



Entrepreneurs for plasticS'circUlaR Economy

IO1 – Training Course Material





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5. Management of Intellectual Property

5.1. Definition of intellectual property rights

The concept behind intellectual property (IP) is straightforward and has been with us for a long time.¹ Wherever we go, we are surrounded by IP, which rewards innovators and enables everyone to benefit from their achievements.

IP could be defined as a category of property that includes intangible creations of the human intellect. There are many types of IP, and some countries recognize more than others.

The importance of protecting IP was first recognized in the Paris Convention for the Protection of Industrial Property in 1883 and the Berne Convention for the Protection of Literary and Artistic Works in 1886. Both treaties are administered by the World Intellectual Property Organization (WIPO).

All countries have laws to protect IP for two main reasons:

- ✓ to give statutory expression to the rights of creators and innovators in their creations and innovations, balanced against the public interest in accessing creations and innovations,
- ✓ to promote creativity and innovation, so contributing to economic and social development.

IP is usually divided into two branches: copyright and industrial property.

1. Copyright²

It relates to literary and artistic creations, such as books, music, paintings and sculptures, films and technology-based works (such as computer programs and electronic databases). In certain languages, copyright is referred to as authors' rights. Nobody apart from the author has the right to make the work public or reproduce it. In EU countries, copyright protects your intellectual property until 70 years after your death, or 70 years after the death of the last surviving author in the case of a work of joint authorship. Outside of the EU, in any country which signed the Berne Convention, the duration of copyright protection can vary but it lasts until at least 50 years after the author's death.³

2. Industrial Property⁴

The broad application of the term "industrial property" is set out in the Paris Convention. Industrial property takes a range of forms, the main types of which are outlined here. These include patents for inventions, industrial designs (aesthetic creations related to the appearance of industrial products), trademarks, service marks, layout-designs of integrated circuits, commercial names and designations, geographical indications, and protection against unfair competition. In some cases, aspects of an intellectual creation, although present, are less clearly defined. What counts then is that the object of industrial property consists of signs conveying information (in particular) to consumers, regarding

¹ Derek Bosworth, Elizabeth Webster, *The Management of Intellectual Property*, New Horizons in Intellectual Property series, 2006, ISBN 978 1 84542 112 0, [The Management of Intellectual Property \(e-elgar.com\)](http://www.e-elgar.com)

² WIPO Guide on the Licensing of Copyright and Related Rights, https://www.wipo.int/edocs/pubdocs/en/copy-right/897/wipo_pub_897.pdf

³ <https://www.wipo.int/export/sites/www/treaties/en/documents/pdf/berne.pdf>

⁴ <https://www.wipo.int/publications/en/details.jsp?id=4080>



products and services offered on the market. Protection is directed against unauthorized use of such signs that could mislead consumers, and against misleading practices in general.

Within this macro area we find patents, trademarks, trade secret, design protection, website domain and geographical indications.

1. Patents

A patent is a form of right granted by the government to an inventor or their successor-in-title, giving the owner the right to exclude others from making, using, selling, offering to sell, and importing an invention for a limited period, in exchange for the public disclosure of the invention. An invention is a solution to a specific technological problem, which may be a product or a process and generally must fulfil three main requirements: it must be new not obvious and there needs to be an industrial applicability.

Patents, also referred to as patents for invention, are the most widespread means of protecting technical inventions. The patent system is designed to contribute to the promotion of innovation and the transfer and dissemination of technology, to the mutual advantage of inventors, users of inventions and the public. Simply put, once a patent is granted by a State or by a regional office acting for several States, the owner of a patent has the right to prevent anyone else from commercially exploiting the invention for a limited period, generally 20 years. The patent applicant must disclose the invention to obtain protection, and their rights can be enforced only within the territory in which the patent was granted.

2. Trademarks

A trademark is a recognizable sign, label, design or expression which distinguishes products or services of a particular trader from similar products or services of other traders.

3. Trade secret

A trade secret can include a vast amount of information and know-how that is not protectable or cannot be protected properly through patents, such as:

- ✓ early-stage inventions,
- ✓ manufacturing processes,
- ✓ lists of suppliers and clients,

information protected by trade secrets can be strategic for the long-term, like recipes or chemical compounds, or for shorter periods, such as the results of a marketing study, a brand name, price and date of launching of a new product or the price offered in a bidding procedure.

4. Design protection

Design protection guarantees you the exclusive right to use a design, which includes making, offering, putting on the market, importing, exporting or using the product in which your design is incorporated or to which it is applied. If you give your authorisation, third parties can use your design in their products.



5. Website domain

If you have a company and want to make it easier for your customers to find information about your business on the Internet, you can create a website.

You can access a website at its unique **Internet Protocol (IP) address**, a series of digits such as 136.173.60.59 or 91.194.202.11. You will however also want a user-friendly, readable and memorable **domain name** such as europarl.europa.eu or consilium.europa.eu. The domain name will be linked to the IP address; this way, when you type into a browser europarl.europa.eu you will be redirected to the IP address 136.173.60.59.

Database protection: If you have created a database that is accessible by electronic or other means – you can protect:

- ✓ the content, via *sui generis* right,
- ✓ its structure, via a copyright,
- ✓ if your database meets the requirements for copyright and *sui generis* right protections, you can apply for both.

6. Geographical indications (GI)

If your product has a specific geographical origin and a reputation – a given quality or other characteristics of a product essentially attributable to it – you can protect it with a geographical indication. Geographical indications protect:

- ✓ agricultural products and foodstuffs,
- ✓ spirit drinks,
- ✓ wines,
- ✓ aromatised wines.

5.1.1. Intellectual property and the EU

Intellectual property includes all exclusive rights to intellectual creations. It encompasses two types of rights: **industrial property**, which includes inventions (patents), trademarks, industrial designs and models and designations of origin, and **copyright**, which includes artistic and literary property. Since the entry into force of the Treaty on the Functioning of the European Union (TFEU) in 2009, the EU has had explicit competence for intellectual property rights ([Article 118](#)).

Intellectual property creates added value for European businesses and economies. Its uniform protection and the enforcement thereof contribute to the promotion of innovation and economic growth.

Although governed by different international and national laws, intellectual property rights (IPR) are also subject to EU legislation. [Article 118](#) of the TFEU provides that in the context of the establishment and functioning of the internal market, the Parliament and the Council, acting in accordance with the ordinary legislative procedure, establish measures for the creation of EU intellectual property law – to provide uniform protection of IPR throughout the EU – and for the setting-up of centralised, EU-wide authorisation, coordination and supervision arrangements. The legislative activity of the European



Union consists chiefly in harmonising certain specific aspects of IPR through the creation of its own system, as is the case for the EU trademark and design, and as will be the case for patents. Many of the EU instruments reflect the Member States' international obligations under the Berne and the Rome Conventions, as well as under the World Trade Organisation TRIPS Agreement and the 1996 World Intellectual Property Organisation (WIPO) Internet Treaties.

In the EU, the legal framework for trademarks is based on a four-tier system for trademark registration, which coexists with national trademark systems harmonised by means of the Trademark Directive ([Directive 2015/2436](#) of the European Parliament and of the Council of 16 December 2015 to approximate the laws of the Member States relating to trademarks). An EU trademark must have a unitary character and must have equal effect throughout the EU. In addition to the national route, possible routes to trademark protection in the EU are the Benelux route, the EU trademark, introduced in 1994, and the international route. [Regulation \(EU\) 2017/1001](#) of the European Parliament and of the Council of 14 June 2017 on the European Union trademark codifies and replaces all earlier EC regulations on the EU trademark. The codification was carried out in the interests of clarity, given that the EU trademark system had been substantially amended several times. The [European Union Intellectual Property Office](#) (EUIPO) is responsible for managing the EU trademark and design. The EU Trademark Regulation also sets the fee amounts payable to EUIPO. The amounts of those fees were fixed at a level which ensures that the revenue they produce covers EUIPO's expenses and that they complement the existing national trademark systems.

[Directive 98/71/EC](#) of 13 October 1998 approximated national legislation on the legal protection of designs and models. [Council Regulation \(EC\) No 6/2002](#) of 12 December 2001 (amended) instituted a community system for the protection of designs and models. [Council Decision 2006/954/EC](#) and [Council Regulation \(EC\) No 1891/2006](#), both of 18 December 2006, linked the EU system for the registration of designs or models to the international registration system for industrial designs and models of [WIPO](#).

