

Practice guide

A new era for the UK patent box

Speed read

The UK patent box regime is a statutory tax incentive regime that enables companies to claim an effective 10% corporate tax rate on certain qualifying IP profits. The patent box regime is a valuable UK incentive and will become even more beneficial with the announced increase in the UK corporation tax rate to 25% from 1 April 2023. All companies claiming patent box relief are subject to the new nexus regime from 1 July 2021. These new rules require claimants to track their R&D expenditure in order to calculate a cumulative 'nexus' R&D fraction, between 0 and 1, and apply this to their relevant IP profits, which must now be calculated using a streaming methodology. In most cases, compliance with the nexus patent box regime needn't be onerous. However, claimants will be expected to document their position and monitor it going forwards.



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Introduction to the UK patent box regime

The UK patent box regime was originally introduced in 2013. It provides for a corporation tax rate of 10% on profits derived from the exploitation of qualifying patents. The stated aim of the patent box regime 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

Broadly, a company qualifies for the UK patent box regime if:

- it legally owns or exclusively licenses in a 'qualifying IP right' (CTA 2010 s 357B(2));
- it meets the development condition in CTA 2010 s 357BC; and
- where a company is part of a group, it meets the active ownership condition in CTA 2010 s 357BE.

Assuming that a company qualifies, it must then elect into the patent box regime and undertake calculations

that identify 'relevant IP profits'; broadly, the company's taxable profits allocable to the company's exploitation of their qualifying IP, subject to a number of regime-specific adjustments. The taxable profits allocable to qualifying IP are taxed at an effective rate of 10%, rather than the main rate of corporation tax (currently 19%). The relief is given via a deduction from total taxable trading profits for a chargeable accounting period.

In 2017/18, the latest year for which HMRC published detailed statistics, 1,305 companies made UK patent box claims, with the total value of relief being £1,101m. More than half of the claimant entities were in the manufacturing sector (715 claimants), although the highest proportion of the aggregate relief was claimed by companies in the financial and insurance sector (34% of aggregate relief).

The 'new' patent box regime

The nexus changes to the patent box regime were introduced from 1 July 2016 and applied to all new entrants from this date. For existing claimants, grandfathering provisions, are available until 30 June 2021. Following this date, all claimants are subject to the new rules.

The changes arose as a result of the OECD's BEPS initiative (Action 5) and are intended to limit access to preferential intangibles regimes to companies that can demonstrate sufficient substance. Demonstration of sufficient substance is predicated on a link, or 'nexus', between R&D activity of the claimant company and the tax benefit derived from the preferential regime.

From a UK patent box perspective, the alignment of tax benefit and economic substance is achieved by linking the income generated by the exploitation of the relevant IP to the levels of R&D expenditure incurred to develop that IP. This is done through the calculation and application of a cumulative 'R&D fraction' to each identified sub-stream of relevant IP profits.

The methodology of the new patent box regime

The nexus regime is largely based on the old patent box regime with the qualification requirements remaining largely unchanged. The two main changes are to the calculation of a company's relevant IP profits. A high-level overview of the calculation methodology is detailed in the flowchart opposite. In summary, in step 2 (CTA 2010 s 357BF), the streaming of profits becomes mandatory (as opposed to being elective under the old regime) and at step 6 (CTA 2010 s 357BF), an R&D fraction is then applied to those profit streams.

The R&D fraction links the beneficial tax rate on income from a qualifying IP right to the research and development expenditure incurred by the company.

