Inventor Remuneration
-Issues for a multinational company

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1. Introduction

1.1 Abstract
International movements are common within groups of companies. When employee inventors move abroad to invent together with other inventors it creates both possibilities and issues to be solved. The rules regarding the right to employee inventions are diverse and so are the rules about extra remuneration. Handling these issues in a multinational environment requires knowledge of national and international law. The laws and practices of Australia, Brazil, China, France, Germany, Italy, Sweden and the United States will be examined in this work. The practices of some actual companies will also be looked into and presented for the purpose of trying to establish what a reasonable remuneration to employee inventors is.

1.2 Aim
The aim with this work is to provide a comprehensive review of the laws and practices regarding the right to employees’ inventions and remuneration of eight countries from five continents. Differences and similarities will be examined to enable a conclusion where ways to handle these issues from the perspective of a multinational company will be discussed. The work is written with the needs of persons in relevant positions in multinational companies in mind.

1.3 Boundaries
In this text only patented inventions will be discussed. No other type of intellectual property will be handled because the rules for different types are diverse.

This work will only focus on the rules for private companies. There are significantly different rules regarding for example researchers in universities and other public entities in many countries. There might also be special rules for some industries, for example biotechnology, which will not be considered either.

Although consultants are more common in companies today the issues regarding them will not be examined in this text. The categorisation of employee inventions is usually depending on local employment law. The rules about remuneration that are presented here do only cover employees. The consultants can only be covered if that was specifically decided in a contract. For the same reason students working in a company will not be discussed either. However, if not handled carefully there will be issues with the ownership and overtaking of inventions as well as remuneration proposals directed towards the consultant company.
1.4 Disposition
The first part of this work will deal with choice of law as this is a serious matter when dealing with labour contracts cross borders and a founding stone for understanding the issues about the right to the invention. In the second part the right to employee inventions in eight different countries will be examined country by country. The third part discusses remuneration in the same eight countries. If one wants to see the whole picture for one single country the third part should be read together with the second part. This is because the right to remuneration in some countries is very closely connected to the right to the invention. The parts were separated on grounds of clarity. After the national rules on remuneration one can find a part discussing different kinds of remuneration in court decisions and multinational companies and what a reasonable amount could be.

1.5 Definitions

Patentability
The patentability of the invention is generally the key to remuneration. It might, and should, be possible for an employee to get remuneration even when the invention is not patented. However, it is difficult to prove the patentability without applying for a patent, which in turn can be expensive. Because the patenting of inventions can be a business decision this could put the inventor in a weak position. There might not always be a clear and significant difference between construction improvements that are patentable and those which are not. The decision about patentability is always taken by the state patent authority. All countries discussed require the invention to be patentable for the inventor to be eligible for remuneration.

Remuneration
Remuneration is, in this thesis, considered to be the extra payment on top of his salary that an inventor can get due to an invention, if nothing else is evident.

Employee, Inventor
The term employee is defined by local labour law. The inventor is the maker of an invention that is patentable. In this thesis no distinction is made between employee and inventor as the person eligible for remuneration has to fulfil both criteria.

Employer
The employer is the company where the employee inventor is working and/or with which the employment contract is written. The employee does not necessarily change his employer when he is temporarily sent abroad to work in another company.

1.6 Method

Legal dogmatic method
The methodological starting point for the work is essentially legal dogmatic, in other words trying to establish the law as it is. The materials used are the traditional sources of law: national laws and regulations, precedents and case law, legislative work, doctrine, etc. However, the area is not regulated in either international conventions or EU law.

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Survey about national laws
A short survey regarding the laws and practices of six countries, Australia, Brazil, China, France, Italy, and the United States was sent to a respected lawyer in each country. Well elaborated answers came back and proved useful in understanding the laws and practices.\(^2\)

Survey to companies
A short survey was sent to a number of companies in Germany, Italy, and Sweden and 26 answers were received.\(^3\) Out of them 4 answered that no remuneration is paid from their company of which all were Italian companies. The rest of the answers proved useful both as inspiration and for conclusions about common practices. The companies answering the survey represent a broad spectrum of companies in different industries including pharmaceuticals. Full anonymity will be given to the companies that participated.

2. Presenting the problem

2.1 Inventions, employees and employers
The inventiveness and creativity of employees are important factors for any company today. It can for example be estimated that about 90% of patented inventions in Germany are made by employees.\(^4\) This makes it very important to have a system in place that promotes innovation and is profitable for the company.

When dealing with patents things can be complicated. The field is generally more regulated than other intellectual property rights. At the same time laws differ hugely from country to country, even within the European Union.

Even though it might seem natural today that inventions created during working time belongs to the employer, more inventors want to receive remuneration for their efforts.\(^5\) Since the inventions could vary enormously in value for the employer it is not easy to determine to what extent compensation should be paid. With inventions ranging from important breakthroughs in for example pharmaceutical industry and small improvements in components in everyday objects there is a need to have flexible rules on the level of national law as well as in the individual labour agreement.

2.2 The right to an invention in an international context
In line with globalisation it is becoming more and more common for all types of employees to go abroad and work for a shorter or a longer period of time. Within the European Union there are specific rules relating to these posted workers to handle issues with what law is applicable etcetera. When inventors go abroad within a corporate group to work together with inventors from other countries some extra issues will appear. If the work results in an invention there is a need to know which law is applicable to the invention itself. Depending on the choice the invention could belong to

\(^2\) See Annex II for survey.
\(^3\) See Annex III for survey.
different parties. In terms of the right to the invention it is considered as a part of the relevant employment agreement and therefore national law will be relevant. The right to employee inventions is clearly considered as a national issue, which is true. The issue can easily be handled on national level, as long as there are functional rules on choice of law and the employers are aware of the application of the national rules. However, reasonably harmonised rules would promote movements between countries and also make it easier for the inventors to know what rules apply to them when they travel abroad. If one does not take these issues into consideration problems like this could occur: “What will happen to the right of the German company to claim the invention in the case that – under the foreign law – such right was already originally acquired by the host company abroad?” It is not possible to answer this question. A multinational company should address this problem beforehand to ensure it never occurs. It is fully possible to address this in a contract as long as applicable rules on inventor remuneration are taken into account.

2.3 Applicable law, choice of law
First and foremost different rules might apply to different issues regarding the upcoming of a patent. The patentability and such questions regarding the patent itself are governed by the laws where the invention is to be patented regardless of where the invention was created. Contrastingly the right to the invention and the question of remuneration is governed by laws relating to the employment of the inventor.

As long as the employee works in the same country where his employment contract is written there will be no conflicting laws. However, as soon as the employee (together with his employer) decides to perform parts or all of his work in another country there are some important issues to deal with. There are special rules regulating choice of law issues within the European Union because it facilitates the internal market and is therefore beneficial for the Union. In the rest of the world, however, there are no harmonised rules. Instead national rules are applicable which could mean that the court will use its own legislation regardless of the circumstances.

Within the European Union the choice of law issues are governed by the Rome I Regulation (593/2008). All courts in member states will apply this regulation regardless if the result is to use the law of a non member state. The regulation states that the parties have the possibility to regulate the choice in the contract. However, there is one important limitation regarding individual employment contracts described in Art 8. The choice of law made by the parties cannot “have the result of depriving the employee of the protection afforded to him by provisions that cannot be derogated from by agreement under the law” that would otherwise be applicable. In Art 8(2)-(4) the correct law is determined that is applicable when the contract lacks chosen law. First one has to look at the place where the employee habitually carries out his work. It is important to note that this country will not change if the employee only temporarily carries out his work in another country. If the habitual working place cannot be decided the contract will be governed by the law of “the place of business through which the employee was engaged” (Art 8(3)) or the more closely connected country (Art 8(4)). Regarding the European patents there is a regulation concerning the choice of law relating to

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6 Bartenbach, Kurt. op. cit. p. 325.
7 Bartenbach, Kurt. op. cit. p. 314 f.
8 The Rome I Regulation replaced the Rome Convention on 17 December 2009 and applies to all contracts concluded after that date. If an older contract is at hand, please refer to the Rome Convention.
the right to employee inventions in Art 60(1) European Patent Convention. This regulation rules in line with the Rome I Regulation.

Regarding the invention itself it can generally only be claimed by the company where the employee is employed. If the employee is posted it needs to be clear which of the two or more companies involved that will be able to claim the potential ownership of any invention. This is especially important when inventors in a work group are posted from different countries and companies.

2.4 Remuneration and group work in multinational companies
In some countries the inventor has a possibility of receiving remuneration when an invention can be patented. Regarding this, the choice of law discussed above will turn out to be even more important. Group work is also becoming more common which can be seen through looking at how many inventors that are registered as such in each patent application. In one study the groups of inventors were found to consist of on average 2.5 inventors.

Inventors that are posted may still be employed in their country of origin. This means that different rules might apply to different inventors in the same work group. The result can be that even though the employees are registered as inventors for the same patent they get very different remuneration, if any at all. The lack of harmonised system for remuneration across borders can thus create tension between inventors. To make the cooperation profitable for the employees and to minimise the risks of frustration and jealousy there is a need of harmonisation and a common policy within a corporate group. Having the same policy for all employees will also cut down on administrative work as the rules can be applied regardless of which country the employee comes from.

