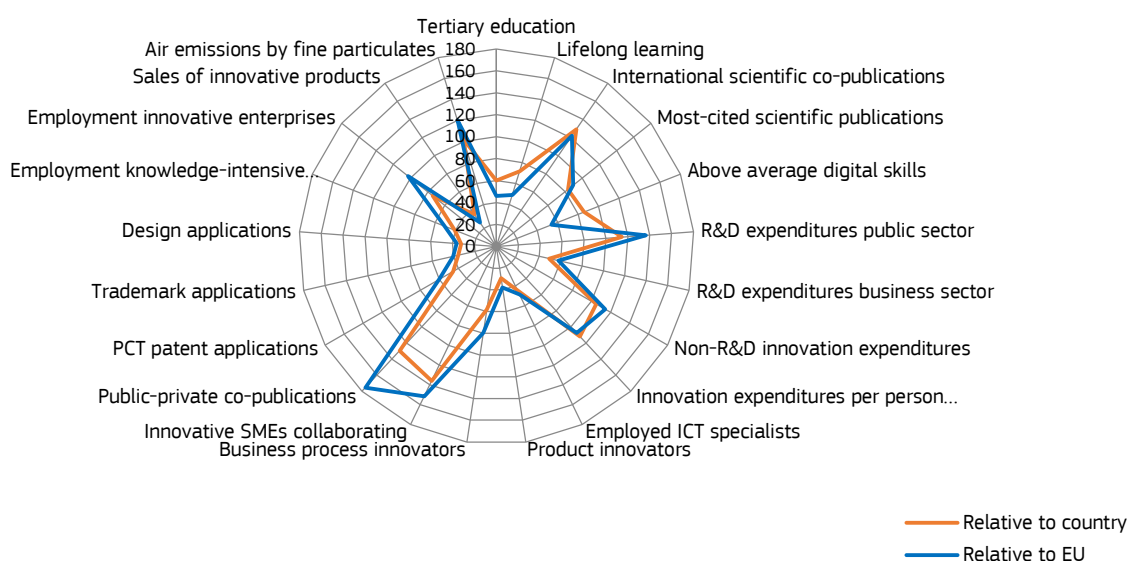
Mecklenburg-Vorpommern (DE8) is a Moderate Innovator. Innovation performance has decreased over time (-2.3%). The first 21 rows and two data columns in the table on the left show the values and the normalised scores per indicator. The last two data columns show relative performance of the normalised scores compared to Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (71.7) and the EU (84.5) in 2023, the RII in 2023 relative to the EU in 2016 (91.6), and the RII in 2016 relative to both Germany (78.1) and the EU in 2016 (93.9). The last row shows performance change between 2016 and 2023 compared to Germany (-6.5%) and to the EU (-2.3%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Public-private 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 Employment in Manufacturing (below EU average).

	DE8	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	2.8	1.4	4.4
Manufacturing (C)	10.3	19.7	16.4
Utilities & Construction (D-F)	10.3	7.6	8.3
Services (G-N)	66.6	63.6	63.7
Public administration (O-U)	10.0	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	27,700	39,000	32,400
GDP per capita growth (PPS)	2.3	1.7	2.5
Population density	69	233	106
Urbanisation	59.1	81.6	75.8
Population size (000s)	1,610	83,160	447,210

Braunschweig (DE91)

	Data	Normalised score	Relative to DE	Relative to EU
Tertiary education	35.9	0.408	101	78
Lifelong learning	7.9	0.261	103	70
International scientific co-publications	2880	0.696	241	227
Most-cited scientific publications	1073.2	0.607	103	111
Above average digital skills	18.4	0.286	97	61
R&D expenditures public sector	1.99	0.973	144	171
R&D expenditures business sector	5.89	1.000	126	148
Non-R&D innovation expenditures	±	0.377	86	93
Innovation expenditures per person employed	±	0.565	98	94
Employed ICT specialists	3.5	0.391	67	74
Product innovators	±	0.844	117	151
Business process innovators	±	0.936	106	145
Innovative SMEs collaborating	±	0.481	89	99
Public-private co-publications	723.9	0.897	169	229
PCT patent applications	5.67	0.815	100	132
Trademark applications	3.75	0.253	45	51
Design applications	1.08	0.303	46	52
Employment knowledge-intensive activities	26.6	1.000	141	176
Employment innovative enterprises	±	0.750	94	131
Sales of innovative products	±	0.298	83	62
Air emissions by fine particulates	8.4	0.739	105	123
Average normalised score	--	0.613	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.682	--	--
Performance 2023 relative to EU in 2023	--	--	105.7	124.5
Performance 2023 relative to EU in 2016	--	--	--	135.1
Regional Innovation Index (RII) 2016	--	0.648	--	--
Performance 2016 relative to EU in 2016	--	--	106.9	128.4
Performance change over time	--	--	-1.2	6.7

± Scores are not shown as these would allow recalculating confidential regional CIS data.
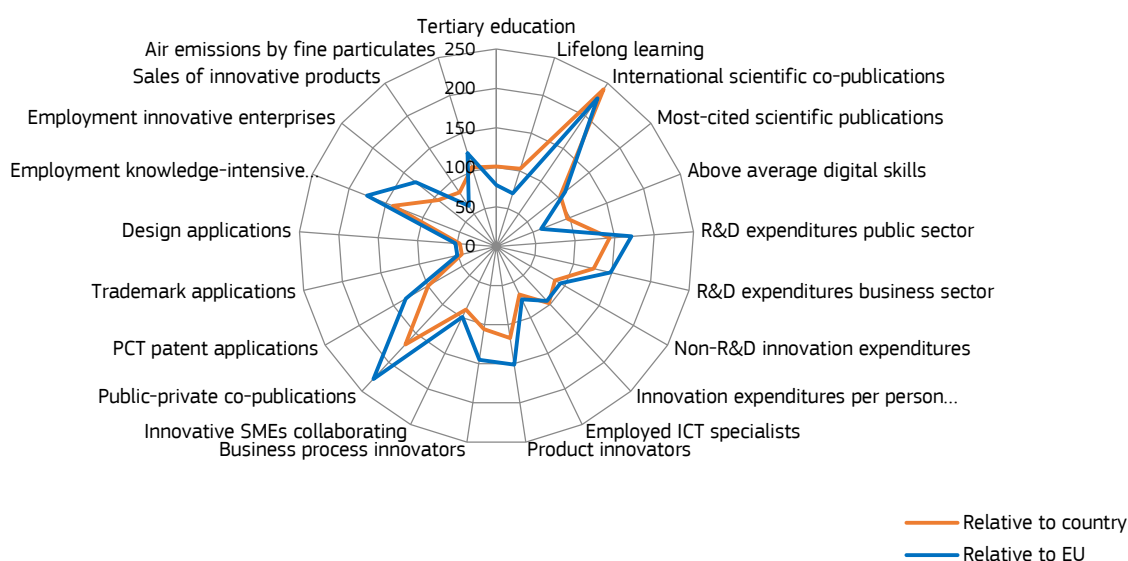
Braunschweig (DE91) is a Strong Innovator +. Innovation performance has increased over time (6.7%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (105.7) and the EU (124.5) in 2023, the RII in 2023 relative to the EU in 2016 (135.1), and the RII in 2016 relative to both Germany (106.9) and the EU in 2016 (128.4). The last row shows performance change between 2016 and 2023 compared to Germany (-1.2%) and to the EU (6.7%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Public-private co-publications) and weaknesses (e.g. Trademark applications).

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

	DE91	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	1.5	1.4	4.4
Manufacturing (C)	24.3	19.7	16.4
Utilities & Construction (D-F)	5.6	7.6	8.3
Services (G-N)	61.2	63.6	63.7
Public administration (O-U)	7.4	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	45,500	39,000	32,400
GDP per capita growth (PPS)	1.5	1.7	2.5
Population density	196	233	106
Urbanisation	75.8	81.6	75.8
Population size (000s)	1,590	83,160	447,210

Hannover (DE92)

	Data	Normalised score	Relative to	
			DE	EU
Tertiary education	31.6	0.313	77	59
Lifelong learning	7.7	0.254	100	68
International scientific co-publications	1445	0.348	120	114
Most-cited scientific publications	897.9	0.490	83	90
Above average digital skills	18.4	0.286	97	61
R&D expenditures public sector	1.03	0.670	99	118
R&D expenditures business sector	1.38	0.645	81	96
Non-R&D innovation expenditures	±	0.465	106	115
Innovation expenditures per person employed	±	0.559	97	93
Employed ICT specialists	4.2	0.488	84	93
Product innovators	±	0.454	63	81
Business process innovators	±	0.728	82	113
Innovative SMEs collaborating	±	0.241	44	49
Public-private co-publications	492.6	0.740	139	189
PCT patent applications	5.19	0.780	96	127
Trademark applications	7.05	0.478	85	96
Design applications	6.94	0.767	117	132
Employment knowledge-intensive activities	16.6	0.588	83	103
Employment innovative enterprises	±	0.734	92	128
Sales of innovative products	±	0.265	74	55
Air emissions by fine particulates	8.4	0.737	105	123
Average normalised score	--	0.525	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.584	--	--
Performance 2023 relative to EU in 2023	--	--	90.5	106.6
Performance 2023 relative to EU in 2016	--	--	--	115.7
Regional Innovation Index (RII) 2016	--	0.580	--	--
Performance 2016 relative to EU in 2016	--	--	95.6	114.8
Performance change over time	--	--	-5.0	0.8

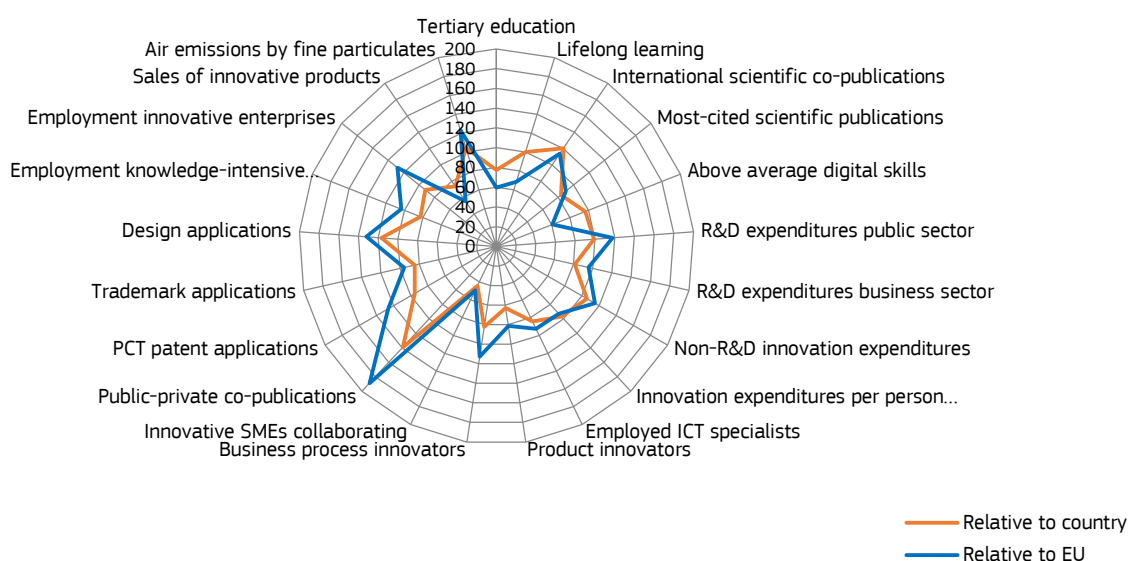± Scores are not shown as these would allow recalculating confidential regional CIS data.

Hannover (DE92) is a Strong Innovator –. Innovation performance has increased over time (0.8%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (90.5) and the EU (106.6) in 2023, the RII in 2023 relative to the EU in 2016 (115.7), and the RII in 2016 relative to both Germany (95.6) and the EU in 2016 (114.8). The last row shows performance change between 2016 and 2023 compared to Germany (-5%) and to the EU (0.8%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Public-private co-publications) and weaknesses (e.g. Innovative SMEs collaborating).