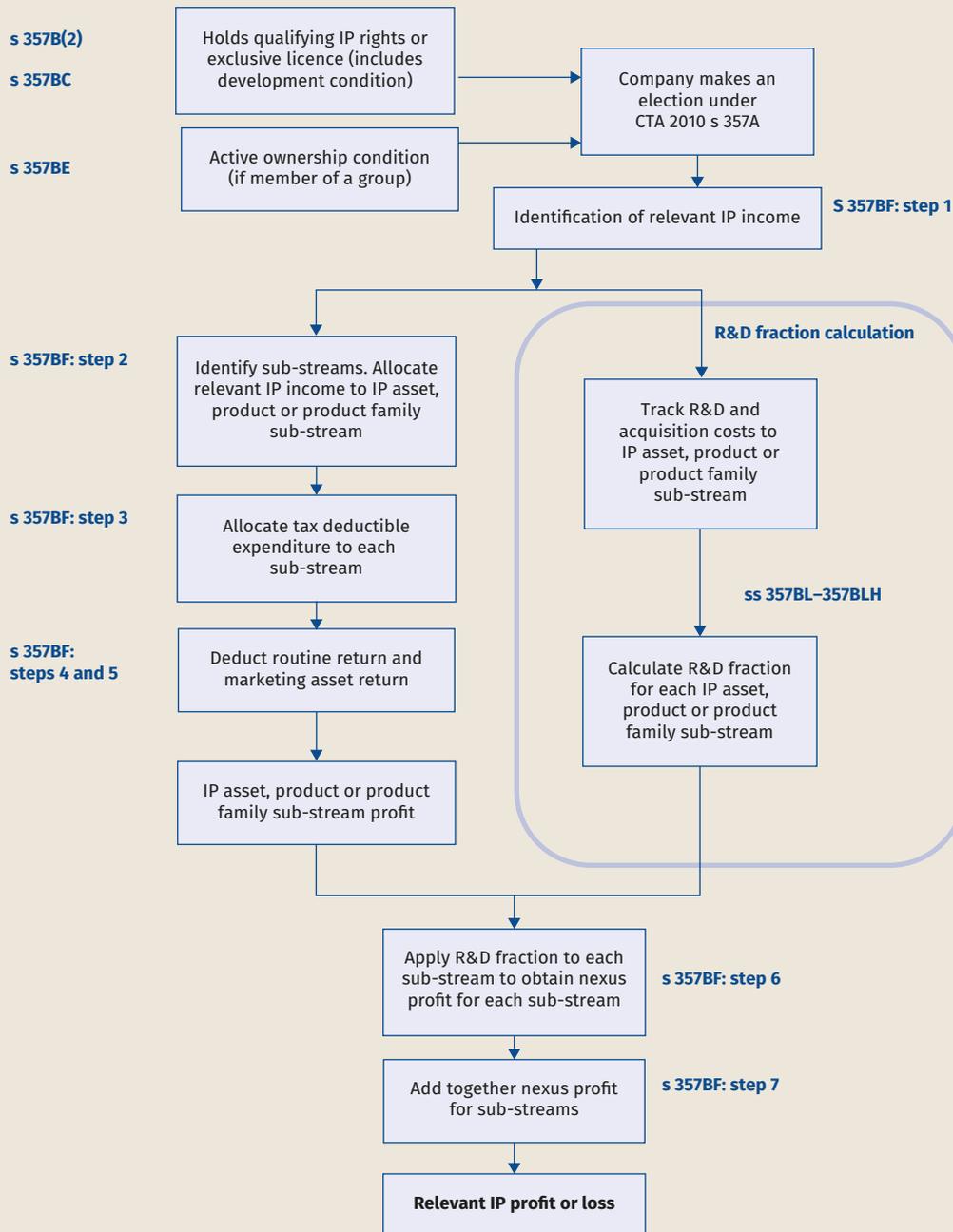
The following looks at each change in more detail.

Streaming profits

Streaming requires a company to calculate patent box profits by 'just and reasonably' allocating costs to patented income sub-streams. Under the old regime the default approach was formulaic and used the percentage of patented turnover to total turnover to apportion profits. However, using a streaming methodology can be beneficial as it is not uncommon for a company's patent income streams to command higher profit margins.

