

Module 8: Intellectual Property Rights in Europe

1 Introduction: The relevance of IPR

The most important IPR in the context of the course are patents (utility models), designs, trade marks and copy rights.

There also exist the so called mask work protection rights protecting the designs of microchips (topographies), but they have lost importance rapidly. Also trade secrets play a role in the field of IPR. Both cannot be addressed in full here.

Except for copyright protection, the Unregistered Community Design (UCD) and in part mask work protection rights **protection** is only achieved through a **successful application**.

In general the structures of the rights follow the same model.¹ The applicable law especially defines a protectable matter (invention, sign etc.), an application procedure and the rights conferred through a successful application. With such an application the applicant achieves priority. Thus his invention, design, trade mark etc. precedes all inventions, designs, trade marks etc. concerning the same subject matter applied for after the day of his application. The applications are checked by a public office and third parties get the possibility to oppose the application. The rights confer a monopoly on the exploitation of the respective matter, thus they are highly attractive.

Protection is always granted in a specific territory (principle of territoriality). A national patent can only be used to oppose infringing actions on the territory of the respective nation state where it was granted. A Community Trade Mark (CTM) only grants a monopoly in the area of the EU. Thus outside the respective nation state or the EU the invention or trade mark may be exploited without consent of the rights holder as long as he does not own a right covering the territory where such exploitative acts take place.

Patents (utility models) and designs are only granted for a limited time (20 years and 25 years), trade marks may be renewed indefinitely in 10 year steps. In both cases the applicable renewal fees have to be paid on time.

Patents shall protect technical features. Additionally copyrights (in part, e.g. software) and mask work protection rights have a technical background. Trade marks and designs as well as copy rights in general shall not protect technical features, but creative accomplishments. Thus the respective legal provisions incorporate different restrictions to prevent the protection of technical features through these rights. All these rights have in common that they shall not protect abstract ideas and pure information (e.g. abstract scientific theories or principles of mathematics).

A successful product will always incorporate a combination of different IPRs. In a smart phone the following may be found:

¹ A search facility for national laws and treaties on intellectual property may be found here: <http://www.wipo.int/wipolex/en/> (02.08.2012).

- **Trade marks** of the producer, the model and the software, e.g. Apple, iPhone, Java, Symbian etc.
- **Patents** concerning the data-processing methods, semiconductor circuits and used chemical compounds etc.
- **Copyrights** concerning the software codes, the instruction manual, ringtones etc.
- **Designs** concerning the form of the phone-enclosure, the arrangement of the buttons, the form of the buttons etc.

So if a product is copied it is very likely that not only technical features are copied but also other IPRs are infringed, a design or a trade mark. In general it is much easier to stop such copycats by resorting to design or trade mark rights.

The necessary combination of the different IPRs makes it also possible to stop or impede competitors not only by reference to patents. In the Apple vs. Samsung battle over the tablet-market Apple was able to stop the sale² of the Samsung Galaxy Pad 10.1 in Germany by reference to a design right.³ Samsung was forced to develop the Galaxy Tab 10.1N. Apple was also granted protection for the design of the MacBook Air.⁴

Apple otherwise had problems selling the iPad in China because of trade mark issues. Apple had bought the worldwide rights to the name in 2009 from a Taiwanese company. A Chinese sister company of the business denied any involvement in this deal and demanded € 309 Mio. for a transfer of the Chinese rights to the trade mark.⁵

2 Patents

Patents generally grant a monopoly on the exploitation of inventions which are new, involve an inventive step and are susceptible of industrial application. The maximum term of protection is 20 years from the filing date. To keep the patent valid a renewal fee has to be paid from time to time. It increases with the duration of patent protection. In case of medicinal products and plant protection products the period of protection in the EU may be extended to 25 years (through so called supplement protection certificates).

Patents confer a big competitive advantage. Nonetheless the EU as one of the largest trading blocs of the world is not offering one unitary EU-Patent valid in all member states so far. Through the worldwide **Patent Cooperation Treaty (PCT)**⁶ and the **European Patent Convention (EPC)**⁷ - both have no connection to the EU-Treaty - an often easier and more cost-effective way than applying in every single country is available. They offer the possibility

² <http://www.heise.de/mac-and-i/meldung/Apple-setzt-sich-durch-Samsung-darf-Galaxy-Tab-nicht-verkaufen-1340031.html> (16.05.2012).

³ The design may be found here: <http://esearch.oami.europa.eu/copla/design/data/000181607-0001> (16.05.2012).

⁴ <http://www.zdnet.com/blog/hardware/apple-granted-macbook-air-design-patent-problems-ahead-for-ultrabook-makers/20732> (10.06.2012).

⁵ <http://www.heise.de/newsticker/meldung/iPad-Markenrechtsstreit-Apple-bietet-angeblich-12-Millionen-Euro-1573122.html> (16.05.2012).

⁶ <http://www.wipo.int/pct/en/> (02.08.2012).

⁷ <http://www.epo.org/law-practice/legal-texts/epc.html> (02.08.2012).

of achieving protection in multiple countries by initially **filing just one application, in one language and in one place.**

Especially the EPC has triggered the harmonization of national legislations in Europe. Nonetheless the applicant is in both cases not granted one unitary IPR, but a **bundle of national patents.**

In the following the focus will be laid on the EPC if not mentioned otherwise.

2.1 What is patentable?

The substantial requirements of a patent consist in the following and are assessed by the patent office:

- invention with a technical character
- inventive step
- novelty
- susceptibility to industrial application/feasibility and reproducibility

These requirements have to be explained. Where susceptibility to industrial application is seldom a problem, not everything counts as an invention (e.g. discoveries, scientific methods, and mathematical methods) and it is very hard to determine, if the invention is the result of an inventive step or a simple advancement of the state of the art. Patent Offices use different approaches to determine an inventive step. The European Patent Office (EPO) favors the so called Problem-and-Solution-Approach. The approach shall be discussed in more detail later.

2.1.1 Invention

It is not as easy as it seems to define the term “invention.” Lawmakers have avoided a positive definition of the term, but considering court decisions and decisions of different patent offices it may be defined as “the unity of challenge and solution to a technical problem.”

As this positive definition suggests, an invention must be of technical character. It must be concerned with a **technical problem** and it must have **technical features**. Thus there exists a **requirement of technical character**. The invention is tested against this requirement without regard to prior art (see chapter 2.1.2). Thus the technical character of an invention does not have to be novel.

What counts as technical? Generally the field of technology in case of the law of patents comprises the classical engineering sciences (machine construction, electrical engineering, process engineering, construction engineering) and parts of the natural sciences (Chemistry, Physics, Biology).

Furthermore an invention can consist of an object (e.g. a machine) or a process (e.g. a procedure for reducing emissions or copying DNA). In general the products obtained directly by that process are also protected by the patent.

Instead of giving a positive explanation lawmakers have only laid down fields explicitly **excluded from patentability**. No inventions are:

- discoveries, scientific theories and mathematical methods;
- aesthetic creations (they can be protected as designs, marks or works of copyright);
- schemes, rules and methods for performing mental acts, playing games or doing business (e.g. a scheme for learning a language, a method for solving a crossword puzzle or a commercial operation), programs for computers; and
- presentations of information (sole content of information).

They are **only excluded** from patentability **as such** - as long as they are purely abstract concepts devoid of any technical implications. As soon as technical features and specific impacts on the physical world come into play patentability is possible. Let's consider some examples:

2.1.1.1 Discoveries

The simple discovery that a material is heat resistant is not patentable, but a panel from that material could be patentable. Thus the new property of a known material itself is not patentable, if it has no technical effect. Can the new property be put to practical use a product based on it may be patentable.

A substance found in nature is also not patentable as such, but it could be patentable, if shown to be producing some technical effect, e.g. it has an antibiotic effect. Biological inventions are discussed later in more detail.

2.1.1.2 Computer-related inventions

As soon as a computer program produces a distinct technical effect, patentability should be possible. The simple execution of the program does not count as such a technical effect, as long as the physical modifications of the hardware through the execution of the instructions given by the program are common to all programs and consist in basic hardware/software interaction. The program has to produce further technical and physical visible effects, and has to solve a technical problem, e.g. affecting the way in which the computer operates by saving memory, increasing speed or improving security.

Why is patenting a computer-related inventions even important? It has to be noted that not a specific set of instructions (as through copyright law) is protected by a respective patent, but the whole abstract approach/solution.

An **automatic auction method** executed in a server computer, in fact carrying out a modified Dutch auction, was not considered a patentable invention. The solution consisted in the mere automation of a non-technical activity, because the modified auction rules were completely independent of the computer arrangement. The whole method could just as well be used without computer support. Although using the computer speeds up the process, a mere speed comparison of this kind is not a suitable criterion for distinguishing between technical and non-technical procedural steps.

A computer-implemented **method for simulating the performance of a circuit subject under noise influence** is patentable. The simulation method cannot be performed by purely mental or mathematical means. It performs technical functions typical of modern engineering work. It provides for realistic prediction of the performance of a designed circuit and thereby ideally allows it to be developed so accurately that a prototype's chances of success can be assessed before it is built. The technical significance of this result increases with the speed of the simulation method, as this enables a wide range of designs to be virtually tested and examined for suitability before the expensive circuit fabrication process starts. Other than a semiconductor chip design method delivering a mere image of something which did not and possibly never would exist in the real world, the simulation method finally leads to a physical product.

2.1.1.3 Algorithms

An algorithm designed to improve signals received through a disturbed radio channel is patentable, because its application focuses on physical signals and improves the whole receiver. Also a process that allows rotating an image by arbitrary angle by employing a specific algorithm is not excluded from patentability.

2.1.1.4 Other Exclusions

Also **excluded from patentability** are:

- a) inventions contrary to "ordre public" or morality;
- b) plant or animal varieties or essentially biological processes for the production of plants or animals; and
- c) methods for treatment of the human or animal body by surgery or therapy and diagnostic methods practised on the human or animal body.

Ad a) ordre public and morality

The exclusion of inventions contrary to "ordre public" or morality is not very relevant. It is directed against inventions likely causing riot or public disorder or somehow inducing offensive behavior, e.g. a letter bomb. The invention would have to be regarded by the public as absolutely abhorrent. The exclusion has gained some relevance through certain specific rules directed at biotechnological inventions (see below).