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

	DE92	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	1.6	1.4	4.4
Manufacturing (C)	17.5	19.7	16.4
Utilities & Construction (D-F)	6.6	7.6	8.3
Services (G-N)	65.5	63.6	63.7
Public administration (O-U)	8.8	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	37,000	39,000	32,400
GDP per capita growth (PPS)	1.8	1.7	2.5
Population density	237	233	106
Urbanisation	76.1	81.6	75.8
Population size (000s)	2,150	83,160	447,210

Relative to country (orange)
Relative to EU (blue)

Lüneburg (DE93)

	Data	Normalised score	Relative to DE	Relative to EU
Tertiary education	25.0	0.166	41	32
Lifelong learning	5.6	0.174	69	47
International scientific co-publications	213	0.049	17	16
Most-cited scientific publications	1703.2	1.000	170	183
Above average digital skills	18.4	0.286	97	61
R&D expenditures public sector	0.16	0.198	29	35
R&D expenditures business sector	0.70	0.459	58	68
Non-R&D innovation expenditures	±	0.504	114	125
Innovation expenditures per person employed	±	0.517	89	86
Employed ICT specialists	2.6	0.278	48	53
Product innovators	±	0.767	106	137
Business process innovators	±	1.000	113	155
Innovative SMEs collaborating	±	0.433	80	89
Public-private co-publications	63.5	0.266	50	68
PCT patent applications	2.66	0.559	68	91
Trademark applications	6.52	0.441	78	88
Design applications	2.22	0.433	66	75
Employment knowledge-intensive activities	14.4	0.483	68	85
Employment innovative enterprises	±	0.970	122	169
Sales of innovative products	±	0.328	91	68
Air emissions by fine particulates	8.5	0.732	104	122
Average normalised score	--	0.478	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.532	--	--
Performance 2023 relative to EU in 2023	--	--	82.4	97.1
Performance 2023 relative to EU in 2016	--	--	--	105.3
Regional Innovation Index (RII) 2016	--	0.467	--	--
Performance 2016 relative to EU in 2016	--	--	77.0	92.5
Performance change over time	--	--	5.5	12.8

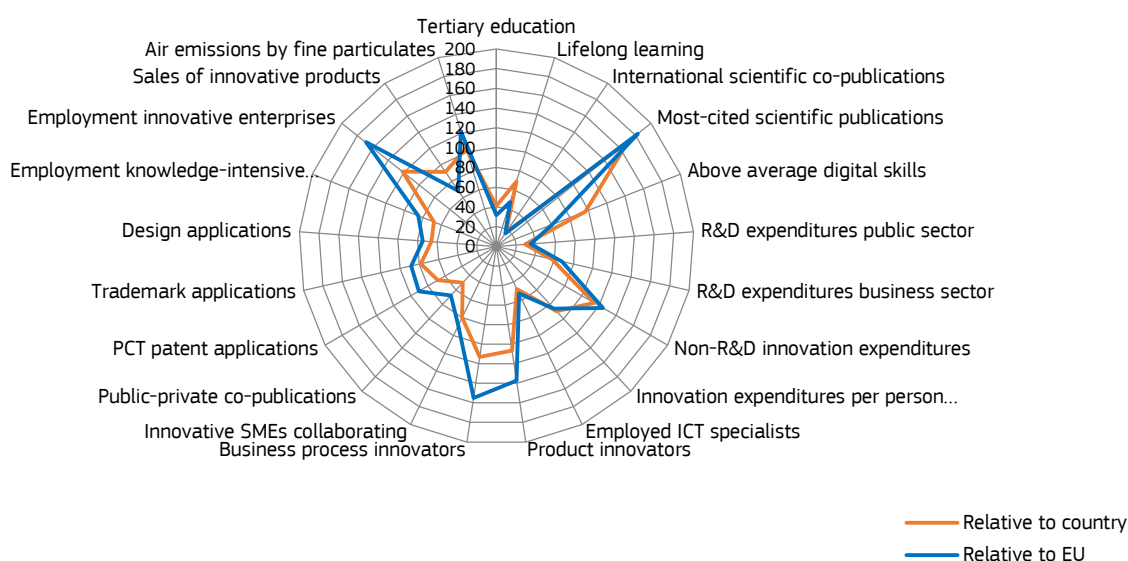± Scores are not shown as these would allow recalculating confidential regional CIS data.

Lüneburg (DE93) is a Moderate Innovator +. Innovation performance has increased over time (12.8%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (82.4) and the EU (97.1) in 2023, the RII in 2023 relative to the EU in 2016 (105.3), and the RII in 2016 relative to both Germany (77) and the EU in 2016 (92.5). The last row shows performance change between 2016 and 2023 compared to Germany (5.5%) and to the EU (12.8%).

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

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

	DE93	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	3.6	1.4	4.4
Manufacturing (C)	15.5	19.7	16.4
Utilities & Construction (D-F)	7.8	7.6	8.3
Services (G-N)	63.9	63.6	63.7
Public administration (O-U)	9.2	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	27,400	39,000	32,400
GDP per capita growth (PPS)	2.3	1.7	2.5
Population density	111	233	106
Urbanisation	62.2	81.6	75.8
Population size (000s)	1,720	83,160	447,210

Relative to country
Relative to EU

Weser-Ems (DE94)

	Data	Normalised score	Relative to	
			DE	EU
Tertiary education	26.3	0.195	48	37
Lifelong learning	6.3	0.201	79	54
International scientific co-publications	549	0.131	45	43
Most-cited scientific publications	865.2	0.469	80	86
Above average digital skills	18.4	0.286	97	61
R&D expenditures public sector	0.38	0.364	54	64
R&D expenditures business sector	0.64	0.439	55	65
Non-R&D innovation expenditures	±	0.522	119	129
Innovation expenditures per person employed	±	0.516	89	86
Employed ICT specialists	2.8	0.301	52	57
Product innovators	±	0.727	101	130
Business process innovators	±	0.826	93	128
Innovative SMEs collaborating	±	0.485	89	100
Public-private co-publications	162.9	0.425	80	108
PCT patent applications	2.42	0.532	65	86
Trademark applications	5.63	0.381	68	76
Design applications	3.66	0.557	85	96
Employment knowledge-intensive activities	13.9	0.460	65	81
Employment innovative enterprises	±	0.661	83	115
Sales of innovative products	±	0.353	98	73
Air emissions by fine particulates	8.8	0.720	102	120
Average normalised score	--	0.455	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.506	--	--
Performance 2023 relative to EU in 2023	--	--	78.4	92.3
Performance 2023 relative to EU in 2016	--	--	--	100.1
Regional Innovation Index (RII) 2016	--	0.466	--	--
Performance 2016 relative to EU in 2016	--	--	76.8	92.2
Performance change over time	--	--	1.6	7.9

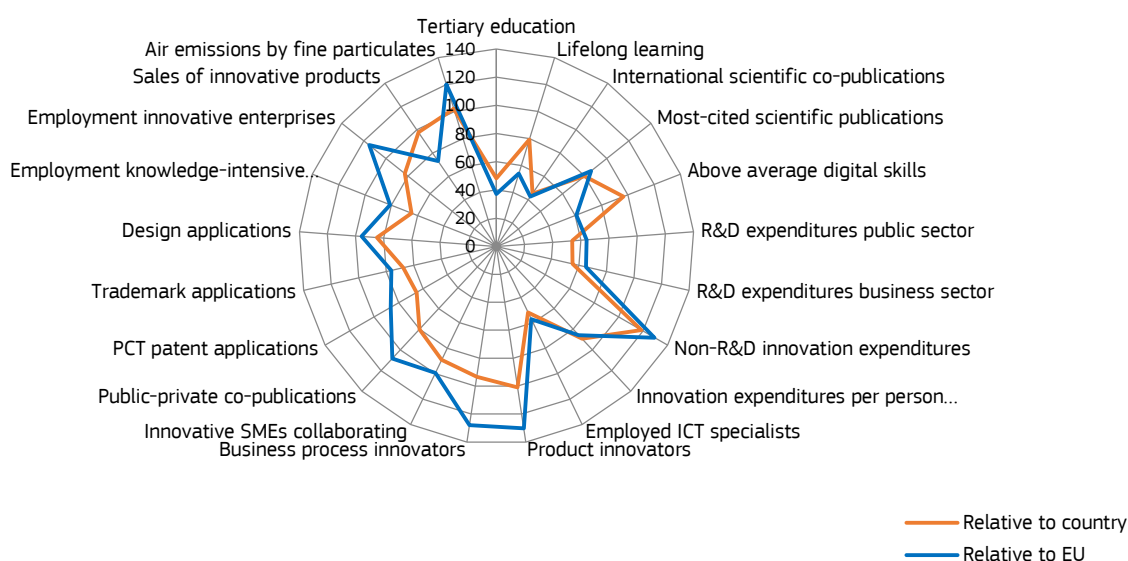± Scores are not shown as these would allow recalculating confidential regional CIS data.

Weser-Ems (DE94) is a Moderate Innovator +. Innovation performance has increased over time (7.9%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (78.4) and the EU (92.3) in 2023, the RII in 2023 relative to the EU in 2016 (100.1), and the RII in 2016 relative to both Germany (76.8) and the EU in 2016 (92.2). The last row shows performance change between 2016 and 2023 compared to Germany (1.6%) and to the EU (7.9%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Product innovators) and weaknesses (e.g. Tertiary education).

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

	DE94	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	3.2	1.4	4.4
Manufacturing (C)	19.9	19.7	16.4
Utilities & Construction (D-F)	9.2	7.6	8.3
Services (G-N)	60.0	63.6	63.7
Public administration (O-U)	7.7	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	34,400	39,000	32,400
GDP per capita growth (PPS)	1.7	1.7	2.5
Population density	170	233	106
Urbanisation	76.3	81.6	75.8
Population size (000s)	2,540	83,160	447,210

Düsseldorf (DEA1)

	Data	Normalised score	Relative to DE	Relative to EU
Tertiary education	31.7	0.315	78	60
Lifelong learning	7.9	0.261	103	70
International scientific co-publications	1022	0.246	85	80
Most-cited scientific publications	1074.9	0.608	103	111
Above average digital skills	19.3	0.306	104	65
R&D expenditures public sector	0.54	0.455	67	80
R&D expenditures business sector	1.50	0.672	85	100
Non-R&D innovation expenditures	±	0.385	88	95
Innovation expenditures per person employed	±	0.551	95	92
Employed ICT specialists	4.5	0.534	92	101
Product innovators	±	0.661	92	118
Business process innovators	±	0.928	105	144
Innovative SMEs collaborating	±	0.438	81	90
Public-private co-publications	331.5	0.607	114	155
PCT patent applications	4.66	0.739	90	120
Trademark applications	10.66	0.723	128	145
Design applications	5.83	0.703	107	121
Employment knowledge-intensive activities	16.7	0.592	83	104
Employment innovative enterprises	±	0.740	93	129
Sales of innovative products	±	0.281	78	59
Air emissions by fine particulates	10.0	0.661	94	110
Average normalised score	--	0.543	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.604	--	--
Performance 2023 relative to EU in 2023	--	--	93.6	110.3
Performance 2023 relative to EU in 2016	--	--	--	119.6
Regional Innovation Index (RII) 2016	--	0.552	--	--
Performance 2016 relative to EU in 2016	--	--	91.1	109.4
Performance change over time	--	--	2.6	10.2

