



**Coverage:**  
United Kingdom

**Theme:**  
The Economy

**Released:**  
10 October 2019

**Next release:**  
Autumn 2020

**Frequency of release:**  
Annual

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# Patent Box

## October 2019

### Statistics on uptake of the Patent Box

An Official Statistics Release

## Key points

- In 2016-17, 1,170 companies claimed relief under the Patent Box, and the total value of relief claimed was £1,035million.
- The value of relief claimed increased year on year from 2013-14 to 2015-16 as the benefit of the Patent Box was phased in, and this has continued in 2016-17.
- Of the companies that claimed in 2016-17, around a third (31%) were classified as 'Large', but these companies accounted for the vast majority of relief claimed (95%).
- Over half (55%) of the companies that claimed in 2016-17 were in the Manufacturing sector (including pharmaceuticals).
- The number of companies claiming relief varies significantly across UK regions, with the highest number in the South East (17% in 2016-17) and the lowest in the North East (3%). There is also significant regional variation in the value of relief claimed under the Patent Box; in particular, companies in London claimed more than half (51%) of the total relief in 2016-17.

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## Section 1: Introduction

### About these statistics

This is an Official Statistics publication produced by HM Revenues & Customs (HMRC). It provides information on the number of companies claiming relief under the UK Patent Box and the value of this tax relief in 2014-15, 2015-16, 2016-17, and a forecast value of relief for 2017-18.

It is the first publication in a new format capturing key messages with the inclusion of maps providing regional analysis of Patent Box claims; feedback on the new format is welcomed.

This is the fourth iteration of the Patent Box statistics, which were published for the first time on 14 September 2016.

Section 2 gives a summary of the key Patent Box findings and statistics. Section 3 provides data broken down by company size, industry sector and UK region. Section 4 gives some background information about the Patent Box and how these statistics have been produced.

The amounts of relief claimed under the Patent Box have been rounded to the nearest £100,000 and the numbers of companies claiming the relief have been rounded to the nearest 5. Because of the rounding some breakdown figures may not add up to provided totals.

These statistics are produced to the professional standards set out in the Code of Practice for Official Statistics (2009). For more information on the statistics produced by public bodies, please visit the UK Statistics Authority website:

[www.statisticsauthority.gov.uk](http://www.statisticsauthority.gov.uk)

HMRC Official and National Statistics can be found on the gov.uk website:

<https://www.gov.uk/government/organisations/hm-revenue-customs/about/statistics>

### Who might be interested in these statistics?

This publication is likely to be of interest to policy makers in government, academics, research organisations, international bodies, the media and patent holding businesses.

People interested in this publication may also be interested in HMRC's National Statistics publication on Research and Development tax credits:

<https://www.gov.uk/government/collections/corporate-tax-research-and-development-tax-credits>

## Section 2: Background

The UK Patent Box enables companies to apply a lower rate of Corporation Tax to profits earned after 1 April 2013 from qualifying patented inventions and equivalent forms of intellectual property. The relief was phased in from 1 April 2013 and the full benefit of the Patent Box has been available from 1 April 2017. The lower rate of Corporation Tax under the Patent Box is 10% compared with the main rate of Corporation Tax, which was 20% during the period covered by most of these statistics.

Companies must notify HMRC if they wish to claim relief under the Patent Box. This has to be done within two years after the end of the accounting period in which the relevant profits and income arise. Given this time lag, a complete set of data for the third year of the Patent Box – covering the period 1 April 2016 to 31 March 2017, known as the 2016-17 fiscal year – has only recently become available. These data are updated from last year's release.

This release also includes partial statistics for the 2017-18 fiscal year. The 2017-18 figures will be updated based on a complete set of data in the next annual release (Autumn 2020), and are expected to be revised upwards.

## Section 3: Distribution of Patent Box data

### 3.1 Distribution by year

In 2016-17, 1,170 companies claimed relief under the Patent Box, and the total value of relief claimed was £1,035 million. So far in 2017-18, 1,120 companies have claimed relief under the Patent Box, with a total value of £993 million; these figures are expected to be revised upwards when more data become available. If the proportion of later claims are the same as in previous years then the total value of claims for 2017-18 is likely to be around £1,125 million.

Figure 1 below displays the total volume and value of claims from 2013-14 to 2017-18.