Ad c) methods for treatment by surgery or therapy

The exclusion concerning treatment by therapy or surgery and diagnostic methods shall prevent the hampering of such through patents.

Therapy means the curing of diseases or malfunctions of the human/animal body, also covering prophylactic and curative treatment. Irrespective of the origin of pain, discomfort or incapacity, its relief is considered as therapy or therapeutic. Cosmetic treatments are not considered as therapeutic and thus are not excluded from patentability.

A **surgery** requires medical expertise and involves health risks. It is not necessary that the intervention be invasive or that tissues be penetrated. Thus an imaging method endangering life and health of the subject even when carried out with due diligence by professionals and representing a substantial physical intervention is considered to be a method of surgery.

Nonetheless this exclusion from patentability has to be constructed narrowly. Hence a method for controlling stimulation energy in a pacemaker was patentable, because the method was not intended for the prevention or treatment of a pathological condition. Therefore also all non-therapeutic treatments are patentable.

Claims relating to a method have to include the following features for the method to be considered as **diagnostic**:

- the diagnosis for curative purposes represents the deductive medical or veterinary decision phase as a purely intellectual exercise,
- the preceding steps which are constitutive for making that diagnosis, and
- the specific interactions with the human or animal body which occur when carrying those out among these preceding steps which are of a technical nature.

Again not all diagnostic methods are excluded from patentability. Not patentable are methods that include essential steps or steps having to be implemented by the doctor, e.g. X-ray investigations, NMR studies or blood pressure measurement. Nonetheless the assessment of a method as diagnostic method does not depend on the person carrying it out.

Another important exception from the exclusions concern **products used in therapeutic, surgical or diagnostic methods**. Surgical or therapeutic, and diagnostic instruments as well as particular substances for use in such methods are patentable. Patent protection is limited concerning the use of such product, so as the doctor does not have to worry about infringing any patent rights when performing a treatment using the product.

Ad b) plant or animal varieties

There exist specific industrial property rights (e.g. a community plant variety right) concerning plant and animal varieties. Therefore plant and animals varieties protectable through these rights are excluded from patentability, but inventions producing a wide variety of plants, each containing a specific gene (transgenic plants), and not claiming protection for specific varieties are patentable.

“Essentially” biological processes such as crossing or selection are not patentable, because natural processes are simply facilitated. Other methods of creating specific varieties are also excluded from patent protection. Otherwise this way would be used as a backdoor to circumvent the principle that no patents are granted where a protection under variety rights is possible.

Excursus: Biotechnological inventions

A biotechnological invention is an invention which concerns a product consisting of or containing biological material or a process by means of which biological material is produced, processed or used. Biological material is all material containing genetic information and capable to reproduce itself or being reproduced in a biological system.

Biological material does not count as a discovery, if it is isolated from its natural environment or is produced by means of technical process. It is therefore patentable.

Microbiological processes - nonbiological processes and processes not directed at producing specific varieties, e.g. genetic engineering - are patentable. They are even patentable if they only involve natural phenomena.

Certain **additional rules concerning “ordre public” and morals** apply to biotechnological inventions. No patents will be granted in respect of the following inventions:

- processes for cloning human beings;
- processes for modifying the germ line genetic identity of human beings;
- uses of human embryos for industrial or commercial purposes; and
- processes for modifying the genetic identity of animals which are likely to cause them suffering without any substantial medical benefit to man or animal.

2.1.2 Novelty

An invention is new, if it does **not form part of the state of the art (prior art)**. It comprises **everything (worldwide!) made available to the public** by means of written or oral description by use or in any other way before the date of filing or priority date (whichever is the earliest). Thus an application with the same filing or priority date as the application to be examined does not form a part of the state of the art.

The requirement demands that all the invention's technical features must not have been disclosed together in a single document, e.g. scientific publications, other patent applications, magazine articles, products on the market etc. Thus prior art **does not have to consist in a written document or drawing**. It is also not of any importance, when the prior art was disclosed before the application. It may even have been forgotten for a long time until now. Thus even a prehistoric cave painting may be considered as prior art.

One important exception from the novelty requirement concerning medical substances and compositions has to be noted: An already known substance or compositions is patentable, if the medical use is novel and inventive.

US and Japanese patent law gives the inventor a so called grace period. It is still possible to apply for a national patent after disclosure during this period, which is one year for the USA.

2.1.2.1 Searching

Thus before approaching a patent attorney or the patent office an inventor should **search for prior art**. It can save him a lot of money and time. The inventor should also **search for competing art**. Somebody may already sell a cheaper product solving the same technical

problem. It is one of the most common mistakes of inventors to underestimate the relevance of prior art.

When **searching for prior/competing art** some questions have to be considered.

- The right **key words** have to be identified. The inventor has to identify the right key or search words describing the invention. Especially technical terms have to be considered otherwise the search may not yield the right results. Patent attorneys and applicants use a specific jargon to broaden the scope of a patent. So instead of the term “transistor” they may use the term “Semiconductor switching device with a control electrode. Instead of “pen” they may use “writing instrument”. Instead of “battery” they may use “electrical power source for electronic circuits.” Others may also try to hide their inventions by using other very abstract terms and descriptions. So instead of intuitive keywords broad concepts should be used.
- **Prior art or competing art already on the market** have to be identified. This should be done on- and offline (especially concerning prior art). Sources may be news sites, catalogs, books periodicals, industry journals, trade show or exhibition websites. A focus should also be laid on academic research. Of course the inventor may also talk to experts in the respective technical field, retailers or suppliers.
- A **patent search** should be done. The inventor has to find all relevant patent documents and try to interpret their significance concerning the novelty of his invention.

Free searches⁸ may be done using the **European Patent Register**⁹, which contains all the publicly available information on European patent applications or the **PATENTSCOPE**¹⁰ service offering a search in international and national patent collections. The **Espacenet database**¹¹ is another valuable patent search engine and even **Google** offers a patent search.¹² Different search options are also offered by national patent offices.¹³

- Here also the right **technology class** has to be identified, because key words alone won't yield satisfying results. Patents are classified into technology classes. The most important schemes are the **International Patent Classification (IPC)**¹⁴ and the **European Patent Classification (ECLA)**.¹⁵ In case of software the main group G06F9 (arrangements for program control) and the subgroup G06F9/40 (arrangements for executing subprograms) may be of interest.

⁸ A guide to different technology databases may be found here:
http://www.wipo.int/freepublications/en/patents/434/wipo_pub_l434_11.pdf (02.08.2012).

⁹ <http://www.epo.org/searching/free/register.html> (02.08.2012).

¹⁰ <http://patentscope.wipo.int/search/en/search.jsf> (02.08.2012).

¹¹ <http://worldwide.espacenet.com/> (02.08.2012).

¹² <http://www.google.com/?tbs=pts&hl=en> (02.08.2012).

¹³ http://www.wipo.int/patentscope/en/dbsearch/national_databases.html (02.08.2012).

¹⁴ <http://www.wipo.int/classifications/ipc/en/> (02.08.2012).

¹⁵ <http://www.epo.org/searching/essentials/classification/ecla.html> (02.08.2012).

- Furthermore the prospective applicant may identify relevant **dates** (priority dates, application dates, publication dates and grants dates) as well as the **names** of other inventors, applicants and rights-holders, especially competitors.
- The search - respective keywords, technology classes etc. - and its results should be thoroughly documented.
- Of course it is also possible to use **professional help**. Commercial search services are offered by national patent offices, different companies and of course patent attorneys.

2.1.2.2 *Determining novelty*

When accessing novelty, the **EPO will not mosaic together the technical features of prior art** to compare them with the features of the invention in question. As mentioned above the technical features of the invention must have been published together in one document to harm its novelty.

Practically this means the following:

If there already exist two different products, e.g. a monitor screen and a printer, which are not related to each other, a combination of both products, a monitor screen incorporating a printer, may still be considered as novel. Of course such an invention would still have to represent a non-obvious solution to a technical problem and be susceptible to industrial application. An invention combining already known technical features thus still may be patentable, if the combination produces a special effect and the combination is new and not obvious. It may also be possible to achieve protection for an invention transferring an existing solution to another, different technical field and problem.

2.1.2.3 *Preventing disclosure*

What does “availability to the public” mean? The invention is available to the public, if it is possible for its members

- to **gain knowledge of the invention** and its technical characteristics and
- there is **no obligation of confidentiality**.

The public consists of an undefined, unlimited and anonymous circle of people not required to observe confidence, but even a single sale is sufficient to render the product sold available to the public. Such a person does not have to be an expert or even a person skilled in the art. It is only necessary that the person is able to gain knowledge of the content of the disclosure.

Therefore it is of utmost importance to keep inventions secret and/or to **conclude Non-Disclosure Agreements (NDAs) with third parties** having access to the invention. In general the existence of a joint venture agreement implies an obligation to maintain secrecy. Thus depending on the nature of the business relations and the status of the businesses involved, the existence of such a confidentiality obligation might be assumed without the necessity of a written agreement. Nonetheless concluding a written agreement is advised. Generally a disclosure should be safe concerning people who are required to observe

confidence by their profession, e.g. patent attorneys, other legal professionals, patent offices and public officers.

Especially the information concerning what makes the invention novel should - also to third parties bound by a NDA - only be revealed in exceptional cases. When disclosing it to third parties, especially prospective buyers, only competitive benefits should be highlighted (cheaper, safer, faster etc.), not the important technical features.

Disclosing features of the invention without regarding this issue may make it a part of the state of the art. It will not be patentable! Experts in a specific technical field may only need a small glimpse of the invention to guess its unique features.

This problem has also to be considered when the invention originates from a student project and is required to be published or exhibited.

There exist **two relevant exceptions**:

- a) Has the disclosure occurred
 - **no earlier than six month before the filing** the patent application and
 - is due to **evident abuse** in relation to the applicant or their legal predecessor
novelty is not harmed.
- b) Novelty is also not harmed, if the invention is **displayed at an official or officially recognized exhibition** in terms of the Convention on international exhibitions signed at Paris on November 22, 1928.

2.1.2.4 Comparing Features

One approach to assess the novelty of the invention is the so called "Merkmalsvergleich", where the invention's technical features are analysed and compared to features of the state of the art – or another invention to detect possible infringement. Unfortunately there exists no rule concerning such an analysis. Nonetheless a short example of such an analysis shall be provided.

