



European
Commission

Regional Innovation Scoreboard **2023** Regional profiles **Austria**



Innovation

Regional Innovation Scoreboard 2023 – Regional profiles Austria

European Commission

Directorate-General for Research and Innovation

Directorate G – Common Policy Centre

Unit G.1 – Common R&I Strategy & Foresight Service

Contact Alexandr Hobza, Chief Economist and Head of Unit G.1
Athina Karvounaraki
Alexis Stevenson

Email RTD-STATISTICS@ec.europa.eu
RTD-PUBLICATIONS@ec.europa.eu

Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs

Directorate A – Strategy and Economic Analysis

Unit A.1 – Chief Economist

Contact Román Arjona, Chief Economist and Head of Unit A.1
Xosé-Luís Varela-Irimia

Email GROW-A1@ec.europa.eu

European Commission

B-1049 Brussels

Manuscript completed in June 2023.

This document has been prepared for the European Commission; however it reflects the views only of the authors, and the European Commission shall not be liable for any consequence stemming from the reuse.

© European Union, 2023



The reuse policy of European Commission documents is implemented by Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39). Unless otherwise noted, the reuse of this document is authorised under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence (<https://creativecommons.org/licenses/by/4.0/>). This means that reuse is allowed provided appropriate credit is given and any changes are indicated.

For any use or reproduction of elements that are not owned by the European Union, permission may need to be sought directly from the respective rightsholders.

Regional Innovation Scoreboard 2023

Regional profiles Austria

The report was prepared by

Hugo Hollanders

(Maastricht University – UNU-MERIT)

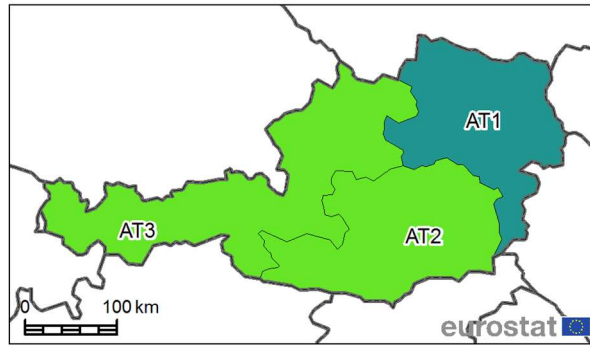
as part of the European Innovation Scoreboard project

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

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



AUSTRIA



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

| NUTS | Region | RII | Rank | Group | Change |
|------|----------------|-------|------|---------------------|--------|
| AT | Austria | 119.9 | -- | Strong Innovator | 6.4 |
| AT1 | Ostösterreich | 125.7 | 35 | Innovation Leader - | 10.4 |
| AT2 | Südösterreich | 116.2 | 55 | Strong Innovator | 2.7 |
| AT3 | Westösterreich | 114.7 | 57 | Strong Innovator | 4.3 |

Austria is a Strong Innovator and includes three regions.

Ostösterreich (AT1), the capital region, is the most innovative region and an Innovation Leader -. The other regions are Strong Innovators.

Performance has increased for all regions, most strongly for *Ostösterreich* (AT1), and only for this region performance increased at a higher rate than that of the EU (8.5).

Ostösterreich (AT1)

