

The legal and technical framework for patents

What is a patent family?

Hello everyone and welcome to our course covering the basics in terms of the technical and legal framework for patents. My name is Duncan Clark and I'll be guiding you through this topic in this series of six modules. In this module, we tackle the concept of patent families.

Since patents have to be applied for at a national rather than an international level, it means that a single invention is often associated with numerous identical patents around the world. It's for this reason that the idea of a patent family was introduced – so that patent analysts can rapidly identify patents that relate to a single invention. In this session, we dive into the details of how patent families work, and how patents are linked together using databases such as INPADOC, which stands for International Patent Documentation and is maintained by the European Patent Office, or database-specific family groupings.

The concept of the patent family also prevents distortion within the analysis. If for example, you want to monitor and compare innovation rates of companies in terms of how many single inventions they have patented, then counting patent families removes the bias of multiple worldwide patents describing the same invention.

A patent family is a collection of patent applications covering the same or similar technical content.¹ In other words, it is “the same invention disclosed by a common inventor(s) and patented in more than one country.” Patent families can be regarded as a “fortuitous by-product of the concept of priorities for patent applications.”²

Now, according to the Paris Convention, inventors have one year after filing their initial patent in one country to file for the same invention in other countries. They must claim what's known as “priority” from that original patent in order to ensure that no invention filed by anyone else in that year can be taken as prior art when assessing patentability. It is also possible that a patent may claim priority to more than one document because this patent may be describing multiple similar ideas which can't be all referenced from one previous document. Also working their way into the definition of a family are different “versions” of documents, such as revisions and amendments to an application, or reissues of granted documents.

Finally, it's worth noting that there is no such thing as an official definition of a patent family: As Edlyn Simmons, Managing Director of the Simmons Patent Information Service explains: “Patent families are defined by databases, not by national or international laws, and family members for a particular invention can vary from database to database.”

¹ Peter Groves, A Dictionary of Intellectual Property Law

²

[http://documents.epo.org/projects/babylon/eponet.nsf/0/CE0CCA52C8BAEFCDC1257C99004C1BA2/\\$File/patent_information_news_0114_en.pdf](http://documents.epo.org/projects/babylon/eponet.nsf/0/CE0CCA52C8BAEFCDC1257C99004C1BA2/$File/patent_information_news_0114_en.pdf)

Now, the extended INPADOC family grouping system is the world's most popular method for doing this, however this system is not without its drawbacks.

Simple patent family

Let's start with the simple patent family: "This is a collection of patent documents that are considered to cover a single invention. The technical content covered by the applications is considered to be identical. Members of a simple patent family will all have exactly the same priorities."

"The priorities taken into account are:

- First filings: A first filing is a foreign application claimed under the Paris Convention.
- Then, provisional first filings: A provisional first filing would refer to a US provisional application.
- And finally, equivalents to first filings: An equivalent to a first filing is a US continuation in part.³

Extended patent family

Meanwhile, an extended patent family is a collection of patent documents covering a technology. The technical content covered by the applications is similar, but not necessarily the same. Members of an extended patent family will have at least one priority in common with at least one other member - either directly or indirectly.

Therefore, the priorities taken into account are:

- First filings, provisional first filings and equivalents to first filings (as we explored a moment ago)
- And then, additionally, priorities that refer to an earlier, related application, whether a domestic or an international filing⁴

So, in summary, we have:

First, the simple family:

Alright, this is the smallest possible version of a family. Remember, this is typically made of records that claim the same priorities.

Then the extended INPADOC family:

So, if we link this group of patents with any other patents that claim priority from any of the same documents, we end up with an INPADOC Extended Family.

³ <https://www.epo.org/searching-for-patents/helpful-resources/first-time-here/patent-families/docdb.html>

⁴ <https://www.epo.org/searching-for-patents/helpful-resources/first-time-here/patent-families/inpadoc.html>

And finally, databases may have their own Extended Family. For example, PatSnap may also find additional (or occasionally fewer) members of a patent family during our data normalization and linking process, outside of what the INPADOC has defined. We call this PatSnap Extended Families. These additional members will be related to any or all of the simple families.

That concludes our overview of how patent families are constructed. In our next module, we dive into the detail of patent classification systems. Until then, thanks for watching.