The Claim

A copolymer of ethylene and at least one α -olefin having 4-10 carbon atoms, said copolymer having a density in the range of about 0.940-0.960g/cm³ characterised in that it has a melt index in the range 100-200."

may be analyzed as follows:

It defines three features of such copolymer:

- 1) the α -olefin in comonomer has from 4 to 10 carbon atoms;
- 2) the copolymer has a density in the range of about 0.940-0.960g/cm³;
- 3) the copolymer has a melt index in the range 100-200.

2.1.3 Inventive Step

An invention will be considered as involving an inventive step if having regard to the state of the art, it is not obvious to a person skilled in the art. Anything that does not go beyond the normal progress of technology and simply follows plainly from the state of the art is therefore not considered as involving an inventive step. Thus the invention must make a substantial technical contribution to the state of the art. As this definition alone is not really helpful, it is necessary to take a look at how patent offices assess the question.

Again the inventor is able to do some work on his own by comparing the features of his invention to the features of the prior art he has found.

2.1.3.1 The EPO's Problem and Solution Approach

The EPO favours the so called Problem and Solution Approach. It involves three stages and is described as follows:

- 1) determining the **closest prior art** (normally this is a document disclosing subject-matter serving the same purpose or aiming at the same objective as the invention in question and having the most relevant technical features in common and addressing a similar technical problem);
- 2) establishing the objective **technical problem** to be solved;
- 3) considering whether or not the claimed invention, starting from the closest prior art and the objective technical problem, **would have been obvious** to the skilled person.

Additionally the EPO sometimes uses the so called “**Could/Would-Test**” in tandem with the Problem and Solution Approach. Here it considers whether

- the skilled but un inventive person **could have come up** with the invention (therefore considering the cleverness of the invention) and
- the skilled but un inventive person **would have come up** with the invention (therefore considering, if the skilled person would have been motivated to improve the prior art).

Hence if there exists a satisfactory solution to a problem, a skilled person would generally not try to improve it.

Who is the **person skilled in the art**? It is a legal fiction that represents an objective standard against which inventiveness can be measured. The person skilled in the art is presumed to

- be an ordinary practitioner or
- in some cases also a group of persons
- aware of the common general knowledge in the art at the relevant date (filing/priority).

The person skilled in the art is therefore presumed to have had access to everything which is prior art. Also team work is considered. The person skilled in the art may also be presumed to call in on experts of other technical fields.

2.1.3.2 *The problem and Solution approach and computer related inventions*

Concerning **computer-related inventions** the test has been slightly adapted:

- 1) First it is examined whether the invention satisfies the **requirement of technical character**.
- 2) If technical and non-technical features are mixed,
 - Based on the claims the **non-technical aspects are identified** and
 - the non-technical concept of the invention is laid out, so that the person skilled in the art is informed
- 3) based on the technical aspects identified the closest technical prior art is identified
 - if the closest prior art consists of well known technical features then no written evidence is needed;
 - in all other cases respective research must be done.
- 4) After that the differences from the closest prior art are identified - following results are possible.

no differences	differences are not technical	differences include technical aspects
The invention is not novel.	The invention does not involve an inventive step.	a) The technical problem is identified considering also the aim to be achieved in the non-technical field. b) It is asked whether the solution of the technical problem is obvious to the person skilled in the art.

Putting an invention in one of the three categories is not that easy. When an invention simply claims that it performs some mental act by average computing means, the existence of a technical problem may be doubted. If the technical means are further exemplified, the obviousness of the solution must be assessed.

2.1.3.3 *Indicia of an inventive step*

Applicants may demonstrate the inventiveness of their solution by demonstrating that a **known prejudice** concerning technical facts is overcome through the respective solution. The applicant must show, e.g. by reference to suitable technical literature, that such a prejudice really existed.

Another way to show the inventiveness of a solution is demonstrating that the solution **satisfies an urgent long-felt technical need** concerning an unsolved technical problem. Such a need must have existed for a long period of time, starting with the point in time when the problem became apparent and ending with the filing date.

Also the **commercial success** of products incorporating the subject matter of the invention may be cited to indicate the inventiveness of the solution. Such success must derive from the technical features of the invention. Thus it must be shown that the success did not result from other causes, such as more streamlined manufacture, advertising campaigns or efficient selling techniques.

Market competitors trying to obtain usage rights may also serve as an indication of inventiveness. Even the **simplicity of a solution** providing the same or increased quality as other solutions may indicate an inventive step. The inventiveness may lie in the difficulty of finding such a simple solution.

A solution may also be considered as not being obvious if it has an **unexpected, surprising effect**. Such an effect is not inventive if it can be expected when considering prior art. The respective indication is of great importance when the inventiveness of a solution is assessed that combines features of prior art. The combination must not be obvious and suggested by the prior art and it has to lead to such an effect. The equipment of an apparatus for the surgical treatment of tissues by hyperthermia with heat protection means shortened the treatment duration, thus the invention was judged as involving an inventive step. Also when determining the inventive step behind chemical substances their often surprising properties are considered. The applicant may also demonstrate a surprising effect by comparative testing. The nature of the comparison with the closest state of the art must be such that the alleged advantage or effect is convincingly shown to have its origin in the distinguishing feature of the invention compared with the closest state of the art.

2.1.4 Susceptibility to industrial application/ feasibility and reproducibility

The condition is generally easy to satisfy as it is enough that the invention can be made or used in any kind of industry. Industry means any activity carried out continuously, independently and for financial gain. Nonetheless where industrial application is not obvious, especially in cases of biological substances a way of exploiting the invention (substance) has to be disclosed in the application.

The invention has to be feasible and reproducible at the time of application. The inventor must be able to reproduce the solution to the technical problem. He must also be capable of realising the invention at the time of application. It is not possible to apply for a patent until not all parts of the invention are fully developed. The condition also serves as basis for refusing applications for inventions like a perpetuum mobile.

2.2 How is protection achieved?

A patent has to be applied for by the inventor or the successor in title. A written application has to be filed to the patent office in question. Generally specific forms have to be used.

The following remarks are based on the rules of the EPO. Differences to other routes of application shall be addresses in the chapter "Different routes." For detailed provisions the respective rules have to be consulted.

The patent may be lost in general in the following cases:

- after 20 years from the date of filing (maximum term of protection);
- waiving of the patent;
- non-payment of the annual fees;
- revocation;

- invalidation.

The **rights-owner is not obliged to exploit the patent** and thus it is not invalidated by such non-use.

It has to be noted, that the **granting of patent by the patent office is no guarantee that it is valid**. National courts may still find it invalid.

2.2.1 Disclosure

In return for fully disclosing the invention to the public the applicant is conferred a monopoly (the so called **patent bargain**), thus the invention must be fully disclosed. Otherwise the application will be refused or the patent declared invalid after registration.

Sufficiency of disclosure is assessed on the basis of the application as a whole (see chapter 2.2.3). The disclosure is aimed at the person skilled in the art. The person must be able to reproduce the invention based on common general knowledge but without resorting to further research and special knowledge. The claims may mention further documents, if such a reference enables the person skilled in the art to carry out the invention and the features referred to unequivocally form a part of the invention. The document referred to must be unambiguously identified and ready access to it must be possible.

However it may be wiser to incorporate the relevant information explicitly rather than by mere reference.

Furthermore a disclosure of one way of performing an invention is only sufficient if it allows the invention to be performed in the whole range claimed rather than only in some members of the claimed class to be obtained.

2.2.2 Employee inventions

If the inventor is an employee, the right to a patent is determined in accordance with the law of the EPC contracting state in which the employee is mainly employed. Invention relevant to the employee's normal field of employment will generally be owned by their employer. Employees may receive additional financial reward – depending on the law of the EPC contracting state concerned. As inventor the employee will always have the right to be mentioned as such before the patent office.

2.2.3 Priority

Through an application the applicant gains priority over all similar inventions. Thus the filing date is of great importance. This question has already been addressed in the chapter discussing the novelty requirement.

Through the **Paris Convention** for the Protection of Intellectual Property it is possible to claim priority for an earlier application filed in any State being party to the Convention within the previous 12 month. Its basic purpose is to safeguard the applicants' interests when trying to obtain international protection for inventions, thereby alleviating the negative consequences of the principle of territoriality.

The later application must relate to the same invention and contain the same subject matter, otherwise priority cannot be claimed. An identical wording is not required. Generally the priority document has to be the first application for the respective invention. Only if the first application has been withdrawn, rejected or abandoned without the public being able to inspect it a following application can be treated as the first application. Priority must be claimed through a specific declaration of priority.

2.2.4 Application

The application can only refer to one invention or a group of inventions based on a single inventive concept (**Unity of Invention**). Where this is not the case a divisional application is possible. It is treated as a separate application and can claim priority from the original application.

An application itself consists of

- an abstract,
- a description;
- a claim or claims;
- and drawings concerning the invention.

Furthermore the application **must designate the inventor**.

The application **may be withdrawn at any time**.

The **description** forms the basis of the claims. Together with the drawings it is used to construe the claims. While claims can be generally changed during the application process, the content of the description has to stay the same. The disclosed subject must not be encompassed through later revisions. The description must

- specify the technical field to which the invention relates;
- indicate the background art which, as far as known to the applicant, can be regarded as useful for understanding the invention, for drawing up the European search report and for the examination, and, preferably, cite the documents reflecting such art;
- disclose the invention, as claimed, in such terms that the technical problem (even if not expressly stated as such) and its solution can be understood, and state any advantageous effects of the invention with reference to the background art;
- briefly describe the figures in the drawings, if any;
- describe in detail at least one way of carrying out the invention claimed using examples where appropriate and referring to the drawings, if any;
- indicate explicitly, when it is not obvious from the description or nature of the invention, the way in which the invention is capable of exploitation in industry.

Drawings should be used, if they can increase the intelligibility of the technical features in the claims. A claim making explicit reference to a specific drawing will not be limited by the drawing. Still such references should only be used were absolutely necessary.

The **claims** constitute the core of the patent laying down the extent of protection. Therefore they have to be devised very carefully. They must

- define the matter for which protection is sought;
- be clear and concise; and
- be supported by the description.

The claims and thus the technical features laid down therein have to be clear in itself (and of course free of contradiction) without reference to the description. Nonetheless the subject-matter of a claim must be taken from the description. The applicant must not claim something which is not described. The clarity of a claim is not diminished by the mere breadth of a term of art contained in it, if the meaning of such term is unambiguous for a person skilled in the art. Inventions opening up a whole new field of technology are allowed a higher degree of generality than

Where appropriate claims have to comprise two parts (so called **two-part claims**):

- a pre characterizing portion (“preamble”, features of the invention which are part of prior art), and
- a characterizing portion, which designates the technical features that when combined with the prior art features defines the extent of protection.