Copyright and related rights

Digital technologies have profoundly changed the way creative content is produced, distributed, and accessed. EU copyright legislation is a set of eleven directives and two regulations which harmonise the essential rights of authors and of performers, producers, and broadcasters. By setting some EU standards, national discrepancies are reduced, a level of protection required to foster creativity and investment in creativity is ensured, cultural diversity is promoted and access for consumers and business to digital content and services across the single market is facilitated.

1. Copyright

[Directive 2001/29/EC](#) of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society adapted legislation on copyright and related rights to technological developments, but is out of pace with the extraordinarily fast developments that have taken place in the digital world, such as the distribution of and access to television and radio programmes, with 49% of internet users in the EU accessing music, audio visual content and games online (Eurostat estimate). Harmonised copyright legislation across the EU for consumers, creators and companies is therefore necessary.

The EU Copyright Directive ([\(EU\) 2019/790\[1\]](#)) of 17 April 2019 provides for an ancillary copyright for press publishers and fair remuneration for copyrighted content. So far, online platforms have had no legal responsibility for using and uploading copyrighted content on their sites. The new requirements will not affect the non-commercial upload of copyrighted works to online encyclopaedias such as Wikipedia. Directive (EU) 2019/789 (the [CabSat Directive](#))[\[2\]](#) was adopted on the same day and aims to increase the number of TV and radio programmes available online to EU consumers. Broadcasting organisations are increasingly offering online services in addition to their traditional broadcasts, as users expect to have access to television and radio content at anytime, anywhere. The directive introduces the country of origin (COO) principle to facilitate the licensing of rights for certain programmes that broadcasters offer on their online platforms (e.g., simulcasting, and catch-up services). Broadcasters must obtain copyright permissions in their EU country of establishment (i.e., COO) to make radio programmes, TV news and current affairs programmes and fully financed own productions available online in all EU countries. Member States have two years to pass appropriate legislation to meet the directive's requirements.

[Directive 2017/1564](#) of 13 September 2017 on certain permitted uses of certain works and other subject matter protected by copyright and related rights for the benefit of persons who are blind, visually impaired or otherwise print-disabled facilitates access to books and other print material in appropriate formats and their circulation in the internal market.

[Regulation \(EU\) 2017/1128](#) of 14 June 2017 on cross-border portability of online content services in the internal market aims at ensuring that consumers who buy or subscribe to films, sport broadcasts, music, e-books and games can access them when they travel to other EU Member States.

- **Term of protection of copyright and related rights**

These rights are protected for life and for 70 years after the death of the author/creator. [Directive 2011/77/EU](#) amending Directive 2006/116/EC on the term of protection of copyright and certain related rights extended the term of copyright protection for performers of sound recordings from 50 to 70 years after recording, and for authors of music, such as composers and lyricists, to 70 years after the author's death. The term of 70 years has become an international standard for the protection of sound recordings. Currently 64 countries around the world protect sound recordings for 70 years or longer.

- **Computer programs and databases**

[Directive 91/250/EEC](#) required Member States to protect computer programs by copyright, as literary works within the meaning of the Berne Convention for the Protection of Literary and Artistic Works. It was codified by [Directive 2009/24/EC](#) of the European Parliament and of the Council. [Directive 96/9/EC](#)[\[3\]](#) provides for the legal protection of databases, defining a database as *“a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means”*. The directive stipulates that databases are protected both by copyright, which covers intellectual creation, and by sui generis right protecting investment (of money, human resources, effort and energy) in the obtaining, verification or presentation of the content.

- **Collecting societies**

A licence must be obtained from the different holders of copyright and related rights before content protected by such rights may be disseminated. Right holders may entrust their rights to a collecting society, which manages those rights on their behalf. Unless a collective management organisation justifies reasons to refuse management, it is obliged to manage these rights. The CMR Directive ([2014/26/EU](#)) on collective management of copyright and related rights and multi-territorial licensing of rights in musical works for online use in the internal market lays down requirements for collective management organisations, with a view to ensuring high standards of governance, financial management, transparency and reporting. It aims at ensuring that right holders have a say in the management of their rights and envisages a better functioning of collective management organisations by means of EU-wide standards. Member States have to ensure that collective management organisations act in the best interests of the right holders whose rights they represent.

2. Patents

A patent is a legal title that can be granted to any invention having a technical character, as long as it is new, involves an inventive step and could have an industrial application. A patent gives the owner the right to prevent others from making, using, or selling an invention without permission. Patents encourage companies to make the necessary investment in innovation and provide an incentive for individuals and companies to devote resources to research and development. In Europe, technical inventions can be protected either by national patents granted by the competent national authorities, or by European patents granted centrally by the [European Patent Office \(EPO\)](#). The latter is the executive branch of the European Patent Organisation, which now has 38 contracting states. The EU itself is not a member of that organisation.

After years of discussions among the Member States, Parliament and the Council approved the legal basis for a European patent with unitary effect (unitary patent) in 2012. An international agreement between the Member States thus sets up a single and specialised patent jurisdiction.

The Court of Justice's (CJEU's) confirmation of the patent package in its judgment of 5 May 2015 in cases C-146/13 and C-147/13 cleared the way for a [truly European patent](#). The previous regime will coexist with the new system until the [Unified Patent Court \(UPC\)](#) is established.

Once granted by the EPO, a unitary patent will provide uniform protection with equal effect in all participating countries. Businesses will have the option of protecting their inventions in all EU Member States with a single unitary patent. They will also be able to challenge and defend unitary patents in a single court action through the UPC; it has been proposed that its seats will be in London, Munich and Paris. This will streamline the system and save on translation costs. However, following the withdrawal of the United Kingdom from the EU, there are serious doubts as to whether a non-EU country can be a contracting state of the Unified Patent Court Agreement (UPCA). Moreover, the current wording of the UPCA clearly provides that the primacy of EU law must be respected (Article 20 of the UPCA) and that the decisions of the CJEU are binding on the UPC and, therefore, also on the UK.



3. Trade secrets

The practice of keeping information confidential goes back centuries. Legal instruments to protect trade secrets, whether or not defined as part of IPR, exist in many countries. The level of protection afforded to confidential information cannot be compared to other areas of intellectual property law such as patents, copyrights and trademarks. The protection of trade secrets varies more from country to country than other areas of IPR law, as do the approaches taken. Since 2016, an EU legal framework has existed, namely [Directive \(EU\) 2016/943](#) of the European Parliament and of the Council on the protection of undisclosed know-how and business information (trade secrets) against their unlawful acquisition, use and disclosure.

4. IPR for plant varieties

Plant variety protection⁵, also called the ‘plant breeder’s right’ is a form of intellectual property right granted to the breeder of a new plant variety. The EU’s system of protection for plant varieties, based on the principles of the [1991 Act of the International Convention for the Protection of New Varieties of Plants](#), contributes to the development of agriculture and horticulture. A system for the protection of plant variety rights was established by EU legislation. The system allows IPR to be granted for plant varieties. The Community Plant Variety Office implements and applies this scheme.

5. Geographical indications (GI)

Under the EU’s [IPR system](#), names of products registered as GIs are legally protected against imitation and misuse within the EU and in non-EU countries with which a specific protection agreement has been signed. Product names can be granted a GI if they have a specific link to the place where the product is made. This recognition enables consumers to trust and distinguish quality products while also helping producers to market their products better. Recognised as intellectual property, GIs are playing an increasingly important role in [trade negotiations between the EU and other countries](#).

6. Combating counterfeiting

According to estimates, imports of counterfeit and pirated goods into the EU amount to approximately EUR 85 billion (up to 5% of total imports). Worldwide, trade in pirated goods accounts for as much as 2.5% of trade and up to EUR 338 billion, which causes significant damage to right holders, governments and economies.

As differences in national systems for penalising counterfeiting and piracy were making it difficult for Member States to combat those offences effectively, Parliament and the Council adopted [Directive 2004/48/EC](#) on the enforcement of intellectual property rights as a first step. It aims to step up the fight against piracy and counterfeiting by approximating national legislative systems to ensure a high, equivalent and homogeneous level of intellectual property protection in the internal market and provides for measures, procedures and compensation under civil and administrative law. [Regulation \(EU\) No 608/2013](#) concerning customs enforcement of intellectual property rights provides procedural rules for customs authorities to enforce IPR regarding goods liable to customs supervision or customs checks.