Where a company has historically undertaken all its own R&D such that its nexus fraction would be 1 for all income streams then it is only necessary to calculate one patented income sub-stream each year (as set out in HMRC's

Overview of the new patent box methodology



guidance, at CIRD272000). However, in some cases it may be necessary to subdivide the patented income stream. This is outlined at s 357BF(2) and requires a company to identify all ‘relevant IP income sub-streams’, corresponding either to individual IP rights, products, or processes.

The legislation also permits sub-streams to be defined on a ‘product family’ basis (as defined at s 357BF(6)). This enables the grouping of IP item or IP process sub-streams, having regard to the purposes for which the IP items or IP processes are intended to be used or capable of being used).

Calculating the R&D fraction

Following the identification of the sub-streams, step 6 prescribes the application of a cumulative, and individual, ‘R&D fraction’ to each sub-stream. This fraction takes a value between 0 and 1 and is defined (at CTA 2010

s 357BLA) as the lesser of 1 and:

$$\frac{(D+S1) \times 1.3}{D+S1+S2 + A}$$

The categories of expenditure within the R&D fraction are:

- D: R&D eligible staff costs, consumables and externally provided workers (EPWs) incurred by the entity;
- S1: R&D costs sub-contracted to unconnected parties;
- S2: R&D costs sub-contracted to connected parties;
- A: acquisition costs of qualifying IP rights only.

If the value of the R&D fraction is below 1 then only a portion of the patent box benefit will be available to the company. Consequently, it follows that if the fraction has a value of 0, then no benefit is available. For these purposes, the definitions of R&D expenditure align with the definition

Example 1: Calculating R&D fraction and the value of the patent box claim

Moonbeam Ltd ('Moonbeam') has pre-R&D fraction IP profits of £10m and the company has determined that they only have one relevant IP sub-stream, relating to the sales of their patented product, 'Moonrock'.

Moonbeam were a new entrant for the period ended 31 December 2020 and were therefore immediately subject to the 'new' patent box rules. As a result, Moonbeam are required to calculate their R&D fraction cumulatively using R&D expenditure data from 1 July 2013 onwards if possible, and 1 July 2016 onwards, as a minimum. We have assumed that the expenditure is tracked from 1 July 2016.

Moonbeam has historically undertaken R&D activity in-house and outsourced a small amount to an unconnected company. However, in the years ending 31 December 2021 and 31 December 2022, Moonbeam ceases outsourcing and instead begins to subcontract some of the R&D activities to their sister company, Solarbeam Ltd, which is the wider group's R&D centre. This expenditure comprises 'S2' expenditure for the purposes of the R&D fraction.

Moonbeam's R&D expenditure across the relevant periods, and cumulative R&D fraction is detailed in table 1.

Table 1: Moonbeam Ltd R&D fraction calculation

Type of R&D expenditure	1 July 2016 - 31 December 2020 (£000s)	Period ending 31 December 2021 (£000s)	Period ending 31 December 2022 (£000s)
In-house expenditure ('D')	4,000	2,000	1,000
Subcontracted to unconnected parties ('S1')	1,000	Nil	Nil
Subcontracted to connected parties (Solarbeam Ltd) ('S2')	Nil	6,000	6,800
Acquisition costs of the patent ('A')	Nil	Nil	Nil
Annual R&D expenditure	5,000	8,000	7,800
Cumulative R&D expenditure	5,000	13,000	20,800
Cumulative R&D fraction calculation	$\frac{1.3(4,000+1,000)}{4,000+1,000} = 1.3$	$\frac{1.3(6,000+1,000)}{6,000+1,000+6,000} = 0.7$	$\frac{1.3(7,000+1,000)}{7,000+1,000+12,800} = 0.5$
R&D fraction (capped at 1)	1	0.7	0.5

Table 2 demonstrates the impact that these cumulative R&D fractions would have on the value of the patent box claims in Moonbeam.