3. Employers right to employee inventions

3.1 Introduction
In all countries investigated, regardless of stated law or practices from court, all inventions can be divided into two or more categories. These categories have different consequences in terms of ownership and right to remuneration. The categorisations in the countries clearly have similarities, especially in wording. However, some subtle differences exist and the implementation in the context of the individual country might differ even more.

3.2 Europe

3.2.1 The Swedish law and the framework agreement
The right to employee inventions and remuneration for them is regulated by ‘lagen (1949:345) om rätten till arbetstagares uppfinningar’ (LAU, act on the right to employee inventions) and also by a framework agreement originating from 1995 between Svenskt Näringsliv (employers organisation) and PTK (cooperation of labour organisations). This agreement have since then been incorporated into the collective labour agreements of the relevant labour organisations. In Sweden collective

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9 Bartenbach, Kurt. op. cit. p. 312.
labour agreements constitute an important part of the labour market and apply to all major companies. The agreement will therefore be taken into account as most employers will be bound by it. It takes the law into account and attempts to fill gaps and clarify rules. The rules are also explained in more detailed and exemplified in text.

When the law was introduced in 1949 there was a great demand for it as no legislation regarding the subject existed at that time. Unclear relationships between the employers and employees hindered exploitation of inventions made by the employees.\(^\text{12}\) The law that was enacted was mostly dispositive and has only had minor changes since. The only paragraphs that are impossible to make deviations from are first part of the 6 § (reasonable remuneration) and the second part of 7§ (inventions after end of employment).\(^\text{13}\)

The employee always has the right to apply for a patent immediately regardless of whether the employer is interested in the invention or not (4 §). The patent application does not stop the employer from taking over the invention within the normal timeframe, namely four months after receiving the report, and thereby also taking over the patent application. When the employer takes over the rights it means the rights both within and outside of Sweden. This was important when the law was created as it was a novelty at the time.\(^\text{14}\) The right to the invention depends on the placement in one of the categories research inventions, mixed inventions and other inventions (3§).

### 3.2.1.1 Classification in law

The first category in the Swedish law contains the research inventions (3(1)§). They are described as inventions created while the inventor is carrying out tasks for the employer. Also if the invention is a result of a specific instruction it is classified as a research invention. There are different opinions on how wide this definition is as it was left for courts rule in 1949.\(^\text{15}\) However, the definition should probably be interpreted relatively strictly and not include too many inventions.\(^\text{16}\) The close connections give the employer the full right to acquire an exclusive right to the invention.

The mixed inventions are inventions that fall within the employer scope of practice but not within the task of the employee as in the first category (3(2)§). The employer has the right to acquire a right to use the invention in his business without hindrance from the employee. This is however only a right to freely use the invention within the scope of the company, not necessarily to for example sell it to a third party.\(^\text{17}\) He does, however have a right, prior to any other potential candidate, make an agreement with the employee on acquiring further rights regarding the invention.\(^\text{18}\)

The last category provided by the law is the one of other inventions (3(3)§). This one does not, however, include all other inventions imaginable. The use of the inventions in this category still fall into the employer scope of practice but the inventor has worked on them outside his normal employment. This could be the case when a worker that usually works with assembling products

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\(^\text{15}\) Dennemark, Sigurd. op. cit p. 34.


\(^\text{17}\) Wolk, Sanna. Arbetstagares immaterialrätter. op. cit. p. 62.

\(^\text{18}\) Dennemark, Sigurd. op. cit. p. 36.
invents a tool that makes his work easier. The employer has the right to acquire these inventions prior to any others by an agreement with the employee.

A conclusion from this is that there are really four categories in the law. The fourth one contains all inventions that are not at all connected with the employer. This category is not mentioned but implied. *E contrario* the employer has no right to these inventions.

### 3.2.1.2 Classification in agreement

The categories drawn up by the framework agreement differ a little bit from the law. The agreement names the categories “A”, “B” and “C” inventions. The agreement gives examples to illustrate the differences between the categories, which can be found in the 1§ of the agreement.

The “A” inventions comprise both the research inventions and the mixed inventions, that is if the research inventions are defined narrowly. An “A” invention is defined as “an invention, which falls within the area of the employee’s position or particular tasks”. The agreement considers that the employer acquires the rights of the invention automatically when the invention is reported. Because the law is mainly of a dispositive nature the classifications in the agreement do not need to harmonise with the ones in the law. This categorisation makes it easier for the employer to take over inventions as many more are covered.

The “B” inventions do correspond with the third category in the Swedish law. The “B” category is defined as “an invention, the use of which falls within the employer’s area of activity, but which does not qualify as an “A” invention. This means that all inventions that fall within the area of activity are addressed by the agreement and possible for the employer to take over. The agreement states that a reported invention in this category is an offer to the employer to take over the invention, and that the employer can decide on how to proceed with binding effect on the employee.

The last category, “C” contains all other inventions. This includes also inventions that have no connection at all to the employer. However, this category does not give the employer any right to take over the invention. It covers the inventions that have to be placed in the fourth implied category of the law.

### 3.2.1.3 Discussion

There is clearly a difference between the categories in the Swedish law and the collective labour agreement concerning the partition of the inventions. The agreement puts the two first categories of the law in the same box. The categorisations of the law seem unnecessarily complex compared to the agreement. The employee might have a stronger position when applying the law but also, one should consider, clarity strengthens the position of both. Most other countries prefer to divide the inventions into two or three categories and this would probably work in Sweden too, especially as the agreement is already widely used. It would be positive for the individual employee to be able to anticipate the result of a judgement and to know which category his invention will fit in when it is ready.
3.2.2 Other European countries

3.2.2.1 France
In France the rules regarding the right to employee inventions can be found in Art L. 611-7 of the Intellectual property code. The inventions are divided into three categories that are described in two parts of the article. First, in Art L611-7(1) the inventions of mission are described as such: “Inventions made by a salaried person in the execution of a work contract comprising an inventive mission corresponding to his effective functions or of studies and research which have been explicitly entrusted to him, shall belong to the employer.” This shows a difference, compared to the laws of Sweden and Germany, in the way of thinking about the first step in the process of acquiring the rights from the employee. In this case the transfer of rights is immediate and automatic.

Second, in Art L611-7(2), when the invention falls within the sphere of the company and is made in connection with the company and the employment without falling into the first category the ownership instead starts with the employee (non-mission invention). The employer has a right to take over these kinds of inventions.

The third and last category contains the free inventions. These are not connected to the employer and fully belong to the inventor. This category is found together with the second one in Art L611-7(2). These are the inventions that do not fit into the exception in the second sentence. For all categories the employee has to report his invention to his employer and all agreements made have to be written according to Art L611-7(3).

3.2.2.2 Italy
Like the French law, Italian law provides a different view of employee inventions compared to that of Germany and Sweden. Instead of basing the right on the employee the employer owns the rights to the inventions to a higher degree. In Art 64 in Italian Intellectual Property Code three categories can be found. In the first category, the job-related inventions, the inventor is employed to invent and the performing of an invention can be considered as a direct result. Therefore it is already compensated by his salary and the invention belongs to the employer (Art 64(1)).

Even if the salary cannot be considered to cover the invention the invention might still be owned by the employer and be a workplace-based invention. This will happen if the invention sprung from the workplace when the employee performed his contract and it falls within the scope of the employer (Art 64(2)).

In Art 64(3) the independent inventions are defined negatively from the two first categories. If none of them are applicable but the invention still falls under the employer’s scope of practice then the employer will have the possibility to acquire some rights to the invention. This can include acquiring patents abroad. The overtaking of this right has to be done within three months from the date of the patent application.

For the sake of consistency, even though the law only separates three categories a fourth one should also be considered, namely the free inventions. E contrario this means that the employer has no rights to the inventions that falls outside of the employer’s scope of practice.

3.2.2.3 Germany

Germany is the country with the most elaborated rules for the right to employee inventions. The history of the Gesetz über Arbeitnehmererfindungen (ArbnErfG, law on employee inventions), starts already during the World War II even though the law itself was introduced 1957. During the war a regulation called Göring-Speer-Verordnung was launched to motivate inventors to invent and also to report their inventions to their employer. This introduction was made in order to help Germany win the war.\textsuperscript{20} The regulation contained many provisions that were later transferred to the new law.

The law is applicable to all employees in Germany except for those working only temporarily, as long as this is clear.\textsuperscript{21} The ArbnErfG is very precise and in Sec. 4 it divides the inventions into two categories; service inventions and then free inventions. The law is, with a few exceptional sections, only applicable to service inventions.

The service inventions are tied to the employer and either they result from a task of the employee or they are otherwise closely dependent on the knowledge and materials of the employer (Sec. 4). These inventions shall immediately be reported to the employer and the employer is obliged to give a receipt of this report as soon as possible (Sec. 5).

The free inventions are all other inventions made by the employee. These inventions still need to be reported, according to Sec. 18 ArbnErfG, because the employer should get the chance to decide if the invention is within the scope of his company (if it is not obvious that it is not). According to Sec. 19 the employee also has to offer his employer a license to use his invention. This offer has to be accepted within three months if it should not be a free invention. However, for the employer to get the offer, it has to be within the scope of planned or actual activities of the employer.