⁵ [IP4 GROWTH - Intellectual Property Management A Guide to Relevant Aspects](#)



7. Concept of the 'exhaustion' of rights

- ✓ **Definition.** This legal concept or doctrine applying to all fields of industrial property means that after a product covered by an IP right (e.g. a [patent](#)) has been sold by the IP right holder or by others with the consent of the owner, the IP right is said to be exhausted. In the EU, the CJEU has always interpreted the EU Treaties as meaning that rights conferred by IP rights are exhausted within the single market by virtue of putting the relevant goods on the market (by the right holder or with his/her consent). The proprietor of an industrial or commercial intellectual property right protected by the law of one Member State cannot invoke that law to prevent the importation of products which have been put into circulation in another Member State.
- ✓ **Limits.** 'Exhaustion' of EU rights does not apply in the case of the marketing of a counterfeit product, or of products marketed outside the European Economic Area (Article 6 of the Agreement on Trade-Related Aspects of Intellectual Property Rights – [TRIPS](#)). In 1999, the CJEU ruled, in its judgment in *Sebago Inc. and Ancienne Maison Dubois & Fils SA v GB-Unic SA (C-173/98)*, that Member States may not provide in their domestic law for exhaustion of the rights conferred by the trademark in respect of products put on the market in non-EU countries.
- ✓ **Legal acts in this area.** EU rules on exhaustion are largely the result of the jurisprudence of the CJEU interpreting Article 34 of the TFEU on measures having equivalent effect to quantitative restrictions between Member States [\[4\]](#). This jurisprudence is reflected in each of the relevant pieces of EU law relating to IPR.⁶

⁶ <https://www.europarl.europa.eu/factsheets/en/sheet/36/intellectual-industrial-and-commercial-property>

5.2. Innovation and Freedom to Operate

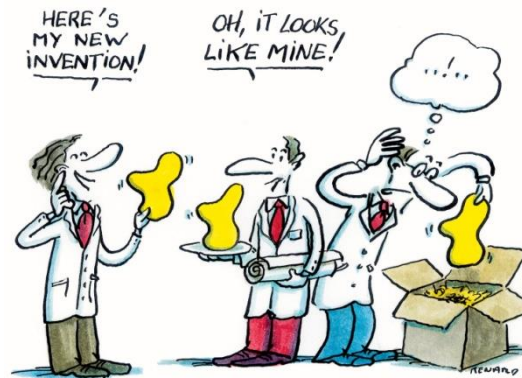


Figure 1: Source: [The European Space Agency](#)

In this section we aim to discover the methodology to protect our invention. If you own intellectual property, you need to know how to manage and protect it.

Protecting IP have a lot of benefits, such as:

- ✓ If you protect your invention, such as a new product, you become the only person with the right to use or reproduce it. Others cannot copy or reproduce what you have done without your permission.
- ✓ When you protect your invention, the quality of the product is guaranteed, and its origin is clear. This can be an advantage for your business, because customers may prefer to buy a product that has passed more restrictive checks (a controlled good).
- ✓ You can earn money not only through direct use of IP, but also indirectly through licensing contracts. This is when you grant a licence to another company to use your IP protected subject matter for a certain period of time.
- ✓ In some cases, such as for copyright and unregistered design, protecting your IP is automatic and doesn't require any formalities.
- ✓ Owning a patent or a trademark can increase your market value and make it easier for your business to find investors or other funding opportunities.⁷

Freedom to Operate (FTO) is research carried out by legal experts that starts from the analysis of the existing literature and then moves on to the patents filed and registered, to the applications under examination and pending and finally to the PCT applications that enter the nationalization phases.

The FTO research aims to verify that the research, development, and marketing activities of a potentially patentable solution (or product) do not conflict or interfere with the intellectual property rights of third parties in the selected and potentially interesting territories. With some limitations on the reliability of the results obtained, FTO ensures that a product can be manufactured, used, sold, offered for sale or exported, with a minimum risk of infringement of the intellectual property rights of third parties, whether entitled or not.

⁷ https://europa.eu/youreurope/business/running-business/intellectual-property/rights/index_en.htm

This analysis/research is needed for 3 main reasons:

- ✓ if an inventor wants to know if your conceptual work may infringe prior rights of third parties (applications and/or registrations),
- ✓ if a trader wants to market a product in a certain territory,
- ✓ the FTO research must be started before starting the R&D (Research and Development) activities and, above all, before the launch of the product and its offer for sale.

5.2.1. *Methodological approach to identify and reveal the innovative elements of the work conducted in a project or research*

Register a patent

Patent life cycle

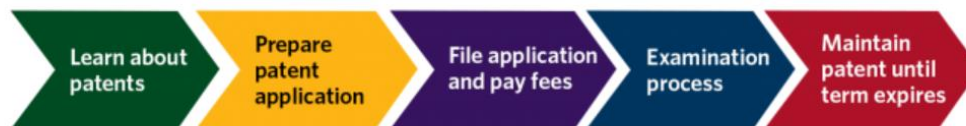


Figure 2: Patent life cycle

Source: [USPTO](#)

If you need protection in **only one European country**, you can register a patent at national level. Check which [local patent office](#) to contact.

- ✓ For European-wide protection, you can register a European patent with the [European Patent Office](#) (EPO). A European patent also needs to be [validated by the national patent office](#) in each country where protection is required. Depending on the [country's law](#), you may have to provide translations or pay fees by a certain date.
- ✓ If you wish to have protection at international level, you need to contact the [World Intellectual Property Organisation](#) (WIPO).

How to register a trademark

In most countries, trademark protection lasts 10 years, starting from the date of your trademark application. You can then renew your trademark protection for 10 years each time, for as long as you like. When you own a trademark, you can sell it to someone else or give them permission to use it through a trademark licensing agreement.

- ✓ If you only trade in one EU country, you will only need protection in that country. In this case, you can register a trademark at national level. Contact your [national office](#).
- ✓ If you only trade in Belgium, the Netherlands or Luxemburg, you should [register your trademark](#) at the [Benelux Office for Intellectual Property](#) (BOIP). This gives you protection in these three countries.
- ✓ If you need protection in all EU countries, you should [register your trademark](#) with the European Union Intellectual Property Office (EUIPO). The EUIPO website also features a [digital office](#), where you can learn more about trade marks in the EU, and get personalised support on intellectual property.

- ✓ For international protection, in particular if you trade outside the EU, you can register your trademark with the [World Intellectual Property Organisation](#) (WIPO).

Copyright protection

If you create literary, scientific and artistic work, you automatically have copyright protection, which starts from the moment you create your work, so you don't need to go through any formal application process. However, you may need to advise other people that you are the author of that work. You can attach a copyright notice to your work – such as the "all rights reserved" text, or the © symbol – together with the year the work was created.

How to protect the trade secret

The fact that you have a trade secret does not mean that you have exclusive rights over the information in question. If someone else develops the same information, he or she can use it freely.

However, you are protected against dishonest behaviour: for example, if someone accesses the documents related to your secret information without your authorisation, copies them for their personal use or gives them to someone else. You are also protected if someone breaches a non-disclosure agreement and makes the information available to someone else.

In situations of dishonest behaviour, you are entitled to damages and other remedies. For example, a court order can prohibit the use or further disclosure of the trade secret by the person who had acquired, used or disclosed the trade secret unlawfully.

Design protection

If you create a new design which meets the requirements of novelty and individual character, then you may need to register it.

If you only need to protect your design in one EU country, you should register the design at the relevant [national IP office](#).

When you do business in more than one EU country, you can protect your design with a Registered Community Design (RCD). You will pay 350 euro for 5 years protection and you have to [register your design](#) with the [European Union Intellectual Property Rights Office \(EUIPO\)](#).

If you only need protection for your design at EU level for a short period of time, such as 3 years, you can choose not to register your design and use an Unregistered Community Design (UCD) instead. You don't need to register or pay any fees. A UCD protects your design from the moment of public disclosure. After it expires you cannot renew it.

You can find out more about the registration that suits you at the [design page](#) of the [European Union Intellectual Property Right Office \(EUIPO\)](#).

In addition to the design protection, designs are also eligible for protection under copyright law if they fulfil the protection requirements for both: originality for copyright and novelty and individual character for design rights.



If you create an original design, your copyright protection starts immediately from the moment of the work's creation, without the need for any registration of your design.

Domain name

If the name you want is available, you can register a domain name through an accredited registrar which offers the top-level extension you are looking for. There is a wide choice of extensions to choose from including country-specific or generic extensions:

- ✓ generic top-level extensions: .com, .shop, .hotel,
- ✓ country-specific top-level extensions: .fr, .de.

Depending on the type of extension you choose, eligibility criteria or rules may differ. After you choose the domain name and the top-level extension, you must pay a registration fee. The amount of money you have to pay depends on:

- how long you are registering the domain name for,
- the associated services you choose, such as webhosting.