± Scores are not shown as these would allow recalculating confidential regional CIS data.
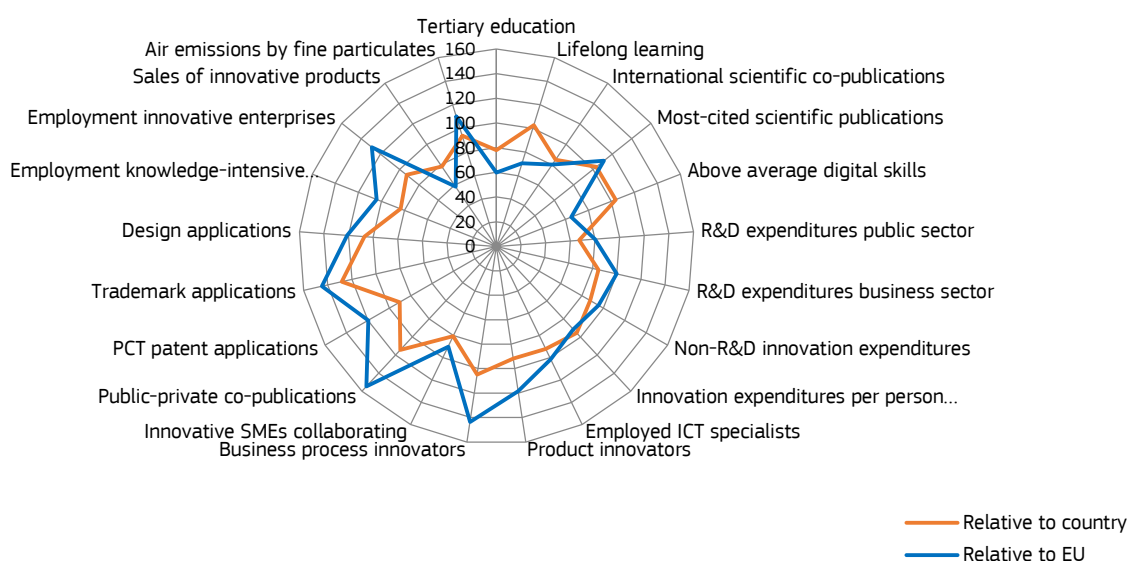
Düsseldorf (DEA1) is a Strong Innovator. Innovation performance has increased over time (10.2%).
The first 21 rows and two data columns in the table on the left show the values and the normalised scores per indicator. The last two data columns show relative performance of the normalised scores compared to Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (93.6) and the EU (110.3) in 2023, the RII in 2023 relative to the EU in 2016 (119.6), and the RII in 2016 relative to both Germany (91.1) and the EU in 2016 (109.4). The last row shows performance change between 2016 and 2023 compared to Germany (2.6%) and to the EU (10.2%).
The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Public-private co-publications) and weaknesses (e.g. Tertiary education).
The table below shows data highlighting possible structural differences, e.g. Population density (above EU average) and Employment in Agriculture & Mining (below EU average).

	DEA1	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	1.1	1.4	4.4
Manufacturing (C)	16.6	19.7	16.4
Utilities & Construction (D-F)	6.9	7.6	8.3
Services (G-N)	67.6	63.6	63.7
Public administration (O-U)	7.8	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	39,400	39,000	32,400
GDP per capita growth (PPS)	1.4	1.7	2.5
Population density	983	233	106
Urbanisation	97.8	81.6	75.8
Population size (000s)	5,200	83,160	447,210

Köln (DEA2)

	Data	Normalised score	Relative to	
			DE	EU
Tertiary education	36.0	0.410	102	78
Lifelong learning	8.5	0.284	112	77
International scientific co-publications	2497	0.604	209	197
Most-cited scientific publications	1030.7	0.578	98	106
Above average digital skills	19.3	0.306	104	65
R&D expenditures public sector	1.80	0.920	136	162
R&D expenditures business sector	1.24	0.611	77	91
Non-R&D innovation expenditures	±	0.405	92	100
Innovation expenditures per person employed	±	0.588	102	98
Employed ICT specialists	6.6	0.802	138	152
Product innovators	±	0.905	126	162
Business process innovators	±	0.962	109	149
Innovative SMEs collaborating	±	0.477	88	98
Public-private co-publications	603.0	0.818	154	209
PCT patent applications	5.53	0.805	99	131
Trademark applications	10.34	0.702	125	141
Design applications	4.41	0.611	93	105
Employment knowledge-intensive activities	17.9	0.649	91	114
Employment innovative enterprises	±	0.935	117	163
Sales of innovative products	±	0.418	116	87
Air emissions by fine particulates	8.4	0.737	104	123
Average normalised score	--	0.644	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.716	--	--
Performance 2023 relative to EU in 2023	--	--	111.0	130.8
Performance 2023 relative to EU in 2016	--	--	--	141.9
Regional Innovation Index (RII) 2016	--	0.658	--	--
Performance 2016 relative to EU in 2016	--	--	108.5	130.3
Performance change over time	--	--	2.6	11.5

± Scores are not shown as these would allow recalculating confidential regional CIS data.
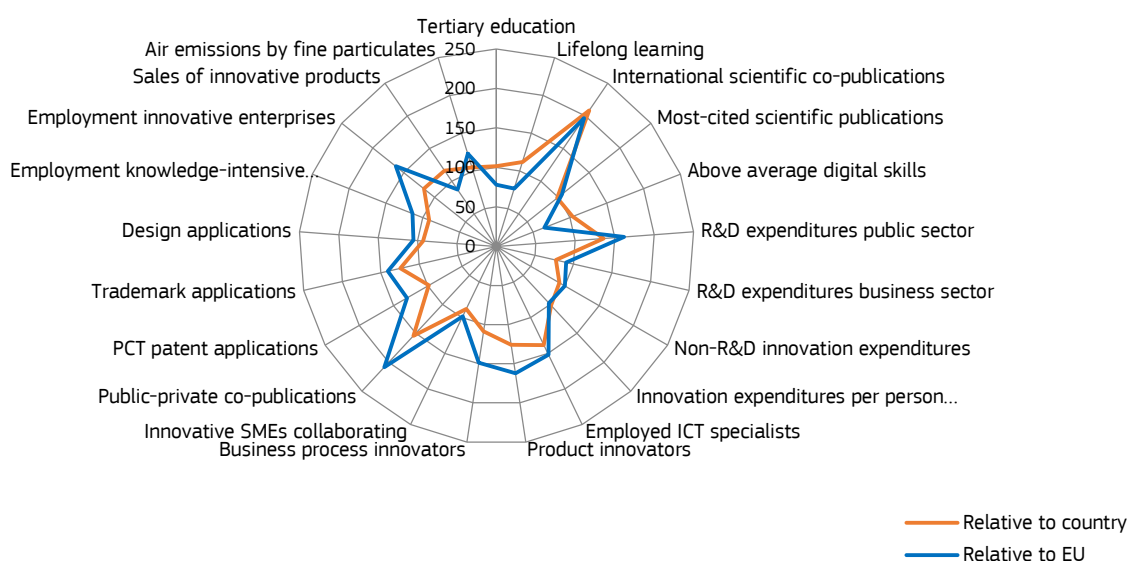
Köln (DEA2) is an Innovation Leader -. Innovation performance has increased over time (11.5%).
The first 21 rows and two data columns in the table on the left show the values and the normalised scores per indicator. The last two data columns show relative performance of the normalised scores compared to Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (111) and the EU (130.8) in 2023, the RII in 2023 relative to the EU in 2016 (141.9), and the RII in 2016 relative to both Germany (108.5) and the EU in 2016 (130.3). The last row shows performance change between 2016 and 2023 compared to Germany (2.6%) and to the EU (11.5%).
The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Public-private co-publications) and weaknesses (e.g. Above average digital skills).
The table below shows data highlighting possible structural differences, e.g. Population density (above EU average) and Employment in Agriculture & Mining (below EU average).

	DEA2	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	0.9	1.4	4.4
Manufacturing (C)	15.0	19.7	16.4
Utilities & Construction (D-F)	6.7	7.6	8.3
Services (G-N)	68.3	63.6	63.7
Public administration (O-U)	9.2	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	40,100	39,000	32,400
GDP per capita growth (PPS)	1.0	1.7	2.5
Population density	608	233	106
Urbanisation	94.5	81.6	75.8
Population size (000s)	4,480	83,160	447,210

Münster (DEA3)

	Data	Normalised score	Relative to DE	Relative to EU
Tertiary education	27.7	0.226	56	43
Lifelong learning	7.1	0.231	91	62
International scientific co-publications	609	0.146	50	47
Most-cited scientific publications	1009.9	0.565	96	103
Above average digital skills	19.3	0.306	104	65
R&D expenditures public sector	0.69	0.528	78	93
R&D expenditures business sector	0.72	0.466	59	69
Non-R&D innovation expenditures	±	0.331	75	82
Innovation expenditures per person employed	±	0.525	91	87
Employed ICT specialists	3.9	0.448	77	85
Product innovators	±	0.598	83	107
Business process innovators	±	0.925	105	143
Innovative SMEs collaborating	±	0.359	66	74
Public-private co-publications	130.0	0.380	72	97
PCT patent applications	3.87	0.673	82	109
Trademark applications	7.60	0.515	91	103
Design applications	4.79	0.637	97	110
Employment knowledge-intensive activities	14.1	0.469	66	83
Employment innovative enterprises	±	0.787	99	137
Sales of innovative products	±	0.273	76	57
Air emissions by fine particulates	9.7	0.675	96	113
Average normalised score	--	0.479	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.533	--	--
Performance 2023 relative to EU in 2023	--	--	82.6	97.3
Performance 2023 relative to EU in 2016	--	--	--	105.5
Regional Innovation Index (RII) 2016	--	0.544	--	--
Performance 2016 relative to EU in 2016	--	--	89.8	107.8
Performance change over time	--	--	-7.2	-2.3

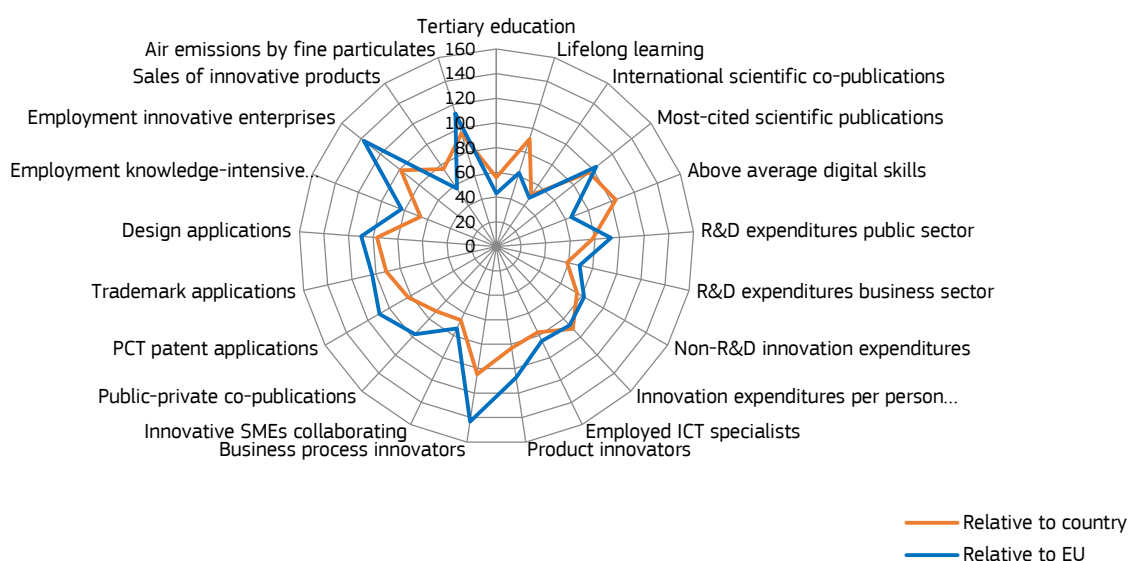± Scores are not shown as these would allow recalculating confidential regional CIS data.

Münster (DEA3) is a Moderate Innovator +. Innovation performance has decreased over time (-2.3%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (82.6) and the EU (97.3) in 2023, the RII in 2023 relative to the EU in 2016 (105.5), and the RII in 2016 relative to both Germany (89.8) and the EU in 2016 (107.8). The last row shows performance change between 2016 and 2023 compared to Germany (-7.2%) and to the EU (-2.3%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Business process innovators) and weaknesses (e.g. Tertiary education).

The table below shows data highlighting possible structural differences, e.g. Population density (above EU average) and GDP per capita (below EU average).