| | Data | Normalised score | Relative to | |
|---|--------|------------------|-------------|-------|
| | | | AT | EU |
| Tertiary education | 47.1 | 0.656 | 119 | 125 |
| Lifelong learning | 16.2 | 0.576 | 112 | 155 |
| International scientific co-publications | 3078 | 0.744 | 136 | 243 |
| Most-cited scientific publications | 1114.3 | 0.634 | 109 | 116 |
| Above average digital skills | 33.5 | 0.631 | 101 | 134 |
| R&D expenditures public sector | 1.23 | 0.742 | 115 | 130 |
| R&D expenditures business sector | | 1.57 | 84 | 102 |
| Non-R&D innovation expenditures | ± | 0.295 | 82 | 73 |
| Innovation expenditures per person employed | ± | | 0.829 | 138 |
| Employed ICT specialists | 6.5 | 0.792 | 150 | 150 |
| Product innovators | ± | 0.634 | 100 | 114 |
| Business process innovators | ± | 0.809 | 102 | 125 |
| Innovative SMEs collaborating | ± | 0.723 | 113 | 149 |
| Public-private co-publications | 620.7 | 0.830 | 111 | 212 |
| PCT patent applications | 3.28 | 0.620 | 85 | 101 |
| Trademark applications | 12.91 | 0.876 | 105 | 176 |
| Design applications | 4.04 | 0.585 | 73 | 101 |
| Employment knowledge-intensive activities | 17.0 | 0.607 | 105 | 107 |
| Employment innovative enterprises | ± | 0.702 | 99 | 122 |
| Sales of innovative products | ± | 0.689 | 116 | 143 |
| Air emissions by fine particulates | 10.4 | 0.637 | 96 | 106 |
| Average normalised score | -- | 0.681 | -- | -- |
| Country EIS-RIS correction factor | -- | 1.011 | -- | -- |
| Regional Innovation Index (RII) 2023 | -- | 0.688 | -- | -- |
| Performance 2023 relative to EU in 2023 | -- | -- | 104.9 | 125.7 |
| Performance 2023 relative to EU in 2016 | -- | -- | -- | 136.3 |
| Regional Innovation Index (RII) 2016 | -- | 0.636 | -- | -- |
| Performance 2016 relative to EU in 2016 | -- | -- | 101.9 | 125.9 |
| Performance change over time | -- | -- | 3.0 | 10.4 |

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

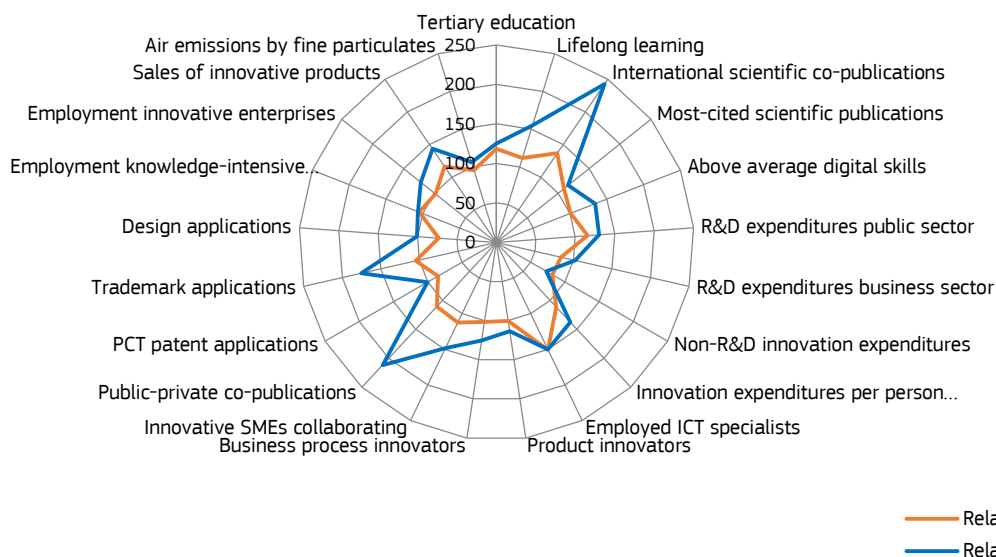
Ostösterreich (AT1) is an Innovation Leader - Innovation performance has increased over time (10.4%).

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 Austria and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Austria (104.9) and the EU (125.7) in 2023, the RII in 2023 relative to the EU in 2016 (136.3), and the RII in 2016 relative to both Austria (101.9) and the EU in 2016 (125.9). The last row shows performance change between 2016 and 2023 compared to Austria (3%) and to the EU (10.4%).