All handling of the invention report and the steps to be taken by the employer are highly formalised. This includes the requirement that the employer has to claim the invention within four months. If the employer does not answer within this time the invention is considered as claimed and stays as a service invention, with all the rights and obligations that come with this. This applies to all invention reports handed in on or after 1 October 2009, that means after the entering into force of the amended ArbnErfG.\textsuperscript{22} When the invention is claimed all rights are passed to the employer and he is bound to apply for a patent in Germany (Sec. 13(1)). He is also forced to take a decision on all other countries. If the employer is not interested in applying for a patent in one country he has to release the rights to the invention in that country to the inventor (Sec. 14). The rules in Sec. 13 and 14 are however possible to deviate from with an agreement with the employer when the invention is at hand. The employer may therefore agree with the inventor what countries the patent will be filed in (Sec. 13(2)).

\textsuperscript{20} Goddar, Heinz. Compliance with the German employees’ invention law in the handling of inventions developed by universities. CASRIP Publication Series: Streamlining Int’l Intellectual Property. No5. p.147.


\textsuperscript{22} Previously the invention was considered not claimed if the employer did not answer in time.
3.3 Countries beyond the borders of Europe

3.3.1 Australia
There are no written laws at all regarding the right to take over employees’ inventions in Australia. As in the United States some case law has developed to help establish the ownership relationships. The case law makes it possible to distinguish between two categories of inventions. First and foremost individual contractual agreements apply. However, they can also be judged by the court. 23

First, the employer can acquire the rights to an invention that the employee was paid to invent. The invention should then be part of the employee’s duties. The court will apply an implied contract because of the employment. 24 Hence, when an employee invents something out of his task but within the scope of the employer the employee will keep the rights to that invention. 25 There is no obligation to report the invention as the employer has the responsibility to ensure his rights are upheld. 26

The second category, free inventions, contains all inventions that are not within the task of the employee. The employer has no right to these unless negotiated otherwise. In case University of Western Australia v Gray – (2009) 82 IPR 206, which was not about a private company but still relevant, Gray had come up with an invention outside of his duties. He had no “duty to invent” and therefore the university had no right to his invention. There could not be considered to be an implied term in his contract stating otherwise.

3.3.2 Brazil
The right to employee’s inventions in Brazil is governed by Ch. XIV of the industrial property law N° 9279 of 14th May 1996. Sections 88-91 are primarily relevant for this subject. In Brazil the inventions can be divided into three categories that are somewhat different compared to other countries. They are also presented in a slightly different order.

First, there are the service inventions in Sec. 88. These are inventions that result from an employment contract where there is a specified research or inventive step. There is no need for it to be a specific task. These inventions belong fully to the employer.

The second category contains the inventions that are made outside of the employment not using any resources of the employer (Sec. 90). These inventions belong to the employee and are free inventions.

In Sec. 91 the third category is defined negatively. This differs from the other countries examined in the construction of the rule. It contains the inventions not covered above, namely those invented while using resources of the employer without a task including any inventive step. The inventions need to be clearly separated from all duties of the employee. However the employee has still used material or facilities etcetera from the employer. In these cases the ownership of the invention should be shared in equal parts between the employer and the employee. There is, however, an

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26 According to correspondence with a lawyer in Australia.
express possibility in the law to stipulate otherwise in a contract. Both the employer and employee have the right to exercise the rights of the patent but if one of them wants to assign his right to another, the other party can acquire the right with the same conditions. The topic is not very well elaborated in doctrine or courts and it is therefore unclear how the categories should be interpreted.\textsuperscript{27}

3.3.3 China
China enacted an updated national patent law October 1, 2009 but in terms of the right to employee inventions there are no changes. China is a big country divided into a large number of provinces that have their own laws. Therefore it is important to be aware that local regulations might exist and possibly have an impact on the relationship between employer and employee or remuneration.\textsuperscript{28}

The Chinese patent law, Chapter I, sec. 6, divides the inventions into two categories, service- and non-service inventions. It states that a service-invention is made in an employment relationship by using the material from the employer. This type belongs to the employer if nothing else has been agreed on in a contract. The dispositive nature is stated directly in the law. Notice here the difference from for example Germany where the corresponding law is positive. The other group of inventions is the non-service inventions where the rights belong to the employee. Some guidelines on how to classify the inventions are given in rule 12 of the implementing regulations of the patent law.\textsuperscript{29} It states that if the invention is made during the performance of tasks that the inventor was assigned, they are service inventions.

3.3.4 The United States
The traditions within the legal community of the United States are quite different from Europe. Furthermore it is a federal state with laws that differ somewhat even between states. In eight states, California, Delaware, Illinois, Kansas, Minnesota, North Carolina, Utah and Washington there are more detailed state laws regarding the right to employee inventions that strengthens the position of the employee.\textsuperscript{30} There is a federal law regarding ownership of inventions but the rule only states that initially the rights of the patent rests with the inventor.\textsuperscript{31} Instead, as this is a common law country, the US courts have established default rules that are well-developed.\textsuperscript{32} These rules have many things in common with the European rules. However, they are only applicable when no contract is at hand. The contract is always the first source of valid rules and resolution. Among companies it is standard practice to include a provision regarding the right to employee inventions in employment contracts.\textsuperscript{33} Contracts are generally interpreted in favour of the employer even when it means that the company takes over independent inventions.\textsuperscript{34} The position of the employee is generally very weak in these cases.

\textsuperscript{27} According to correspondence with a lawyer in Brazil.
\textsuperscript{29} Decree No. 306 of the State Council of the People's Republic of China on June 15, 2001.
\textsuperscript{31} 35 United States Code 261, Patent laws, Ownership; assignment.
\textsuperscript{33} According to correspondence with a lawyer in the US.
\textsuperscript{34} Pisegna-Cook, Evelyn. op. cit.
If no contract is present the common law will be used to determine the ownership. First there will be service inventions which are inventions made when the inventor was hired to invent. They are considered to be covered by an implied contract that awards the employer ownership of the invention.\textsuperscript{35}

The other set of inventions are within the sphere of the company but not as in the first case. The employee has often been using the facilities of the employer. In these cases the employer usually gets something called a “shop right”. This means that the employer has a non exclusive right to use the invention although the employee keeps any patent and the ownership of the invention.\textsuperscript{36} This might be a complicated situation for the company as it may not be able to handle the invention in a desirable manner.

Also there are independent inventions made outside of the employment that belong to the inventor himself. These are mostly non-R&D employees.\textsuperscript{37}

3.4 Common ground?
All the examined countries have some way of dealing with ownership of employee inventions. The countries discussed here represent a wide range of levels of regulation within this aspect of intellectual property law. There are differences in how to look at the employee inventions but the result in the extreme cases are more or less the same. The employer in some way owns the right to inventions that come out of a specific task given to the employee. On the other hand the inventions that are made outside of the employment will belong to the employee. The difficult cases are those in the middle where it is possible, if not even likely, that the result will be dissimilar among the countries described here. Different wording is used to describe how closely the inventions are connected to the employer and it can be hard in each case to determine in which category a single invention will belong.

4. Inventor remuneration

4.1 Introduction
Remuneration is the extra payment sometimes given to an employee when he has created an invention that is patentable. In some countries the inventor is considered to have a right to an extra reward of some sort when his employer takes over his invention. This is something that is unique to patents and is generally not applicable to other areas of intellectual property.

4.2 Why remuneration?
The ‘should have’ and ‘should not have’ of inventor remuneration could be discussed for days. On one hand the employed inventors are paid a normal salary for the type of job that they do and also have the safety of an employment. This could be considered enough compensation for their work as is the case for most other employees. Things that are produced under an employment contract do normally belong to the employer. On the other hand inventions are special. The patent system

\textsuperscript{35} Merges, Robert P. op. cit. p. 5.
\textsuperscript{36} Merges, Robert P. op. cit. p. 6.
\textsuperscript{37} Merges, Robert P. op. cit. p. 7.
provides for the patentee to make considerable amounts of money out of genius thinking and dedication of an employee.

It is hard to anticipate the level of inventiveness of an employee in advance and it is therefore easier to remunerate the employee for specific inventions after the grant of a patent. It is often the will of the employee that the employer shall use the invention as the employee himself rarely has the financial opportunities to do so. Both parties can thus benefit from the invention. However, because of the dependency of the employee on the employer these are terms that might need support of a law to ensure the rights of the employee are taken into account.

The subject was for example discussed in the preparatory work to the Swedish law in the late 1940s.\(^{38}\) It was then considered to be obvious that the inventors were eligible for remuneration for the rights handed over to the employer. This had not been very common when the contracts ruled because of the unequal status of employer and employee. Because of this it was decided that this needed to be enacted into the law. The rule about the right to remuneration is one out of two regulations in the law that cannot be taken away by a contract beforehand. However, no guidelines for the calculation of the remuneration were included in the law.\(^{39}\)

The remuneration is a way of recognising creativity and innovation. This presumably means that inventors will make an extra effort in inventing if they are eligible for remuneration. It is also considered profitable for the companies because it encourages prompt invention reports and therefore minimises the time loss and ensures all inventions in the company are used. However, none of these conclusions have been scientifically proven and are therefore debatable.\(^{40}\)

Most countries seem to believe that the remuneration of employee inventors is something that is important enough to regulate. Among the countries that are investigated here two have specific laws regarding this. Four have more or less elaborated clauses in their respective patent laws. Two have no rules at all regarding remuneration which might be explained by the fact they are being common law countries.