	DEA3	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	1.9	1.4	4.4
Manufacturing (C)	17.9	19.7	16.4
Utilities & Construction (D-F)	8.2	7.6	8.3
Services (G-N)	63.9	63.6	63.7
Public administration (O-U)	8.1	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	32,800	39,000	32,400
GDP per capita growth (PPS)	2.1	1.7	2.5
Population density	379	233	106
Urbanisation	91.0	81.6	75.8
Population size (000s)	2,620	83,160	447,210

Detmold (DEA4)

	Data	Normalised score	Relative to DE	Relative to EU
Tertiary education	28.6	0.246	61	47
Lifelong learning	8.2	0.273	107	73
International scientific co-publications	679	0.163	56	53
Most-cited scientific publications	800.3	0.426	72	78
Above average digital skills	19.3	0.306	104	65
R&D expenditures public sector	0.56	0.465	69	82
R&D expenditures business sector	1.47	0.665	84	99
Non-R&D innovation expenditures	±	0.655	149	162
Innovation expenditures per person employed	±	0.563	97	93
Employed ICT specialists	4.2	0.484	83	92
Product innovators	±	0.661	92	118
Business process innovators	±	0.877	99	136
Innovative SMEs collaborating	±	0.433	80	89
Public-private co-publications	187.6	0.456	86	116
PCT patent applications	5.42	0.797	98	129
Trademark applications	9.69	0.657	117	132
Design applications	10.09	0.924	141	159
Employment knowledge-intensive activities	16.6	0.588	83	103
Employment innovative enterprises	±	0.849	107	148
Sales of innovative products	±	0.290	81	60
Air emissions by fine particulates	8.5	0.732	104	122
Average normalised score	--	0.548	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.609	--	--
Performance 2023 relative to EU in 2023	--	--	94.5	111.3
Performance 2023 relative to EU in 2016	--	--	--	120.7
Regional Innovation Index (RII) 2016	--	0.562	--	--
Performance 2016 relative to EU in 2016	--	--	92.6	111.3
Performance change over time	--	--	1.9	9.4

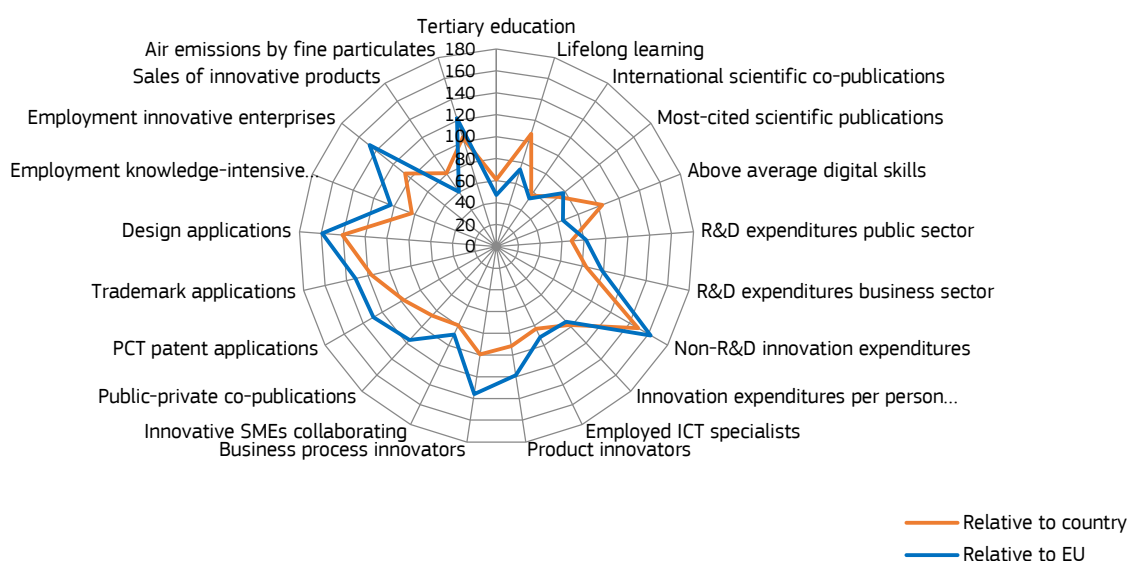± Scores are not shown as these would allow recalculating confidential regional CIS data.

Detmold (DEA4) is a Strong Innovator. Innovation performance has increased over time (9.4%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (94.5) and the EU (111.3) in 2023, the RII in 2023 relative to the EU in 2016 (120.7), and the RII in 2016 relative to both Germany (92.6) and the EU in 2016 (111.3). The last row shows performance change between 2016 and 2023 compared to Germany (1.9%) and to the EU (9.4%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Non-R&D innovation expenditures) and weaknesses (e.g. Tertiary education).

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

	DEA4	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	1.2	1.4	4.4
Manufacturing (C)	25.5	19.7	16.4
Utilities & Construction (D-F)	6.4	7.6	8.3
Services (G-N)	60.5	63.6	63.7
Public administration (O-U)	6.5	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	37,300	39,000	32,400
GDP per capita growth (PPS)	2.3	1.7	2.5
Population density	315	233	106
Urbanisation	86.1	81.6	75.8
Population size (000s)	2,050	83,160	447,210

Relative to country
Relative to EU

Arnsberg (DEA5)

	Data	Normalised score	Relative to DE	Relative to EU
Tertiary education	29.6	0.268	66	51
Lifelong learning	8.5	0.284	112	77
International scientific co-publications	1114	0.268	93	87
Most-cited scientific publications	929.4	0.511	87	94
Above average digital skills	19.3	0.306	104	65
R&D expenditures public sector	0.82	0.586	87	103
R&D expenditures business sector	1.08	0.570	72	85
Non-R&D innovation expenditures	±	0.426	97	105
Innovation expenditures per person employed	±	0.559	97	93
Employed ICT specialists	3.5	0.395	68	75
Product innovators	±	0.699	97	125
Business process innovators	±	0.805	91	125
Innovative SMEs collaborating	±	0.546	101	112
Public-private co-publications	288.3	0.566	107	144
PCT patent applications	4.17	0.699	86	113
Trademark applications	7.51	0.509	90	102
Design applications	10.00	0.920	140	159
Employment knowledge-intensive activities	15.6	0.540	76	95
Employment innovative enterprises	±	0.797	100	139
Sales of innovative products	±	0.365	102	76
Air emissions by fine particulates	8.7	0.721	102	120
Average normalised score	--	0.540	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.600	--	--
Performance 2023 relative to EU in 2023	--	--	93.1	109.7
Performance 2023 relative to EU in 2016	--	--	--	118.9
Regional Innovation Index (RII) 2016	--	0.563	--	--
Performance 2016 relative to EU in 2016	--	--	92.8	111.5
Performance change over time	--	--	0.3	7.5

± Scores are not shown as these would allow recalculating confidential regional CIS data.
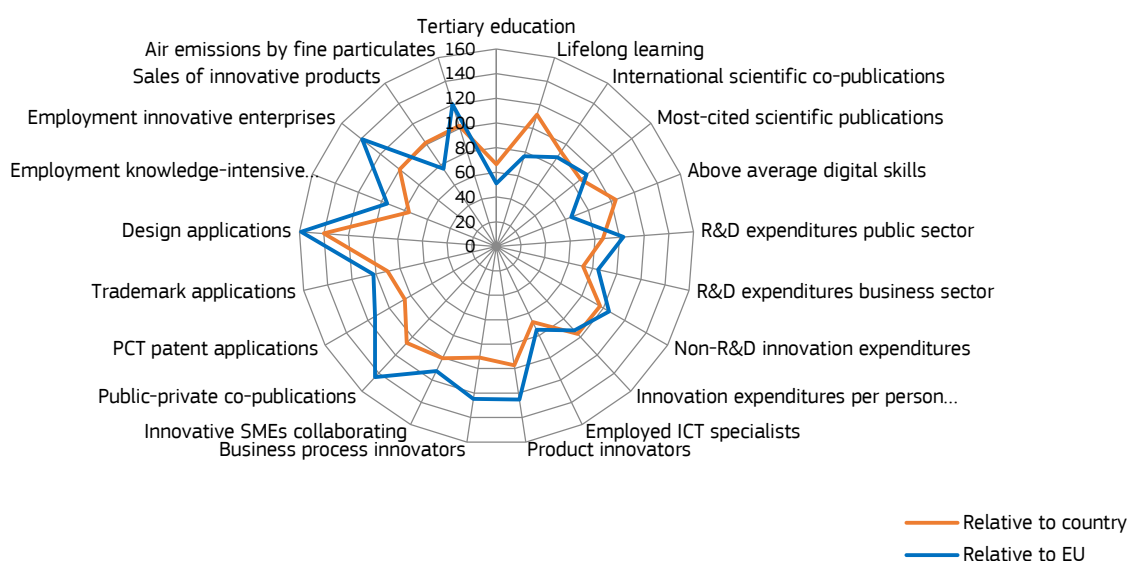
Arnsberg (DEA5) is a Strong Innovator. Innovation performance has increased over time (7.5%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (93.1) and the EU (109.7) in 2023, the RII in 2023 relative to the EU in 2016 (118.9), and the RII in 2016 relative to both Germany (92.8) and the EU in 2016 (111.5). The last row shows performance change between 2016 and 2023 compared to Germany (0.3%) and to the EU (7.5%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Design applications) and weaknesses (e.g. Tertiary education).

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

	DEA5	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	1.1	1.4	4.4
Manufacturing (C)	22.0	19.7	16.4
Utilities & Construction (D-F)	6.9	7.6	8.3
Services (G-N)	62.2	63.6	63.7
Public administration (O-U)	7.8	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	33,300	39,000	32,400
GDP per capita growth (PPS)	1.6	1.7	2.5
Population density	446	233	106
Urbanisation	95.4	81.6	75.8
Population size (000s)	3,570	83,160	447,210

Koblenz (DEB1)

	Data	Normalised score	Relative to	
			DE	EU
Tertiary education	29.8	0.273	68	52
Lifelong learning	7.8	0.258	101	69
International scientific co-publications	230	0.054	18	17
Most-cited scientific publications	1107.9	0.630	107	115
Above average digital skills	19.3	0.307	104	65
R&D expenditures public sector	0.19	0.226	33	40
R&D expenditures business sector	0.67	0.449	57	67
Non-R&D innovation expenditures	±	0.498	113	123
Innovation expenditures per person employed	±	0.553	96	92
Employed ICT specialists	3.9	0.442	76	84
Product innovators	±	0.684	95	123
Business process innovators	±	1.000	113	155
Innovative SMEs collaborating	±	0.733	135	151
Public-private co-publications	89.8	0.316	59	81
PCT patent applications	3.23	0.616	75	100
Trademark applications	8.03	0.544	97	109
Design applications	7.22	0.782	119	135
Employment knowledge-intensive activities	15.6	0.540	76	95
Employment innovative enterprises	±	1.000	125	174
Sales of innovative products	±	0.417	116	87
Air emissions by fine particulates	8.1	0.752	107	125
Average normalised score	--	0.527	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.586	--	--
Performance 2023 relative to EU in 2023	--	--	90.9	107.1
Performance 2023 relative to EU in 2016	--	--	--	116.1
Regional Innovation Index (RII) 2016	--	0.519	--	--
Performance 2016 relative to EU in 2016	--	--	85.6	102.8
Performance change over time	--	--	5.3	13.3

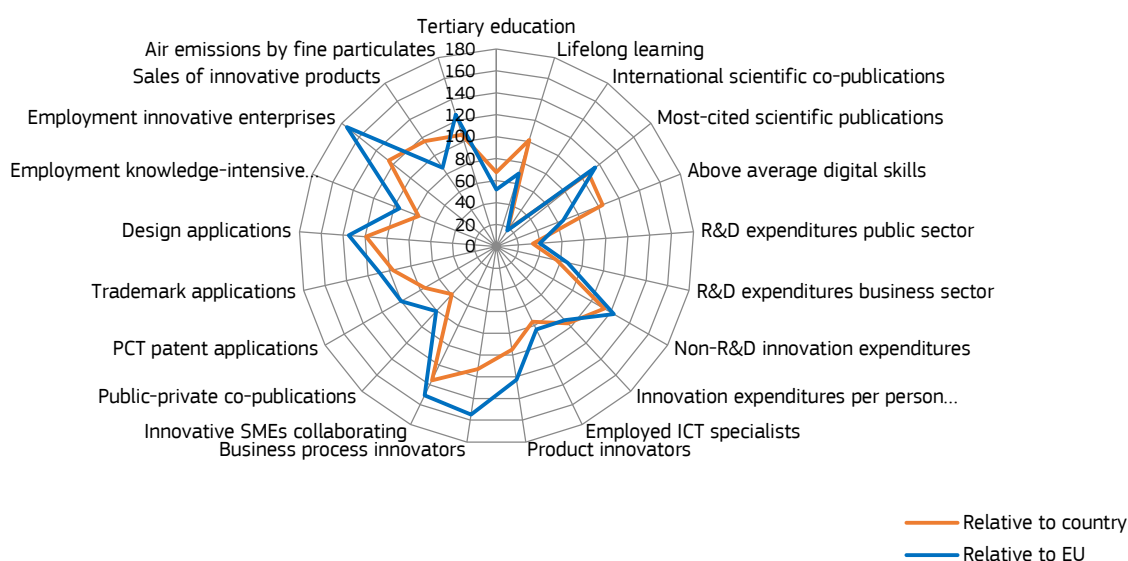± Scores are not shown as these would allow recalculating confidential regional CIS data.