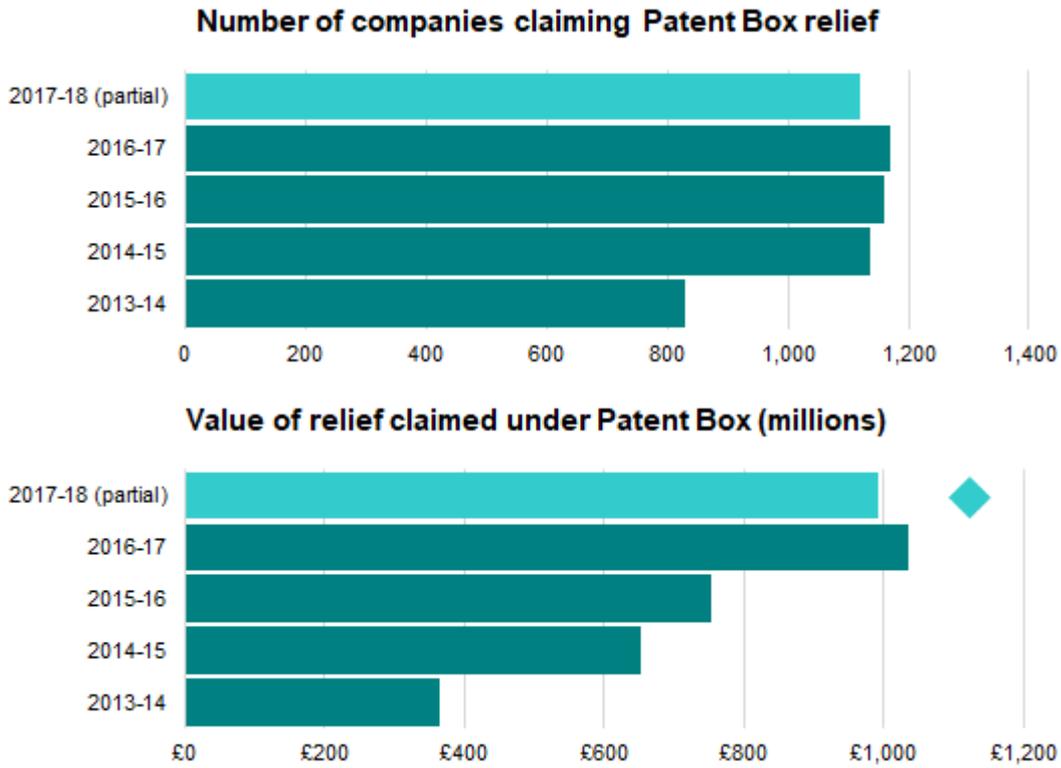
Over the period since its introduction the value of relief has increased as the rate has been phased in, with that growth slowing in 2017-18 which is the first year where the relief is fully phased in.

Other factors may have influenced variations year on year. Firstly, there was uncertainty for several years caused by the knowledge that OECD was developing its new rules for IP regimes. The final rules were not announced until October 2015, and this may have put businesses off claiming until then. This effect may have lasted sometime after that date as companies considered the new rules and whether or not to claim.

Secondly, once the new rules were announced, there was a limited period during which companies electing into the Patent Box could have received “grandfathering”, that is, being treated under the old rules, until 2021. This could have encouraged some companies which had not yet done so, but planned to, to bring forward elections.

The remaining increase in costs can probably be attributed to this being a new relief and it taking time for businesses to become aware of it and factor it into their plans.