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

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

| | AT1 | AT | EU |
|---|--------|--------|---------|
| Share of employment in: | | | |
| Agriculture & Mining (A-B) | 3.0 | 3.8 | 4.4 |
| Manufacturing (C) | 11.5 | 16.1 | 16.4 |
| Utilities & Construction (D-F) | 8.3 | 9.1 | 8.3 |
| Services (G-N) | 68.9 | 64.0 | 63.7 |
| Public administration (O-U) | 8.2 | 7.0 | 7.2 |
| Average number of employed persons per enterprise | 6.1 | 6.2 | 5.1 |
| GDP per capita (PPS) | 39,500 | 39,800 | 32,400 |
| GDP per capita growth (PPS) | 1.7 | 1.7 | 2.5 |
| Population density | 166 | 106 | 106 |
| Urbanisation | 74.0 | 64.6 | 75.8 |
| Population size (000s) | 3,910 | 8,930 | 447,210 |



Südösterreich (AT2)

| | Data | Normalised score | Relative to | |
|---|-------|------------------|-------------|-------|
| | | | AT | EU |
| Tertiary education | 39.7 | 0.492 | 89 | 94 |
| Lifelong learning | 13.5 | 0.473 | 92 | 128 |
| International scientific co-publications | 2292 | 0.554 | 102 | 181 |
| Most-cited scientific publications | 924.1 | 0.508 | 88 | 93 |
| Above average digital skills | 32.8 | 0.614 | 98 | 131 |
| R&D expenditures public sector | 0.97 | 0.647 | 101 | 114 |
| R&D expenditures business sector | | 3.60 | 122 | 148 |
| Non-R&D innovation expenditures | ± | 0.443 | 123 | 110 |
| Innovation expenditures per person employed | ± | | 0.727 | 121 |
| Employed ICT specialists | 2.9 | 0.319 | 60 | 60 |
| Product innovators | ± | 0.574 | 91 | 103 |
| Business process innovators | ± | 0.670 | 84 | 104 |
| Innovative SMEs collaborating | ± | 0.662 | 103 | 136 |
| Public-private co-publications | 768.1 | 0.924 | 123 | 235 |
| PCT patent applications | 5.21 | 0.781 | 107 | 127 |
| Trademark applications | 9.65 | 0.655 | 78 | 131 |
| Design applications | 7.13 | 0.777 | 97 | 134 |
| Employment knowledge-intensive activities | 15.8 | 0.550 | 95 | 97 |
| Employment innovative enterprises | ± | 0.634 | 89 | 110 |
| Sales of innovative products | ± | 0.564 | 95 | 117 |
| Air emissions by fine particulates | 10.1 | 0.656 | 99 | 109 |
| Average normalised score | -- | 0.630 | -- | -- |
| Country EIS-RIS correction factor | -- | 1.011 | -- | -- |
| Regional Innovation Index (RII) 2023 | -- | 0.636 | -- | -- |
| Performance 2023 relative to EU in 2023 | -- | -- | 97.0 | 116.2 |
| Performance 2023 relative to EU in 2016 | -- | -- | -- | 126.1 |
| Regional Innovation Index (RII) 2016 | -- | 0.623 | -- | -- |
| Performance 2016 relative to EU in 2016 | -- | -- | 99.8 | 123.3 |
| Performance change over time | -- | -- | -2.8 | 2.7 |

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

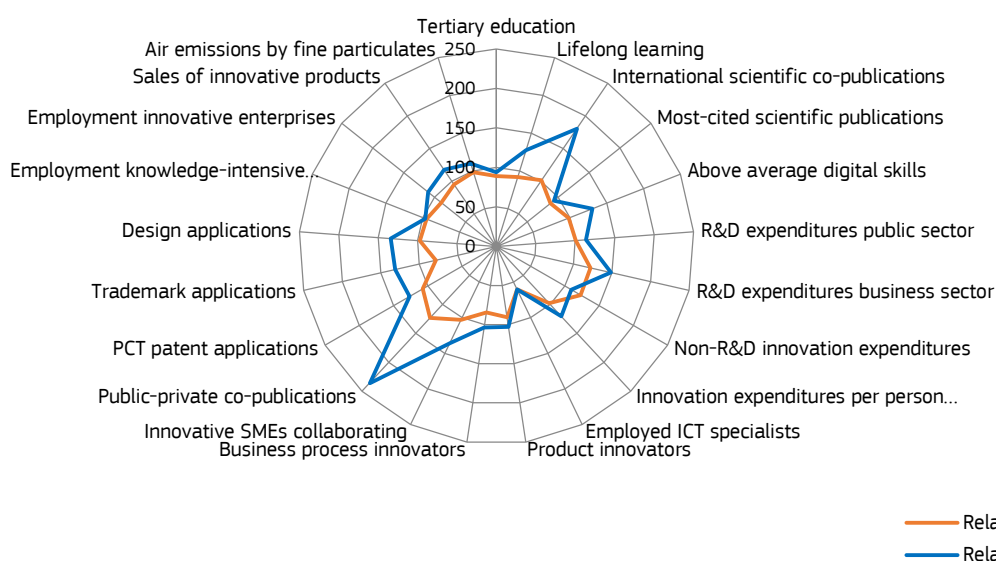
Südösterreich (AT2) is a Strong Innovator. Innovation performance has increased over time (2.7%).