If you own a business in any EU country, you can also apply for the .eu top-level domain (TLD). You can check the availability of .eu domains on [EURid](#).

Database protection

If you have created a database that is accessible by electronic or other means, you can protect:

- ✓ the content, via a *sui generis* right,
- ✓ its structure, via a copyright.

If your database meets the requirements for copyright and *sui generis* right protections, you can apply for both. If the structure of your database is not an original creation, you can still protect its content under the *sui generis* right.

To benefit from the *sui generis* database right, you or the maker of the database must be EU nationals or residents in the EU. To obtain *sui generis* protection you need to prove that you have made a substantial investment (financial, material and/or human) in either, obtaining, the verification or the presentation of the database content.

The *sui generis* database right protects the content of your database. You or the maker of the database can prevent the extraction and/or reuse of the whole or a substantial part of the database's content. When you create the database and it meets the requirements for the *sui generis* protection, you are automatically granted this protection for 15 years, starting either from the creation date or from when the database was first made publicly available.

5.2.2. Methods of searching through existing patents' databases and other scientific databases for similar development



To start a search, it is advisable to refer to the official sites both at regional and international level.

To simplify and speed up research, it is advisable to focus on a specific market or industry and a geographical reference area.

It is important to keep in mind that the number of databases around the world is quite extensive and exceeds this short list.

The main reference sites are listed in the table below:

| | |
|---|---|
| DEPATISnet (German Patent and Trade Mark Office) | https://www.dpma.de/english/search/depatisnet/index.html |
| Clarivate - Derwent World Patents Index | https://clarivate.com/derwent/solutions/derwent-world-patent-index-dwpi/ |
| DialogSolutions | https://dialog.com/what-we-do/patent-and-prior-art-research/ |
| Google Patents | https://patents.google.com/advanced |
| UNUMBIO | https://www.unum.bio/ser |
| The Lens | https://www.lens.org/ |
| Patents.com | https://patents.com/ |
| EPO (European Patent Office) | https://www.epo.org/applying/basics.html |
| EUIPO (European Union Intellectual Property Office) | https://euipo.europa.eu/ohimportal/en |
| WIPO (World Intellectual Property Organization) | https://www.wipo.int/services/en/ |
| USPTO (United States Patent and Trademark Office) | https://www.uspto.gov/ |
| EAPO (Eurasian Patent Organization) | https://www.eapo.org/en/ |
| EAPATIS (EAPO has launched the English version of the user interface of the Eurasian Patent Information System) | http://www.eapatris.com/ms3.exe?;noneed 0 QL enguest,enguest# |
| KIPO (Korean Intellectual Property Office) | https://www.kipo.go.kr/en/MainApp?c=1000 |
| JPO (Japan Patent Office) | https://www.jpo.go.jp/e/ |
| IP Australia | https://www.ipaustralia.gov.au/ |



| | |
|---|---|
| CNIPA (China National Intellectual Property Administration) | https://english.cnipa.gov.cn/ |
| AusPat (Australian Patent) | http://pericles.ipaustralia.gov.au/ols/auspat/quickSearch.do |
| .JP.NET | http://www.jp.net/ |

5.3. Legislative framework and reporting

5.3.1. Introduction

International Intellectual Property treaties cover varying degrees of detail and comprehensiveness.

International IP law so far contains relatively few relevant treaty obligations the contracting states must comply with.

This means that the policy space countries enjoy in designing their national systems of utility model protection is quite broad. More recent tendencies to include comprehensive additional obligations on the protection and enforcement of IP beyond those in the TRIPS Agreement (TRIPS-plus) in Free Trade Agreements (FTAs) however may change this to some extent.

Although additional protection for utility models is certainly not at the core of TRIPS-plus obligations in FTAs, some recent examples exist which will be discussed briefly below. They of course only bind those countries which have agreed to the bilateral or plurilateral FTA. Beyond FTAs, International Investment Agreements (IIAs) or investment chapters in FTAs may further limit the policy space on the multilateral level.⁸



The definition of industrial property under the Paris Convention covers amongst other forms of IP, utility models. The main consequence for the contracting states, is that they are bound to the national treatment obligation under Art.2 of the Paris Convention in relation to any system of utility model protection provided in the national law.

Art.2 states:

Nationals of any country of the Union shall, as regards the protection of industrial property, enjoy in all the other countries of the Union the advantages that their respective laws now grant, or may hereafter grant, to nationals; all without prejudice to the rights specially provided for by this Convention. Consequently, they shall have the same protection as the latter, and the same legal remedy against any infringement of their rights, provided that the conditions and formalities imposed upon nationals are complied with.

However, no requirement as to domicile or establishment in the country where protection is claimed may be imposed upon nationals of countries of the Union for the enjoyment of any industrial property rights.

⁸ https://www.wipo.int/edocs/mdocs/aspac/en/wipo_ip_kul_12/wipo_ip_kul_12_ref_t3c.pdf

(3) The provisions of the laws of each of the countries of the Union relating to judicial and administrative procedure and to jurisdiction, and to the designation of an address for service or the appointment of an agent, which may be required by the laws on industrial property are expressly reserved.

Art.2:1 requires all contracting states to grant nationals of other contracting states the same protection and same remedies against infringement as available to their own nationals – in relation to industrial property defined in Art.1:2. Therefore, any national system of utility model protection may not discriminate against foreign right holders in terms of protection and enforcement.

This national treatment obligation however does not create an obligation for Paris Union countries to introduce utility model protection in their national laws; nor does it require any specific minimum scope or substance of protection if such a system is established. Contracting parties remain free not to introduce such a system. If they decide to foresee utility model protection in their national law, they can freely determine the conditions for; as well as the scope, substance, limitations and duration of utility model protection. This absence of any substantive minimum standards is one of the main reasons for the diversity in the design of national utility model systems around the world. Beyond the national treatment obligation described above, the Paris Convention contains a right of priority under Art.4 which applies also to utility models.⁶

Therefore, Paris Union countries which foresee a system of utility model protection have to allow a grace period of 12 months from the date of the first filing of a utility model registration in one of the Union countries within which the right holder may register the utility model in other Union countries. Furthermore, it is permissible to file a utility model in a Union country with such a system by virtue of a right of priority based on the filing of a patent application, and vice versa.⁷

Finally,

Art.4 allows that an industrial design is filed in a Union country by virtue of a right of priority based on the filing of a utility model – however with the shorter priority period of 6 months for industrial designs.

In terms of substantive obligations,

Art.5 A of the Paris Convention – although primarily addressing national limitations to patent protection – applies with the necessary modifications (*mutatis mutandis*) also to utility models.

Art 5 A provides:

(1) Importation by the patentee into the country where the patent has been granted of articles manufactured in any of the countries of the Union shall not entail forfeiture of the patent.

(2) Each country of the Union shall have the right to take legislative measures providing for the grant of compulsory licenses to prevent the abuses which might result from the exercise of the exclusive rights conferred by the patent, for example, failure to work.

(3) Forfeiture of the patent shall not be provided for except in cases where the grant of compulsory licenses would not have been sufficient to prevent the said abuses. No proceedings for the forfeiture or revocation of a patent may be instituted before the expiration of two years from the grant of the first compulsory license.

(4) A compulsory license may not be applied for on the ground of failure to work or insufficient working before the expiration of a period of four years from the date of filing of the patent application or three years from the date of the grant of the patent, whichever period expires last; it shall be refused if the patentee justifies his inaction by legitimate reasons. Such a compulsory license shall be non-exclusive and shall not be transferable, even in the form of the grant of a sub-license, except with that part of the enterprise or goodwill which exploits such license.

(5) The foregoing provisions shall be applicable, mutatis mutandis, to utility models. Therefore, by virtue of Art.5 A (5) of the Paris Convention, the limits imposed in sections 1-4 on the ability of Paris Union Countries to forfeit or revoke patents or to introduce compulsory licenses, especially for failure to work,¹⁰ apply also to utility models. These provisions are primarily relevant in the context of importing protected products and their local working, whereas utility model protection is primarily utilised by local residents.

The obligations contained in Art.5 A hence will likely not play an important role in the practice of utility model protection. Nevertheless, allowing some form of compulsory licensing may be an issue to consider for any country with a system of utility model protection.

In this context, Art.5 A (2) explicitly allows “the grant of compulsory licenses to prevent the abuses which might result from the exercise of the exclusive rights conferred by the patent.” While failure to work is mentioned as example, this is not exhaustive and other forms of abuse can also be addressed by compulsory licensing, and if that has not proven to be sufficient to tackle the abuse, by forfeiture in accordance with Art.5 A (3).