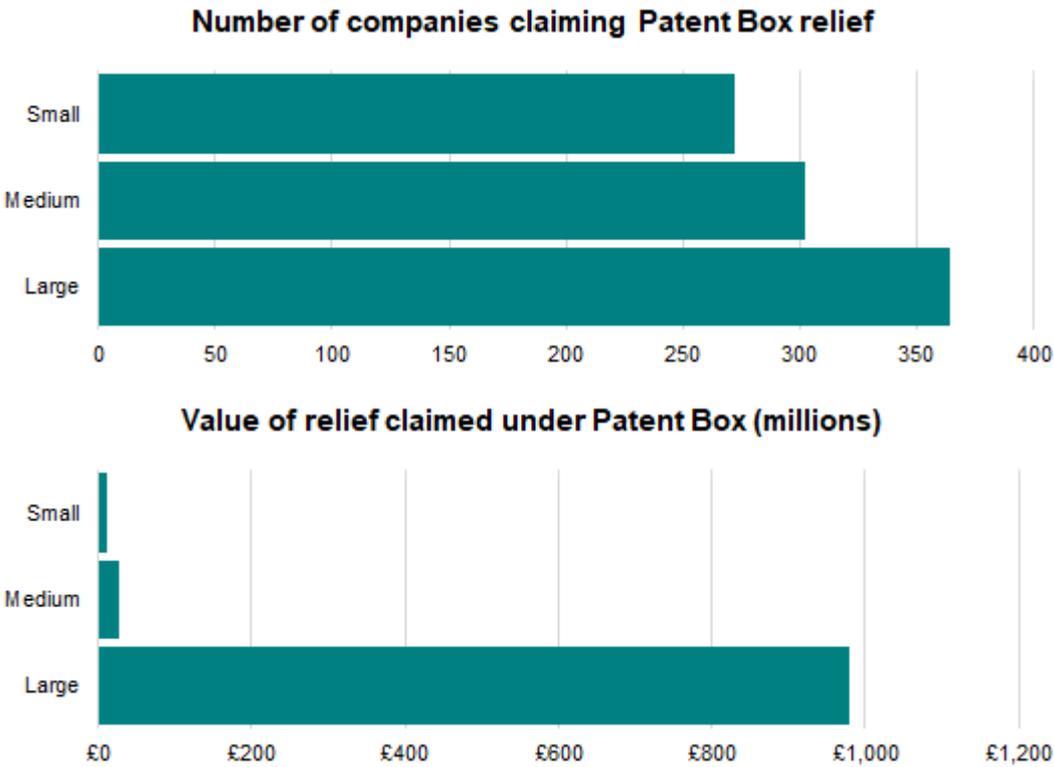
In 2016 the government made changes to the design of the Patent Box to comply with the new OECD rules for IP regimes (the so-called ‘Nexus’ changes). These are expected to have a relatively small impact on the cost of the Patent Box.



**Figure 1:** Number of companies claiming Patent Box relief and total relief claimed from 2013-14 to 2017-18. The figures for 2017-18 are partial and will be revised upwards once a complete set of data are available. The diamond on the second chart shows our estimate of the likely level of total relief claimed in 2017-18 once all claims are received based on the proportion of later claims received in previous years.

### 3.2 Distribution by company size

Figure 2 below presents the value and volume of Patent Box claims by company size. Company size breakdowns are based on the European Union Enterprise Size Classification (see Annex A).



**Figure 2:** Number of companies claiming Patent Box relief and total relief claimed in 2016-17 by company size

### 3.3 Distribution by industry sector

Figure 3 below presents the number of companies claiming the Patent Box relief in 2016-17 by industry sector. These sectors are based on the Standard Industrial Classification (SIC) 2007. More details on the SIC 2007 can be found in Section 4.

Many companies that undertake research and development also manufacture and/or sell their products either wholesale or retail, which explains the contribution of these sectors to the Patent Box. Research and development is expected to be common within the 'Professional, Scientific and Technical' sector.

We are not able to provide a similar graph of the total relief claimed by industry sector without violating HMRC's disclosure rules. The industry sector accounting for the highest proportion of the total relief claimed is Manufacturing (46%), followed by Professional, Scientific and Technical Activities (27%).

