



# European Innovation Scoreboard **2024** Country Profile **United Kingdom**

## European Innovation Scoreboard 2024 – Country profile United Kingdom

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**UNITED KINGDOM****Strong Innovator**Summary innovation index (relative to EU in 2017): **126.3**Rank: **9**Change vs 2023: ▼ **-2.1** Change vs 2017: ▼ **-0.1**

The United Kingdom is a Strong Innovator with performance at 114.8% of the EU average in 2024. Performance is above the average of the Strong Innovators (111.3%). Performance is decreasing, compared to the EU growth of (+10%).

Indicator	Performance relative to the EU in 2024	Performance change 2017-2024	Performance change 2023-2024
<b>SUMMARY INNOVATION INDEX</b>	<b>114.8</b>	<b>-0.1</b>	<b>-2.1</b>
<b>Human resources</b>	<b>136.9</b>	<b>-3.4</b>	<b>0</b>
New doctorate graduates	155.8	-21.2	0
Population with tertiary education	134.2	13.8	0
Population involved in lifelong learning	116.9	4.1	0
<b>Attractive research systems</b>	<b>162</b>	<b>9.6</b>	<b>0.5</b>
International scientific co-publications	159.7	57	0
Scientific publications among the top 10% most cited	148	-0.8	0.7
Foreign doctorate students as a % of all doctorate students	186.5	-11.4	0
<b>Digitalisation</b>	<b>31.4</b>	<b>0</b>	<b>0</b>
Broadband penetration	27	0	0
Individuals with above basic overall digital skills	N/A	N/A	N/A
<b>Finance and support</b>	<b>132.6</b>	<b>29.5</b>	<b>0</b>
R&D expenditure in the public sector	67.2	0	0
Venture capital expenditures	150.6	72.5	0
Direct and indirect government support of business R&D	187.8	22.3	0
<b>Firm investments</b>	<b>84.4</b>	<b>5.8</b>	<b>13</b>
R&D expenditure in the business sector	79.9	7.6	0
Non-R&D innovation expenditures	101.3	9.1	38.6
Innovation expenditures per person employed	73.7	0	0
<b>Use of information technologies</b>	<b>115.8</b>	<b>-5.3</b>	<b>0</b>
Enterprises providing ICT training	107.5	-21	0
Employed ICT specialists	123.5	9.7	0
<b>Innovators</b>	<b>99.1</b>	<b>0.7</b>	<b>0</b>
SMEs introducing product innovations	110.3	-14.1	0
SMEs introducing business process innovations	89.9	14.7	0
<b>Linkages</b>	<b>215.5</b>	<b>21.3</b>	<b>0</b>
Innovative SMEs collaborating with others	239.2	0	0
Public-private co-publications	219.3	55.9	0
Job-to-job mobility of HRST	193.7	23.5	0
<b>Intellectual assets</b>	<b>71.7</b>	<b>-21.5</b>	<b>-7.2</b>
PCT patent applications	96.8	-4.2	2.9
Trademark applications	69.9	-25.7	-10.4
Design applications	33.6	-41	-17.8
<b>Employment impacts</b>	<b>141.3</b>	<b>14</b>	<b>-3.4</b>
Employment in knowledge-intensive activities	172.1	38.7	0
Employment in innovative enterprises	115.6	-8.5	-6.3
<b>Sales impacts</b>	<b>83.8</b>	<b>-29.3</b>	<b>-18.5</b>
Exports of medium and high technology products	81.6	-11.1	0
Knowledge-intensive services exports	100.8	2.8	-10.1
Sales of new-to-market and new-to-firm innovations	60.7	-102.2	-59.4
<b>Environmental sustainability</b>	<b>111.3</b>	<b>5.7</b>	<b>0.3</b>
Resource productivity	188.1	37.9	0
Air emissions by fine particulates	85.1	3.5	0
Environment-related technologies	76.6	-16.9	0.6

**Relative strengths**

- Innovative SMEs collaborating with others
- Public-private co-publications
- Job-to-job mobility of HRST

**Relative weaknesses**

- Broadband penetration
- Design applications
- Sales of new-to-market and new-to-firm innovations

**Strong increases since 2017**

- Venture capital expenditures
- International scientific co-publications
- Public-private co-publications

**Strong decreases since 2017**

- Sales of new-to-market and new-to-firm innovations
- Design applications
- Trademark applications