It is also possible to formulate **one-part claims**. They may be used as long it is possible to distinguish between the inventive features protection is sought for and the state of the art based on the description. One-part claims have to be used if two part claims would give an incorrect picture of the state of the art. A one-part claim won't be admissible if it gives the impression that there exists no prior art.

The main claims addressing the essential features of the invention may be followed by dependent claims incorporating particular embodiments of that invention. These dependent claims have to contain a reference to the independent claim.

Claims may also incorporate so called **disclaimers** excluding specific embodiments or areas from a general feature. Such a disclaimer may be used to restore novelty or disclaim subject matter excluded from patentability.

The **abstract** has no other function besides serving as technical information. It has to contain a precise summary of the information disclosed through the description, the claims, the drawings and the technical field of the invention. The content of the abstract should allow an efficient search in the particular technical field.

2.2.4.1 Questions to be asked before applying and afterwards

Before applying for an IPR the following question should be addressed.

First the advantages and disadvantages of patenting itself should be considered. The patent confers an exclusive and enforceable legal right. On the other side the invention must be fully revealed (of course also to the competitors). Patenting can be expensive and the patent will

only be enforceable after registration which can take up to 4 or 5 years. Utility models (see chapter 2.5) may be a cheaper alternative.

If the invention is a process (e.g. a process of manufacturing) "trade secrets" may be a viable alternative. But trade secrets can leak out and, if they do, there is no protection, because once the invention has been disclosed, it cannot be patented. It sometimes may be preferable to keep inventing without patenting the inventions. It can be enough to simply keep ahead of competitors by bringing new products onto the market faster than they do.

Furthermore is necessary to determine in which countries patent protection is needed:

- In which countries do I want to market my invention?
- Where are my prospective buyers/licensees situated?
- Where are persons situated who may want to copy my invention?
- Who are my competitors and where are they situated?

After a successful application it has to be determined if the intended goals were achieved and if protection shall be renewed:

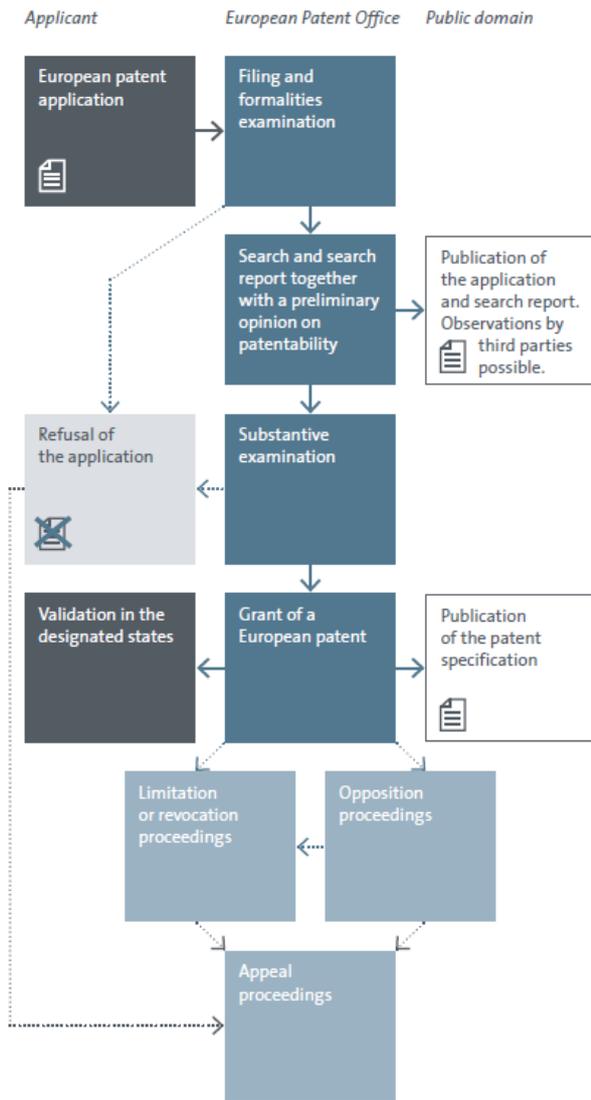
- Does the patent secure a technological advantage over the competitors?
- Are products based on the invention successful on the market?
- How long will the advantages last?
- Was the invention licensed to a third party? In such a case the inventor has to uphold the patent for the contract period. Otherwise he may be liable for damages.
- The patent may also simply be kept to prevent anyone else from exploiting the invention, especially competitors.
- Is neither the rights-owner nor a licensee marketing the invention and are there no competitors to block it's hard to know what to do. If there is any possibility of exploitation the patent should be kept. As long as the invention is not made obsolete by the technical developments it also should be kept.

2.2.4.2 *Different Routes*

Applicants can choose between different routes. In particular the following routes are available:

- a) applying independently in every single country where protection is sought
- b) applying under the EPC
- c) applying under the PCT
- d) applying through the Euro-PCT route

The advantages/disadvantages of the different routes shall be discussed. Especially different fees and costs have to be highlighted.



Application Process

Illustration taken from EPO (ed.) (2010b), 24.

2.2.4.2.1 National route

In this case the inventor or its successor in title applies for patents under national law in each country protection is desired. EPC or PCT routes are not used. Priority will generally be claimed from the earliest national application.

If protection is sought in just one country the national route is the cheapest way to achieve this goal. When the applicant files the application in his country translation cost will be avoided and the language of proceedings will be most likely the country's official language. Furthermore only very limited examinations are done in countries like Italy, Monaco or Greece. Thus protection will be achieved much quicker. Where thorough examinations are done they will lead to greater certainty concerning the effectiveness of the patent in contention proceedings as national patent offices will be more sensitive to the national patent laws.

Where protection is sought in more than one country, efforts have to be increased respectively and complex parallel proceedings have to be managed. Choosing the EPC route is cheaper when protection is sought in three or more major EPC countries.

2.2.4.2.2 Applying under the EPC

In case of the EPC an application can be filed by any natural or legal person irrespective of their nationality or place of residence. The EPC application may be filed by joint applicants or by multiple applicants designating different contracting states. The application has to be filed (personally, electronically, by fax or post) either with the EPO in Munich or its branch in The Hague or (if permitted by national law) a national patent office. There also exists an EPO-office in Berlin, where applications may be filed. It is not possible to file applications with the EPO office in Vienna.

The **official languages** of the EPO are **English, French and German**. An application has to be either filed in one of these languages or when the applicant is a resident in one of the member states of the EPC a translation into these languages has to be filed subsequently.

The following fees will apply: filing fee, search fee, fee per designated state, fee per claim over ten claims, examination fee, and a fee for grant and printing.¹⁶

The proceedings start with a **preliminary examination** of the application, checking the satisfaction of formal requirements such as payment of fees.

In parallel a **search report** is drawn up based on the claims and the description. With the search report in his hands the applicant has the possibility to withdraw, amend or proceed with the application. Description, claims and drawings can be amended. Amendments must not extend beyond the content of the first filed application. Since 2005 the applicant also gets a search opinion as to whether the invention meets the patentability requirements.

The EPO is obliged **to publish the application** - normally together with the search report - as soon as possible after the expiry of 18 months from the filing date or the priority date. It is possible to request an earlier publication. The patent applications as well as the search reports are published in electronic form only, on the EPO's publication server, which is accessible via the EPO website.¹⁷ Once the documents are published, they are available for public inspection by way of the European Patent Register.

From the date of publication the invention receives a provisional protection in the designated countries. Some states require translations into their official language before providing respective protection. Thus translation costs have to be taken into account too.

After that the **substantive examination** (of the application and the patentability of the invention) takes place, if it is requested by the applicant. If examination is not validly requested within the time limit, the application is deemed to be withdrawn, but the opportunity to request further processing is available.

During the examination process amending the application has to be approved by the examining division. Different rules apply in such cases, e.g. a feature of a claim can only be removed or replaced if the skilled person would recognise that the feature is not essential, and not indispensable for the invention, and no other modifications are necessary. Additions can only be made, if they do not exceed the original application. If the amendment excludes protection for part of the subject-matter it is generally conceived as permissible.

The applicant has also to finally **decide within six months after publication in which states protection is sought.**

If the patent fulfils the discussed requirements the patent will be granted. Before that the applicant has to pay any pending fees, approve the text in which it is intended to grant the patent and provide a translation in the other two official languages.

¹⁶ An interactive schedule of fees may be found here: <http://www.epoline.org/portal/portal/default/epoline.Scheduleoffees> (02.08.2012).

¹⁷ www.epo.org (02.08.2012).

With the granting of a European Patent **only a bundle of national patents is acquired**. For the patent to take effect in the designated countries it is generally necessary to provide each designated country with a translation. Through this act the patents get validated in the respective states.¹⁸

Within nine month after the mention of the grant third parties may apply to revoke the patent before the EPO during so called **opposition proceedings** on the following grounds:

- the subject-matter of the patent is not patentable (not new, does not involve an inventive step etc.);
- the patent does not disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art;
- the subject-matter of the patent extends beyond the content of the application as filed.

Both sides get the possibility to state their case. In the end the EPO may decide to maintain the patent, revoke it or maintain it only in an amended form. Hence amendments are still possible even, if the patent has already been granted. Again an amendment must not extend beyond the content first disclosed.

Appeals are handled by a Technical Board of appeal, a Legal Board of Appeal or the Enlarged Board, the latter being the highest appellate Body being concerned with important questions.

The proceedings itself cost at least € 4.300,- in fees and take between 3 and 5 years. The proceedings average 45,3 months. The average total cost of filing a European application is € 37.500,-. Choosing the EPC route will be best, if protection is sought in most western European countries. Where protection is desired very quickly the national route or the PCT route may be preferred. Renewal fees start at € 445,- and rise up to € 1.495,- for the 20th year.

Infringement actions are tried in national courts. Apart from the application process, possible opposition proceedings and later amendments the EPO is not involved in any proceedings concerning a European patent.