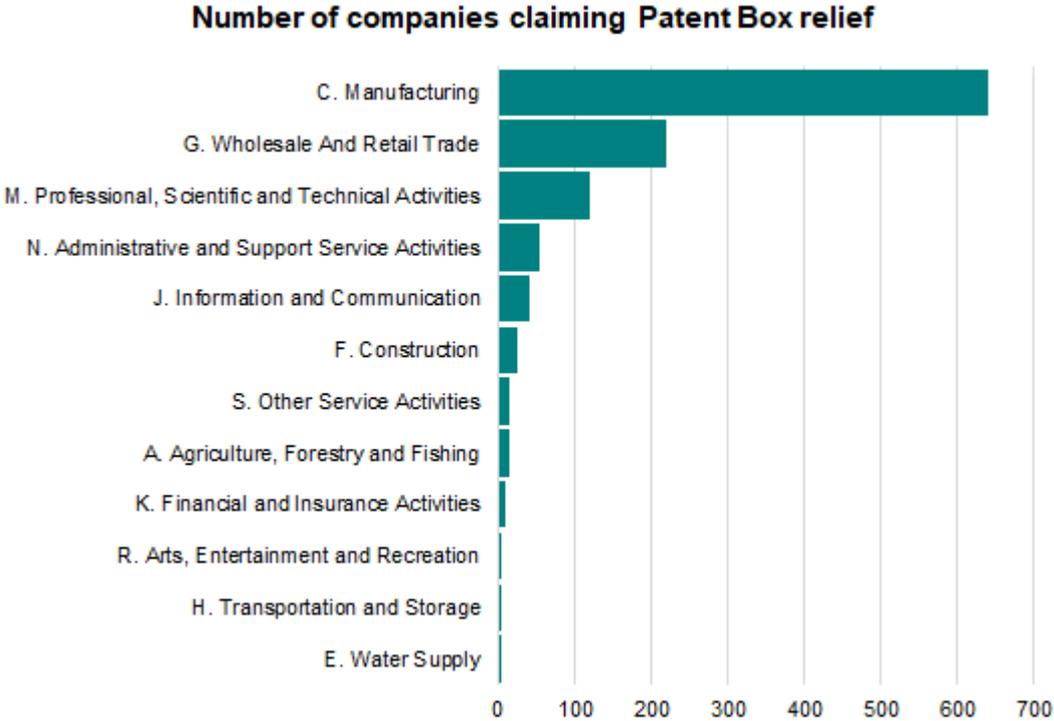
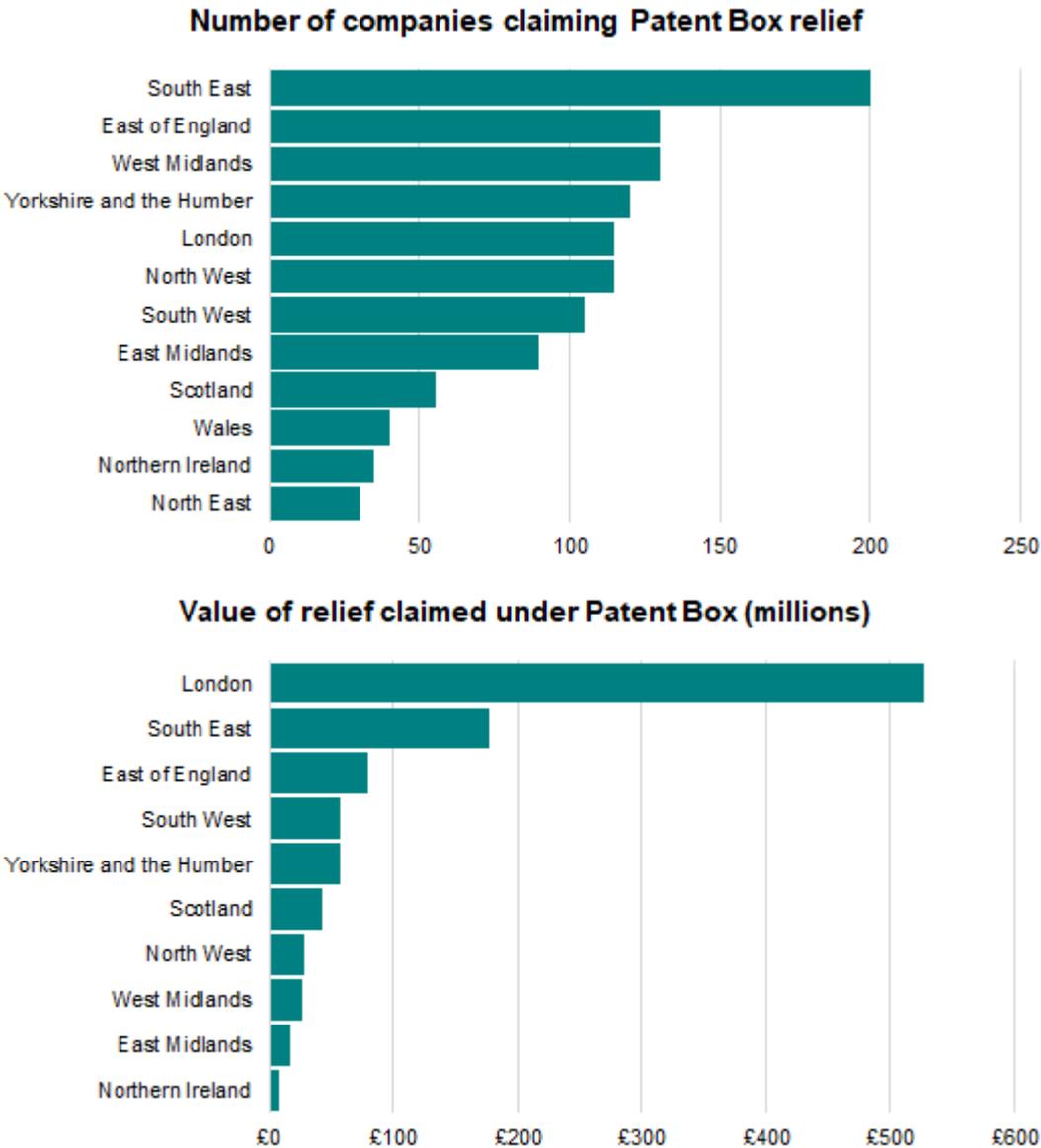