4.3 Europe

4.3.1 Sweden
The grounds for employed inventors to get remuneration in Sweden can be found in LAU 6 §. It states that the inventor should be offered a reasonable remuneration if the employer acquires parts of or the full right to the invention. This statement in the law cannot be derogated from by an agreement beforehand. However, when the invention is at hand the parties are free to agree that, for example, no remuneration will be paid. Previously this was subject to 9§ that stated that agreements cannot be inappropriate.\(^{41}\) For the corresponding regulation today one has to turn to the general law on agreements.\(^{42}\)

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\(^{38}\) Swedish government bill (prop.) 1949:101 p. 45.

\(^{39}\) Swedish government bill (prop.) 1949:101 p. 46.


\(^{41}\) See first issue of the law.

\(^{42}\) *Lag (1915:218) om avtal och andra rättshandlingar på förmögenhetsrättens område.*
If the invention is a research invention, remuneration is only needed if the value of the invention could not be foreseen and is not considered to be included in the salary of the employee. Nevertheless, following the collective labour agreement remuneration needs to be paid for all inventions taken over. When the amount is to be decided the law requires that the value of the invention and the extent of the right acquired with a deduction for the contribution from the employment are taken into account. The law states nothing about the mean of payment but the wording indicates a will to have an individual assessment in each case. The same is the case with the text in the agreement. However, the 4§ states “A standard amount decided in advance should be paid to the employee. This sum may be paid either in full when the patent is applied for or in two or more stages.”.

There are few public cases in Sweden regarding the reasonable amount of remuneration and it is not possible to draw any general conclusions from them. However, they can be illustrative. Two old cases from the Swedish labour court gave the inventor right to 100 000 and 300 000 SEK in remuneration for the licence rights that the employer had taken over (cf. 3(2)§). Statens nämnd för arbetstagarens uppfinningar (The Board for Employee Inventions) which is an authority that gives non mandatory rulings is also a source of case law. These cases are bound by secrecy from 1990 onwards and not available to the public. In one of the cases the inventor was awarded 1.8 million SEK but in the other 5 the remuneration was set to between 100 000 and 600 000 SEK. These cases have been regarding the entire right to the inventions involved. The collective labour agreement has a board of its own called Industrins uppfinnarnämnd (The Industrial Inventions Board). It issues arbitration awards that are not available to the public. Remuneration in one case settled at 5 million SEK and in another case at 1.9 million SEK for one out of three inventors while in a third case 400 000 SEK was awarded. On the other hand, in 2000 one inventor was not eligible for any remuneration because there was no proof of patentability of the invention.

4.3.2 France

The right to and amounts of remuneration are considered differently according to the category of the invention. The rules can be found in the same paragraph as the rules on ownership of inventions, namely Art. L 611-7. In case of an invention of mission the inventor is entitled to an “additional remuneration” which should be decided by the collective, company or individual agreement. These agreements cannot be less favourable to the employee than the law. One example is discussed in a case from 2006 where the collective labour agreement stated other terms for when remuneration was to be paid. Previously the amount of remuneration decided could be based on the salary of the employee. However, that system is probably abandoned because of recent decisions of the Supreme Court. One example of this was in a Supreme Court case from 2000 where the persistence and inventiveness of the employee and the value of the invention gave the court incentives to depart...
from calculation on terms of salary. Instead the court awarded the inventor €609 796.\textsuperscript{50} Otherwise the case law generally suggests that additional remuneration should “range from €1 000 to €15 000 for a non-exploited patent, to €10 000 to €300 000 for an exploited patent”.\textsuperscript{51}

For the non-mission inventions the wording is different. This is because the inventions are not included in the tasks of the employer and the employee should receive a fair price for the rights if they are taken over by the employer. When the court decides what constitutes a fair price they especially have to take the following aspects into consideration according to the law Art. L 611-7 §2 “the initial contributions of either of them [the employer and employee] and the industrial and commercial utility of the invention”. In French case law employees have been awarded sums between €7 500 and €150 000 for these inventions.\textsuperscript{52}

The free inventions are inventions that the employee fully own and therefore can be traded on the free market.

There are quite a few French decisions on the actual amount of remuneration available to the public. One example is from 2008, Comau France SA v Mr. Thurier.\textsuperscript{53} Mr Thurier had invented 37 inventions out of which 19 had been exploited by his employer. The court decided he was eligible for remuneration and set the amounts precisely. The 18 non exploited patents totalled a value of €15519 all together while for 14 of the exploited patents he was awarded €36 722. The last five inventions had generated €38 890 336 and Mr. Thurier was therefore awarded €54 000 for them calculated on the base of his salary. In total Mr. Thurier received €106 241.

Looking at some other published recent cases remuneration sums of between €10 000 and €30 000 are common.\textsuperscript{54} One can also find one case of €100 000 and one case of €300 000 from 2005.\textsuperscript{55} In the last case the remuneration was lowered by the Court of Appeal from €600 000.

4.3.3 Germany

The rules for remuneration primarily concern the service inventions. An employer that takes over the rights to an invention has to pay the employee a reasonable remuneration (Sec. 9). The same applies to inventions that are taken over as a limited claim according to Sec. 10. There are guidelines for establishing what a reasonable remuneration is in a specific case (Sec. 11). The guidelines themselves can be found in a separate document. According to Sec. 12 an agreement regarding the remuneration has to be made between the employer and employee after the decision about the claim of the invention. This is a clear difference from the procedure in other countries where models for remuneration can be agreed on beforehand.

The guidelines are elaborated pieces of text that describes ways of calculating the remuneration.\textsuperscript{56} The guidelines are not binding in the sense that the employer cannot give the employee more

\textsuperscript{50} See Supreme Court, Raynaud & Labrie v. Roussel Uclaf & Hoechst Marion Roussel, 21 Nov, 2000. Reported in GRUR Int. 2001 pp. 785-788
\textsuperscript{51} According to correspondence with lawyer in France.
\textsuperscript{52} According to correspondence with lawyer in France.
\textsuperscript{53} PIBD N°890 III 815 (2008).
remuneration than advised but it is not possible use them for the purpose of giving the employee less remuneration. The first thing that needs to be determined is the value of the invention. This could be done in at least three ways; making an analogy with a licence, determining the ascertainable value to the company or an estimation. The choice of method should depend on the circumstances of the individual case.

To be able to make an analogy with a licence it is important to know the turnover of the product. Depending on the industry a royalty rate will also be determined. For example in electrical industry this will be between 0.5-5% and in the pharmaceutical industry as high as 2-10%. The royalty rate describes what an inventor would be able to receive as royalty for a free invention. If the turnover of the invention is very high there is a deduction to be applied as a percentage. This provides a scale that limits the obligation of remuneration.

The guidelines give advice when dealing with a product where the relevant patent is only a small part (8). The value can either be calculated according to the whole product or a small part. When calculating the value one should take into account whether the part brings extra value to the product and if it is usually sold alone or only with the product. It is possible to determine the value as a percentage of the product either in economic or technological terms.

Determining the value of the invention by ascertainable value to the company is mostly used when it is not possible to make an analogy to a licence. This could happen when the invention is only of internal value.

When the value of the invention has been determined one has to deduct a certain percentage to take into account the level of contribution of the employee and the employer. This is considered as the “rate of share” which will, with skilled employees, normally be in the range of 7-25%.

The actual remuneration can be calculated with the following formula in (39) of the guidelines (simplified): \( R = V \times S \), the factors being; \( R \) = amount of remuneration, \( V \) = value of invention, \( S \) = rate of share.

In (40) of the guidelines an important statement is made. It opens up for a fixed lump sum payment if the value of the invention is to small and the annual payments of the license is not proportionate or the inventor has such a position in the company that he can influence the exploitation of the patent. The guidelines also comment on the possibility to split the lump sum into several payments due at different stages in the life of a patent.

### 4.3.4 Italy

The Italian rules on inventor remuneration are closely intertwined with the rules about the right to the invention itself. Therefore they have already been touched on briefly. The employee will, as
already mentioned, not get any remuneration if the invention is the result of an employment where
the inventive step is the subject. In this case the employee is already compensated by his salary and
the invention belongs to the employer (Art. 64(1) Italian Intellectual Property Code).

On the other hand, when the employee cannot be considered to be compensated by his salary (Art.
64(2), the employer should give an “equitable remuneration”. This has to be the case when the
employer acquires a patent or uses the invention in any other way. When calculating the
remuneration one has to take the following things into account according to the law; the importance
of the invention, the salary and tasks of the inventor and the contribution of the employer.

When the invention is an independent invention according to Art. 64(3), the employer can get the
rights to the invention by paying a price found by “subtracting an amount corresponding to the
contributions that the inventor has however received from the employer to perform the invention”.