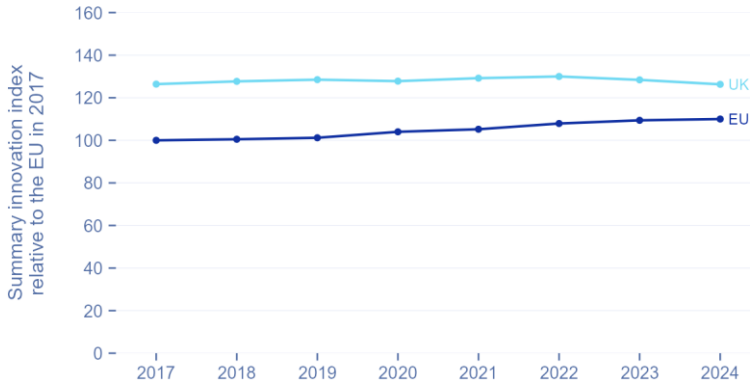
**Strong increases since 2023**

- Non-R&D innovation expenditures
- PCT patent applications
- Scientific publications among the top 10% most cited

**Strong decreases since 2023**

- Sales of new-to-market and new-to-firm innovations
- Design applications
- Trademark applications

**Footnote:** The first data column shows scores relative to the EU in 2024, with colour codes indicating performance levels. The subsequent columns show performance changes over time, with scores relative to the EU in 2017, coloured in purple for positive change and red for negative change. As reference years differ between the first column (2024) and the last two columns (2017), scores cannot be directly compared or subtracted across these columns.



### Summary innovation index

The line chart shows the evolution of the innovation performance of the United Kingdom over time, relative to the performance of the EU in 2017.

**Footnote:** All performance scores (SII and dimensions below) are relative to that of the EU in 2017.

### Framework conditions

The United Kingdom's framework conditions for innovation have experienced various changes. In human resources, there has been a slight decline overall, with a notable reduction in new doctorate graduates in STEM of 21.2%-points since 2017 (although it still performs at 155.8% of the EU average). Despite this, the share of population with tertiary education and those involved in lifelong learning have increased moderately. The attractiveness of the research system has improved and performs 162.0% of the EU average in 2024, marked by a significant rise in international scientific co-publications (57.0%-points). Historically, the UK has some of the best and well known third level institutions worldwide, such as Oxford, Cambridge, and the London School of Economics which have always attracted collaboration internationally. However, there has been a minor decline in the share of foreign doctorate students (-11.4%-points) which may be due to post-Brexit rule changes, nonetheless it is still 186.5% of the EU average in 2024. Digitalisation is an issue with only 27.0% of the EU average in 2024 for broadband penetration.

#### Human resources



#### Attractive research systems



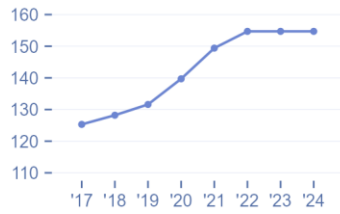
#### Digitalisation



### Investments

From 2017 to 2024, the United Kingdom has seen positive changes in investment-related indicators. The capital London boasts a well-established financial services ecosystem, with a high concentration of banks, investment advisors, and legal firms giving quick and easy access to the world's capital markets. Finance and support for innovation have significantly increased, riven by substantial growth in venture capital expenditures (+72.5%-points) and direct and indirect government support of business R&D is performing at 187.8% of the EU average in 2024. Public sector R&D expenditure has remained unchanged and is much lower than the EU in 2024 (67.2% of the EU average), while firm investments have seen a modest rise, with business sector R&D expenditure and non-R&D innovation expenditures both increasing, by 7.6%-points and 9.1%-points, respectively. However, innovation expenditures per person employed have remained unchanged, and below the EU average (73.7%). The use of information technologies has declined slightly, with a marked decrease in enterprises providing ICT training to their employees (-21.0%-points), despite an increase in the employment of ICT specialists (9.7%-points).

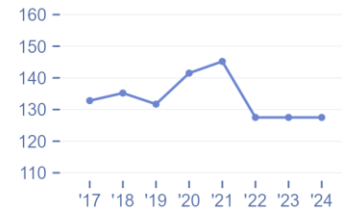
Finance and support



Firm investments



Use of information technologies



**Innovation activities**

The UK's innovation activities have seen mixed trends. Overall, the number of innovators has increased slightly since 2017. Among SMEs, there has been a decrease in those introducing product innovations (14.7%-points), while those introducing business process innovations have increased (-14.1%-points). Linkages have strengthened significantly, reaching a performance of 215.5% of the EU average in 2024. There is a notable rise in public-private co-publications (55.9%-points) and job-to-job mobility of human resources in science and technology (23.5%-points), both reaching close to twice the EU average (219.3% and 193.7% of the EU average respectively). Collaboration among innovative SMEs has remained consistent at an extremely high level and is the best performing indicator for the UK, well above the EU 2024 average, at 239.2% of it. Intellectual assets have faced challenges, with declines in PCT patent applications, trademark applications, and design applications (-41.0%-points).