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 Austria and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Austria (97) and the EU (116.2) in 2023, the RII in 2023 relative to the EU in 2016 (126.1), and the RII in 2016 relative to both Austria (99.8) and the EU in 2016 (123.3). The last row shows performance change between 2016 and 2023 compared to Austria (-2.8%) and to the EU (2.7%).

The radar graph shows relative strengths compared to Austria (orange line) and the EU (blue line), showing relative strengths (e.g. Public-private co-publications) and weaknesses (e.g. Employed ICT specialists).

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

| | AT2 | AT | EU |
|---|--------|--------|---------|
| Share of employment in: | | | |
| Agriculture & Mining (A-B) | 5.6 | 3.8 | 4.4 |
| Manufacturing (C) | 18.0 | 16.1 | 16.4 |
| Utilities & Construction (D-F) | 10.0 | 9.1 | 8.3 |
| Services (G-N) | 60.0 | 64.0 | 63.7 |
| Public administration (O-U) | 6.4 | 7.0 | 7.2 |
| Average number of employed persons per enterprise | 5.6 | 6.2 | 5.1 |
| GDP per capita (PPS) | 35,900 | 39,800 | 32,400 |
| GDP per capita growth (PPS) | 2.0 | 1.7 | 2.5 |
| Population density | 70 | 106 | 106 |
| Urbanisation | 50.9 | 64.6 | 75.8 |
| Population size (000s) | 1,810 | 8,930 | 447,210 |



Westösterreich (AT3)

| | Data | Normalised score | Relative to | |
|---|-------|------------------|-------------|-------|
| | | | AT | EU |
| Tertiary education | 38.0 | 0.455 | 82 | 86 |
| Lifelong learning | 13.2 | 0.462 | 90 | 124 |
| International scientific co-publications | 1610 | 0.388 | 71 | 127 |
| Most-cited scientific publications | 955.3 | 0.528 | 91 | 97 |
| Above average digital skills | 33.3 | 0.626 | 100 | 133 |
| R&D expenditures public sector | 0.54 | 0.455 | 71 | 80 |
| R&D expenditures business sector | | 2.25 | 100 | 122 |
| Non-R&D innovation expenditures | ± | 0.408 | 113 | 101 |
| Innovation expenditures per person employed | ± | | 0.659 | 109 |
| Employed ICT specialists | 3.0 | 0.333 | 63 | 63 |
| Product innovators | ± | 0.658 | 104 | 118 |
| Business process innovators | ± | 0.837 | 105 | 130 |
| Innovative SMEs collaborating | ± | 0.552 | 86 | 113 |
| Public-private co-publications | 462.7 | 0.717 | 96 | 183 |
| PCT patent applications | 5.57 | 0.808 | 111 | 131 |
| Trademark applications | 12.89 | 0.875 | 105 | 175 |
| Design applications | 11.62 | 0.992 | 124 | 171 |
| Employment knowledge-intensive activities | 15.9 | 0.555 | 96 | 98 |
| Employment innovative enterprises | ± | 0.753 | 106 | 131 |
| Sales of innovative products | ± | 0.464 | 78 | 97 |
| Air emissions by fine particulates | 9.1 | 0.706 | 106 | 118 |
| Average normalised score | -- | 0.622 | -- | -- |
| Country EIS-RIS correction factor | -- | 1.011 | -- | -- |
| Regional Innovation Index (RII) 2023 | -- | 0.628 | -- | -- |
| Performance 2023 relative to EU in 2023 | -- | -- | 95.7 | 114.7 |
| Performance 2023 relative to EU in 2016 | -- | -- | -- | 124.4 |
| Regional Innovation Index (RII) 2016 | -- | 0.607 | -- | -- |
| Performance 2016 relative to EU in 2016 | -- | -- | 97.2 | 120.1 |
| Performance change over time | -- | -- | -1.5 | 4.3 |