4.4 Countries beyond the borders of Europe

4.4.1 Australia
There is no obligation at all to provide remuneration to the employee when an invention is taken
over, this falls entirely within the agreement with the individual employee. I have found no court
cases where an amount of remuneration to an employee has been determined.

4.4.2 Brazil
When the invention is a service invention according to Sec. 88 in the industrial property law there is
no right for the employee to have remuneration. The employee is considered to be fully
compensated by the reward included his salary.

In the second category, the free inventions, the ownership is in the hands of the employee and thus
does not give any rights of remuneration as such. The invention can of course be sold or licensed out
as any free invention on market terms.

Regarding the inventions in Sec. 91 there is a right to fair remuneration if the invention is exploited
by the employer. This is still relatively unexplored in case law and doctrine.\textsuperscript{62} If the invention is not
exploited within one year the exclusive right to use it transfers to the employee, if the employer has
no legitimate reasons for his delay.

4.4.3 China
The rules about remuneration of employee inventors have been revised in the new patent law and
the implementing regulations. One big difference is that nowadays the rules apply to all Chinese
companies compared to only state-owned companies previously. However, they are dispositive and
possible to deviate from. Art 16 in the patent law states that the inventor should get a reward and a
reasonable remuneration. In Chinese law a difference is stipulated between a reward which the
inventor will get when the patent is granted to the employer and remuneration which is to be paid
when the invention is exploited. There are specific amounts defined in the implementing regulations
which have increased since the old regulations. The old rules do still apply to all patents filed before
February 1, 2010. The right to a reward is stated in rule 77 of the implementing regulations of the

\textsuperscript{62} According to correspondence with lawyer in Brazil.
Patent Law and provides for a sum of 3000 Yuan within three months of the grant of the patent. Rule 78 describes the remuneration which should not be less than 2% of the yearly profits from the exploitation of the patent. The yearly payment can be replaced by a lump sum payment if this corresponds to the percentage mentioned. The inventor should get both the reward and the remuneration provided the patent is exploited.

4.4.4 The United States
As previously mentioned, in the United States many relationships between employers and employees are governed by agreements. There is no federal obligation to give remuneration to inventors. Neither do the state laws oblige the employers to pay. However, employer made reward plans (both with lump sums and royalties) are becoming more common.63

5. Application for a multinational company

5.1 What is a reasonable amount?

5.1.1 Lump sum or royalty?
Remuneration for inventors needs to be both fair and reasonable. There are of course different ways of achieving this but it is not easy to reach a level where both the inventor and the employer are content. Providing remuneration for employee inventors through a calculation of royalty is a very time-consuming and expensive method. In the end it might not even be profitable to the inventor compared to a lump sum payment. The extensive administration is very clear in Germany. It takes time and effort to calculate the remuneration and to keep track on all payments and the inventors. This is especially a problem when the payments stretch out during a period of ten years or more. A patent can live for 20 years and so the royalty payments will go on for some time.

A lump sum is easier to organise into a normal procedure. Even easier is when the lump sum can be a standardised sum that is paid to all inventors regardless of the type of invention or the success of it. Implemented correctly the standard lump sum could be a profitable solutions for both parties as the money used for administration could instead be paid out. However, in certain cases where the value or complexity of the product is not considered to be normal compared to other inventions in the company, there is a need to be able to question the standard procedures and to remunerate the inventor in another way. The standard sum should not lead to the inventors getting less payment compared to a royalty. One must also consider the risk for the employer that the invention will not lead to any profit when handed over to the employer in exchange of a lump sum. If an inventor gets a royalty the payments could also turn out to be zero. The placing of the risk is an important factor to take into account in the choice.

5.1.2 Court decisions
There are some court decisions available in several countries regarding remuneration. Unfortunately they are hard to interpret and the specific details of each case determine more than anything else what the remuneration will be. Each invention is of course unique and the context where it is made influences the possible importance for the company. Sometimes secrecy surrounds the cases as

63 Merges, Robert P. op. cit. p. 38.
these questions could be very sensitive to the company involved. This might also mean that many cases are dealt with in arbitration or by a secret agreement between the parties to make sure the amount of remuneration given for a single invention is not published. Those cases that have actually reached the court rooms are most certainly not the ordinary, everyday cases typical to the industry.

Taking all countries discussed here into account there is a large range of amounts given to inventors that start at about 1000€ and climbs to about 600 000€ in the French case. It is not meaningful to calculate any average value as this would anyway not constitute a reasonable remuneration for most inventions. There is however a cluster around 10 000 to 40 000€ and perhaps that is something to take into account for companies when dealing with successful inventions.

There are problems when companies do not know what level is a reasonable amount. One example of this comes from Japan where there have recently been cases in court where the employee has been awarded extreme amounts of remuneration. In the Nichia case from 2004 the inventor of the blue light-emitting diode (LED) the inventor won his case against his employer and got awarded 20 billion yen. However, the law has now been changed. The remuneration should be fair and reasonable to both parties taking their respective contributions into account. It also needs to be foreseeable to not constitute a financial risk for the company. This is not only necessary to the companies but also in the long run to promote inventiveness in the country. If the law puts up too heavy barriers there is a risk that companies may move their research and development abroad.

Another interesting case that is not concerning the countries discussed here is a newly ruled case from the United Kingdom. The case was ruled on appeal in the High Court of England and Wales in late November 2010. The issue concerned an employee inventor at Unilever. His invention had not been used by Unilever themselves and only been licensed out to other companies. He complained that his invention had not been used in an efficient way and could have earned many times more if exploited correctly. The question was if the company had to take the potential value of the invention into account when calculating the remuneration of the inventor. In this case that could have meant that the remuneration would exceed the actual earnings from the invention. The court ruled that there was no need to do these hypothetical calculations. Still the case is interesting as it sheds light on yet another way of thinking in terms of inventor remuneration.

The United Kingdom courts present only one case where the inventor was eligible for remuneration. The criterion is, according to Sec. 40(1) Patents Act 1977, that the patent and/or invention need to be of outstanding benefit to the employer for remuneration to be paid. In 2009 the High Court of England and Wales awarded two inventors £1.5 million in total after calculation the value of the patent and concluding that it was of outstanding benefit. It is possible that it will be easier for inventors to receive remuneration after the amendments of the law in 2005 as the value of the invention and not only the patent can be taken into account.

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65 See further an American discussion on this point in Pisegna-Cook, Evelyn. op. cit.
5.1.3 Company models for remuneration
The remuneration can be paid out according to different models to make it easier for the company in each case. These include the ways of calculating the remuneration and could contain royalties as well as lump sums. The pros and cons of royalty based remuneration versus a lump sum have already been discussed above.

5.1.3.1 More than one inventor
When a lump sum or a royalty is provided to the inventors this has to be divided if there are more than one. This could be done in different ways. One way is to split one single amount between them and consequently not raise the total amount according to the number of co-inventors. Another solution is to increase the amount either proportionally or to make a compromise.

For illustration, see the below figure.

![Remuneration per inventor](image)

In all companies the remuneration for one inventor will be 4000x. We will now see what happens when we apply different models to this number. In company X the inventors will get the same amount regardless of their number. The amount given to each inventor will then drop rapidly, especially by the second inventor. In company Y the remuneration will be 4000x per inventor regardless of their number. This might of course be expensive to the company. In company Z there is a program in place giving the inventors a little bit bigger sum to share for each new inventor. This makes the sum drop less quickly and it therefore does not matter as much how many inventors are in the team. It does obviously matter in what way the model is designed.

The answering companies present different ways of coping with this problem and many different outcomes exist. Some companies raise the remuneration for the second and third inventor but then let them share. The raise can be calculated as a percentage, 50% more by the second inventor is common. This is also what is shown as company Z in the above figure.

An analysis of which of the different possibilities to adopt gives two ways of valuing. If the invention is valued, one single sum should be shared. In this case there should be no extra payment to extra inventors. The invention could be considered as bought from the inventor (even if this is not the case legally) and therefore have one price that is not raised according to the number of sellers. If, on the
other hand, the inventiveness is valued and the remuneration is considered as a motivator for the employees with the goal to increase the number of inventions or the quality, then the amount should increase at least some according to the number of inventors.

5.1.3.2 Complications depending on the type of inventions in the company
When discussing inventions it is easy to think of inventions that are previously unknown as a product. These are breakthroughs that might bring extraordinary profits to the companies involved. Examples of such products are described in the Japanese and British cases above. On the other hand, many inventions are merely improvements of existing products. These are often small parts of the complex sellable product even though they are patentable in themselves. The inventions might also be part of a clear strategy of developing existing products including trademarks, advertising and design. These immaterial values can contribute greatly to the overall profits from a product; sometimes they are as important as the function of a hinge, filter or switch. Because of the complexity of these products it is very difficult to determine the value of a part in them even if that part is patented. In a German study from 2006 it was asked how big the value of a patent was. The average turned out to be between 100 000€ and 300 000€. This will of course vary from industry to industry. In some industries breakthroughs will be more common and these should of course be taken into account.