Innovators



Linkages



Intellectual assets



**Impacts**

Innovation impacts have exhibited diverse trends. Employment impacts have generally improved since 2017, with a significant rise in employment within knowledge-intensive activities (+38.7%-points) and is now 172.1% of the EU average in 2024, although employment in innovative enterprises has slightly declined. Sales impacts show a downturn and reach 83.8% of the EU average for 2024, due to a decrease in exports of medium and high technology products (-11.1%-points) and a sharp decline of 102.2%-points in sales of new-to-market and new-to-firm innovations which could result from the loss of easy access to the EU market due to Brexit. However, knowledge-intensive services exports have seen a modest increase. Environmental sustainability indicators present a mixed picture, with an increase (+37.9%-points) in resource productivity and a strong performance of 188.1% relative to the EU in 2024, a slight improvement in air emissions by fine particulates, but a decrease in environment-related technologies (16.9%-points), positioning the UK below the EU average (76.6%).

Employment impacts



Sales impacts



Environmental sustainability



## Structural differences

### Performance and structure of the economy

The UK's GDP per capita (100.5) is slightly above the EU average (100) and reflects its diverse economic landscape. Historically, the UK has been a hub for financial services, advanced manufacturing, and creative industries, contributing significantly to its economic output. SMEs in the UK contribute slightly less to the overall turnover (11.7%) compared to the EU. Conversely, large enterprises in the UK have a higher turnover (53.2%) share than their EU counterparts.

### Business and entrepreneurship

The UK demonstrates a robust business environment driven by its easy access to capital, historically large economy and favouring business regulation. All business indicators reflect the previous statement with UK outscoring all the EU averages across the board. Enterprise births (4), Top R&D spending enterprises (14.7), Total Entrepreneurial Activity is significantly higher (12.4), are all notably higher than the EU average.

### Innovation profiles

Data regarding innovation activities is not available for the UK. Nevertheless, the UK offers a supportive business and research environment, bolstered by key entities such as Innovate UK, the British Business Bank, and initiatives like the Industrial Strategy Challenge Fund (ISCF) as well as national enterprise and research funding agencies in the devolved nations (e.g. Scottish Enterprise, the Scottish Funding Council, etc.).

### Governance and policy framework

The UK has one of the oldest parliamentary democracies in the world and exhibits a strong governance and policy framework with a high Corruption Perceptions Index (74), the UK's rule of law score (1.4) surpasses the EU average as well. Basic-school entrepreneurial education (3.1) and training are more advanced in the UK than the EU average. Government procurement of advanced technology products (3.8) is also higher, additionally, the share of innovation procurement in total public procurement (14.5%) is significantly greater in the UK.

### Climate change

There is no comparable data with the EU for the UK on climate change, however the UK government has committed to reducing emissions by 50% of 1990 levels by 2025 and to net zero by 2050, as highlighted by the Net Zero Initiative. The UK Climate Change Programme was established in 2000 and the Climate Change Committee provides policy advice towards mitigation targets.

### Demography

The UK is one of the most populated countries in Europe (Statista, 2023) and has a very high population density, driven by most of the population living in large cities such as London, Birmingham, Glasgow and Manchester.

## Structural indicators

The table below presents some structural differences between United Kingdom and the EU.

	UK	EU
<b>Performance and structure of the economy</b>		
GDP per capita	100.5	100
Turnover share SMEs	11.7	12.6
Turnover share large enterprises	53.2	49.6
<b>Business and entrepreneurship</b>		
Enterprise births	4	0.8
Total Entrepreneurial Activity	12.4	6.8
FDI net inflows	2.5	1.9
Top R&D spending enterprises	14.7	8.4
Buyer sophistication	4.7	3.6
<b>Governance and policy frameworks</b>		
Corruption Perceptions Index	74	64
Basic-school entrepreneurial education and training	3.1	2.6
Government procurement of advanced technology products	3.8	3.4
Rule of law	1.4	1
Innovation procurement as a share of total public procurement	14.5	9.2
<b>Climate change</b>		
Greenhouse gas emissions intensity of energy consumption		82.8
<b>Demography</b>		
Population density	275.3	109

## References

The country's relative strengths and weaknesses for each indicator, compared to other EU Member States and neighbouring countries, can be found in [Annex B](#).

Statista (2023), Estimated population of selected European countries in 2023. Accessed 24th July 2024. Available at: <https://www.statista.com/statistics/685846/population-of-selected-european-countries/>

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This report provides the Country profile from the 2024 European Innovation Scoreboard for the United Kingdom

*Studies and reports*