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

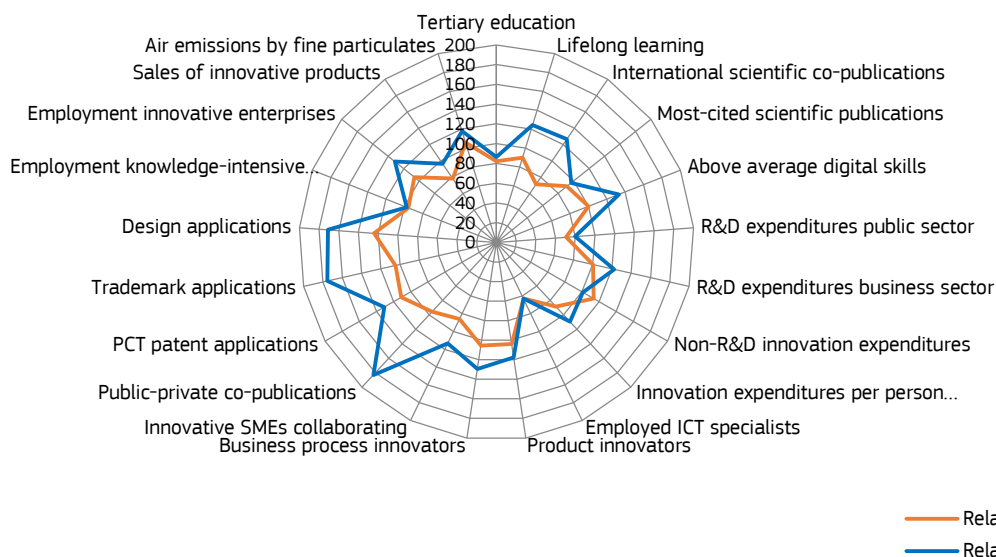
Westösterreich (AT3) is a Strong Innovator. Innovation performance has increased over time (4.3%).

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 Austria and the EU. The next 7 rows show the calculation of the Regional Innovation Index (RII), the RII relative to both Austria (95.7) and the EU (114.7) in 2023, the RII in 2023 relative to the EU in 2016 (124.4), and the RII in 2016 relative to both Austria (97.2) and the EU in 2016 (120.1). The last row shows performance change between 2016 and 2023 compared to Austria (-1.5%) and to the EU (4.3%).