Art.5 A (4) then contains further relevant obligations for the compulsory licenses issued to tackle “failure to work or insufficient working”. As mentioned above, the issue of local working will usually not be relevant for utility models. For all other cases of abuse, Art.5 A (4) does not apply. More importantly, the obligations in Art.5 A (2)-(4) do not apply to measures other than those whose purpose is to prevent abuses.

That means that a country is free to introduce compulsory licenses (or other limitations to utility model protection) for other reasons – such as to promote public interest or to allow the utilisation of utility models necessary for follow on innovation. In essence, Art.5 A of the Paris Convention thus does leave significant flexibility to design exceptions and limitations to utility model protection. It will primarily be relevant for compulsory licenses addressing failure to work – a scenario which does not seem to have practical significance for utility models. The Paris Convention further addresses utility models in Art.5.

In essence, its core obligation in relation to utility models is that of national treatment which prohibits to treat nationals of other Union countries any less favourable in terms of protection and enforcement of utility models rights. The Paris Convention nevertheless does not contain any obligations on how a system of protection and enforcement of utility models must look like and hence leaves all freedom in its design to the domestic lawmaker.

5.3.2. The WTO TRIPS Agreement

The Agreement establishing the World Trade Organisation (WTO) contains in as Annex 1 C the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS). The substantive scope of

TRIPS is defined in its Art.1:2 whereby “the term ‘intellectual property’ refers to all categories of intellectual property that are the subject of Sections 1 through 7 of Part II” of the Agreement. As the subject of these sections in TRIPS do not in any way refer to utility models, TRIPS does not contain any independent obligations on the protection and enforcement of utility models. In Art.2:1 however, WTO Members are obliged to “comply with Articles 1 through 12, and Article 19, of the Paris Convention (1967)”. That means that the substantive obligations of the Paris Convention, including those on utility models described above, are made part of TRIPS and hence are obligations under the WTO Agreements. Compliance with these provisions of the Paris Convention therefore can be tested under the WTO dispute settlement system. For the protection and enforcement of utility models, this arguably means that compliance with the core national treatment obligation in Art.2:1 of the Paris Convention can be challenged by a WTO Member in front of a dispute settlement panel established under the DSU. In case the national laws of a WTO Member are found to be inconsistent with this obligation, and the Member fails to correct this inconsistency, the DSU allows the complaining Member, as a last resort, to suspend equivalent obligations vis-à-vis the defendant. In sum, the TRIPS Agreement does not add to the international treaty obligations a Paris Union Member State has in relation to utility models. The main non-discrimination (national treatment) obligation flowing from the Paris Convention in case a country decides to introduce a system for protecting utility models however would be enforceable via the WTO dispute settlement system. As noted in a recent WIPO publication, also the other multilateral treaties which refer to utility models, such as the International Patent Classification (IPC) and the Patent Cooperation Treaty (PCT), do not contain any substantive minimum standard of protection.

The resulting flexibility in designing a utility model system is almost unique in comparison to other IP rights. Section 4 below highlights some of the key aspects of this policy space – in particular vis-à-vis the now ‘highly regulated’ patent system.

Beyond the multilateral treaties described above, relevant international obligations pertaining to utility models may increasingly result from bilateral, plurilateral or regional agreements which increasingly contain additional obligations concerning the protection and enforcement of IP. Most of these obligations go beyond the multilateral standards as enshrined in the TRIPS Agreement and hence are frequently referred to as ‘TRIPS-plus’. Although additional protection for utility models is certainly not at the core of TRIPS-plus obligations in FTAs, it may nevertheless affect the policy space available under the multilateral IP system. In the following, some examples for IP provisions in FTAs relating to utility models are provided. They indicate how even areas of IP so far unregulated on the international plane are increasingly subject to international treaty obligations.

An example of WTO TRIPS Agreement is the intervention on climate change. The main objective of the 1992 Un Framework Convention on Climate Change (UNCC) is to achieve the stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with climate system. In this case, the TRIPS Agreement aims to promote technological innovation and its transfer and dissemination. Some developing country delegations negotiating climate change issues have argued that the “flexibilities” in the TRIPS Agreement are significant for access to green technology. These flexibilities are in various provisions that allow governments to relax some basic obligations of intellectual property protection, such as patent rights, under certain conditions.

5.3.2.1 Patent Drafting Manual

In response to requests from Member States, the WIPO (World International Property Organization) Secretariat began to examine the practical impact of the lack of patent drafters on the ability of inventors in developing countries

A *Patent Drafting Manual*⁹ was prepared by WIPO in response to that need. It was developed by experts in the field and tested in training programs prior to publication. It is designed to assist inventors, and those providing services to them, to acquire the technical skills necessary to prepare and file patent applications.

The patenting process

Passing from a theoretical to a practical point of view in this part we are going to summarise the patenting process of an invention.

An invention is patentable only if it is:

- ✓ New and previously undisclosed.
- ✓ Distinguished by an inventive step not obvious to someone expert in that technology.
- ✓ Capable of industrial application - that is, it is physically possible to make the invention.

Before to start is essential to understand if your idea is patentable, and for this you have to evaluate some issues, starting from the cost/benefit ratio. You have to calculate the total cost of patenting, the cost of an eventual legal challenge on your patent, if the invention is market-ready, or it is better to adopt other forms of IPR.

Applying for a patent

Applying for a patent is a legal process governed by strict timescales and usually immovable deadlines, it is necessary be assisted by a patent attorney to avoid mistakes.

Here is only a [very brief guide](#) to the application process for a European Patent according to the European Patent Convention (EPC).

Applying for a patent at a national IP office is roughly similar to stages 1-6 below, but an application must be made in the local language.

Making an international application through the Patent Co-operation Treaty (PCT) involves a single procedure for stages 1-4, but 30 months after filing the application goes through stages 5 and 6 in every national or regional IP office where you wish to take up protection. For more information on the PCT see www.wipo.int/pct .

⁹ https://www.wipo.int/edocs/pubdocs/en/patents/867/wipo_pub_867.pdf



Choosing your route for a patent application (EPC, PCT, national and regional, or combinations thereof) will depend on your invention, business plan, available funds, intended market and likeliest source of infringing products.

Stage 1 Beginning the process

Your patent attorney must provide documentation consisting of:

- ✓ A request for a patent.
- ✓ Details of the applicant (you).
- ✓ A description of the invention.
- ✓ Claims.
- ✓ Drawings (if any).
- ✓ An abstract.

A fee must also be paid. At the EPO, applications are accepted in English, French or German.

Stage 2 Filing date and initial examination

If your documentation appears correct, your application is given a **filing date** - also known as your **priority date**. After filing there is a **formalities examination** to ensure that your documentation is correct and complete. Then you have 12 months to decide how many countries you wish to include in your patent protection and have those later filings treated as if they had been filed on your priority date.

Stage 3 Search

A **search report** is sent to you, listing and including copies of all prior art documents found by an experienced examiner regarding the patentability of your invention.

Stage 4 Publication

Your application is **published** 18 months after the filing date. Your invention will appear in databases accessible to other people around the world. It will act as **prior art** against any future patent applications from other inventors or companies for similar inventions.

Stage 5 Substantive examination

If you request **substantive examination**, the EPO has to decide whether your invention **and** your application meet the requirements of the EPC; the demand will be examined by usually three EPO examiners, one of whom maintains contact with your patent attorney.

Stage 6 Decision to grant a patent

If the examiners decide to grant a patent, and all fees have been paid and any claims translations filed, the decision is reported in the European Patent Bulletin. The **decision to grant** takes effect on the date of publication.



Stage 7 Validation

What you have now got is a 'bundle' of individual national patents. After the EPO decision to grant is published, your patent has to be **validated** in each designated state within a specific time limit. In some states, validation may include having to file (and pay for) a translation of the whole patent, or just a translation of the granted claims.

Stage 8 Opposition

A granted patent may be **opposed** by third parties. After the grant is reported in the European Patent Bulletin they have nine months in which to file notice of opposition. The most common charge is that the invention is not novel or lacks an inventive step. The case will be examined by an EPO team, again of three examiners.

Opposition is the last chance to attack a European patent **as a single entity in a single forum**. Later, the patent can only be challenged in national courts and a ruling in one country has no effect on the patents for the same invention in other countries.

Stage 9 Appeal

All EPO decisions are open to appeal. Responsibility for decisions on appeals is taken by independent boards of appeal.