Koblenz (DEB1) is a Strong Innovator -. Innovation performance has increased over time (13.3%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (90.9) and the EU (107.1) in 2023, the RII in 2023 relative to the EU in 2016 (116.1), and the RII in 2016 relative to both Germany (85.6) and the EU in 2016 (102.8). The last row shows performance change between 2016 and 2023 compared to Germany (5.3%) and to the EU (13.3%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Business process innovators) and weaknesses (e.g. International scientific co-publications).

The table below shows data highlighting possible structural differences, e.g. Employment in Public administration (above EU average) and Urbanisation (below EU average).

	DEB1	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	1.4	1.4	4.4
Manufacturing (C)	20.5	19.7	16.4
Utilities & Construction (D-F)	8.3	7.6	8.3
Services (G-N)	60.2	63.6	63.7
Public administration (O-U)	9.7	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	33,100	39,000	32,400
GDP per capita growth (PPS)	2.3	1.7	2.5
Population density	186	233	106
Urbanisation	62.9	81.6	75.8
Population size (000s)	1,500	83,160	447,210

Trier (DEB2)

	Data	Normalised score	Relative to	
			DE	EU
Tertiary education	33.1	0.346	86	66
Lifelong learning	6.8	0.220	87	59
International scientific co-publications	619	0.148	51	48
Most-cited scientific publications	926.3	0.509	87	93
Above average digital skills	19.3	0.307	104	65
R&D expenditures public sector	0.41	0.383	56	67
R&D expenditures business sector	0.47	0.376	47	56
Non-R&D innovation expenditures	±	0.429	97	106
Innovation expenditures per person employed	±	0.505	87	84
Employed ICT specialists	n/a	n/a	n/a	n/a
Product innovators	±	0.484	67	87
Business process innovators	±	0.950	107	147
Innovative SMEs collaborating	±	0.176	32	36
Public-private co-publications	231.0	0.506	95	129
PCT patent applications	3.55	0.645	79	105
Trademark applications	9.07	0.615	109	123
Design applications	3.52	0.546	83	94
Employment knowledge-intensive activities	5.1	0.043	6	7
Employment innovative enterprises	±	0.636	80	111
Sales of innovative products	±	0.270	75	56
Air emissions by fine particulates	6.9	0.812	115	136
Average normalised score	--	0.445	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.495	--	--
Performance 2023 relative to EU in 2023	--	--	76.7	90.4
Performance 2023 relative to EU in 2016	--	--	--	98.1
Regional Innovation Index (RII) 2016	--	0.503	--	--
Performance 2016 relative to EU in 2016	--	--	82.9	99.6
Performance change over time	--	--	-6.1	-1.5

± Scores are not shown as these would allow recalculating confidential regional CIS data.
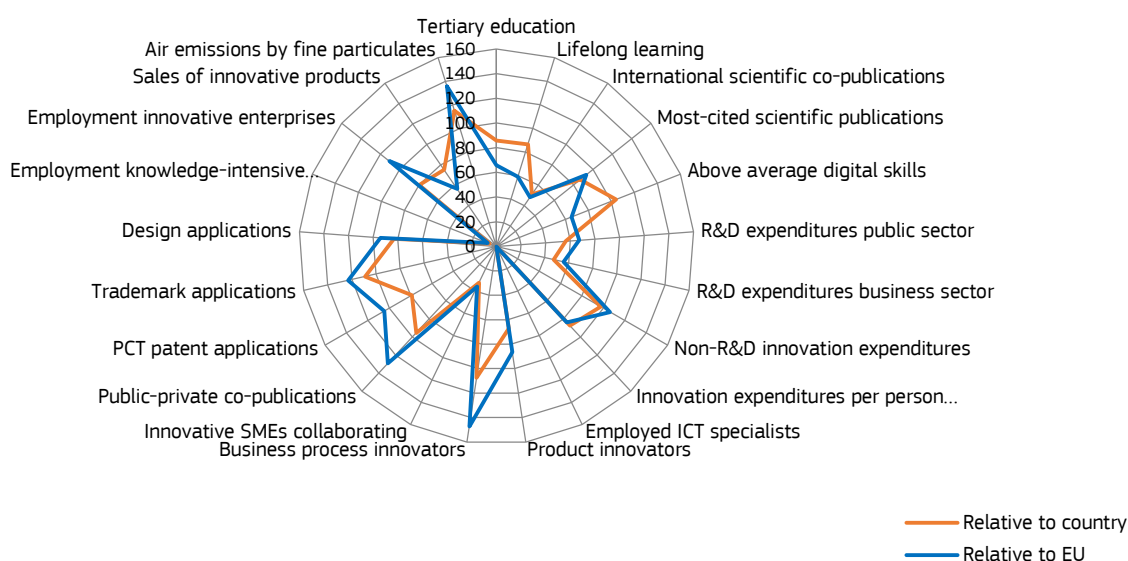
Trier (DEB2) is a Moderate Innovator +. Innovation performance has decreased over time (-1.5%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (76.7) and the EU (90.4) in 2023, the RII in 2023 relative to the EU in 2016 (98.1), and the RII in 2016 relative to both Germany (82.9) and the EU in 2016 (99.6). The last row shows performance change between 2016 and 2023 compared to Germany (-6.1%) and to the EU (-1.5%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Business process innovators) and weaknesses (e.g. Employment knowledge-intensive activities).

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

	DEB2	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	2.5	1.4	4.4
Manufacturing (C)	17.5	19.7	16.4
Utilities & Construction (D-F)	9.7	7.6	8.3
Services (G-N)	62.5	63.6	63.7
Public administration (O-U)	7.8	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	29,800	39,000	32,400
GDP per capita growth (PPS)	2.0	1.7	2.5
Population density	108	233	106
Urbanisation	48.5	81.6	75.8
Population size (000s)	530	83,160	447,210

Rheinhessen-Pfalz (DEB3)

	Data	Normalised score	Relative to	
			DE	EU
Tertiary education	35.1	0.390	97	74
Lifelong learning	7.7	0.254	100	68
International scientific co-publications	1927	0.465	161	152
Most-cited scientific publications	1098.2	0.623	106	114
Above average digital skills	19.3	0.307	104	65
R&D expenditures public sector	1.05	0.677	100	119
R&D expenditures business sector	3.10	0.966	122	143
Non-R&D innovation expenditures	±	0.372	84	92
Innovation expenditures per person employed	±	0.583	101	97
Employed ICT specialists	5.0	0.600	103	114
Product innovators	±	0.467	65	84
Business process innovators	±	0.773	87	120
Innovative SMEs collaborating	±	0.526	97	108
Public-private co-publications	595.2	0.813	153	207
PCT patent applications	8.15	0.977	120	159
Trademark applications	7.89	0.535	95	107
Design applications	5.07	0.655	100	113
Employment knowledge-intensive activities	21.0	0.796	112	140
Employment innovative enterprises	±	0.863	108	150
Sales of innovative products	±	0.203	57	42
Air emissions by fine particulates	8.8	0.721	102	120
Average normalised score	--	0.598	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.665	--	--
Performance 2023 relative to EU in 2023	--	--	103.1	121.5
Performance 2023 relative to EU in 2016	--	--	--	131.8
Regional Innovation Index (RII) 2016	--	0.622	--	--
Performance 2016 relative to EU in 2016	--	--	102.5	123.2
Performance change over time	--	--	0.6	8.6

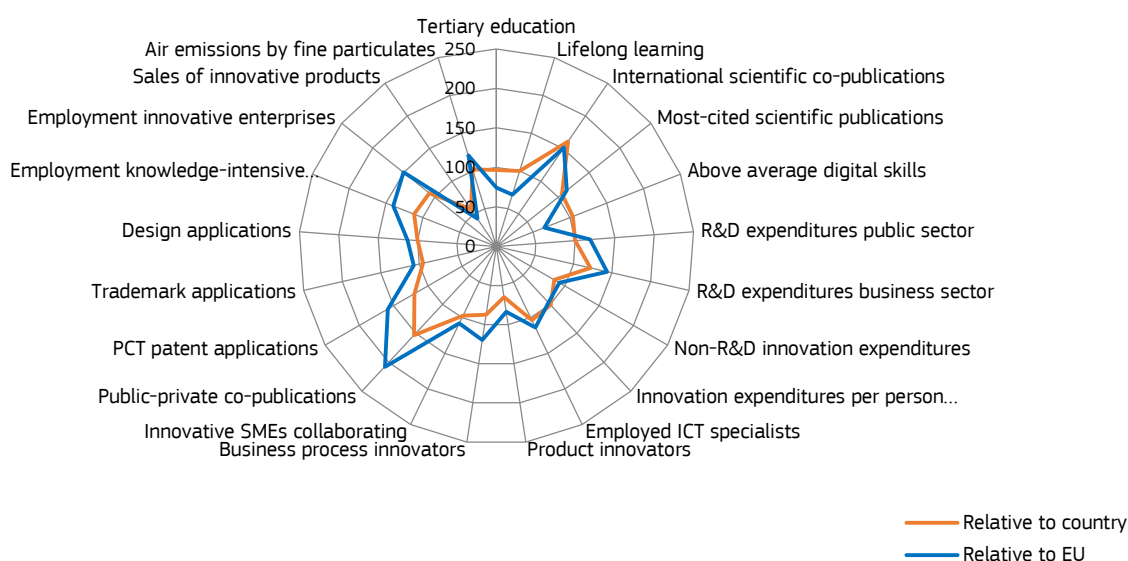± Scores are not shown as these would allow recalculating confidential regional CIS data.

Rheinhessen-Pfalz (DEB3) is a Strong Innovator +. Innovation performance has increased over time (8.6%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (103.1) and the EU (121.5) in 2023, the RII in 2023 relative to the EU in 2016 (131.8), and the RII in 2016 relative to both Germany (102.5) and the EU in 2016 (123.2). The last row shows performance change between 2016 and 2023 compared to Germany (0.6%) and to the EU (8.6%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Public-private co-publications) and weaknesses (e.g. Above average digital skills).