2.2.4.2.3 National-EPC route

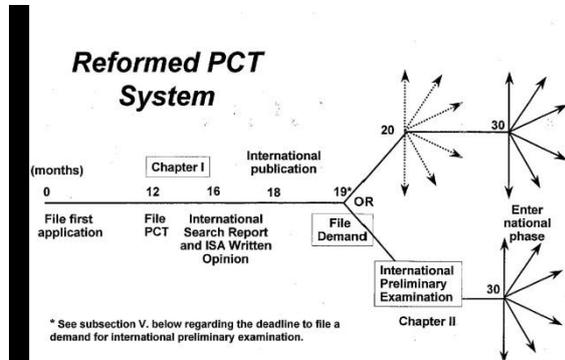
Here first a national application is filed. Within the priority period an application for a European patent is filed claiming the national application's priority.

Although this route in the end may be more expensive the applicant gains faster protection through the national patent and is given a period of 12 months (time limit for claiming priority according to the Paris Convention) to consider his options. During this time more research can be done and maybe a national search report will be available. The European application then could be altered according to these findings.

¹⁸ Further information may be found under <http://www.epo.org/law-practice/legal-texts/national-law.html> (02.08.2012).

If the applicant only wants to consider his options he may file a first European application and then make a second filing claiming priority from the first filing.

2.2.4.2.4 PCT-national route



Here the applicant files a single application under the Patent Cooperation Treaty (PCT). With this one application he may achieve protection in one or more of the 146 PCT contracting States or be granted a regional patent (pursuing to the EPC, the ARIPO Harare Protocol¹⁹, the Eurasian Patent Convention²⁰).

PCT Route

http://www.uspto.gov/web/offices/pac/mpep/documents/1800_1842.htm (02.08.2012).

The proceedings are split up in two parts:

- an **international phase** and
- a **national phase**.

Application, search and in specific cases preliminary examination are done during the international phase. Applications generally may be filed with a national patent office, the EPO or the WIPO in Geneva.

To enter the national phase the applicant has to pay the required national (or regional) fees to the national or regional patent offices (so called **Designated Offices**) of the countries/regions where protection is sought, furnish them with any necessary translations and appoint a representative (patent agent) if required. Substantive examinations are then done by the national patent offices in the designated countries. The national offices may refuse or grant the national or regional patent based on the applicable national law or regional treaties. Patents are normally **granted within 3 years**.

Although the PCT route is in general quick and cheap costs accumulate if protection is sought in a large number of countries.

2.2.4.2.5 Euro-PCT route

In this case an international application under the PCT is filed. Concerning designated countries being members of the EPC the applicant may designate the **EPO as Designated Office** processing the applications for those countries. When choosing the so called Chapter II route the EPO will prosecute the applications for the EPC member states (Euro-PCT II route).

The route is very quick and the patent is normally **granted within 3 years**, but it is more expensive compared to the EPC route. It is cheaper than the national-PCT route. So where protection is sought in a number of European countries the Euro-PCT II route is to be

¹⁹ <http://www.aripo.org/> (06.08.2012).

²⁰ <http://www.eapo.org/eng/ea/documents/konvenci.html> (06.08.2012).

preferred. The applicant may first file a national application to achieve fast protection and to gain time. Then an international PCT-application should follow, if the national search report is encouraging.

2.3 Rights conferred by a European patent

Patents confer a monopoly on the exploitation of an invention. Hence the patent owner is able to prevent everyone else from exploiting the invention, but also to assign or transfer ownership of a patent and to conclude licensing contracts.

Because the European patent is a bundle of patents the patent owner acquires in each Contracting State in respect of which it is granted, the same rights as would be conferred by a national patent granted in that State. Any infringement of a European patent will be dealt with by national law and national courts. Infringement is thus determined pursuant to the applicable national law and will be determined by the national courts.

In general the following remedies are available:

- interim or preliminary injunctions;
- final or permanent injunctions (e.g. injunction not to infringe the patent which is the subject of the infringement action);
- disposal outside channels of commerce;
- damages;
- license fees;
- account of the infringer's profits.

Litigation is very costly and complex (average costs for respective court proceedings in the USA are about € 125.000,- and in Germany about € 25.000,-).

Infringement is sometimes hard to detect. It depends on whether the features of the alleged infringing product are covered by the claims of the respective patent. The person accused of infringement may start attacking the patent challenging its validity. Thus it may be easier to stop any infringer by resorting to other IPRs possibly copied with the invention, e.g. a trade mark, design or copy righted work.

Where the subject matter of a patent is used in a **product** the patent in general confers the following exclusive rights:

- making,
- using,
- offering for sale, putting on the market or stocking
- selling or importing for these purposes

the product.

Is the subject-matter of the patent a **process** the rights-owner is exclusively entitled to prevent any third parties from using the process and using, offering for sale, selling or importing for these purposes at least the product obtained directly by that process.

The rights-owner in general may also act against third parties willingly aiding an infringer by supplying the infringer with necessary means for the use of the invention or offering such means.

The rights owner is not entitled to prohibit any use where a product incorporating the invention is put on the market with his consent (**Exhaustion**). Also third parties are protected against any infringement proceedings, if they have used the invention in good faith before the application (**right of prior use**).

The rights conferred by a patent shall also not extend to:

- acts done privately and for non-commercial purposes;
- acts done for experimental purposes relating to the subject-matter of the patented invention;
- the extemporaneous preparation for individual cases in a pharmacy of a medicine in accordance with a medical prescription nor acts concerning the medicine so prepared;
- the use on board vessels of the countries of the Union of Paris for the Protection of Industrial Property, other than the Contracting States, of the patented invention, in the body of the vessel, in the machinery, tackle, gear and other accessories, when such vessels temporarily or accidentally enter the waters of Contracting States, provided that the invention is used there exclusively for the needs of the vessel;
- the use of the patented invention in the construction or operation of aircraft or land vehicles of countries of the Union of Paris for the Protection of Industrial Property, other than the Contracting States, or of accessories to such aircraft or land vehicles, when these temporarily or accidentally enter the territory of Contracting States.

What contractual relations are relevant?

Freedom of contract makes it possible to agree upon almost anything as long it does not violate existing laws. Thus it is not possible to give an account of all possible arrangements.

2.4.1 R&D and exploitation

Contractual relations concerning inventions/patents may exist/be necessary

- a) between employer and employees (see chapter 2.2.1);
- b) between contractor and purchaser;
- c) R&D partners in a cooperative effort;
- d) partners of a joint venture;
- e) licensor and licensee.

They cover two different objectives:

- I. **research and development of new technologies**

II. exploitation of protected technology

In the first case it is important to ensure the rights in an invention or detail shares as well as to lay down provisions concerning application and exploitation.

After having secured a patent, exploitation can be achieved through different forms of licensing or even the assignment of the IPR, but also already the application or the invention may be transferred.

2.4.2 Licenses

A license entitles a third party to use the IPR in a certain way, without an assignment. The permission may be at least closer specified relating to

- its location (e.g. a permission to manufacture a product based on the invention only in Germany or only at one specific plant);
- time (e.g. limited in time or not);
- its type of use (manufacturing, selling, importing etc.);
- the field of usage (e.g. the permission to manufacture products only for the automotive industry, limitation to specific patent claims or applications);
- the number of licensees (e.g. the permission may be exclusive or not);
- the possibility of granting sub-licenses.
- the possibility to transfer the license.

The licensee may also be obliged to pay renewal fees and to protect the IPR against opposition. Together with an exclusive right to exploit the IPR worldwide this arrangement would come very close to an assignment.

In general the licensee will also need know how and perhaps technical assistance and other services from the licensor. It will seldom be possible to manufacture a product simply based on the patent document.

Sometimes the licensee may be able to improve the subject-matter of a patent. Provisions concerning such an obligation, how ownership is allocated etc. should be agreed upon.

Furthermore clauses concerning representations and warranties of the licensor regarding the non-existence of third-party rights to the licensed IPR and concerning ownership and validity of the licensed IPR have to be laid down as well as provisions concerning maintenance and defence of the licensed IPR.

License fees resp. royalties may consist in a lump sum or depend on turn over, net profit, number of authorised users or the number of products sold. In case of variable fees a minimum fee may be determined. The licensor may want the right to audit the licensee concerning these matters.

2.5 Utility Models

A Utility Model is a lesser form of patent, where especially the duration of protection is shorter and the required inventiveness is diluted. They are cheaper and easier to attain and thus particularly suited to Small and Medium Enterprises. Unfortunately they exist only in a number of Member States of the EU (e.g. Denmark, Spain, Ireland, Austria, and Germany) and requirements and conditions differ.²¹

In most countries neither novelty nor inventiveness are checked and the utility model will be registered when conforming to formal legal requirements. The satisfaction of the material requirements must be decided in court, if there is any legal dispute.

3 Other relevant IPR

As a product is a mix of features protected by different IPRs and patent litigation is very costly, time intensive and complex copycats pirating both technology and design/trademarks may be stopped faster by using remedies against the infringing of **designs, trademarks and works protected by copyright**. Also competitors may be stopped or impeded easier by reference to designs, trade marks or copyright protected works. Hence it is necessary to get to know the basics of these IPRs not protecting technical features.

In case of Industrial Designs and Trade Marks the European Union already offers an easy possibility of protection through one application with the **Office for Harmonization of the Internal Market (OHIM)**²² and the granting of **one unitary IPR (Community Trade Mark)**²³ and **Registered Community Design**²⁴ **effective throughout the entire Community – not a bundle of different national rights**. Concerning Copyrights the EU has taken some steps to harmonize national legislations, especially in the important cases of software and databases.

3.1 Community Trade Mark

Trade marks confer the exclusive right to use a specific sign when marketing goods or services. The sign enables consumers to distinguish between goods and services from different sources. The owner is given the incentive to promote the reputation of the trade mark as well as the goods and services sold under it, because others are excluded from using the trade mark. The consumer expects a uniform quality from the goods and services sold under one trade mark, although a trade mark only guarantees a unitary control not unitary quality. Therefore its owner may oppose any use of the trade mark likely to impair the guarantee of origin. The trade mark may be assigned, levied and licensed.

The trade mark differs from patents in one important way: **The rights-holder is obliged to use the trade mark, otherwise it can be invalidated!**

²¹ http://www.wipo.int/sme/en/ip_business/utility_models/where.htm (02.08.2012).

²² <http://oami.europa.eu/ows/rw/pages/index.en.do> (02.08.2012).