5.1.3.3 Remuneration in some companies
In this part the currencies involved have been recalculated into euro to make it easier to compare the different sums. The exchange rate used is the one relevant in the beginning of December 2010, approximately 1€ = 9,30SEK

To be able to compare different companies with each other I have decided to compare the resulting remuneration for one single inventor that comes up with a patentable invention. The invention is reported to the company and the rights are taken over fully. Patent protection is sought and received in at least one other country than the first one (EP or US if needed). The patent is then withheld for at least seven years (this number is mentioned by a substantial number of companies). This is to cover as much as possible and reach the maximum of the relevant models. One should consider that the remuneration might differ significantly when the number of inventors changes. It is unfortunately very hard to compare companies when taking the number of inventors into account.

No company outside of Germany has answered that they use royalties. The German companies generally state that they use royalties when they are forced to by law; otherwise they prefer to pay a lump sum. Another comment about royalties is that it is too complex.

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68 Harhoff, Dietmar. Hoisl, Karin. op. cit. p. 17.
The above figure describes the division of remuneration types among the companies answering the survey. The “other solution” group includes companies where the remuneration is said to be included in the salary of the employee.

Most lump sum schemes and models are easy to understand and the inventor should easily be able to monitor what he should get and approximately when. Some of the payments depend on when a patent is granted or an application handed in abroad. These events are not always easy to trace for the individual inventor and so the employer has to keep track on these for the employee. Many of the schemes allow space for special cases and very successful products to receive more than the preset amount. In the comments on the questions some companies state that even if there is a possibility for extra remuneration this has never or rarely happened according to their knowledge.

In very general terms a scheme for lump sum payment could be built up as in the below table.

<table>
<thead>
<tr>
<th>Event</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patent filing</td>
<td>€1 000</td>
</tr>
<tr>
<td>Patent filing in another country</td>
<td>€200</td>
</tr>
<tr>
<td>Patent grant</td>
<td>€2 000</td>
</tr>
<tr>
<td>Patent alive for x years</td>
<td>€1 000</td>
</tr>
</tbody>
</table>

This model gives the inventor an early benefit for reporting the invention (patent filing) but the company also holds some of the remuneration until the patentability of the product is explicit (grant) and the importance is established (alive for x years).

The amounts of remuneration could either be a fixed sum or tied to some other tool to make it follow the monetary inflation and general prices in the country. In Sweden one can use the
prisbasbelopp, statutory base amount, which will be changed every year according to the level of prices in the country. Another possibility of tying to a variable sum is to relate to different fees, for example the fees of the European Patent Office. An additional solution is to tie the remuneration to the salary of the individual employee as it is probably changed as well accordingly. Using these methods means that the scheme or agreement does not need to be changed very often.

A graphical illustration of the lump sum remunerations from all companies answering the survey can be found below.

All answering Swedish companies do pay remuneration to their employees. There are several different ways and the sums vary from €2 200 to €4 700 (for one inventor), a significant difference. Interestingly enough they also group at the edges and not at the average €3 500. One group is averaging around €2 500 which is around the sum of 50-60% of a base amount and the other around €4 600 which is equivalent to one whole base amount. The groupings have nothing to do with if the companies calculate the remuneration on the foundation of the base amount or not and neither with the type of industry they are involved in. Most of the Swedish companies do also have a harmonised system in place that includes several countries.

German companies do, not surprisingly, answer that they do follow the law. This is commonly described by the words “royalty is paid if required by law”. There are somewhat different opinions on how to look at the use of lump sums. There is an opening for it in the law that could be interpreted in different ways. As long as the employee agrees with the scheme after the invention is made there should be no problems to apply them in Germany as well. Two companies, giving the employees an offer of a lump sum after the invention is disclosed, tells that around 95-99% of the inventors accept this offer. Interestingly enough the German lump sum payments lie in a significantly lower segment than the Swedish. An inventor can count on a remuneration of €2 250. It is however unclear if some of the very low lump sum payments made in Germany are to be paid together with a royalty in every case. Otherwise some of the German payments have to be considered very low. Four out of seven German companies answer that they do use a harmonised system in their group.

Generally Italian companies rarely pay remuneration to their employees. This could probably be explained by looking at the Italian law. As long as the inventors tasks involve an inventive step and the remuneration is considered to be included in the salary no extra payment has to be made. One company states that they are paying a specific extra monthly allowance to employees with inventive tasks. The ones that have answered that they do have a lump sum model for remuneration are gathering around a remuneration of about €2 700.

It is obvious when looking at the table below that lump sum remuneration differs a lot between different companies. Even the average sums for each country have clear differences. As all the three countries represented are European the difference cannot be explained by different price levels. The total average sum is approximately €3 000.

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69 The value for 2010 is 42400 SEK and for 2011, 42800 SEK.
The ways of calculating lump sum remuneration in some companies borders the royalty calculation. In one case a grid of standard sums is prepared. The sum in a specific case will then be chosen according to criteria relating to importance, value etcetera that places the invention on the axes of the grid. Another solution is to point out a standard revenue that the inventions in the company usually yields and calculate the standard sum from that.

Some companies give remuneration for trade secrets and defensive publications. These two have in common that there is an invention at hand that the company will not seek patent protection for. This means that it is difficult for the inventor to show that the invention is patentable. The invention might still give advantages to the company. If the company is using trade secrets and defensive publications these should also be included in the remuneration program.

Unfortunately the chances of acquiring any numbers on how large the total amount usually get when applying a regular royalty based system seems slim. The companies that use the system are reluctant to disclose those numbers. It is unclear if this is because they do not know themselves or if it is kept secret. This could be because it is used very infrequently or, in those specific cases, generates a higher amount for the inventor. One might suppose that if royalties were to be significantly more profitable for the inventors their organisations would press on the issue. On the other hand one has to look at the relative strength of the inventor organisations and the employers.

**5.2 Harmonisation**
Harmonised rules are popular among the companies in the survey. 15 companies (out of the 19 that have a method of remunerating their employees) state that they have or want to have a harmonised...
system in all or many of the countries where they are established. The harmonisation means that one single sum or the same way of calculating is used in all countries, at least within Europe. Sometimes other amounts apply to the US or low cost countries because of the wage levels or other reasons. In those cases the model is still the same in terms of when the payments are made.

The companies give some examples of upcoming problems with harmonisation. First, problems will be caused by the diverse rules in different countries. Some companies state this as a reason for not harmonising at all. In particular companies do not want to apply the elaborated German regulation to everyone and therefore there has to be some differences in handling in different countries. The amount of remuneration has to be adapted to money value and wages in the country concerned to reach the goals of encouraging creativity and ingenuity.

To be able to harmonise the inventor remunerations in several countries there is a need to develop the agreements with the employees. They have to take into account all issues concerning the right to the invention as well as the amounts of remuneration provided and still consider all the relevant national laws and regulations regarding this. It is especially important to take into account the inventions that do not by default belong to the employer and where the rules might have different outcomes in different countries.

5.3 Administrative burden

When analysing the answers from companies in the survey it is evident that using royalties as a way of remunerating inventors is considered to be a big burden. The amount of money and time invested into calculating the value of the invention and the inventors share in it is too big. The calculations are hard to perform and do require information that the companies are reluctant to release because it can be considered as industrial secrets.

There are also difficulties involved in keeping track of individual inventors up to ten or twenty years after the invention was patented. The inventors do of course have the same right to receive their agreed remuneration even if they left the company and moved. There is nothing that hinders the employer to make an agreement regarding remaining remuneration with the employee when he leaves the company. Nevertheless, if the invention suddenly gets significantly more successful after this agreement it might be possible to challenge in certain countries. Nowadays some of these administrative issues can be solved by the use of computer systems, however, these too has to be administered.

In Germany the employer have to give the inventor the necessary information regarding how the royalty-based remuneration is calculated. Without this type of information it is impossible for the inventor to verify the remuneration he obtains. Even with a system of lump sums it can be complicated to follow the steps in the scheme. This is the case especially when the system is complex and involves steps far into the future. It is not easy for the individual inventor to find out if the patent application is handed in or granted as he is not the applicant; he needs to rely on the employer for this information.

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5.4 Conclusion
The issues regarding employee inventions are important for both inventors and the employers. The employees should get a reasonable remuneration for the inventions they make and the employers need to be able to predict the economical consequences.

What a reasonable remuneration is in general is impossible to say. Even in a specific case it will be hard. It is obvious why most of the companies that answered the survey want to standardise their system. By providing the same lump sum amount of remuneration to all inventors they save time and money. To find a suitable and reasonable lump sum level the company has to know the general value of their own patents. This is not necessarily bad for the inventors. With this setup the inventors are somewhat spreading the risk of actual financial success of the specific inventions. At the same time the breakthroughs have to be considered. When an invention constitutes a success that was not taken into account when the lump sum was decided on, it needs to be remunerated separately as well. The companies in the survey differ significantly in percentage in their payments of remuneration. Still they seem to agree that a reasonable remuneration for an exploited invention in their companies should be between €2 000 and €4 000. It is impossible to tell if they are right or wrong as the question involves a great deal of ethics and reasoning.

Depending on which category the invention is placed in, the invention may or may not be eligible for remuneration in some countries. Most inventions are probably made in an environment that makes it obvious which category they should be placed in. However, there are important court decisions regarding this issue as well that show that it is not always clear. One question to be posed is if the companies will knowingly exploit inventions made by employees that are not hired to invent if it will bring legal troubles. If the inventor himself do not have the financial possibilities this could result in a lost invention not used by anyone.