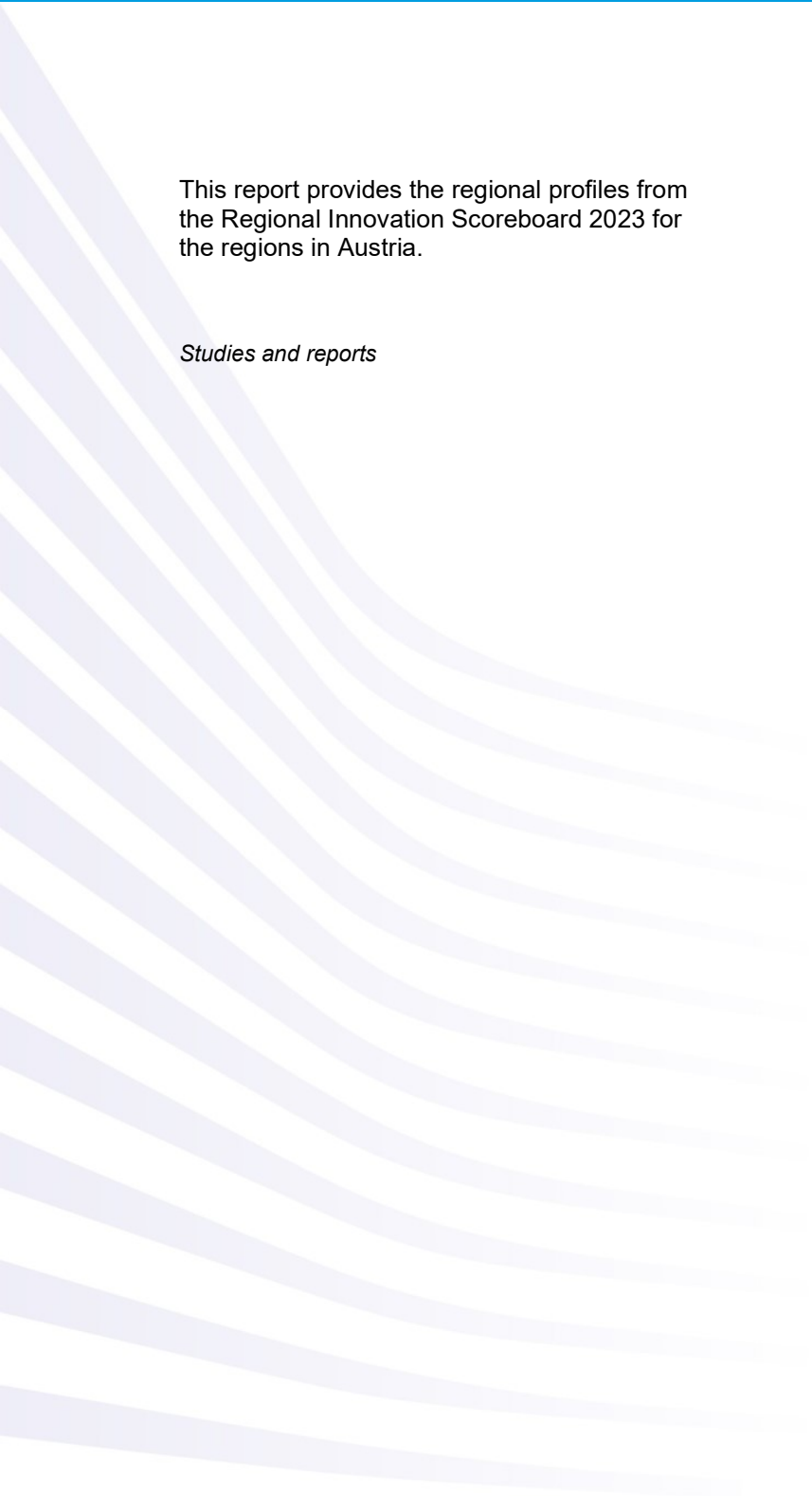

The radar graph shows relative strengths compared to Austria (orange line) and the EU (blue line), showing relative strengths (e.g. Public-private co-publications) and weaknesses (e.g. Employed ICT specialists).

The table below shows data highlighting possible structural differences, e.g. Average employed persons per enterprise (above EU average) and GDP per capita growth (below EU average).

| | AT3 | AT | EU |
|---|--------|--------|---------|
| Share of employment in: | | | |
| Agriculture & Mining (A-B) | 3.9 | 3.8 | 4.4 |
| Manufacturing (C) | 20.2 | 16.1 | 16.4 |
| Utilities & Construction (D-F) | 9.5 | 9.1 | 8.3 |
| Services (G-N) | 60.6 | 64.0 | 63.7 |
| Public administration (O-U) | 5.8 | 7.0 | 7.2 |
| Average number of employed persons per enterprise | 6.7 | 6.2 | 5.1 |
| GDP per capita (PPS) | 42,200 | 39,800 | 32,400 |
| GDP per capita growth (PPS) | 1.5 | 1.7 | 2.5 |
| Population density | 94 | 106 | 106 |
| Urbanisation | 60.6 | 64.6 | 75.8 |
| Population size (000s) | 3,220 | 8,930 | 447,210 |



— Relative to country
— Relative to EU



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

Studies and reports