²³ Its legal basis may be found here:

<http://oami.europa.eu/ows/rw/pages/CTM/legalReferences/regulations.en.do> (02.08.2012).

²⁴ Its legal basis may be found here:

<http://oami.europa.eu/ows/rw/pages/RCD/legalReferences/regulations.en.do> (02.08.2012).

3.1.1 Application

Applications for a Community Trade Mark (CTM) are **filed with the OHIM and may be filed by any legal or natural person**. The application has not only to contain the sign but has to state the goods and services (according to the Nice Classification²⁵) for which protection is sought, i.e. the kinds of products that will be marketed using the trade mark. The official language of any EC Country may be used. Registering an individual mark covering three classes costs approximately € 900,- in fees.²⁶

Then a search report is drawn up citing all CTMs or CTM applications which could be cited against the application. The application will be examined concerning the existence of absolute grounds of refusal (see chapter 3.1.3). If the application passes the examination it is published. Earlier CTM proprietors/applicants cited in the search report will be notified of the application ("surveillance letter"). The applicant has also the option to request national search reports.

The publication is followed by the opposition phase (3 month) when third parties may oppose the application based on their earlier rights. If the application survives the opposition phase it is registered and published. As long as the renewal fees are paid the trade mark stays valid. There exists no absolute time limit concerning the term of protection. The term of protection is 10 years, but as mentioned it **can be renewed indefinitely**. Basis renewal fee for an individual mark covering not more than three classes is € 1.500,-.

The particulars of all trade marks registered by OHIM may be found in the **CTM register database**.²⁷

The application may **claim the priority of an earlier application** under the Paris Convention within six month after the filing of the first application. A CTM-application which is identical (sign as well as goods and services) to an earlier national mark registered in a Member State may claim the earlier mark's seniority.

Amending the application in a substantial way is not possible. Only name and address may be corrected and the list of goods or services restricted.

Where a TCM application is refused, withdrawn or surrendered the conversion of the CTM application or registration into a national trade mark is possible.

Obtaining a mark in all Member States may also be accomplished by filing **an international application under the Madrid System**²⁸ or filing a **national application in all Member States**.

²⁵ <http://www.wipo.int/classifications/nivilo/nice/index.htm> (02.08.2012).

²⁶ A fee calculator may be found here: <http://oami.europa.eu/ows/calculator/open.do> (02.08.2012).

²⁷ See: <http://oami.europa.eu/ows/rw/pages/QPLUS/databases/searchCTM.en.do> (02.08.2012).

²⁸ It consists of the Madrid Agreement and the Madrid Protocol. See <http://www.wipo.int/madrid/en/> (02.08.2012).

If the existence of earlier rights in some Member States and thus opposition is likely the national route may be safer. If no such worries arise the CTM is much cheaper and because of its unitary nature easier to defend against infringements.

In case of the Madrid Protocol the applications has to be based on a “home application”, in case of the Madrid Convention an already registered trade mark.²⁹ The applicant has to be National of a Contracting State, or domiciled in a contracting State or having an effective industrial or commercial establishment in a Contracting State of the Protocol. In general applications have to be with the respective national IPR-office. Making a new application for single mark covering three classes for the area of the EU costs approximately CHF 1.700,-.

An international application may be also used to obtain a CTM. Thus such an application may be quiet similar to Euro-PCT-application.³⁰ Of course the CTM-application may also be used to extend protection

3.1.2 Definition of Community Trade Mark

A trade mark may consist of

- a) a **sign capable of being represented graphically**, e.g.
 - words and names,
 - designs,
 - letters,
 - numerals,
 - shapes of goods or their packaging (three dimensional trade marks),
 - music jingles or sounds, and
 - colours;
- b) provided the **sign is capable of distinguishing goods and services**.

Ad a) graphical representation

The graphical representation has to be clear, precise, self-contained, easily accessible, intelligible, durable and objective, because the public should be able to realise the precise subject matter and extent of protection concerning a trade mark.

Thus it is possible to protect a **music jingle** because it can be represented through sheet music. A “sound of a lion” can be represented by a spectrogram. A **colour** can be represented through a colour code (e.g. RGB).

As long as there exists no generally accepted classification of smells, it is not possible to trade mark a **scent**. The chemical formula is not capturing the subject matter.

Ad b) distinguishing goods and services

²⁹ The WIPO offers an application simulator under http://www.wipo.int/madrid/en/madrid_simulator/ and a fee calculator <http://www.wipo.int/madrid/en/fees/> (02.08.2012).

³⁰ A comparison between the CTM-application and the international application may be found here: <http://oami.europa.eu/ows/rw/pages/CTM/protection/CTMvsIM.en.do> (02.08.2012).

Considering the essential function of a trade mark leads to the conclusion that the sign must be capable of distinguishing the goods and services of one undertaking from another. Fortunately the mere capability is enough. The sign in question must merely be capable of conveying specific information, in particular as to the origin of a product or service. It is rather unlikely that a sign is capable of being represented and not capable of distinguishing goods or services, thus the requirement is easy to satisfy.

3.1.3 Absolute grounds for refusal

3.1.3.1 Trade mark definition and distinctiveness

The granting of a trade mark will definitely be refused in the following cases:

- a) The sign **does not comply with the definition of trade mark**
- b) The sign **lacks distinctiveness.**

Ad a) definition

The definition of trade mark has already been discussed above.

Ad b) distinctiveness

This has to be determined considering

- the **goods and services** for which protection is sought and
- the **perceptions** of them by the **relevant public.**

The relevant public consists of the average consumers of the respective goods and services. They are presumed as being reasonably well informed and reasonably observant and circumspect.

Additionally the following principles apply:

- The sign must be **perceived as an indication of trade origin** without further education of the public.
- The granting of the trade mark **shall not restrict the trade in goods and services.**

Especially in the latter case, if applicants were able to register trade marks consisting of mere descriptions of the product or service or their common designation trade would be restricted. Descriptive terms shall be available to everybody. The same applies to signs which have become customary in the current language and practices of trade. Nobody shall be able to monopolize the word “car” or simple slogans. At the same time a mere description of the good will not be perceived as an indication of its origin.

In the case of slogans it is generally presumed that the consumer does not make any assumptions about the origins of goods or services on the basis of advertising slogans. Thus slogans like “best buy” or “looks like grass ... feels like grass ... plays like grass” were not registered as trade marks. Of course assessing these questions is not as easy as it seems.

3.1.3.1.1 Word marks

Invented words or words which are elusive but not descriptive have a very good chance of being registered as trade marks.

As mentioned before descriptive words will not possess the necessary distinctiveness, unless they are not related to the marketed goods and services. So it will not be possible to register the trade mark *Red Bull* when selling red bulls but it will be possible when selling an energy drink. Accordingly the sign *bestpartner* was not registered, because the two words “best” and “partner” simply denote the quality of the services. The consumer would be able to understand this reference directly. Where this relation to the good or service is not as obvious registration is possible. *Doublemint* does not enable the public to grasp the characteristics of the product without further reflection, because it could mean many things e.g. twice the mint or two flavours of mint.

Where a sign has a descriptive meaning in the language of any Member State registration may be refused. The application still may be converted in national applications in other Member States.

3.1.3.1.2 Shapes

In case of **product shapes** the following principles applies:

- The closer the shape to be registered resembles the product, the greater the likelihood of refusal.
- The greater the functionality of the shape, the greater the likelihood of refusal.

Additionally it has to be considered, if the public will perceive the shape as a trade mark and sign of origin. In case of a star shaped cheese product the latter was negated.

In case of **packaging** the same criteria apply. The shape has to depart significantly from the norms and customs of the sector.

When considering the application for a shape mark the following prohibitions have to be taken into account too. They are not related to the question of distinctiveness, but shall ensure that no technical features are monopolized through a trade mark instead of a patent. Accordingly the prohibitions cannot be overcome by proving acquired distinctive character (see the following chapter).

The registration of signs is prohibited if they consist exclusively of

- the shape which results from the nature of the goods themselves (e.g. a football or a banana shape for fruits);
- the shape of the goods which is necessary to obtain a technical result (i.e. the technical result would not be obtained without the shape); or
- the shape which gives substantial value to the goods (the meaning of this is not clear).

3.1.3.1.3 *Distinctive character acquired through use*

Objections concerning the distinctiveness of a sign can be overcome, if the sign has already acquired a distinctive character by reason of its use in the market place. In this case the sign is already used to designate goods and services and the consumer is well aware that the goods and services originate from one specific undertaking.

3.1.3.2 *Trade marks contrary to public policy or morality*

Respective applications will be refused. There exist at least seven categories of marks that are objectionable:

- those with a religious nexus;
- those consisting of or comprising racial slurs or epithets;
- those consisting of or comprising profane matter;
- those consisting of or comprising vulgar matter;
- those relating to sexuality,
- those involving innuendo; and
- those suggesting or promoting illegal activity.

In the following cases registration was refused:

BIN LADIN, FUCK OF THE YEAR, RASSISMUS, OPIUM,
www.standupifyouhateamanu.com, and TINY PENIS.

3.1.3.3 *Deceptive trade marks*

Considering the essential function of a trade mark signs will not be registered which are of such nature as to deceive the public, for instance as to the nature, quality or geographical origin of the goods and services. There has to be an actual deceit or sufficient risk of deceit. Accordingly the sign *allwool* is deceptive when designating nylon clothing.

3.1.3.4 *Heraldic symbols, flags*

Such signs which are protected by Member States, and other badges, emblems, etc. of public interest may not be registered as trade marks.

3.1.4 **Relative grounds of refusal**

The relative grounds of refusal relate to cases where the use of the sign would conflict with earlier rights. Generally the owner of an earlier right has to oppose the application, i.e. the registration office will not refuse the registration on its own. The following grounds exist:

- the trade mark is **identical** to an earlier registered trade mark (community trade mark, national trade mark, international trade mark, and respective applications) and shall designate identical goods or services;
- the trade mark is **similar** to the earlier registered trade mark and shall designate similar goods or services such that there exists a **likelihood of confusion**;
- the trade mark is similar to the earlier registered mark and will, without due cause, take **unfair advantage** of or be **detrimental to the distinctive character or repute** of the earlier mark; and

- use of the trade mark **would infringe non-registered trade mark rights** or other IPRs.