<https://www.epo.org/learning/materials/inventors-handbook/protection/patents.html>

5.4. Specification on national and EU level

After having presented an accurate analysis of what intellectual property is and of the operational framework in which to move to obtain its registration, specifying its importance in order to outline and define one's rights and to obtain a product that is as innovative as possible in relation to what already exists, let's now switch our observation perspective to one that allows us to make an overview of what the operational framework at European level is, bringing to light, when present, the differences compared to the partner countries of the consortium that produced this document.

As the world accelerates its transition to a circular economy, companies developing resource recovery models need to consider how to integrate Intellectual Property (IP) protection into their overall strategic plan to succeed in this increasingly competitive global market. C-level executives¹⁰ must consider the strategic business role of IP and understand how to build an effective IP strategy in the context of the infrastructure they are operating in and appropriate to the technological solutions they offer. Companies focused on resource recovery also face a long trajectory to commercialization, which demands a forward-looking IP strategy.

First, innovators should always approach the construction of their patent portfolio with monetization in mind. A well-built patent portfolio can generate valuable licensing revenue for its owner in addition to establishing market exclusivity and minimizing infringement risks. It may allow licensors to access a licensee's productive capacity and expertise in markets that would otherwise be unavailable to the licensor, thereby enabling licensors to maximize the value of patents they might not be in a position to directly exploit. Licensing can be particularly important for innovators in the resource recovery field who will look to global markets for growth in order to scale up.

A successful patent licensing strategy requires innovators to thoroughly understand their own IP. Innovators should at least take into consideration the strength, quality and scope of their patents; and whether these patents relate to their own current or planned commercial activities. It is also important to identify related patents that are suitable for being licensed as a package. Licensing revenues may be maximized by providing licensees with layered protection from several patents covering multiple aspects of their business.

Understanding and prioritizing potential markets is also crucial to targeting the most attractive licensees. In particular, innovators should consider whether their portfolio may represent value to entities outside of the innovator's immediate industrial sector. If so, patent applications should be drafted having in mind potential applications beyond the innovator's current operational reach.

Once innovators have identified the strongest aspects of their patent portfolio and the most promising markets, they can proceed to the assessment and prioritization of target licensees. Some of the factors to be considered include the likelihood of infringement of the innovator's portfolio by the target's products and activities, as well as a more general understanding of the target's commercial goals, timeframes, and appetite for risk. These factors will guide selection of the most appropriate licensing structure to be marketed to the target.

¹⁰Also called C-suites, it is to be understood as a generalized all-encompassing term that covers all the regular and particular categories of Chief Officers executives.

The second consideration is to have a balanced protection of IP using both patents and trade secrets in order to maximize market exclusivity. Market exclusivity afforded by patents requires public disclosure of the patented inventions and has a limited term, typically 20 years from the filing date of a patent application. Trade secrets, on the other hand, can keep IP in confidence without a term limit. However, trade secret protection requires systematic, enforceable and continuous measures of maintaining confidentiality. Moreover, loss of confidentiality of trade secrets may result in irreversible loss of IP rights.

Another consideration for choosing between patents and trade secrets is the shelf life of a technology. Generally speaking, if the shelf life of a technology is not expected to be longer than the typical patent term of 20 years, patent protection may be a more secure option than trade secrets. On the other hand, there are some famous examples of trade secrets (e.g., Coca-Cola syrup and KFC's original recipe) that have been in force for a much longer time than 20 years.

For innovators in the resource recovery field, it is often necessary to establish geographically separate operation sites for logistical reasons. In some circumstances, innovators may also partner with regional enterprises that have existing infrastructure. These are some of the operational reasons that make it difficult to keep processing IP as trade secrets. Therefore, it makes sense to protect processing IP by patents, which may also serve as an attractive licensing tool.

On the other hand, another important IP component for innovators may be various chemical formulations that are used in commercial operations. If manufacture and supply of these formulations can be controlled by innovators, it may be more suitable to protect them as trade secrets than as patents, provided that they cannot be reverse-engineered.

It is important to be mindful that like any other business decision, a decision related to the form(s) of IP protection is not permanent and needs to be re-evaluated as business conditions start to change.

If processing patents are licensed to a third-party partner, what happens to trade secrets and know-how created as the third party practices the licensed IP? For example, operation manuals may be updated as a process is fine-tuned. Will the licensor or the licensee own the updated operation manuals and will it be possible to maintain confidentiality of the information they contain? In addition, who will own all the data generated during processing?

For formulations that are protected by trade secrets, is it more advantageous to protect the general scope of the formulations by a patent while keeping the exact formulations as trade secrets? Pure trade secrets will not deter competitors from developing their own formulations but patents may be able to do so.

In summary, determining the balance between patents and trade secrets is not a simple task and cannot be done without a deep understanding of all the IP sources as well as commercial operations.

The third tip is to obtain patents that extend beyond the core technology – in this case resource recovery – to maximize protection against potential infringers.

As mentioned above, many innovators in the resource recovery field focus on patenting the processes they have invented. However, in comparison to product claims, process claims have a number of limitations. First, it is generally more difficult to establish infringement of a process than a product.

This is because while an infringing product available in the market can be directly compared to a patented product, many details of a potential infringing process may not be available to the public. Second, for a patented process having more than one step, there always exists the possibility that not all the steps are carried out by the same party. In a scenario where one party performs some but not all the steps of a patented process and the remaining steps are to be performed by a different party, it may be necessary to establish that at least one of the two parties is inducing infringement. While the law on inducing infringement varies among different jurisdictions, it tends to be more challenging to establish inducement of infringement than direct infringement.

If the product recovered at the end of an innovative process is not new (e.g., a metal extracted from waste material) and cannot be patented, it may be worth considering the patentability of intermediates produced during the process. Similar to a process claim, a claim to an intermediate may be difficult to enforce if the intermediate is not made readily available to the public. However, where inducement of infringement is suspected, it may be valuable to patent intermediates if intermediates can be shipped from one party to another for further processing.

Another possibility is that the product recovered at the end of an innovative process is a mixture of what is intended to be recycled and other components, e.g., impurities or chemicals added during the process. Such a mixture may be novel and can be characterized by its chemical and/or physical properties. For example, if the innovative process results in a higher purity of the material to be recycled, the mixture can be characterized by a minimum purity that is higher than products produced by prior art processes.

If patenting intermediates or end products is not feasible or practical, innovators should still consider how the product recovered at the end of an innovative process is to be used commercially or how raw materials used at the beginning of an innovative process are obtained. Often, if known steps are added to a patentable process, the combined process remains patentable. Thus, in some circumstances, extending patent protection beyond an innovative process to include further upstream or downstream processing steps may provide additional licensing leverage in negotiating with suppliers of raw materials or buyers of the recovered product.

While these IP tips will help companies be aware of some key considerations in protecting innovations in resource recovery, the key takeaway is the importance of having a clear IP Strategy and a plan to execute on as you scale your company. Moreover, seeking guidance early on from qualified IP advisors with relevant industry and technological experience will ensure that you secure and leverage the appropriate IP rights, and avoid costly mistakes down the road.

5.4.1. EU regulatory policy and landscape

Businesses that are concerned with the circular economy need to keep up-to-date with a remarkably wide-ranging variety of environmental regulation, both at EU and national level.

The European Commission presented its first circular economy strategy in 2015 as part of the EU circular economy action plan¹¹. The 2015 plan sets out 54 actions across the whole production chain, from consumption to recycling and reuse, in order to boost jobs, growth and investment in a carbon neutral, resource-efficient and competitive economy. It was under this framework that the EU adopted a suite of four revised waste directives:

- ✓ Directive 2018/851/EU amending the Waste Framework Directive (2008/98/ EC).
- ✓ Directive 2018/850/EU amending the Landfill Directive (1999/31/EC).
- ✓ Directive 2018/852/EU amending the Packaging Waste Directive (94/62/EC).
- ✓ Directive 2018/849/EU amending the End-of-Life Vehicles Directive (2000/53/ EC), the Batteries Directive (2006/66/ EC) and the recast Waste Electrical and Electronic Equipment Directive (2012/19/EU).

These directives increased existing targets for recycling and further reduced the ability to send waste to landfills. Separately, the EU adopted the Single-Use Plastics Directive (2019/904/EU), which EU member states were required to transpose by 3 July 2021, and Regulation 2019/424/EU on ecodesign requirements for computer servers and data storage products.