Figure 3: Number of companies claiming Patent Box relief in 2016-17 by industry sector

### 3.4 Distribution by region

The geographic breakdowns shown in this section are based on the UK Government Office Regions (see Section 4 for more information). When interpreting these statistics it should be noted that companies can have a single address for tax purposes (for example, a headquarters location) even though they may have operations across the UK. This analysis is based on taxpayers' addresses given to HMRC for tax purposes.

Figure 4 below presents the value and volume of Patent Box claims by UK region. The two smallest regions by value of relief claimed, the North East and Wales, have been removed from the second chart to avoid disclosure.

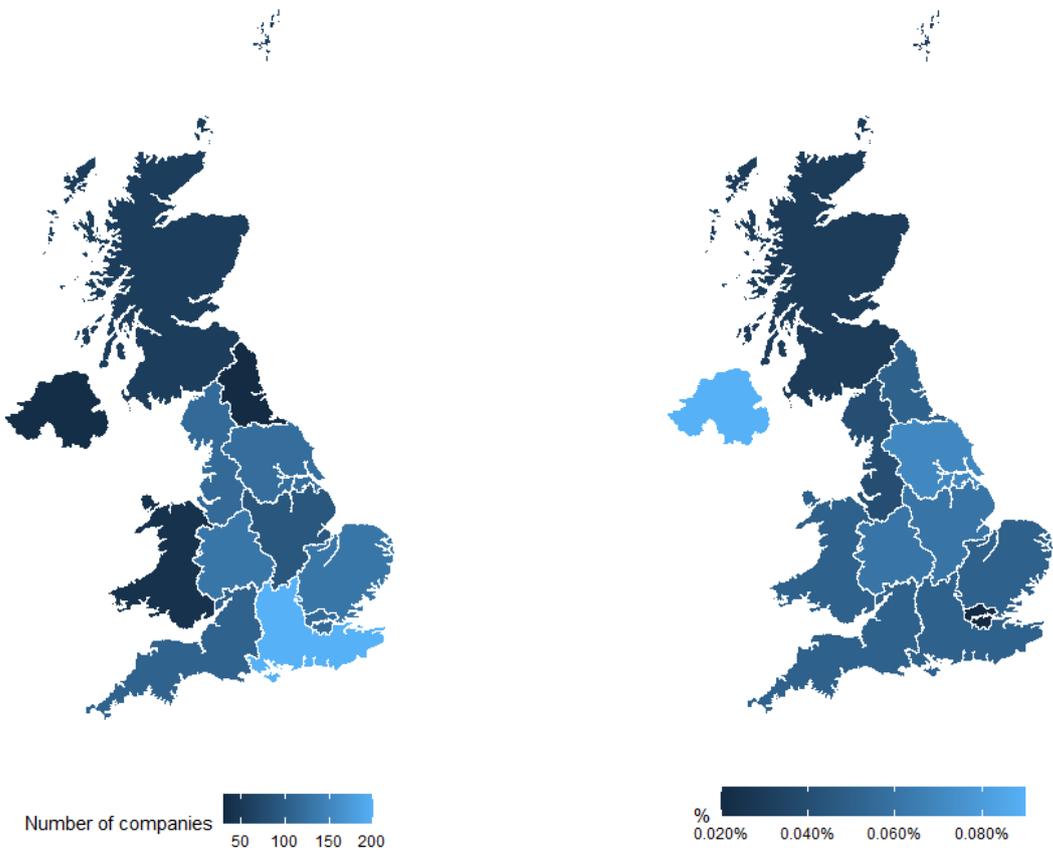