Table 2: Moonbeam Ltd patent box claim value

Patent box calculation	31 December 2020 (£000s)	31 December 2021 (£000s)	31 December 2022 (£000s)
Pre-fraction IP profits	10,000	10,000	10,000
R&D fraction	1	0.7	0.5
Relevant IP profits	10,000	7,000	5,000
patent box deduction - $\frac{(CT\ rate^*-10\%)}{CT\ rate}$	4,737	3,316	2,368
Cash tax saving	900	630	450

*Assumes a 19% CT rate throughout

The increased expenditure on connected party sub-contracted R&D lowers the cumulative R&D fraction and the benefit available to Moonbeam under the patent box regime declines considerably across both 2021 and 2022.

used by the research and development expenditure credit (RDEC) regime, as summarised in HMRC's Guidance at CIRD82100.

Broadly speaking, if the company has historically undertaken all R&D activity in respect of its qualifying IP and has not acquired the qualifying IP, then the fraction is likely to be 1, as the company has only incurred 'good' expenditure (being categories 'D' and 'S1'). If the company has acquired the IP or subcontracted the R&D work for the patented technology to a connected company then, to the extent that the acquisition costs or the subcontracted

connected company expenditure exceeds the 30% uplift on 'good' expenditure undertaken in-house and sub-contracted to third parties, this could have a negative impact on the R&D fraction.

The requirement to track R&D expenditure

In order to calculate the R&D fraction it is necessary to track the relevant R&D expenditure. In some cases all of the data required to calculate the R&D fraction will already be collated for the purposes of preparing a

Example 2: EPWs versus subcontracted R&D expenditure

This example follows example 1, except Moonbeam has concluded that, in the years ending 31 December 2021 and 31 December 2022, 50% of the R&D expenditure paid to Solarbeam Ltd is in respect of arrangements appropriately characterised as the provision of EPWs, rather than sub-contracted R&D services.

Table 3: Moonbeam Ltd R&D fraction calculation – EPW assessment

Type of R&D expenditure	1 July 2016 - 31 December 2020 (£000s)	Period ending 31 December 2021 (£000s)	Period ending 31 December 2022 (£000s)
In-house expenditure & EPW expenditure ('D')	4,000	5,000	4,400
Subcontracted to unconnected parties ('S1')	1,000	£nil	£nil
Subcontracted to connected parties (Solarbeam Ltd) ('S2')	£nil	3,000	3,400
Acquisition costs of the patent ('A')	£nil	£nil	£nil
Cumulative R&D expenditure	5,000	13,000	20,800
R&D fraction calculation	$\frac{1.3(4,000+1,000)}{4,000+1,000} = 1.3$	$\frac{1.3(9,000+1,000)}{9,000+1,000+3,000} = 1$	$\frac{1.3(13,400+1,000)}{13,400+1,000+6,400} = 0.9$
R&D fraction (capped at 1)	1	1	0.9

Table 4 demonstrates the impact that these R&D fractions would have on the patent box claims in Moonbeam.

Table 4: Moonbeam Ltd patent box claim value – EPW assessment

Patent box calculation	31 December 2020 (£000s)	31 December 2021 (£000s)	31 December 2022 (£000s)
Pre-fraction IP profits	10,000	10,000	10,000
R&D fraction	1	1	0.9
Relevant IP profits	10,000	10,000	9,000
patent box deduction - $\frac{(CT\ rate* - 10\%)}{CT\ rate}$	4,737	4,737	4,263
Cash tax saving	900	900	810

*Assumes a 19% CT rate

The difference between a sub-contracted R&D relationship and EPW has a material impact on the value of Moonbeam's patent box claims. In the year ending 31 December 2021, the difference meant the cumulative R&D fraction stayed at 1. In the year ending 31 December 2022, the cumulative R&D fraction did drop below 1, however the benefit to Moonbeam was much higher than in example 1.

company's R&D claims.