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

	DEB3	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	1.7	1.4	4.4
Manufacturing (C)	20.9	19.7	16.4
Utilities & Construction (D-F)	7.5	7.6	8.3
Services (G-N)	61.8	63.6	63.7
Public administration (O-U)	8.1	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	39,700	39,000	32,400
GDP per capita growth (PPS)	4.0	1.7	2.5
Population density	301	233	106
Urbanisation	78.4	81.6	75.8
Population size (000s)	2,060	83,160	447,210

Saarland (DEC)

	Data	Normalised score	Relative to DE	EU
Tertiary education	33.9	0.364	90	69
Lifelong learning	6.8	0.220	87	59
International scientific co-publications	1608	0.388	134	127
Most-cited scientific publications	928.0	0.510	87	93
Above average digital skills	17.3	0.259	88	55
R&D expenditures public sector	1.08	0.688	102	121
R&D expenditures business sector	0.88	0.515	65	76
Non-R&D innovation expenditures	±	0.455	103	112
Innovation expenditures per person employed	±	0.539	93	89
Employed ICT specialists	n/a	n/a	n/a	n/a
Product innovators	±	0.461	64	83
Business process innovators	±	0.900	102	139
Innovative SMEs collaborating	±	0.315	58	65
Public-private co-publications	458.1	0.713	134	182
PCT patent applications	2.64	0.557	68	90
Trademark applications	5.33	0.361	64	72
Design applications	2.12	0.424	65	73
Employment knowledge-intensive activities	15.5	0.536	75	94
Employment innovative enterprises	±	0.637	80	111
Sales of innovative products	±	0.268	75	56
Air emissions by fine particulates	7.9	0.762	108	127
Average normalised score	--	0.494	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.549	--	--
Performance 2023 relative to EU in 2023	--	--	85.1	100.2
Performance 2023 relative to EU in 2016	--	--	--	108.7
Regional Innovation Index (RII) 2016	--	0.551	--	--
Performance 2016 relative to EU in 2016	--	--	90.8	109.1
Performance change over time	--	--	-5.7	-0.4

± Scores are not shown as these would allow recalculating confidential regional CIS data.
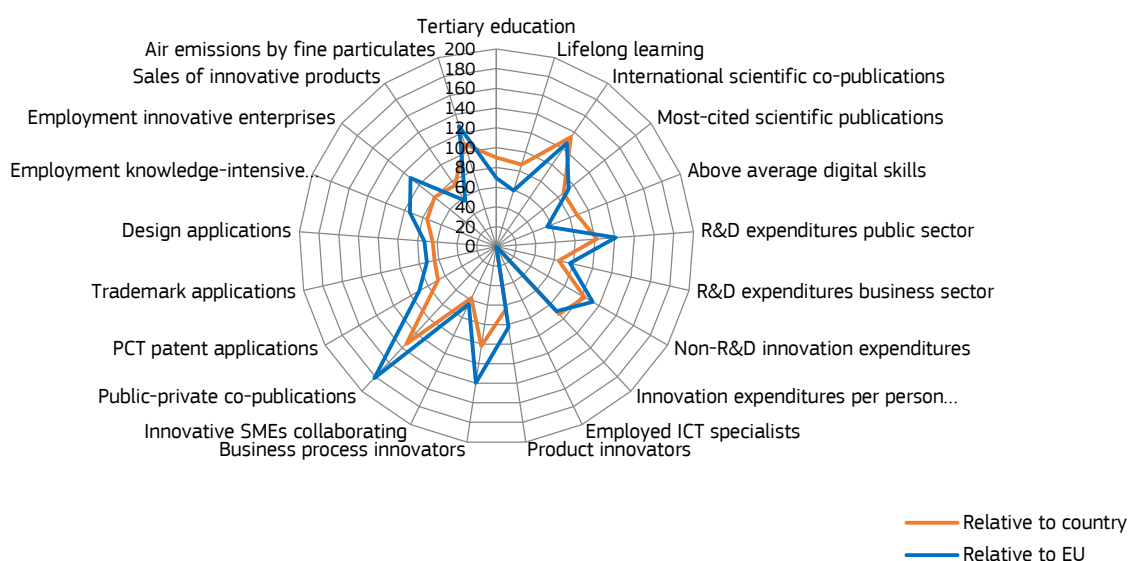
Saarland (DEC) is a Strong Innovator -. Innovation performance has decreased over time (-0.4%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (85.1) and the EU (100.2) in 2023, the RII in 2023 relative to the EU in 2016 (108.7), and the RII in 2016 relative to both Germany (90.8) and the EU in 2016 (109.1). The last row shows performance change between 2016 and 2023 compared to Germany (-5.7%) and to the EU (-0.4%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Public-private co-publications) and weaknesses (e.g. Above average digital skills).

The table below shows data highlighting possible structural differences, e.g. Population density (above EU average) and GDP per capita growth (below EU average).

	DEC	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	0.9	1.4	4.4
Manufacturing (C)	19.5	19.7	16.4
Utilities & Construction (D-F)	7.6	7.6	8.3
Services (G-N)	62.5	63.6	63.7
Public administration (O-U)	9.5	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	32,900	39,000	32,400
GDP per capita growth (PPS)	0.2	1.7	2.5
Population density	383	233	106
Urbanisation	87.7	81.6	75.8
Population size (000s)	980	83,160	447,210

— Relative to country
— Relative to EU

Dresden (DED2)

	Data	Normalised score	Relative to	
			DE	EU
Tertiary education	36.8	0.428	106	81
Lifelong learning	6.7	0.216	85	58
International scientific co-publications	2801	0.677	234	221
Most-cited scientific publications	1047.5	0.590	100	108
Above average digital skills	18.9	0.297	101	63
R&D expenditures public sector	2.44	1.000	148	176
R&D expenditures business sector	2.20	0.814	103	121
Non-R&D innovation expenditures	±	0.590	134	146
Innovation expenditures per person employed	±	0.666	115	111
Employed ICT specialists	4.4	0.516	89	98
Product innovators	±	0.526	73	94
Business process innovators	±	0.801	91	124
Innovative SMEs collaborating	±	0.926	171	190
Public-private co-publications	670.1	0.863	162	220
PCT patent applications	4.74	0.745	91	121
Trademark applications	5.43	0.367	65	74
Design applications	2.01	0.413	63	71
Employment knowledge-intensive activities	18.0	0.654	92	115
Employment innovative enterprises	±	0.726	91	127
Sales of innovative products	±	0.358	100	74
Air emissions by fine particulates	10.1	0.655	93	109
Average normalised score	--	0.611	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.679	--	--
Performance 2023 relative to EU in 2023	--	--	105.3	124.0
Performance 2023 relative to EU in 2016	--	--	--	134.5
Regional Innovation Index (RII) 2016	--	0.608	--	--
Performance 2016 relative to EU in 2016	--	--	100.3	120.5
Performance change over time	--	--	5.0	14.0

± Scores are not shown as these would allow recalculating confidential regional CIS data.
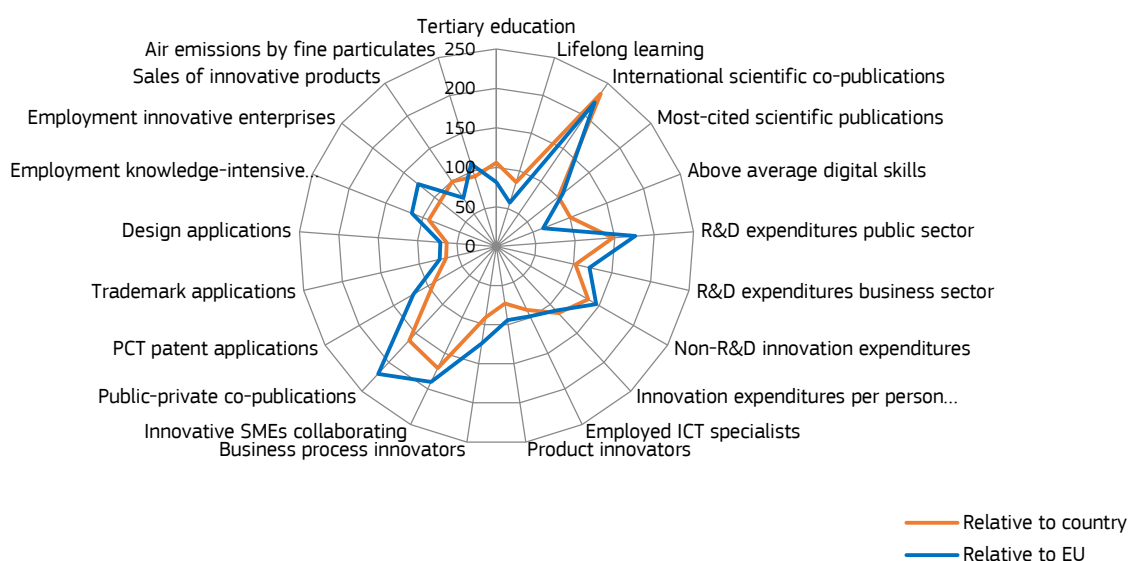
Dresden (DED2) is a Strong Innovator +. Innovation performance has increased over time (14%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (105.3) and the EU (124) in 2023, the RII in 2023 relative to the EU in 2016 (134.5), and the RII in 2016 relative to both Germany (100.3) and the EU in 2016 (120.5). The last row shows performance change between 2016 and 2023 compared to Germany (5%) and to the EU (14%).

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

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

	DED2	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	1.8	1.4	4.4
Manufacturing (C)	19.0	19.7	16.4
Utilities & Construction (D-F)	9.4	7.6	8.3
Services (G-N)	62.1	63.6	63.7
Public administration (O-U)	7.7	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	30,900	39,000	32,400
GDP per capita growth (PPS)	2.6	1.7	2.5
Population density	200	233	106
Urbanisation	79.3	81.6	75.8
Population size (000s)	1,590	83,160	447,210

Relative to country
Relative to EU

Chemnitz (DED4)

	Data	Normalised score	Relative to	
			DE	EU
Tertiary education	25.7	0.182	45	35
Lifelong learning	5.2	0.159	63	43
International scientific co-publications	628	0.150	52	49
Most-cited scientific publications	786.4	0.416	71	76
Above average digital skills	18.9	0.297	101	63
R&D expenditures public sector	0.93	0.631	93	111
R&D expenditures business sector	1.01	0.552	70	82
Non-R&D innovation expenditures	±	0.571	130	141
Innovation expenditures per person employed	±	0.640	111	106
Employed ICT specialists	2.7	0.290	50	55
Product innovators	±	0.609	85	109
Business process innovators	±	0.760	86	118
Innovative SMEs collaborating	±	0.960	177	197
Public-private co-publications	228.2	0.503	95	128
PCT patent applications	2.24	0.513	63	83
Trademark applications	2.79	0.187	33	38
Design applications	0.87	0.272	41	47
Employment knowledge-intensive activities	17.8	0.645	91	113
Employment innovative enterprises	±	0.696	87	121
Sales of innovative products	±	0.432	120	90
Air emissions by fine particulates	8.7	0.725	103	121
Average normalised score	--	0.485	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.540	--	--
Performance 2023 relative to EU in 2023	--	--	83.6	98.5
Performance 2023 relative to EU in 2016	--	--	--	106.9
Regional Innovation Index (RII) 2016	--	0.484	--	--
Performance 2016 relative to EU in 2016	--	--	79.7	95.8
Performance change over time	--	--	3.9	11.1

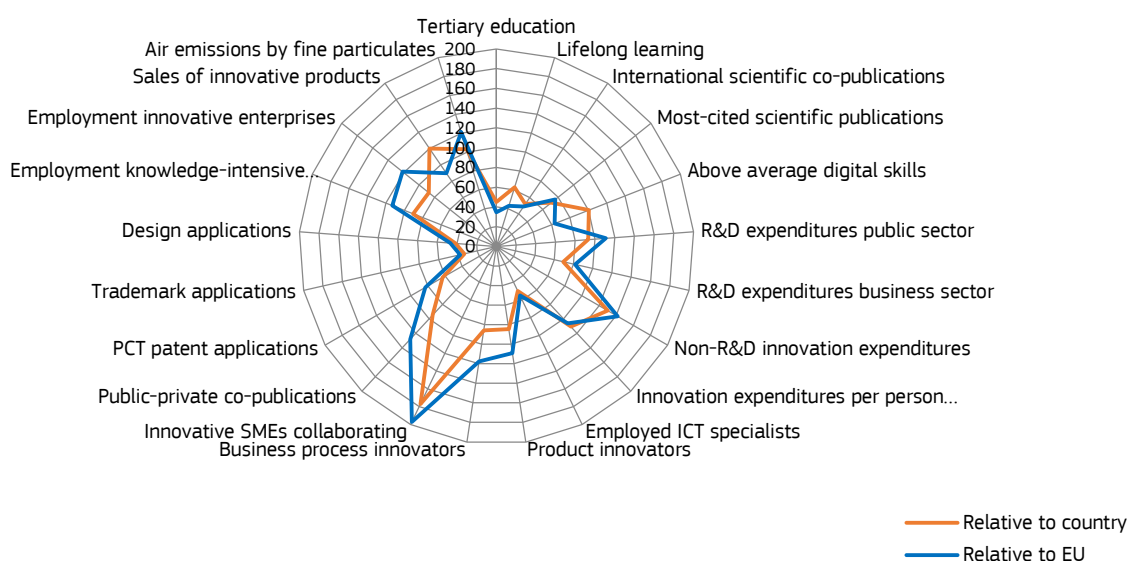± Scores are not shown as these would allow recalculating confidential regional CIS data.