**Figure 4:** Number of companies claiming Patent Box relief and total relief claimed in 2016-17 by region

Figure 5 below presents two maps which show regional distribution of companies claiming Patent Box relief across the United Kingdom, both in total and as a proportion of the total companies in that region. These maps were updated in September 2020 after an error was identified in the original publication.

The first map shows that there are more companies registered in South East England claiming Patent Box relief than in any other region of the UK. The second map shows that there are more companies headed in Yorkshire and the Humber claiming Patent Box relief as a proportion of the total companies in that region than in any other region.

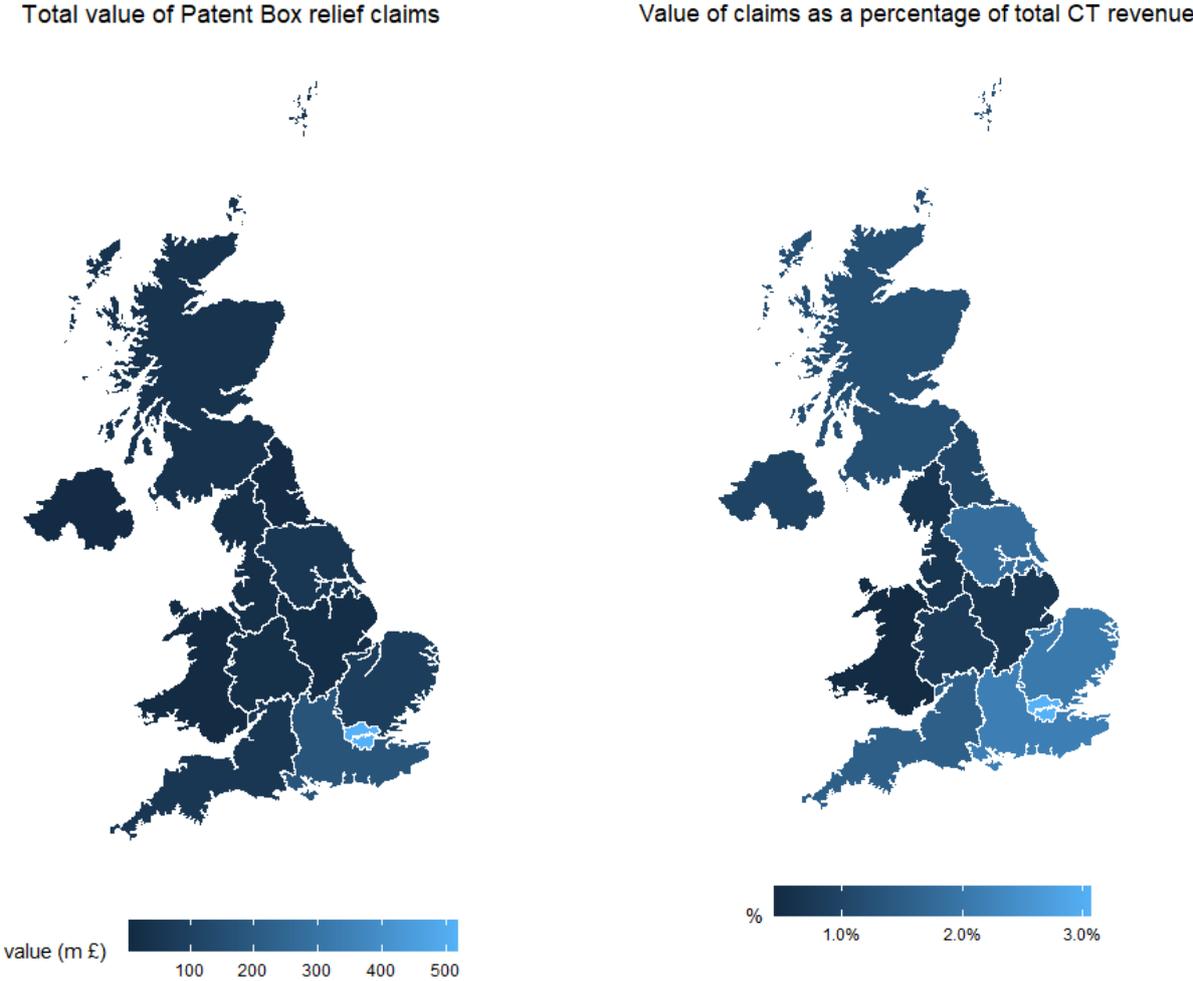
Regional distribution of companies claiming Patent Box relief    Businesses claiming relief as a percentage of total businesses