As a minimum requirement, the R&D fraction is calculated cumulatively from 1 July 2016. Where an entity is a 'new entrant' and the accounting period begins before 1 July 2021, companies are required to track from 1 July 2013. However, according to HMRC's guidance in its *Corporate Intangibles Research and Development Manual* at CIR272200, as this date was before the date the legislation was enacted, HMRC acknowledges that companies may not have this information and therefore will accept 1 July 2016 as the start date for tracking. If helpful to a claimant's position, a claimant can elect under s 357BLF(2)(b) to extend the relevant period for tracking and go back up to 20 years.

If the value of a company's R&D fraction clearly takes a value of 1 by virtue of the fact that there is no 'bad' expenditure for the purposes of the R&D fraction, being 'S2' or 'A' expenditure, the claimant's patent box claims

should be unaffected by the nexus patent box rules.

Furthermore, HMRC's guidance (at CIR272000) sets out that the claimant is not required to go into further detail in calculating its R&D fraction. Where this is the case, it is still recommended that companies monitor and retain their cumulative R&D expenditure from 1 July 2016 should the need to calculate the cumulative R&D fraction arise, for example if significant relevant subcontracted spend is incurred in later periods.

Example 1 (opposite) illustrates this calculation.

Externally provided workers versus subcontracted R&D expenditure

The requirement to calculate the R&D fraction brings into the spotlight the distinction between expenditure on externally provided workers (EPWs) and expenditure on sub-contracted R&D.

For the purposes of the R&D fraction, expenditure on EPWs (either connected or not) is 'D' expenditure for the purposes of the fraction and therefore is 'good'. Conversely, expenditure on connected sub-contracted R&D is 'bad' expenditure for the purposes of the R&D fraction, forming category 'S2'. As such, whether expenditure is categorised as EPW expenditure as opposed to sub-contracted R&D can be of material importance to a patent box claim.

The definition of EPWs for these purposes is from the R&D legislation (CTA 2009 s 1128). The legislation sets out seven conditions (A to G) that need to be met for a person to be an EPW. Broadly speaking, the arrangement must be for the provision of individuals (from either a connected or unconnected party) who will operate as if they were staff of the claimant company but on a temporary basis – as opposed to an arrangement for the provision of some type of consultancy advice or subcontracting of the R&D activity. Typical characteristics of EPW provisions include but are not limited to:

- arrangements which provide resource augmentation for the claimant company;
- where responsibility for quality control for the individuals is with the claimant company; and
- where the claimant company bears the economic risk.

The distinctions in this area can be very fine, and there is no substitute for reviewing the contractual arrangements and related documentation and actual practice to determine the position.

See example 2 on previous page.

Action points

The patent box regime is a valuable UK incentive regime and will become even more beneficial with the announced increase in the rate of corporation tax to 25% from 1 April 2023.

It could be the case that a claimant's R&D fraction will be demonstrably 1. Where this is the case and the company has previously used the default formulaic methodology, applying the required streaming methodology may increase the benefit where patented income profit margins are higher.

All claimants should consider the following points in relation to their claims:

- Perform an exercise to identify relevant IP sub-streams.
- Determine the historic R&D expenditure profile of the claiming company to determine the R&D fraction.
- Track R&D expenditure from at least 1 July 2016 onwards in order to build up a cumulative R&D fraction for each sub-stream, or where it is determined to be 1 and therefore not required, ensure sufficient records are maintained should it be needed in the future.
- Build a methodology and implementation framework for tracking R&D expenditure on a go forwards basis and streamline this with the data available for the R&D claims process.
- Consider whether electing under s 357BLF to include pre-July 2016 R&D expenditure would be beneficial for the calculation of the R&D fraction.
- Where relevant, review existing and prospective intercompany R&D arrangements to consider sub-contracted R&D versus EPW categorisation.
- Continue to monitor opportunities to patent technology resulting from their ongoing R&D efforts. ■



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