Chemnitz (DED4) is a Moderate Innovator +. Innovation performance has increased over time (11.1%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (83.6) and the EU (98.5) in 2023, the RII in 2023 relative to the EU in 2016 (106.9), and the RII in 2016 relative to both Germany (79.7) and the EU in 2016 (95.8). The last row shows performance change between 2016 and 2023 compared to Germany (3.9%) and to the EU (11.1%).

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

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

	DED4	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	1.6	1.4	4.4
Manufacturing (C)	23.5	19.7	16.4
Utilities & Construction (D-F)	11.0	7.6	8.3
Services (G-N)	57.6	63.6	63.7
Public administration (O-U)	6.2	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	27,800	39,000	32,400
GDP per capita growth (PPS)	2.0	1.7	2.5
Population density	217	233	106
Urbanisation	82.2	81.6	75.8
Population size (000s)	1,410	83,160	447,210

Leipzig (DED5)

	Data	Normalised score	Relative to	
			DE	EU
Tertiary education	40.7	0.514	127	98
Lifelong learning	10.0	0.341	134	92
International scientific co-publications	3371	0.816	282	266
Most-cited scientific publications	1108.0	0.630	107	115
Above average digital skills	18.9	0.297	101	63
R&D expenditures public sector	1.86	0.937	138	165
R&D expenditures business sector	0.34	0.320	40	47
Non-R&D innovation expenditures	±	0.495	112	122
Innovation expenditures per person employed	±	0.623	108	103
Employed ICT specialists	5.7	0.680	117	129
Product innovators	±	0.577	80	103
Business process innovators	±	0.813	92	126
Innovative SMEs collaborating	±	0.943	174	194
Public-private co-publications	903.9	1.000	188	255
PCT patent applications	1.51	0.420	51	68
Trademark applications	4.51	0.304	54	61
Design applications	1.11	0.307	47	53
Employment knowledge-intensive activities	16.5	0.583	82	103
Employment innovative enterprises	±	0.793	99	138
Sales of innovative products	±	0.349	97	73
Air emissions by fine particulates	10.0	0.661	94	110
Average normalised score	--	0.591	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.657	--	--
Performance 2023 relative to EU in 2023	--	--	101.8	119.9
Performance 2023 relative to EU in 2016	--	--	--	130.1
Regional Innovation Index (RII) 2016	--	0.609	--	--
Performance 2016 relative to EU in 2016	--	--	100.4	120.6
Performance change over time	--	--	1.4	9.5

± Scores are not shown as these would allow recalculating confidential regional CIS data.
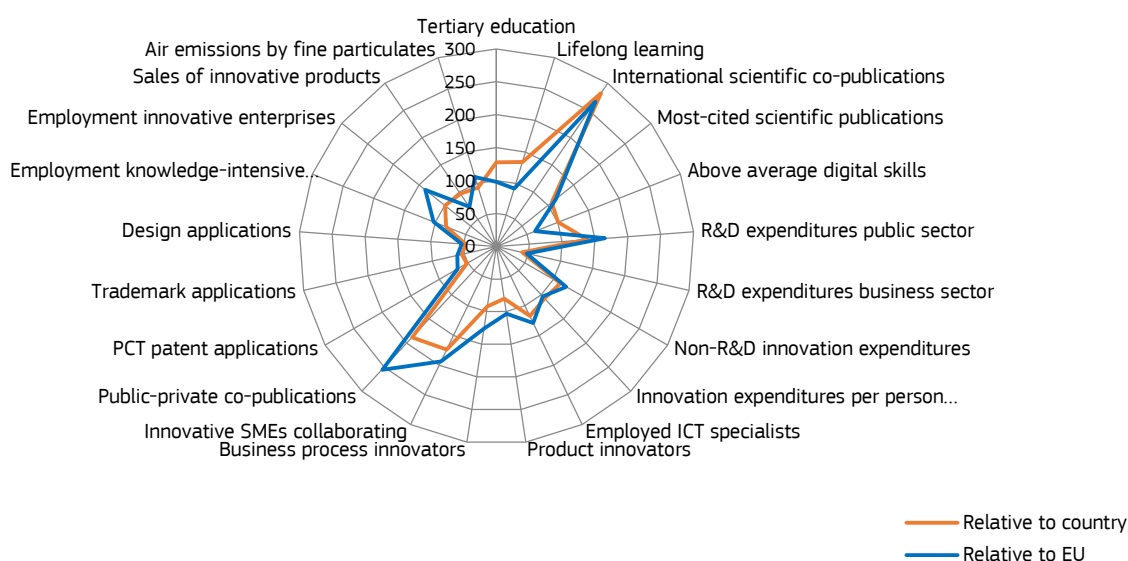
Leipzig (DED5) is a Strong Innovator +. Innovation performance has increased over time (9.5%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (101.8) and the EU (119.9) in 2023, the RII in 2023 relative to the EU in 2016 (130.1), and the RII in 2016 relative to both Germany (100.4) and the EU in 2016 (120.6). The last row shows performance change between 2016 and 2023 compared to Germany (1.4%) and to the EU (9.5%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. International scientific co-publications) and weaknesses (e.g. R&D expenditures business sector).

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

	DED5	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	1.5	1.4	4.4
Manufacturing (C)	12.5	19.7	16.4
Utilities & Construction (D-F)	9.8	7.6	8.3
Services (G-N)	69.4	63.6	63.7
Public administration (O-U)	6.8	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	32,000	39,000	32,400
GDP per capita growth (PPS)	2.1	1.7	2.5
Population density	265	233	106
Urbanisation	86.5	81.6	75.8
Population size (000s)	1,050	83,160	447,210

Sachsen-Anhalt (DEE)

	Data	Normalised score	Relative to	
			DE	EU
Tertiary education	23.5	0.133	33	25
Lifelong learning	5.2	0.159	63	43
International scientific co-publications	1192	0.287	99	94
Most-cited scientific publications	848.7	0.458	78	84
Above average digital skills	16.8	0.250	84	53
R&D expenditures public sector	1.19	0.728	107	128
R&D expenditures business sector	0.40	0.347	44	51
Non-R&D innovation expenditures	±	0.431	98	107
Innovation expenditures per person employed	±	0.654	113	109
Employed ICT specialists	2.6	0.271	47	51
Product innovators	±	0.485	67	87
Business process innovators	±	0.775	88	120
Innovative SMEs collaborating	±	0.823	152	169
Public-private co-publications	304.7	0.582	110	148
PCT patent applications	1.47	0.415	51	67
Trademark applications	2.11	0.141	25	28
Design applications	1.67	0.376	57	65
Employment knowledge-intensive activities	11.0	0.322	45	57
Employment innovative enterprises	±	0.581	73	101
Sales of innovative products	±	0.319	89	66
Air emissions by fine particulates	9.2	0.697	99	116
Average normalised score	--	0.440	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.489	--	--
Performance 2023 relative to EU in 2023	--	--	75.8	89.3
Performance 2023 relative to EU in 2016	--	--	--	96.8
Regional Innovation Index (RII) 2016	--	0.437	--	--
Performance 2016 relative to EU in 2016	--	--	72.0	86.5
Performance change over time	--	--	3.8	10.4

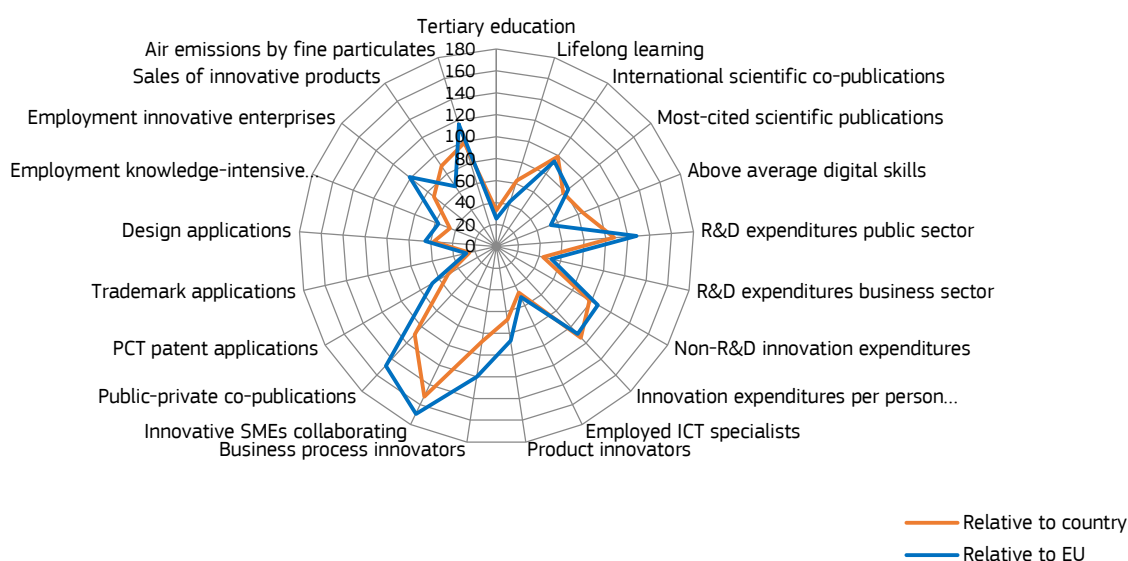± Scores are not shown as these would allow recalculating confidential regional CIS data.

Sachsen-Anhalt (DEE) is a Moderate Innovator. Innovation performance has increased over time (10.4%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (75.8) and the EU (89.3) in 2023, the RII in 2023 relative to the EU in 2016 (96.8), and the RII in 2016 relative to both Germany (72) and the EU in 2016 (86.5). The last row shows performance change between 2016 and 2023 compared to Germany (3.8%) and to the EU (10.4%).

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

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

	DEE	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	2.8	1.4	4.4
Manufacturing (C)	15.8	19.7	16.4
Utilities & Construction (D-F)	11.1	7.6	8.3
Services (G-N)	61.4	63.6	63.7
Public administration (O-U)	8.9	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	28,000	39,000	32,400
GDP per capita growth (PPS)	2.7	1.7	2.5
Population density	107	233	106
Urbanisation	67.5	81.6	75.8
Population size (000s)	2,180	83,160	447,210

Relative to country
Relative to EU

Schleswig–Holstein (DEF)

	Data	Normalised score	Relative to DE	Relative to EU
Tertiary education	28.2	0.237	59	45
Lifelong learning	7.1	0.231	91	62
International scientific co-publications	1384	0.334	115	109
Most-cited scientific publications	963.0	0.534	91	98
Above average digital skills	19.2	0.304	103	65
R&D expenditures public sector	0.88	0.611	90	107
R&D expenditures business sector	0.79	0.488	61	72
Non-R&D innovation expenditures	±	0.398	91	99
Innovation expenditures per person employed	±	0.575	100	95
Employed ICT specialists	3.7	0.420	72	80
Product innovators	±	0.719	100	129
Business process innovators	±	0.893	101	138
Innovative SMEs collaborating	±	0.359	66	74
Public-private co-publications	348.0	0.622	117	159
PCT patent applications	3.18	0.611	75	99
Trademark applications	8.03	0.544	97	109
Design applications	3.84	0.571	87	98
Employment knowledge-intensive activities	14.4	0.483	68	85
Employment innovative enterprises	±	0.835	105	146
Sales of innovative products	±	0.353	98	74
Air emissions by fine particulates	8.6	0.730	103	122
Average normalised score	--	0.517	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.574	--	--
Performance 2023 relative to EU in 2023	--	--	89.0	104.9
Performance 2023 relative to EU in 2016	--	--	--	113.8
Regional Innovation Index (RII) 2016	--	0.546	--	--
Performance 2016 relative to EU in 2016	--	--	90.0	108.1
Performance change over time	--	--	-0.9	5.7

