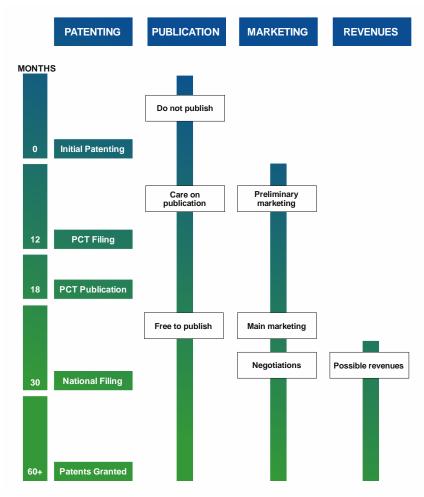
Patenting and Commercialisation Process



Patenting

PBL's typical route for protecting IP involves an initial "priority" filing in the UK or, if applicable another country, followed a year later with a filing through the International Patent Cooperation Treaty (PCT) route, to have the possibility of wide global patent coverage. PBL may file priority filings in specific non-UK jurisdictions, for example in China or USA, based on the circumstances and local patent law requirements.

Publication

Patenting is not a barrier to academic publication, and PBL will coordinate activities with the scientist to minimise any delays in publication while also maximising IP protection.

Marketing

PBL markets new technologies through a worldwide network of contacts, targeted to companies with the expertise to develop the technology. Our focus on biological science enables us to maximise value through our understanding of the relevant markets.

Revenues

Through our revenue sharing arrangements, PBL returns money to the inventors and their universities/institutes after deducting our external patenting costs. PBL may generate early revenues from technology licensing but aims to maximise returns over the lifetime of the technology, potentially seeing significant returns as a share of value from commercially successful applications.

Do Not Publish

Before the initial patent application is filed it is important not to publish (or otherwise disclose non-confidentially) any information about the invention (see <u>Disclosures</u>). It is also important to consider your earlier work, as information in a previous paper, or a section in the discussion section (with a speculative comment that may relate to the new invention) may make your new invention lack novelty or be obvious, and hence be unpatentable.

Initial "Priority" Patent

The initial patent filing will usually be through the UK patent office although each case will be examined individually to determine the best filing strategy and to comply with local patent laws. A priority application provides the earliest possible registration of the invention as this is the date at which it will be assessed for novelty and inventiveness.

Note: China requires that inventions made in China should be first filed in China unless certain conditions are met. Certain other countries have similar requirements. In these circumstances, PBL can, and regularly does, file in these countries if so required. The patent will be filed by a firm of external patent agents under the advice of our in-house team. This in-house expertise allows us to minimise external costs, obtain broad coverage and simplifies the process for the inventor/scientist.

Care on Publication

For the next 12 months, prior to the PCT filing we require that inventors closely communicate with PBL about all plans for any new publications. We will advise about potential consequences of publication on patentability and the invention's commercial value. There may also be aspects of the publication that could be added to the PCT application or separately patentable. As such, it is important that inventors keep PBL fully informed of any new developments to the invention, since these could be the subject of a supplementary patent filing that will strengthen the case.

Preliminary Marketing

PBL will carry out a preliminary marketing exercise with selected potential partners under confidentiality agreements. This will help to define the potential market and demand for the technology.

PCT Filing

Typically, PBL will file a further patent application via the Patent Cooperation Treaty (PCT) within 12 months after the priority application's filing date. The PCT application designates most world-wide countries. At this stage it is also possible to add new data and/or features to the application, provided that these features have not already been publicly disclosed.

PCT Publication

The PCT application is published about 18 months after the filing date of the priority application. This is the first point at which the application becomes public and is available via searching through the various on-line patent databases. In other words, this is the first time that third parties will become aware of your patent application.

Free to Publish

After the filing of the PCT application, 12 months from the filing date of the priority application, you are free to publish and disclose with no effects on the patentability of that invention. However, to protect future inventions, PBL would still like to see any related papers (or other disclosures) before publication so as to comment on any future IP aspects, or additional inventions.

Main Marketing

The main marketing process will usually start after the PCT publication. Detailed descriptions of the technology will be sent to a selected network of company contacts for evaluation, and the technology will be advertised on the website, at international conferences, and in one-to-one meetings with PBL's company contacts. To facilitate this process the inventor is usually involved in providing supporting information and checking the accuracy of the material sent out. When specific technical questions are asked by an interested company then these will either be answered by PBL, or the inventor as appropriate. PBL is keen to involve the inventor/scientist during the marketing process as they know the technology better than anyone. We will always properly attribute research and present your invention as "your" technology.

Negotiations

Once a company has decided that it is interested in a technology, then PBL will negotiate a contract in order to maximise the technology's value. The deal will usually involve licensing, usually preceded by technical testing and evaluation, with or without a licence-option. In some circumstances, other ways forward, such as start-up companies, joint ventures or other equity-based arrangements may be selected, as appropriate. With its long track record of successful deals PBL is in a unique position to determine the most appropriate route to market and the value of a technology. We are also in a position to package technologies together due to our extensive and dynamic technology portfolio.

Possible Revenues

It is always PBL's intention to generate some revenue early on in any agreement. However, some of this will be used to cover external patent costs which can be large, especially at the stage of national filing. Long term value is an important part of any deal as this is where the potential to generate significant revenue usually lies. As part of its policy of only taking on high quality science, PBL will expect to generate revenue from every technology that it adopts. This focuses on quality and revenue generation.

National Filing

Important decisions about where in the world to apply for patent cover are due 30 months from the filing date of the priority application. The countries/regions in which to file will be decided based on the potential value of the technology and the feedback so far from initial marketing. Countries are chosen to maximise coverage in potential markets while considering costs, which can be large at this stage.

Patents Granted

Once sent to the national patent offices the application is examined as to its patentability and questions raised by the patent office will be answered. After consideration, the patent office may grant a patent with claims as allowed through the examination process. This process can take 5-7 years, or more, after the priority filing date of the original application.