The Commission assessed the implementation of the 2015 plan in a 2019 report, finding that all actions had been completed or were being implemented, but stressed that the scope of action needed to be much broader to achieve the goal of a circular economy¹².

The newest version of the circular economy action plan was introduced in March 2020 to update the vision set out in the 2015 plan and is a pillar of the green deal package for the period 2019 to 2024¹³. The European Parliament adopted the new plan on 10 February 2021.

Planned measures include:

- ✓ A legislative initiative on sustainable product policy, to ensure that products in the EU market are designed to last longer, are easier to reuse, repair and recycle, and incorporate as much recycled material as possible.
- ✓ Increased consumer rights, including a right to repair.
- ✓ Sector-specific measures and legislative initiatives for resource-intensive sectors with high potential for circularity.
- ✓ Renewed action on waste, including the study of a harmonized model for the separate collection of waste and labelling across the EU.

¹¹<https://ec.europa.eu/transparency/regdoc/rep/1/2015/EN/1-2015-614-EN-F1-1>. PDF. See box “EU Regulatory Timeline”

¹²https://ec.europa.eu/info/sites/default/files/report_implementation_circular_economy_action_plan.pdf

¹³https://ec.europa.eu/commission/presscorner/detail/en/ip_20_420;
<https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal>;
www.practicallaw.com/w-025-1978.

While much of the detail of these measures remains to be revealed, the Commission introduced its first initiative under the new plan in December 2020 with sector-specific action on batteries, including a proposal for a new Batteries Regulation¹⁴.

More initiatives, and related legislative actions, are expected in the following priority sectors:

- ✓ Electronics and information and communications technology. An initiative has been launched to ensure longer product lifetimes.
- ✓ Packaging. There will be new mandatory requirements for products placed on the EU market¹⁵.
- ✓ Plastics. There will be new mandatory requirements with special attention on microplastics, biobased and biodegradable plastics.
- ✓ Textiles. There is a strategy to boost innovation for textile reuse¹⁶.
- ✓ Construction and buildings.
- ✓ Food. There is a legislative initiative to curb the use of single-use packaging, tableware and cutlery.

There is a certain level of standardization of intellectual property laws across the EU. This is covered by many international conventions, most of which are implemented by the World Intellectual Property Organization¹⁷ (WIPO) and the World Trade Organization¹⁸ (WTO).

Regulation No 2015/2424 amended the Community trademark regulation on 23 March 2016: OHIM became the European Union Intellectual Property Office¹⁹ (EUIPO), and the Community trademark became the European Union trade mark.

The EU considers intellectual property protection as a fundamental right, noting that IPR shall be protected in the Charter of Fundamental Rights.

There are three areas of law that are relevant to IPR in the European Union: national, EU, and international laws:

- 1) National laws involve the laws of an individual country. In the EU, there are twenty-seven EU Member States. Each EU Member State has national authorities that address IPR laws in its country. Although, in some cases, it is the EU as a whole that has the authority to regulate IPR, national offices in specific Member States often provide registration services and information to protect IPR. If your company only does business in a limited number of Member States, it may be wise to contact the Member State's national office where your company conducts most of its business to learn about and enforce its rights at the national level.

¹⁴https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2312;
https://ec.europa.eu/environment/pdf/waste/batteries/Proposal_for_a_Regulation_on_batteries_and_waste_batteries.pdf.

¹⁵<https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12263-Reducingpackagingwaste-review-of-rules>.

¹⁶<https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12822-EUstrategy-for-sustainable-textiles>.

¹⁷<https://www.wipo.int/portal/en>

¹⁸<https://www.wto.org>

¹⁹<https://www.euipo.europa.eu>

- 2) EU law is the “supranational law” of the European Union, which comprises twenty-seven Member States. EU law works in conjunction with Member State laws and is directly applicable in Member States. If there is a conflict between EU law and a Member State’s law, EU law often supersedes the Member State’s national law, particularly regarding economic and social policies. The EU is not, however, a federal government, nor is it an intergovernmental organization. The EU is a supranational institution that is based on treaties concluded by Member States.

In addition to EU treaties, the EU also adopts Regulations and Directives. Regulations are self-executing and do not require the Member States to implement any additional measures. However, they are automatically binding on Member States and leave less flexibility. Directives allow Member States to determine the means of attaining that result as they normally permit some discretion as to the exact rules to be adopted.

- 3) International treaties that are relevant to IP protection are effectively those that are maintained by the World Intellectual Property Organization (WIPO), which aims to promote the effective use and protection of IP worldwide. The WIPO Convention established WIPO in 1967 with a mandate from its signatories to promote the protection of IP throughout the world through cooperation among countries and in collaboration with other international organizations. WIPO headquarters are in Geneva, Switzerland. Many international treaties that address IPR have been concluded under WIPO and will be discussed in further detail under the relevant sections:

Patent

It is important to remember that there is no EU-wide patent, and that patent protection is territorial. For Europe, this means that patents must be separately obtained in each EU Member State where protection is desired, and each of those patents is only enforceable as a general matter in the country where the patent was granted.

Although there is no EU-wide patent available, an inventor may obtain patents in Europe through a variety of mechanisms. The inventor may either file an international application under the Patent Cooperation Treaty (PCT), a (European) regional application with the European Patent Office (EPO), or a national application in the respective EU Member State national patent office(s).

All EU Member States are parties to the PCT, which allows an inventor to prepare and file a single international application having the same effect as a national application filed in each PCT Member State designated in the international application. PCT Member States currently number more than 130 countries worldwide. Although the PCT streamlines application filing procedures, it is important to remember that patent protection must still be obtained through national procedures, and according to national law, in each of the designated countries.

Each EU Member State is also a party to the European Patent Convention (EPC). The EPC establishes a centralized patent examination and grant process, administered by the EPO.

Under this procedure, an applicant files a single application with the EPO, which determines the patentability of the invention according to the provisions set forth in the EPC, and, as appropriate issues a “European Patent.” The application may be filed with the European Patent Office in Munich,



or at its branches in Brussels, The Hague, Berlin, or at a national patent office of one of the Contracting States.

The term “European Patent” is misleading because even if the EPO grants a “European Patent,” the rights that are granted are not “European.” To the contrary, what is granted by the EPO is only a “bundle” of potential patent rights; the patent only has effect in the EPC Member State(s) designated in the application filed with the EPO, and even then, only after the applicant has taken the necessary steps in each designated country to “validate” the patent. As an alternative to the above-noted filing routes, an applicant may also choose to seek protection separately in selected EU Member States.

Under the Paris Convention for the Protection of Industrial Property, a person or organization that filed a patent in any country that is a member of the Paris Convention can, within one year of that filing, apply for patents in other countries and claim the filing date of the first application as the effective filing date for those applications. This is important because when a company claims priority to an earlier application, the filing date of the earlier application is taken as the filing date for all other applications claiming priority to it. This means that when the prior art (body of existing knowledge in the relevant technical field) search is conducted, only disclosures that were made before the priority filing date will be considered.

Trademarks

If a company wants to protect a trademark asset in the EU, it must register the trademark with an individual Member State or with the EU in the form of a Community Trade Mark (CTM). Registration is especially important in the EU because, unlike in the US, where trademark protection is based on “first use” as well as registration rights; the trademark registration system in the EU is based on a “first-to-file”, or more precisely, a “first to successfully register” approach.

Companies interested in marketing, manufacturing or selling products and services in the EU must consider whether to obtain international, EU, or national trademark protection.

WIPO created the Madrid System for the International Registration of Marks (the Madrid System), which is governed by two treaties: the Madrid Agreement Concerning the International Registration of Marks (Madrid Agreement) and the Protocol Relating to the Madrid Agreement (Madrid Protocol). This system allows applicants to file a single application where protection is sought in any Member State. The Madrid System, which applies to all EU Member States, allows applicants to submit a single application, which may have effect in several countries, as designated by the applicant.

The EU and the US are members of the Madrid Protocol only. Under the Madrid Protocol, companies may have their trademarks protected in any of the countries that have joined the Madrid Protocol by filing a single “international application” directly with their own national or regional trademark office. The resulting “international registration” may then be used to seek protection in Madrid Protocol countries, each of which apply their own rules and laws to determine whether or not the trademark may be protected in their jurisdiction.

Trademarks may be registered either within individual Member States, or across the entire EU’s twenty-seven Member States, in the form of an EU Community Trade Mark (CTM). The CTM is administered by the Office for Harmonization in the Internal Market (OHIM) in Alicante, Spain.



If your company is targeting only a limited number of EU countries, it may choose to register its trademark in individual Member States. Information about national Member State laws is available from OHIM.