**Figure 5:** Regional distribution of companies claiming Patent Box relief across the United Kingdom

Figure 6 below presents two maps which show the regional distribution of the total value of claims and the total value of claims as a percentage of CT revenue across the UK. These maps were also updated in September 2020 for consistency.

The first map shows that by far the highest total value of claims in 2016-17 was in London. The second map shows that as a proportion of total CT revenue, the value of Patent Box claims is distributed more evenly across the UK, although still with the highest value in London.



**Figure 6:** Regional distribution of the value of Patent Box relief across the United Kingdom

## Section 4: Background information

The UK Patent Box was introduced in the Finance Act 2012, effective from 1 April 2013, having been announced in the 2010 Corporate Tax (CT) Roadmap. It applies a lower rate of Corporation Tax (10%, as compared with a main rate of 20% in 2016-17) to profits attributable to patents and equivalent forms of intellectual property (IP). This is delivered by an additional deduction, based on the level of IP profits so that the benefit to the company is equivalent to that of a lower rate. The benefit was phased in, with companies fully benefitting from the 10% rate from 2017-18.

The aim of the Patent Box is to provide additional incentive for companies to:

- Increase the level of patenting of IP developed in the UK, and ensure that new and existing patents are further developed and commercialised in the UK;
- Manufacture and sell those innovative products and services from the UK; and
- Locate the high-value jobs associated with the development, manufacture and exploitation of patents in the UK.

In 2016 the Government made changes to the design of the Patent Box to comply with a new international framework for preferential tax regimes for IP set out by the Organisation for Economic Co-operation and Development (OECD).

This means that the amount of profit from an IP asset which can qualify for the reduced 10% rate of Corporation Tax available through the Patent Box will depend on the proportion of the asset's development expenditure incurred by the company.

### 4.1 Data sources and reliability of the estimates

The Patent Box statistics in this release are compiled using data collected from electronically filed company tax returns. The Corporation Tax computations, where relief under the Patent Box is claimed, are submitted to HMRC in iXBRL (electronic) format. This allows companies to electronically 'tag' their Patent Box claim so that the number and value of each claim can be extracted automatically.

#### *Tagging errors*

Some Patent Box claims do not have the correct iXBRL 'tag' applied to them. Further review and scanning of tax computation documents was therefore required to identify computations containing relevant terms such as "Patent Box" or "Patent Relief" that would otherwise be missed.

HMRC is currently working to improve and extend its electronic text reading capabilities to routinely 'read' all documents submitted as part of the company tax return. While this will make it easier to find Patent Box claims in future, we expect there to be little impact on the figures provided in this publication because of the manual review work and extra quality assurance undertaken in preparing the statistics.

All of the tax computations identified via the iXBRL 'tagging' or text reading processes outlined above were then manually reviewed to:

- Ensure that the tags were used correctly for Patent Box claims;
- Extract the value of the claim if found by text reading and confirm the position in other years where there was no apparent claim; and
- Ensure that when amendments to returns were made only the difference in amounts was recorded to avoid double counting.

#### *Industry sector information*

Companies in HMRC's data are allocated a Standard Industrial Classification (SIC) 2007 code that best describes a company's primary economic activity. More details can be found here:

<https://www.gov.uk/government/publications/standard-industrial-classification-of-economic-activities-sic>

However, some companies engage in more than one type of economic activity. The industry sector breakdown in this publication does not necessarily indicate where a company's research and development activity takes place. For example, a company primarily doing manufacturing (and therefore allocated to the 'Manufacturing' sector) could also have a branch undertaking research and development activity in the 'Scientific' sector. For this reason, the industry sector information should be viewed as only a broad picture as to where activity takes place.