Identity consists in the reproduction, without any modification or addition, of all the elements constituting the trade mark or where, as a whole, the other sign contains differences so insignificant that they may go unnoticed by an average consumer. OHIM generally ignores differences in colour. Where two word marks are being compared, additionally differences in size and typefaces are ignored.

Similarity concerning trade marks has to be considered with having the overall impression of the trade marks in question in mind, in particular their distinctive and dominant components. Similarity of goods is tested by considering their nature, their end users and their method of use and whether they are in competition with each other or are complementary. The likelihood of confusion has not to be considered. Thus edible fats and vinegar sauce are similar goods. They are intended for human consumption and serve as everyday seasonings for foodstuff.

If the marks and goods are similar the next question to be answered is the likelihood of confusion by the average customer as to the trade origin, i.e. that the products stem from the same or economically linked undertakings.

The ground of refusal based on **taking an unfair advantage etc.** shall protect so called **well known marks** against use of a later registered similar trade mark, where such use would indicate a link between the products and/or the owners. A similarity of the designated goods and services is not necessary, but the “well known” mark must have established a reputation in at least a substantial part of a Member State (e.g. *Intel, Apple, Nike, Coca Cola, Rolls Royce*). Furthermore it is enough that the two marks in question are linked but not confused. Still the linkage has to influence the economic behaviour of the consumer.

The best example for such a behaviour are “lookalike” products sold by supermarkets as own brand products but mimicking famous brands. They try to exploit the other mark’s resp. free-ride off its good reputation by mimicking it and thus may harm its distinctive character. This was not the case, when a travel agent marketing holidays in Turkey used the word camel, because a camel can be considered an appropriate emblem for exotic holidays.

Furthermore the well-known trade marks may get linked with goods or services of poor quality or incompatible with its own quality and prestige. The use of *VISA* for condoms thus was detrimental to the reputation of *VISA* for financial services. The use of *Intelplay* for children’s puzzles dilutes the strength of the well-known trade mark *Intel* designating semiconductor chips. Such use damages the function of the trade mark as an indicator of origin and/or the brand image of the well-known trade mark.

Non-registered trade marks or IPR may consist especially in a right to name, a right of personal portrayal or copyright. Additionally many Member States protect unregistered signs through laws of unfair competition.

Again it is of **utmost importance to do a search before applying for a trade mark**. The WIPO is offering the **ROMARIN** search application³¹, containing all international marks recorded under the Madrid system and respective applications. The OHIM **CTM Register** has already been mentioned. Again also national offices may offer similar services.

3.1.5 Infringement

The infringement provisions mirror the relative grounds of refusal. Still explanation is needed to what kind of use counts as acts of infringement. To constitute such an act the trade mark

- has to be used in relation to goods and services
- indicating trade origin and
- distinguishing the products from products of different origin and
- the public must perceive it that way.

A mere display is in itself not sufficient. E.g. sweets distributed with photographs of a football team where the team-trade mark could be seen on the player's shorts did not infringe on the right of the team-trade marks' rights holder.

Having this in mind uses which may be prohibited are:

- affixing the sign to goods or to the packaging thereof;
- offering the goods or putting them on the market or stocking them for these purposes under that sign, or offering or supplying services thereunder;
- importing or exporting the goods under the sign; and
- using the sign on business papers in advertising.

A person confronted with infringement claims may make use of the following defences:

- a) The mark was used with the consent of the proprietor.
- b) The rights have been exhausted, meaning that the proprietor is not entitled to prohibit the use of a trade mark in relation to goods which have been put on the market in the Community under that trade mark by the proprietor or with his consent.
- c) The claimant has acquiesced to the use of the defendant of a later registered mark for a period of five years (while being aware of such use), unless registration of the later mark was obtained in bad faith.
- d) The mark is an invalid mark.

Additionally the following usages do not constitute acts of infringement:

- use of own name or address (in accordance with honest practices in industrial and commercial matters);
- use to indicate characteristics of goods and services (descriptive use of a sign); and
- use necessary to indicate the intended purpose of a product or services, i.e. spare parts or accessories (e.g. a second hand car dealer may use the mark for informing

³¹ <http://www.wipo.int/romarin> (02.08.2012).

the public that he carries out the repair and maintenance of goods covered by that trade mark).

The exclusive rights are conferred to the proprietor with the date of registration. Infringement actions lie in the exclusive jurisdiction of the national courts of the Member states which deal with such matters. The available remedies are similar to the remedies available against the infringement of patents.

3.1.6 Revocation and declaration of invalidity

Trade marks are revoked on the following grounds.

- The trade mark is **not put to genuine use** (i.e. use on the Community market) in relation to the goods and services protected by the registration **within five years following the completion of the registration procedure**, unless there are proper reasons for non-use.
- The mark **has become generic**, i.e. it has become a common name. Thus the proprietor has to police the use of the trade mark by third parties and is entitled to prohibit any respective use, e.g. demand use of the ® symbol ensuring that no descriptive use occurs and ensuring that licensees or distributors make no descriptive use of the trade mark.
- The trade mark is **misleading**.

A trade mark will be declared invalid if

- its registration was **contrary to the basic requirements**, i.e. it has no distinctive character, is generic etc. (mirrors the absolute grounds for refusal);
- it was **obtained in bad faith** or
- **infringes earlier rights** (mirrors the relative grounds for refusal).

Bad faith involves especially actual or potential fraud, intent to deceive or mislead, or any other injurious intent. Thus where somebody intends to register a trade mark of a third party with whom he had (pre-)contractual relations it can be assumed that the action was taken in bad faith, e.g. a company registers a trade mark of a foreign company it does business with knowing that the foreign company wants to enter the Community market.

Applications for revocation may be made by any person. As well any person may apply for a declaration of invalidity on absolute grounds. In case of relative grounds only the owner of the earlier right may apply.

3.2 Registered Community Design

3.2.1 Application

Applications can be filed with OHIM or a national intellectual property office of a Member State. It has to contain particularly a representation of the design and an indication of which products it is intended to be incorporated or applied to (International Classification for

Industrial Designs = Locarno Classification³²). The application may contain multiple designs as long as they belong to the same class of the Locarno Classification. Registering and immediately publishing 5 designs costs approximately € 875,-.³³

Again it is possible to **claim an earlier priority** date from an application not older than six month pursuant to the Paris Convention.

OHIM checks the compliance with all formalities (fees etc.) and that the design falls within the legal definition of design. If the application survives this examination the design is published (Community Designs Bulletin) and registered. The applicant may request, that the publication of the design be deferred for a period of 30 months from the date of filing/the date of priority.

The proprietor of the design will have the opportunity to exclusively exploit the registered design for a maximum of **25 years** from the date of filing. After the first 5 year period it can be renewed in 5 year blocks. As long as the renewal fees are paid the trade mark stays valid. Renewal costs start at € 90,- and rise up to € 180,-. Again the rights may be assigned, levied or licensed.

RCDs can be found in the **RCD Register**, a database containing particulars of all designs registered and published by the OHIM.³⁴

Instead of applying for a RCD the designer or his successor in title may choose to file a number of separate **national applications** or he may file a **single international application** with WIPO in Geneva under the Hague Agreement designating a number of countries.³⁵ Unfortunately only 60 parties have ratified the Agreement, but the contracting parties include the EU. Registering 5 designs in the area of the EU costs approximately CHF 900,- in fees.

3.2.2 Requirements

The design protection is applied for must be

- a design within the meaning of the relevant law,
- novel;
- possess individual character;
- not consist of features dictated solely by their technical function;
- not be a mechanical interface;
- not be contrary to public policy or morality.

Designs that do not satisfy these criteria are refused registration or can be invalidated later.

³² <http://www.wipo.int/classifications/nivilo/locarno/index.htm?lang=EN#> (02.08.2012).

³³ OHIM offers a free fee calculator online: <http://oami.europa.eu/en/design/fees.htm> (02.08.2012).

³⁴ See: <http://oami.europa.eu/ows/rw/pages/QPLUS/databases/searchRCD.en.do> (02.08.2012).

³⁵ See: <http://www.wipo.int/hague/en/> (02.08.2012). A fee calculator is available under <http://www.wipo.int/hague/en/fees/calculator.jsp> (02.08.2012).

3.2.2.1 Design

A 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 and/or its ornamentation.

A respective design has to be applied to a product, the latter defined as any industrial or handicraft item, including inter alia parts intended to be assembled into a complex product, packaging, get up, graphic symbols and typographic typefaces, but excluding computer programs.

A fully integrated part of a product can be a design as well as a logo being applied to a product. Thus more or less anything can be registered as long as it can be seen. Thus the appearance of components invisible during normal use do not count as designs.

As a consequence of the wide definition many trade marks will be capable of being registered as design. Even literary and artistic works according to copyright may be viewed as designs.

3.2.2.2 Novelty

The design will be considered novel as long as no identical design (differences in immaterial details are ignored) has been made available to the public as of the filing date/priority date.

3.2.2.3 Individual character

A design possesses individual character if the overall impression it produces on the informed user differs from the overall impression produced on such a user by any design which has been made available to the public before the date of filing of the application/the date of priority. An informed user is someone with a specific knowledge of the relevant market, e.g. a retailer or another person trading with the relevant product.

When considering this question the degree of freedom of the designer in creating the design shall be taken into account. Is the design highly functional and looking very similar to prior art designs it is still more likely to be registered than an ornamental, capricious design where a high degree of freedom for design is available.

3.2.2.4 Prior Art

Both novelty and individual character have to be assessed considering prior art. Prior art is comprised of any design that has been published, exhibited or used in trade before the date of filing/the date of priority.

Designs are **not deemed as prior art** in the following cases:

- The disclosure could not reasonably have become known in the normal course of business to the circles specialised in the sector concerned, operating within the Community. Thus novelty in case of designs is not harmed, if a design is **disclosed outside the Community**.

- The disclosure occurred in the **12-month grace period** preceding the date of filing of the application/the date of priority (if earlier) and the design was disclosed by the designer, his successor or a third party who obtained the design from the designer. This means that a design could be in the public domain for up to 18 months (12 month grace period + 6 month priority period according to the Paris Convention) before a registration is necessary.
- The design was disclosed due to an **abuse in relation to the designer or his successor**. This is the case if the designer shows the design to a third party demanding confidentiality but the third party discloses the design nonetheless. Simply copying an unregistered design without any (contractual) relation to the designer does not constitute an act of abuse.
- The design possibly forming **prior art** has an earlier date of filing or priority but was **published after the date of filing/date of priority** of the design applied for. Since designs are published quite quickly in the course of the application procedure this exception is not of great importance.

Prior art may be found using the **Hague Express Search**³⁶ or the **CRD register database** mentioned above. Again national offices may offer similar services. Such a search has to be considered as very important.

3.2.2.5 *Technical function exclusion*

Technical features shall be protected through patents or utility models, not trade marks or design rights, hence this exclusion to prevent the monopolization of technical features through these rights. The exclusion comes into play where the design necessarily follows the function and thus the design in question cannot take any other appearance.

3.2.2.6 *Interfaces*

Protection cannot be obtained for designs where the product the design is applied to must fit with other products in a mechanical way. The exception shall secure interoperability of products. An example for such an interfacing connection are the mechanical fittings between exhaust pipe and manifold.

3.2.2.7 *Public policy or morality*

This exclusion mirrors the similar provisions in the law of patents and trade marks. So far an anatomically correct model doll of a Scotsman in a kilt was not deemed as breaching this provision.

3.2.2.8 *Entitlement to apply for the design*

The right to a design is vested in the designer or his legal successor. If the designer is an employee who created the design in the execution of his duties or based on the instructions given by the employer, the latter is entitled to the design rights.

3.2.2.9 *Prior rights*

The application will be refused if the design

³⁶ <http://www.wipo.int/ipdl/en/hague/search-struct.jsp> (02.08.2012).

- incorporates an earlier distinctive sign, e.g. a trade mark, and the proprietor of such sign is entitled to prohibit this use;
- constitutes an unauthorised use of a work protected by national copyright law, e.g. the design incorporates a painting by a third person; or
- constitutes an improper use of badges, emblems etc.

These are relative grounds of refusal; hence the respective proprietor has to oppose the registration. OHIM will not act ex officio.

3.2.3 Infringement

The registered design entitles its proprietor to oppose any making, offering, putting on the market, importing, exporting or use of a product in which the design is incorporated or to which it is applied.

The following steps are taken when **considering infringement**:

- 1) The overall impression of the registered design has to be identified.
- 2) An appropriate level of generality is taken.
- 3) These steps are repeated for the possible infringing design.
- 4) Then it is asked whether the overall impression of each is different or identical (again minor differences in immaterial details are ignored).

Some acts are **not considered acts of infringement**:

- acts done privately and for non-commercial purposes;
- acts done for experimental purposes;
- acts of reproduction for the purposes of making citations or for teaching;

provided such acts are

- compatible with fair trade practices and
- do not unduly prejudice the normal exploitation of the design and
- that the source is mentioned.

There also exists an important exclusion concerning spare parts:

Protection shall not exist for such spare parts used for the purpose of the repair of the product so as to restore its original appearance. The spare part has to look the same as the original.

Again the proprietor is not entitled to prohibit any use where a product is put on the market with his consent (**Exhaustion**).

The remedies against infringement mirror the remedies available to the owners of patents.

Proceedings must primarily be brought before the courts of the Member State in which the defendant is domiciled or has an establishment, otherwise before the courts of the Member

state in which the claimant is domiciled or has an establishment or before the courts of Spain (OHIM's seat).

3.2.4 Unregistered Community Design

Because some sectors produce designs with a very short market life it was decided to offer them protection without the requirement of registration or paying any fees. To satisfy this need the Unregistered Community Design (UCD) was established, which gives protection to designs for **three years**, starting from the date on which they were first made available to the public in the European Community. The disclosure has to be proven and this can be difficult.

Protection is limited to the prevention of copying the design. Independently created designs thus do not infringe an UCD.

3.3 Copy Right

3.3.1 Introduction

Copyright differs from the IPRs discussed so far, because it **arises automatically without the need for registration** (or even paying any fees) through the creation by the author. Copyright protection exists in all European countries, although laws are not completely harmonized. Thus different steps have been taken by the Commission to achieve further harmonization. In the following harmonized provisions concerning computer programs (Computer Programs Directive) and databases shall be discussed.

Due to such a harmonizing acts the **term of copyright** is now union wide standardized to **70 years from the death of the author**. In the case of anonymous or pseudonymous works the term is 70 years from the date the work was first lawfully available to the public.

A copyright generally confers the exclusive right to

- reproduce;
- publish;
- distribute;
- adapt and translate;
- broadcast;
- recite, stage or represent; and
- provide online access to

the protected work.

The following creations generally are protected:

- works of literature (books, novels, magazine articles, plays, computer programs, ...);
- works of music;
- works of (visual) art (photographs, architecture, applied art, e.g. graphic designs);
- cinematic works;
- collections of works;

- databases.

Not every creation in these fields counts as a protectable work. National laws establish different thresholds. Austrian or German Copyright law demands originality, a personal and individual moment in the work, making it unique, irrespective of time and resources put into the creation. Similar but lower **originality standards** are satisfied if the work has not been copied. Other approaches demand a high input of labour and other resources. So far EU-harmonization tends to favour the high originality standard.

Authors of literary or artistic works are generally entitled to prohibit the distortion, mutilation, modification or other derogatory acts concerning the respective works they have created. Such non-economic rights are called **moral rights**.

3.3.2 Computer Programs

Computer programs are copyright **protected as works of literature**. The protection extends to the expression of a computer program in any form (e.g. source code, object code, assembler code, embedded software or firmware). Logic, algorithms and programming languages are not protected to the extent they only comprise abstract ideas, procedures, methods of operation or mathematical concepts as such.

Copyright in general does not cover ideas or information as such, only the tangible works expressing the ideas and the information are protected. Thus only copying the source code infringes copyright, not coding a program based on someone else's abstract approach.

A program may be defined as sequences of instructions to carry out a process. Thus SGML, HTML, XHTML, XML or WML based files only comprising formatting information are not protected as computer programs.

Often a product will be comprised of different works protected by copyright. For example a computer game generally incorporates works of literature (e.g. a computer program and other text), music, videos, and applied art.

The computer program **has to be original**, i.e. it must be the author's own intellectual creation incorporating something personal. Thus investing a lot of time and resources is not enough to achieve protection. On the other side the computer program does not have to be particularly sophisticated, innovative, novel or well programmed. It is enough that the author has chosen an individual, unique way when coding the program. Thus the creativity threshold is very low.

Generally copyright in a work **belongs to the author**. In case of **computer programs** the copyright in the program **belongs to the employer**, if the program is created by an employee in the execution of his duties or following instructions given by the employer.

The owner of the copyright is exclusively entitled to

- reproduce the computer program (temporarily or permanent) by any means and in any form, in part or in whole; in so far as loading, displaying, running, transmission or storage of the program;
- translate, adapt, arrange and alter the computer program; and
- distribute the computer program to the public, including the rental, of the original computer program or of copies thereof.

The copyright holder exhausts his exclusive rights concerning a copy of the computer program by consenting to the sale of the copy, with the exception of the right to control further rental of the program or a copy thereof.

The following acts do not require the copyright holder's authorization when performed by a person who has lawfully acquired a copy of the computer program:

- reproducing, translating, adapting etc. the computer program if necessary for the use of the computer program in accordance with its intended purpose;
- observing, studying or testing the functioning of the program in order to determine the ideas and principles which underlie any element of the program while performing any of the acts of loading, displaying, running, transmitting or storing the program;
- making a backup copy;
- decompiling or reverse engineering the computer program to the extent this is indispensable to obtain the information necessary to achieve the interoperability with other programs.

Those entitlements cannot be restricted through contractual provisions.

3.3.3 Databases

Databases are collections of independent works, data or other material arranged in a systematic or methodical manner and individually accessible by electronic or other means. This definition covers not only online databases, websites, customer lists, but also might cover dictionaries, anthologies, scientific or technical reference works, collections of recipes, price lists etc.

They are protected in two different ways:

- a) As results of personal intellectual creativity in selecting and arranging the content they enjoy ordinary **copyright protection**. The protection does not extend to the content, but only to the arrangement and selection. The arrangement and selection must be **original**, i.e. there has to be some personal unique input by the author. Arranging works in alphabetical order will not satisfy this requirement.
- b) Where databases are the result of a **substantial investment** their owner is entitled to a so called **sui generis database right** protecting the content. Creativity in the arrangement of the content does not play a role. The investment has to be substantial qualitatively and/or quantitatively in either obtaining, verifying or presenting the database's contents. Investment in creating the works or data (content) does not

count as such a substantial investment, e.g. a online timetable containing the departure times set by the transportation company will not be protected. Thus protection was denied for a fixture list and a list containing horses and jockeys taking part in a horse race. In all three cases the transportation company, the football organization and the organizer the data is created by the maker. A calendar of events containing third party data may be protected as database. Online ads sections, online collections of weblinks and complex structured websites (e.g. Wikipedia, waybackmachine, a web-archive) are generally accepted as databases.

The copyright is owned by the natural persons who created the database. The sui generis right is owned by the maker of the database, the person who takes the initiative and the risk of investing. The maker must be a national of a Member State or have a habitual residence (or their corporate central administration, a principal place of business or genuine operations) within the EU.

The holder of a **copyright** in a database is exclusively entitled to:

- reproduce (temporarily or permanently) the database by any means and in any form (in whole or in part);
- translate, adapt, arrange or alter it in any other way;
- distribute it or copies in any form to the public;
- communicate, display or perform to the public.

The right-holder exhausts his right to oppose a resale of a copy of a database by consenting to the sale of the copy. The term of protection is 70 years from the death of the author. The acts lawful users are entitled to mirror their rights computer programs.

The owner of a **database right** is entitled to prevent any extraction (reproduction) and/or re-utilization (distribution) of the whole or of a substantial part of the database, evaluated qualitatively and/or quantitatively. Extraction means the transfer (permanently or temporarily) of all or a substantial part of the content to another medium. Re-utilisation is defined as making the database's content (in full or in substantial parts) available to the public. Thus extracting or re-utilizing insubstantial and unimportant parts of a database does not constitute an act of infringement.

Lawful users are entitled to extract or re-utilise the database or parts of it for any purpose whatsoever, unless such act does conflict with normal exploitation of the database or unreasonably harms the legitimate interest of the maker or a right-holder in the data. The **term** of the database right is **15 years**. In case of publicly available databases the term begins on the first January of the year following the publication date. In case of databases not available to the public the term starts on the first January following the date of completion. It has to be noted that with any substantial change to the contents of the database, the term starts anew.

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