± Scores are not shown as these would allow recalculating confidential regional CIS data.
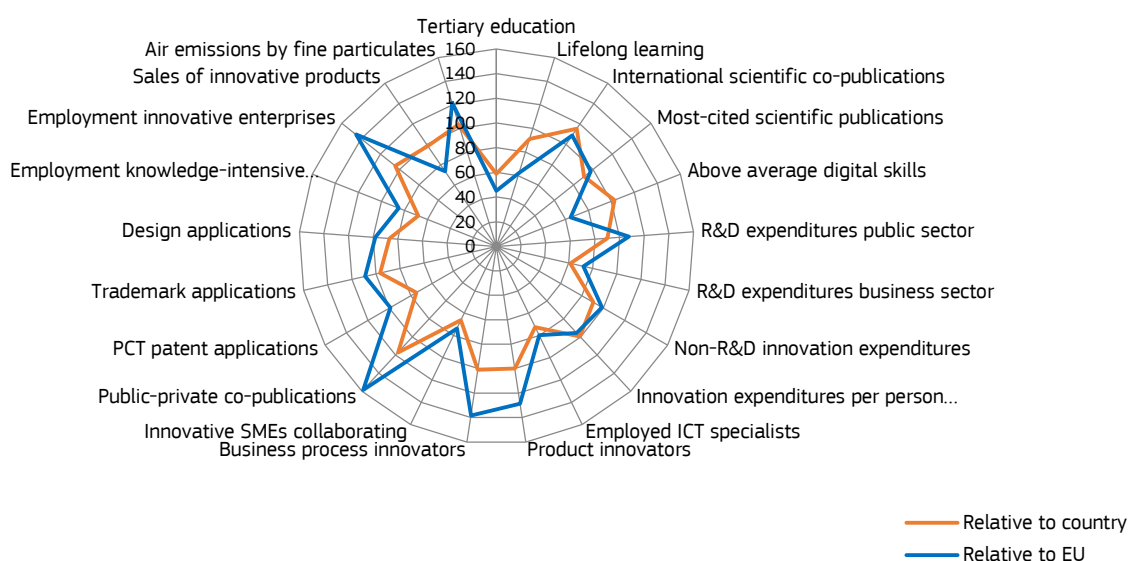
Schleswig-Holstein (DEF) is a Strong Innovator –. Innovation performance has increased over time (5.7%).

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 Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (89) and the EU (104.9) in 2023, the RII in 2023 relative to the EU in 2016 (113.8), and the RII in 2016 relative to both Germany (90) and the EU in 2016 (108.1). The last row shows performance change between 2016 and 2023 compared to Germany (-0.9%) and to the EU (5.7%).

The radar graph shows relative strengths compared to Germany (orange line) and the EU (blue line), showing relative strengths (e.g. Public-private co-publications) and weaknesses (e.g. Tertiary education).

The table below shows data highlighting possible structural differences, e.g. Employment in Public administration (above EU average) and Employment in Manufacturing (below EU average).

	DEF	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	2.2	1.4	4.4
Manufacturing (C)	14.0	19.7	16.4
Utilities & Construction (D-F)	8.6	7.6	8.3
Services (G-N)	65.7	63.6	63.7
Public administration (O-U)	9.5	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	32,400	39,000	32,400
GDP per capita growth (PPS)	2.3	1.7	2.5
Population density	184	233	106
Urbanisation	73.5	81.6	75.8
Population size (000s)	2,910	83,160	447,210

Thüringen (DEG)

	Data	Normalised score	Relative to DE	Relative to EU
Tertiary education	29.6	0.268	66	51
Lifelong learning	6.3	0.201	79	54
International scientific co-publications	1435	0.346	120	113
Most-cited scientific publications	961.4	0.533	91	97
Above average digital skills	18.3	0.284	96	60
R&D expenditures public sector	1.34	0.779	115	137
R&D expenditures business sector	1.15	0.589	74	87
Non-R&D innovation expenditures	±	0.617	140	153
Innovation expenditures per person employed	±	0.685	119	114
Employed ICT specialists	3.0	0.329	57	62
Product innovators	±	0.494	69	89
Business process innovators	±	0.719	81	111
Innovative SMEs collaborating	±	0.910	168	187
Public-private co-publications	364.2	0.636	120	162
PCT patent applications	4.06	0.690	85	112
Trademark applications	3.53	0.238	42	48
Design applications	1.21	0.320	49	55
Employment knowledge-intensive activities	15.7	0.545	77	96
Employment innovative enterprises	±	0.667	84	116
Sales of innovative products	±	0.365	101	76
Air emissions by fine particulates	8.8	0.721	102	120
Average normalised score	--	0.521	--	--
Country EIS-RIS correction factor	--	1.112	--	--
Regional Innovation Index (RII) 2023	--	0.579	--	--
Performance 2023 relative to EU in 2023	--	--	89.7	105.7
Performance 2023 relative to EU in 2016	--	--	--	114.7
Regional Innovation Index (RII) 2016	--	0.543	--	--
Performance 2016 relative to EU in 2016	--	--	89.5	107.5
Performance change over time	--	--	0.2	7.1

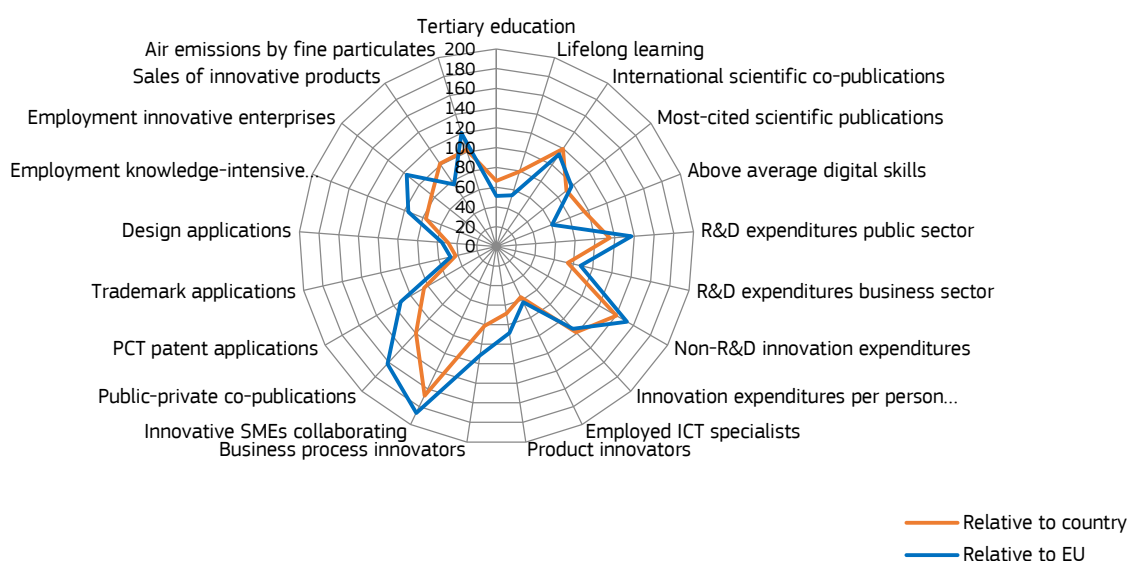± Scores are not shown as these would allow recalculating confidential regional CIS data.

Thüringen (DEG) is a Strong Innovator –. Innovation performance has increased over time (7.1%).
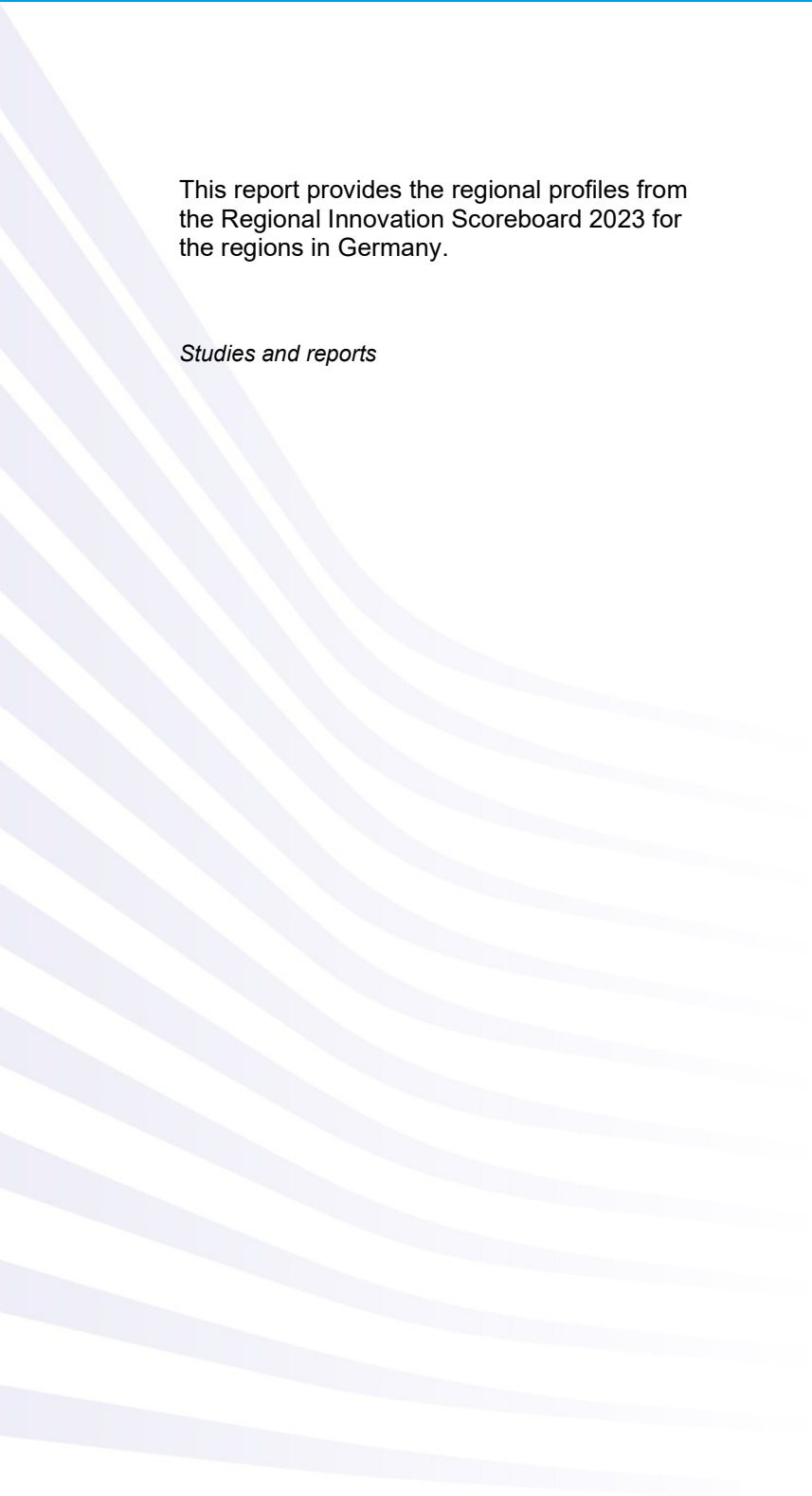
The first 21 rows and two data columns in the table on the left show the values and the normalised scores per indicator. The last two data columns show relative performance of the normalised scores compared to Germany and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Germany (89.7) and the EU (105.7) in 2023, the RII in 2023 relative to the EU in 2016 (114.7), and the RII in 2016 relative to both Germany (89.5) and the EU in 2016 (107.5). The last row shows performance change between 2016 and 2023 compared to Germany (0.2%) and to the EU (7.1%).

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

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

	DEG	DE	EU
Share of employment in:			
Agriculture & Mining (A-B)	2.1	1.4	4.4
Manufacturing (C)	22.0	19.7	16.4
Utilities & Construction (D-F)	9.6	7.6	8.3
Services (G-N)	58.4	63.6	63.7
Public administration (O-U)	7.9	7.8	7.2
Average number of employed persons per enterprise	n/a	10.8	5.1
GDP per capita (PPS)	28,100	39,000	32,400
GDP per capita growth (PPS)	1.8	1.7	2.5
Population density	131	233	106
Urbanisation	69.1	81.6	75.8
Population size (000s)	2,120	83,160	447,210

Relative to country
Relative to EU

This report provides the regional profiles from the Regional Innovation Scoreboard 2023 for the regions in Germany.

Studies and reports