#### *Geographic information*

The geographic information in this publication is based on the addresses given by companies claiming relief under the Patent Box. The location of this address is not necessarily where a company's research and development, manufacturing, or other activity takes place. Companies provide a Registered Office address to HMRC for communication purposes, but can have business activities located in other UK regions.

## **4.2 Revisions to published information**

The Patent Box figures are subject to revision. Although the majority of returns are finalised within two years of the end of the company's accounting period, there are exceptional cases which can take longer. As a result, there is no specific point at which data for the latest year can be considered as complete and final. In practice, the statistics are revised to replace any figures marked as provisional in the previous release of the statistics. However, where the revision to a year is particularly small and would lead to the potential disclosure of individual companies, these revisions will be suppressed (based on our standard approach to statistical disclosure control) until a subsequent release.

### **4.3 Planned developments and changes**

#### *Frequency of publication*

HMRC plans to publish these Patent Box statistics annually as each year of data becomes available from company tax returns.

#### *Statistics alignment*

Because of the way the Patent Box is designed, a complete set of annual data of the relief for any given year becomes available only after two years from the end of that given year. In the past this has meant that Patent Box statistics lag behind by at least one year compared to other tax statistics produced by HMRC.

To align Patent Box statistics with the rest of HMRC publications we have published provisional statistics for 2017-18 based on claims made up to and including 30 June 2019. The statistics will be updated based on the complete set of Patent Box claims relating to 2017-18 in the next annual release (Autumn 2020).

#### *User engagement*

HMRC is committed to providing impartial quality statistics that meet our users' needs. We encourage our users to engage with us so that we can improve our National and Official Statistics and identify gaps in the statistics that we produce. Please see the following link for HMRC Statistics "Continuous User Engagement Strategy":

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/278751/HMRC\\_statistics\\_continuous\\_user\\_engagement.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/278751/HMRC_statistics_continuous_user_engagement.pdf)

If you would like to comment on these statistics or have any enquiries, please use the statistical contacts named at the end of this section and on the cover page.

### **4.4 UK Statistics Authority assessment**

This publication has yet to be assessed for compliance with the Code of Practice for Official Statistics by the UK Statistics Authority (UKSA). This means that the figures in this publication are not yet classified as National Statistics, but as Official Statistics.

UKSA is an independent body directly accountable to Parliament with the overall objective to promote and safeguard the production and publication of official statistics. It is also required to promote and safeguard the quality and comprehensiveness of official statistics and good practice in relation to official statistics.

Please refer to UKSA's website for more details about the assessment process:

<https://www.statisticsauthority.gov.uk/monitoring-and-assessment/assessment/>

We aim to ready this publication for UKSA assessment in the future.

#### **4.5 Contact points**

Enquiries about these statistics should be directed to:

Huw James  
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HM Revenue & Customs  
100 Parliament Street  
London SW1A 2BQ  
Telephone: 03000 589 038  
E-mail: [huw.james@hmrc.gov.uk](mailto:huw.james@hmrc.gov.uk)

For enquiries relating to the Patent Box policy please contact:

Jane James  
Business, Assets and International  
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Media enquiries should be directed to the HMRC Press Office contacts listed on the front page of this release.

For general or other enquiries please refer to HMRC's website:  
<https://www.gov.uk/government/organisations/hm-revenue-customs>

# Annex A: Company size definitions

## Company size definition

The size of a company is based on the European Union Enterprise Size Classification as shown in the following table:

<b>European Union Enterprise Size Classification</b>	<b>Turnover (€ million)</b>	<b>Total assets (€ million)</b>	<b>Number of employees</b>
Micro	2	2	9
Small	10	10	49
Medium	50	43	249
Large	> 50	> 43	250+

The values shown are upper limits (except for the 'Large' category). To be classified as a certain size, a company must meet the Employee limit and one or other of the Turnover and Total assets limits. Information on turnover, total assets and number of employees comes from various internal and external sources. Where this information is missing companies have been grouped into the 'Unknown' category.