Generally a well made contract taking all necessary aspects into account is the best way to avoid any conflicts regarding the right to employee inventions and remuneration.
6. Works cited

Preparatory work
Swedish government bill (prop.) 1949:101 s. 18.


Doctrine


Goddar, Heinz. *Compliance with the German employees’ invention law in the handling of inventions developed by universities*. CASRIP Publication Series: Streamlining Int’l Intellectual Property, No5.


**Agreement**


**Decisions**

**Australia**

Spencer Industries Pty Ltd v Collins and Another – (2003) 58 IPR 425.

University of Western Australia v Gray – (2009) 82 IPR 206.

**France**


PIBD N°890 III 815 (2008) – Comau France SA v Mr. Thurier

PIBD N°886 III 785 (2008) – L’Oreal

PIBD N°868 III 101 (2007) – Aube Viticole Services SARL v Mr Defrance


PIBD N° 847 III 153 (2006) – HB Fuller France SAS v Mr Rouyer and Mrs Pariente


PIBD N° 819 III 691 (2005) – Mr Brinon v Vygon SA

PIBD N° 813 III 457 (2005) – Rhodia Chimie

**Japan**


**Sweden**

AD 1983 nr 19

AD 1982 nr 21

SNAU 1/2002

SNAU 1/2005

SNAU 2/1996

SNAU 1/1996

SNAU 1/1993

SNAU 1/1989

**United Kingdom**

Unilever v Shanks [2010] EWCA Civ 1283

7. Annex I - Laws and regulations
Extracted relevant provisions of cited laws and regulations.

7.1 Swedish law

Act on the right to employee inventions (1949:345)\textsuperscript{71}

1 § The present act relates to inventions patentable within the Kingdom, of employees in public or private employment.

Instructors at universities, polytechnical institutes or other institutions which fall under the educational system shall not, by virtue of such character, be considered employees pursuant to the present act, but the act shall apply to teachers at the armed forces schools that are career officers.

Neither shall officers on the reserve state, reserve personnel, reserve officers, or those performing military or civilian service under the Act (1994:1809) on military service as such be regarded as employees under this act.

2 § Workers have, to their inventions, same right as other inventors, of not otherwise provided for in this act.

What is stipulated with respect to this and otherwise in this act shall serve as a criterion insofar as not otherwise expressly agreed upon or insofar as may be deemed to result from the employment relationship of from other circumstances. The first paragraph of section 6 and the second paragraph of section 7 concern the fact that in certain cases terms and conditions which have been included in agreements concerning the right to employee’s inventions are without effect or may be modified.

3 § If research or inventive activity constitutes the main field of employment and if an invention has come into existence largely as a result of this activity, or if the invention otherwise includes the solution of a task indicated in further detail given during the employment, the employer, if the utilization of the invention falls within his sphere of activity, has the right to appear in whole or in part as the employee’s assignee with respect to the invention.

If there is a concerned invention whose utilization falls within the sphere of activity of the employer, but which has come into existence in another connection with their employment than stated in the first paragraph, the employer may acquire the right to carry out the invention in his business without hindrance from the employee. If the employer in respect of such invention desires to acquire a more extensive right than just stated, he has preference over anyone else to reach an agreement with the employee concerning this.

With regard to inventions whose utilization falls within the sphere of activity of the employer, but which have come into existence without relation to the employment, the employer has a right of preference over anyone else to, by agreement with the employee, acquire the desired rights to the invention.

4 § If the employee makes an invention whose utilization falls within the sphere of activity of the employer, he shall immediately give him notice thereof.

5 § If the employers, in accordance with the first paragraph of section 3, or the second paragraph, first sentence of section 3, desires to acquire the right to an invention, this shall be done by advising the employee within four months from the date, according to section 4, when the employer received notification of the invention. The employer does not have the right of preference referred to in section 3 for a period of time longer than just stated.

Until this period of time terminates or until the employer has declared in advance of such time that he does not desire to acquire any rights in the invention, the employee does not have the right without the approval of the employer to dispose of the invention or to disclose anything regarding it under such circumstances that its publication or utilization for the account of someone else may be feared. The employee may, however, after the notice was given accordance with section 4, apply for a patent on the invention in this country. In such case he must advise the employer of the application within one week from the date on which it has been filed with the patent authorities.

6 § If the employer in accordance with this act or otherwise, appears in whole or in part as assignee of the employee with respect to an invention made by the latter, the employee shall have the right to a reasonable remuneration and what has just been stated shall apply even though something else may have been agreed upon before the coming into existence of the invention.

In determining remuneration, special consideration shall be given to the value of the invention, and the extent of the rights to the invention which the employer has taken over as well as to the importance which the employment position may have had with respect to the bringing into existence of the invention. If there is present a case such as referred to in the first paragraph of section 3, in addition to reasonable compensation for the expenses which the employee may have incurred for the invention, compensation shall be given only to the extent that the value of the right to the invention which the employer has taken over exceeds what can be considered reasonable with respect to the salary or wages of the employee and the other benefits and advantages of the employment.

7 § If, within six months after the employee has terminated employment as understood in this act, application is made for a patent of invention which was made by him and the exploitation of which falls within the sphere of activity of his previous employer and if the invention is related to research or inventive activity which was the inventor's main task in the employment, or if the invention includes otherwise the solution of a task specified in detail submitted to him within such employment, it shall be considered that the invention was made during the employment. What has just been stated shall not apply if the inventor is able to make it appear probable that the invention came into existence after the employment was terminated.

An agreement between an employer and employee, containing a restriction of the latter's right to dispose of an invention which is made more than one year after termination of the employment, shall be void.
§ 8 Whoever acquires knowledge of an invention as a result of the provisions of the present act may not utilize what he has learned, or disclose anything with respect to same without compelling reasons.

[procedural rules]

9 § [procedural rule]

10§ [procedural rule]

7.2 German law

Law on employee inventions (25 July 1957) and the guidelines for remuneration of employees’ inventions in private employment (20 July 1959).

The German law is too long to include in this text. Find an English version in Trimborn, Michael. Employees’ Inventions in Germany.

7.3 French law

Intellectual property code (92-597)

Art. L. 611-7

Where the inventor is a salaried person, the right to the industrial property title, failing any contractual clause more favourable to the salaried person, shall be defined in accordance with the following provisions:

1. Inventions made by a salaried person in the execution of a work contract comprising an inventive mission corresponding to his effective functions or of studies and research which have been explicitly entrusted to him, shall belong to the employer. The conditions under which the salaried person who is the author of such an invention shall enjoy additional remuneration shall be determined by the collective agreements, company agreements and individual employment contracts.

Where the employer is not subject to a sectorial collective agreement, any dispute relating to the additional remuneration shall be submitted to the joint conciliation board set up by Article L. 615-21 or by the First Instance Court.

2. All other inventions shall belong to the salaried person. However, where an invention made by a salaried person during the execution of his functions or in the field of activity of the company or by reason of knowledge or use of technologies or specific means of the company or of data acquired by the company, the employer shall be entitled, subject to the conditions and the time limits laid down by decree in Council of State, to have assigned to him the ownership or enjoyment of all or some of the rights in the patent protecting his employee’s invention.

The salaried person shall be entitled to obtain a fair price which, failing agreement between the parties, shall be stipulated by the joint conciliation board set up by Article L. 615-21 or by the First Instance Court; these shall take into consideration all elements which may be supplied, in particular by the employer and by the employee, to compute the fair price as a function of both the initial contributions of either of them and the industrial and commercial utility of the invention.
3. The salaried author of an invention shall inform his employer thereof and the latter shall confirm receipt in accordance with the terms and time limits laid down by regulation.

The salaried person and the employer shall communicate to each other all relevant information concerning the invention. They shall refrain from making any disclosure which would compromise, in whole or in part, the exercise of the rights afforded under this Book.

Any agreement between the salaried person and his employer concerning an invention made by the salaried person shall be recorded in writing, on pain of nullity.

7.4 Italian law

Intellectual property code

Article 64
1. When the industrial invention is performed while performing or fulfilling a labour or employment agreement or relationship, in which the inventive activity is set as subject matter of the agreement or relationship and for this purpose remunerated, the rights deriving from the invention itself belong to the employer, save the right of the employee to be recognized as the author of the invention.

2. If a remuneration (salary) is not set for the inventive activity, and the invention is performed while performing or fulfilling a labour or employment agreement or relationship, the rights deriving from the invention belong to the employer, but the inventor, save the right to be recognized as the author of the invention, is entitled to, whenever the employer or his assignees/transferees obtain a patent or use the invention under industrial secret, an equitable remuneration for the determination of which it shall take into consideration the importance of the invention, the tasks and the salary of the inventor, and the contribution he received from the organization of the employer. In order to ensure the prompt conclusion of the patent acquisition procedure and the subsequent attribution of the equitable remuneration to the inventor, it can be granted, upon request of the organization of the employer, the anticipated examination of the application aimed at the granting of the patent.