In addition to the practical benefits of a single application in a single language with a single administrative center, the CTM also provides a single enforcement mechanism. If your registered mark is copied or imitated you can take the accused party to a CTM court (national courts designated to hear CTM cases) and get a decision that is valid across the EU-27. This means you will not have to litigate in individual countries, in different languages and under different national laws. The CTM also makes it easier to fulfil the "use or lose" requirement for EU trademarks because you only need to use the mark in one EU Member State to fulfil the use requirement. If you have separate national registrations you need to use the mark in each Member State's market.

Community Designs

Community designs are the European Union's (EU's) equivalent to industrial design (or simply "design"), which is a type of industrial property that is protected by intellectual property rights. In the EU, a community design is defined as "the appearance of the whole or a part of a product resulting from the features of, in particular, the lines, contours, colours, shape, texture and/or materials of the product itself and/or its ornamentation". Essentially, community designs protect the ornamental or aesthetic aspects of products, that is, the outward appearance of a product.

In general, to receive design protection under international, EU, and national law, companies must establish that their product is novel and possesses an individual character. Design rights protect new and original visual aspects of a product or its package and that a product's design can be protected at the same time by a registered trademark, design protection, and/or a patent. Each form of IPR serves a different purpose and is not mutually exclusive. Specific components of a product may also receive design protection if they are visible during the product's normal use and their design fulfils the novelty and individuality requirements for a design to be protected.

The World Intellectual Property Organization (WIPO) maintains the Hague System for the International Registration of Industrial Designs, which allows companies to receive industrial design protection from states in the Standing Committee on the Law of Trademarks, Industrial Designs and Geographical Indications (SCT) by filing one application.

The European Community submitted an instrument of accession to the Geneva Act of the Hague Agreement concerning the international registration of industrial designs. Accession to the Geneva Act of the Hague Agreement links WIPO's Hague System and the Office for Harmonization in the Internal Market (OHIM) community design system (located in Alicante, Spain). This means that as of January 1, 2008, companies can submit one application for design protection through the Community Design and any of the twenty-three countries that are members of the Geneva Act. This will simplify procedures, reduce costs for international protection, and make administration easier.

EU Member States adopted Directive 98/71 on the legal protection of designs and Regulation 6/2002 on Community Designs to allow companies to receive a single EU wide design protection instrument. The Office for Harmonization in the Internal Market (OHIM) processes design applications.

Companies may choose to register their design with a Member State and receive national design protection, which will exist in parallel with community design protection.

Geographical Indications

Geographical indications may be used for a wide variety of products whether organic or manufactured. Agricultural products are often associated with their region of production because such products are generally a result of local climate, sunshine, and soil that are specific to a particular region.

GIs are protected in accordance with international, EU, and national laws. For example, trademark laws in the form of collective marks or certification marks, unfair competition legislation, consumer protection laws, or specific laws that recognize individual GIs.

WIPO administers multiple international treaties that address GI and AO protection, notably the Paris Convention for the Protection of Industrial Property and the Lisbon Agreement for the Protection of Appellations of Origin and their International Registration.

The Lisbon System, which was established under the Lisbon Agreement was established to facilitate the international protection of AOs. The system offers a means of obtaining protection for an AO in the contracting parties to the Lisbon Agreement through a single registration. Registrations can be searched through the Lisbon Express database.

In addition, Articles 22 to 24 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) address international protection of geographical indications within the WTO framework.

WIPO works with Member States and interested organizations in the Standing Committee on the Law of Trademarks, Industrial Designs and Geographical Indications (SCT) to develop the international legal framework for GIs.

The EU protects GIs that qualify as designations of origin or geographical indications and that have not become generic. To qualify as a Protected Designation of Origin (PDO) or Protected Geographical Indication (PGI), a product must comply with specifications for describing the “principal physical, chemical, microbiological or organoleptic characteristics” of the product, and also list the geographic area from which it originates that gives rise to such a product’s unique proprietary traits.

A “designation of origin” refers to a region’s name and will be protected if the designation fulfils three conditions: (1) the product must originate in that geographical area, (2) the quality or characteristics of the product must be essentially or exclusively due to a particular geographical environment with its inherent natural and human factors, and (3) production, processing and preparation of the product must take place in the defined geographical area.

Essentially, the only requirement for a word to become a PDO is a connection between land and the qualities of the product. A traditional non-geographical name designating a region or a specific place may also be registered as a PDO if it fulfils the conditions above.

A “geographical indication” also refers to a region’s name and is also subject to three conditions: (1) the product must originate in that geographical area, (2) a specific quality, reputation or other characteristic that is attributable to that geographical origin, and (3) the production and/or processing and/or preparation of the product takes place in the defined geographical area.

A main difference between PGIs and PDOs is that PDO products are generally more connected to the product's qualities and the land, whereas PGIs must only be attributable to the product's geographical origin. Also, to be granted PGI protection, an applicant need only establish that one of the elements of production, processing, or preparation takes place in the geographical area. Traditional nongeographical names designating regions or specific places may also be registered as a PGI.

It is not possible to register PGIs as symbols. To date, there is no obligation for GIs to indicate that the name of a product marketed under a registered PDO or PGI is a registered designation. If a product is placed on the European market after April 30, 2009, the company must properly mark the product's label as receiving EU GI protection.

Trade Secrets

Trade secrets refer to various types of confidential business information. That is, technical, commercial, or financial information that is not readily ascertainable by the public. Under TRIPS Article 39, information is eligible for trade secret protection if it is identified, substantial, and secret. Trade secrets help give businesses a competitive edge.

Trade secret protection is afforded without registration and can last indefinitely, if the business can ensure that confidentiality is maintained. Difficulty arises when the trade secret involves an invention or patentable product, however, because companies must consider the costs and benefits between obtaining protection by considering the scope of legal protection that a patent would provide versus trying to maintain the entirely confidential information in-house. When companies make this decision, they should consider the gravity of confidential information involved, the product's projected use, the scope of the competitive advantage the company maintains by having the information, and the company's ability to keep the information confidential.

The difficulty in evaluating what, if any, protection to obtain, is identifying the gravity of allowing the information to go public. Once a trade secret is revealed, that company's competitive advantage may be lost. Trade secret holders should, at minimum, create confidentiality provisions in contracts with those who will have access to the information and consider what legal remedies may be sought if the information becomes public or is illegally disseminated. Confidentiality and Non-Disclosure Agreements (NDAs) might also be worth considering when others (clients, colleagues, or employees) may have access to confidential business information.

TRIPS Article 39 allows sanctions against procurement, use or disclosure of a trade secret, through application of the laws on unfair competition or practices. Further, if your company created confidentiality provisions by way of an NDA, a violation of a confidentiality clause may provide grounds for a breach of contract claim.

There are no EU-wide laws that protect trade secrets, but there are multiple European Directives and Regulations that protect data submitted for registration purposes. It is important to discover what data your company is trying to protect and which relevant European legislation applies to determine exactly how to protect your company's trade secrets.



5.4.2. Focus on national landscape:

✓ Italy

The competent administration in Italy concerning patents and trademarks is the Directorate General for the Protection of Industrial Property Italian Patent and Trademark Office²⁰ under the Ministry of Economic Development. The copyright office is the Directorate General for libraries and copyright²¹ under the Ministry of Culture.

✓ France

The industrial property office is the National Institute of Industrial Property²². Copyright laws and regulations applicable in France are managed by the Office of Literacy and Artistic Property, Under-Directorate of Legal Affairs, Directorate of General Administration²³ under Ministry of Culture and Francophone Affairs.

✓ Belgium

Intellectual property office in Belgium is administrated by the Federal Public Service Economy, SMEs, Self-employed and Energy (OPRI)²⁴.

✓ Austria

In Austria there are two different national competent administration: the Federal Ministry of Justice²⁵ related on copyright, and the Austrian Patent Office²⁶ concerning the industrial property.

✓ Hungary

The Hungarian Intellectual Property Office²⁷ is the central government office responsible for the protection of intellectual property in Hungary.

²⁰<https://www.uibm.gov.it>

²¹<https://www.librari.beniculturali.it/opencms/opencms/it>

²²<https://www.inpi.fr>

²³<http://www.droitsdauteur.culture.gouv.fr/index-pla.htm>

²⁴<https://economie.fgov.be/fr/themes/propriete-intellectuelle/contacts-propriete>

²⁵<https://www.justiz.gv.at>

²⁶<https://www.patentamt.at>

²⁷<https://www.hipo.gov.hu>