3. Whenever para. 1 and para. 2 are not applicable and there is an industrial invention that falls within the scope of activity of the employer, the latter has the option for the exclusive or non-exclusive use of the invention or for the acquisition of the patent, and also the possibility to request or acquire, for the same invention, patents abroad upon payment of the fee or price, to be determined by subtracting an amount corresponding to the contributions that the inventor has however received from the employer to perform the invention. The employer can exercise the option within three months running from the date of the communication of the receipt of the patent application. The relationships constituted through the exercise of the option are automatically (by law) terminated if the remuneration is not entirely paid within the term.

4. [procedural rule]

5. [procedural rule]

6. For the effect of para. 1, 2 and 3 the industrial invention for which a patent is requested within one year from the date when the employee left the company or the public administration within whose
The scope of activity the invention has been realized, is considered performed during the employment agreement of relationship.

### 7.5 Brazilian law

*Industrial property law 9279/96*

**Article 88**

An invention or utility model will belong exclusively to the employer when it results from a work contract being executed in Brazil and the object of which is research or the exercise of inventive activity or when such results from the nature of the services for which the employee was contracted.

§1 - Except when there are express contractual provisions to the contrary, remuneration for the work to which this article refers will be limited to the salary agreed upon.

§ 2 - In the absence of proof to the contrary, an invention or utility model for which a patent is requested by an employee within 1 (one) year from the extinction of the contract of employment will be considered as having been developed while the contract was in force.

**Article 89**

An employer, who is the proprietor of a patent, may grant the employee, who is the author of the invention or improvement, participation in the economic gains resulting from the exploitation of the patent, as a result of negotiation with the interested party or as provided for by a norm of the undertaking.

Sole Paragraph - The participation referred to in this article will not in any way be incorporated into the salary of the employee.

**Article 90**

An invention or utility model developed by an employee will belong exclusively to the employee provided that it is unconnected to his work contract and when it does not result from the use of resources, means, data, materials, installations or equipment of the employer.

**Article 91**

The ownership of an invention or utility model will be common, in equal parts, when it results from the personal contribution of the employee and from resources, data, means, materials, installations or equipment of the employer, without prejudice to express contractual provisions to the contrary.

§ 1 - When there is more than one employee, the part due to them will be divided equally between all of them, except when agreed to the contrary.

§ 2 - The employer will be guaranteed the right to an exclusive license for exploitation and the employee will be guaranteed fair remuneration.

§ 3 - Exploitation of the subject matter of the patent, in the absence of an agreement, must be initiated by the employer within 1 (one) year counted from the date of grant, under pain of the property in the patent being transferred to the exclusive ownership of the employee, without prejudice to the hypothesis of lack of exploitation for legitimate reasons.
§ 4 - In the case of assignment, any of the co-owners may exercise the right of preference under identical conditions.

Article 92
The provisions of the preceding articles, as far as they are applicable, apply to the relationship between an autonomous worker or a trainee and the contracting undertaking and between contracting and contracted undertakings.

Article 93
The provisions of this Chapter, as far as they are applicable, apply to entities of the direct or indirect and foundational, federal, state or municipal, Public Administration.

Sole Paragraph - In the hypothesis of article 88, a reward corresponding to part of the value of the advantages obtained as a result of the application or the patent will be guaranteed to the inventor, under the terms and conditions provided for in the statutes or internal regulations of the entity to which this article refers.

7.6 Chinese law

Patent law, March 12, 1984

Article 6
An invention-creation, made by a person in execution of the tasks of the entity to which he belongs, or made by him mainly by using the material and technical means of the entity is a service invention-creation. For a service invention-creation, the right to apply for a patent belongs to the entity. After the application is approved, the entity shall be the patentee.

For a non-service invention-creation, the right to apply for a patent belongs to the inventor or creator. After the application is approved, the inventor or creator shall be the patentee.

In respect of an invention-creation made by a person using the material and technical means of an entity to which he belongs, where the entity and the inventor or creator have entered into a contract in which the right to apply for and own a patent is provided for, such a provision shall apply.

Article 16
The entity that is granted a patent right shall award to the inventor or creator of a service invention-creation a reward and, upon exploitation of the patented invention-creation, shall pay the inventor or creator a reasonable remuneration based on the extent of spreading and application and the economic benefits yielded.

Implementing regulations of the Patent law

Decree No. 306, June 15, 2001

Rule 12
"A service invention-creation made by a person in execution of the tasks of the entity to which he belongs" referred to in Article 6 of the Patent Law means any invention-creation made:
(1) in the course of performing his own duty;

(2) in execution of any task, other than his own duty, which was entrusted to him by the entity to
which he belongs;

(3) within one year from his retirement, resignation or from termination of his employment or
personnel relationship with the entity to which he previously belonged, where the invention-creation
relates to his own duty or the other task entrusted to him by the entity to which he previously
belonged.

"The entity to which he belongs" referred to in Article 6 of the Patent Law includes the entity in
which the person concerned is a temporary staff member. "Material and technical means of the
entity" referred to in Article 6 of the Patent Law mean the entity's money, equipment, spare parts,
raw materials or technical materials which are not disclosed to the public, etc.

Rule 76
The entity to which a patent right is granted may, on the manner and amount of the reward and
remuneration as prescribed in Article 16 of the Patent Law, enter into a contract with the inventor or
creator, or provide it in its rules and regulations formulated in accordance with the laws.

The reward and remuneration awarded to the inventor or creator by any enterprise or institution
shall be handled in accordance with the relevant provisions of the State on financial and accounting
systems.

Rule 77
Where the entity to which a patent right is granted has not entered into a contract with the inventor
or creator on the manner and amount of the reward as prescribed in Article 16 of the Patent Law,
nor has the entity provided it in its rules and regulations formulated in accordance with the laws, it
shall, within three months from the date of the announcement of the grant of the patent right,
award to the inventor or creator of a service invention-creation a sum of money as prize. The sum of
money prize for a patent for invention shall not be less than RMB 3,000 Yuan; the sum of money
prize for a patent for utility model or design shall not be less than RMB 1,000 Yuan.

Where an invention-creation is made on the basis of an inventor's or creator's proposal adopted by
the entity to which he belongs, the entity to which a patent right is granted shall award to him a
money prize on favourable terms.

Rule 78
Where the entity to which a patent right is granted has not entered into a contract with the inventor
or creator on the manner and amount of the remuneration as prescribed in Article 16 of the Patent
law, nor has the entity provided it in its rules and regulations in accordance with the laws, it shall,
after exploiting the patent for invention-creation within the duration of the patent right, draw each
year from the profits from exploitation of the invention or utility model a percentage of not less than
2%, or from the profits from exploitation of the design a percentage of not less than 0.2%, and
award it to the inventor or creator as remuneration. The entity may, as an alternative, by making
reference to the said percentage, award a lump sum of money to the inventor or creator as
remuneration once and for all. Where any entity to which a patent right is granted authorizes any
other entity or individual to exploit its patent, it shall draw from the exploitation fee it receives a percentage of not less than 10% and award it to the inventor or creator as remuneration.
8. Annex II – Survey sent regarding national law

The right to employee inventions is governed by:

- Law, dispositive
- Law, binding
- General agreement
- Individual labour agreement

Specify name of law, articles and/or agreements:

If available, please provide an English translation or reference to the applicable legislation.

Are there any time limitations that the employer has to comply with regarding taking over the invention?
If yes, please specify

What does the employer need to do to acquire ownership of the invention?

Are there suggestions or minimum remuneration amounts stated in law or general agreements?
If yes, please specify

Are there any general agreements or practices regarding this that employers have to take into account?
If yes, please specify

Are the inventions divided into categories?
For example: A. Inventor is employed to invent and the invention lies within this task. B. Inventor is not employed to invent but the invention lies within the sphere of the employer.
Please insert the categories into the grid.
If no, please specify

What do the categories mean for the following?

<table>
<thead>
<tr>
<th>Type of invention</th>
<th>Inventor has to report his invention</th>
<th>Ownership of invention rests with</th>
<th>Employer has the right to take ownership of the invention</th>
<th>Inventors are eligible for remuneration if the right to the invention is transferred</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example: Sweden, Inventor is employed to invent and the invention lies within this task</td>
<td>Yes</td>
<td>Employee</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>


9. Annex III – Survey sent to companies
Please answer the questions from the point of view of only one country and company.

| Country: |  |
| Company: |  |

1. Does your company pay inventors remuneration in connection with an invention?
   - Yes
   - No
   Comments:

2. Do you use royalties (the inventor is paid according to profits)?
   - Yes
   - No
   Comments:

2.1 In what way are the royalties calculated?
   Free text:

3. Do you use any pre-determined amounts for remuneration?
   - Yes
   - No
   Comments:

3.1 What are the pre-determined amounts (specifically when and how much is paid and also which currency you use)?

<table>
<thead>
<tr>
<th>Time</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Eg. Patent granted</em></td>
<td>2000 €</td>
</tr>
</tbody>
</table>

Comments:

3.2 Do you regularly pay inventors more than the pre-determined amount?
   - Yes
   - No
   Comments:

4. If you have answered ‘No’ on question 2 and 3, what method is your company using?
   Free text:

5. Do you have harmonised rules for more than one country?
   - Yes
   - No
   Comments: