Employee’s Inventions
Guide for Germany

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Content

The requirements of ArbEG may be unknown to companies abroad that employ workers in Germany. Companies that employ German workers or acquire German entities must consider with the unique provisions of German law governing how companies acquire ownership of the inventions of employees. Questions of whether employee inventions are, indeed, assigned to the employer can be quite challenging, and may be problematic when patents on these inventions are asserted in court.

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1. Inventorship and Ownership

The legal concepts of inventorship and ownership of patents or patent applications represent a complex and multi-layered topic. The concept of inventorship relates to the inventor or inventors who have contributed the ingenuity necessary for the invention. The inventor or inventors are those who have identified the inventive technical teaching in a reproducible and demonstrable manner. From that intellectual performance or inventive act of human beings may follow patent rights. A legal entity thus cannot be an inventor. Also, artificial intelligence as such may not be the sole origin of an invention. From the inventive act emerges a legal position. This legal position includes the right to the patent which originally belongs to the inventor(s). It contains the entitlement to file a patent application, to obtain a patent and to exclude third parties from using the technical teaching as protected by a subsequently granted patent. The owner of a patent is thus the person who enjoys the rights and benefits from a patent. Even though ownership originates from inventorship, inventor and owner of the patent must not necessarily be the same person.

As specified in Article 60(1) EPC, if an inventor is an employee, the right to a European patent is determined in accordance with the law of state in which the employee is mainly employed or, if this state cannot be determined, the state in which the employer has the place of business to which the employee is attached. Of particular note is Germany’s Act on Employees’ Inventions (hereinafter “ArbEG”), which governs the extent to which employees’ inventions are assigned to their employers. The employment of workers in Germany and the acquisition of German entities thus require knowledge about the unique provisions of the ArbEG. Questions of whether employee inventions are, indeed, assigned to the employer can be quite challenging, and may be problematic when patents on these inventions are asserted in court.

Practice Note
The employment of workers in Germany and the acquisition of German entities require knowledge about the unique provisions of the ArbEG. Questions of whether employee inventions are, indeed, assigned to the employer can be quite challenging, and may be problematic when patents on these inventions are asserted in court.

1Melullis, in Benkard, Commentary EPC, 3rd ed. 2019; Art. 60, n° 14, 15
2Article 60(1) EPC
2. Right to the Invention

The proprietary rights connected to the invention follow from the inventorship. Article 60(1) EPC, §6 of the Patent Act: “The right to a...patent shall belong to the inventor or his successor in title.” Inventorship confers “the right to the patent, the right to the grant of a patent and the rights deriving from a patent.”

As long as it is not an employee’s invention for which the special rules of the employee invention act are applicable (see below), the right to the invention can in principle freely be assigned from the inventor to any third party. For instance, persons not considered “employees” by the Act on Employee’s Invention (ArbEG) (see below), such as CEOs, are basically free to transfer their rights to their inventions unless their contract with the company provides otherwise. For instance, a CEO, who is involved in the research and development of the company, makes an invention. He could be obliged to offer the invention to the company, even if this is not explicitly stipulated in his contract, provided that the invention falls into the business of the company and is largely achieved with the company’s resources. This results from contract interpretation but not from the Act on Employee’s Invention. It would not be sufficient to confine the analysis to literal wording of a contract.

The inventor who assigns his rights to the invention remains inventor. The status of inventorship is a personal right which is not transferable. But the assignment of the rights to the invention triggers a transfer of the proprietary rights connected to the invention.

The assignment of a patent or patent application can even be based on an implied agreement. But this exceptional situation must be deduced from a special relationship between assignor and assignee, and the party that seeks to assert rights from an implied agreement must prove the existence of such a special relationship.

Note that in the case of pending European patent applications, a written and signed agreement is mandatory to transfer ownership. This is based on Article 72 of the EPC, which supersedes the more flexible German law. This is, an assignment of a European patent application shall be made in writing and shall require the signature of the parties to the contract. According to the case law that strict formality exclusively relates to the assignment of the formal position resulting from the patent application. Article 72 EPC does not apply to the right to the European patent (Article 60 EPC), for which the laws of the respective designated countries apply.

Practice Note
The assignment of the German part of a European patent does not necessarily require a written assignment. Nonetheless it is highly advised to establish a written document.

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3 Unofficial translation of §15(1) Patent Act
5 Appeal Court Frankfurt, 6 U 69/16, decision of April 13, 2017.
6 Federal Supreme Court, X ZR 42/67, decision of Apr. 28, 1970; Appeal Court Düsseldorf, Mitt. 2014, 337, 341 “Rapssaatenschälung”
7 Federal Supreme Court, X ZR 42/67, decision of Apr. 28, 1970.
8 Federal Supreme Court, X ZR 598/90, GRUR 92, 692, “Magazinbildwerfer.”
9 District Düsseldorf, 4a O 406/06; decision of Nov. 14, 2006.
3. Co-Ownership

Where the invention is developed jointly by several people, they are deemed co-owners of the invention. The legal relationship between co-owners may be governed by a joint agreement. In the absence of a written agreement, Section 741 of the German Civil Code, which deals with co-ownership, applies. The co-owners each have a share in the invention that corresponds to their individual creative contribution. In cases where the creative contribution is in doubt, it is assumed that the co-owners are entitled to equal shares. Each co-owner is also entitled, without the consent of the other co-owners, to transfer his or her share in the invention to a third party. Co-owners can use the invention for their own purposes as long as the joint use by other co-owners is not impaired. A co-owner must usually not compensate the other co-owners for his individual use of the invention unless that use considerably exceeds his share in the invention and if such financial compensation in-between the co-owners is demanded for equity reasons. The administration of the invention is organized jointly by the co-owners. This includes the filing of patents or utility models and the granting of licenses. It is usually sufficient if the co-owners agree actions by a majority vote. In cases where there are only two co-owners, however, both co-owners must agree. The only way to overcome a conflict is to compel the other owner’s consent through a court action. This would, however, only be successful if the other owner’s refusal to give consent is considered abusive or clearly unreasonable. Necessary acts of administration aimed at safeguarding the right to the invention can individually be carried out by each owner without the consent of the other co-owners. In principle, each co-owner is allowed to individually assert patent claims against infringers through court proceedings without the other co-owners necessarily joining these proceedings. This follows from an application by analogy of §1011 of the Civil Code according to the case law. The co-owner is thus also litigating on behalf the other co-owners of the community. This follows from the external relationship of the community, which must not necessarily comply with the internal arrangements of the co-owners.

Practice Note
Despite these provisions, it is recommended that co-owners have a written agreement in place, in particular to avoid disputes about the administration of the co-owned invention. As soon as a group of researchers intends to undertake a joint research and development project, they should discuss these issues and agree them in writing.

10 Section 6 Patent Act: “If two or more persons have jointly made an invention, the right to a patent shall belong to them jointly.”
11 A translation of the German Civil Code can be found on webpage of the German Ministry of Justice: <www.gesetze-im-internet.de/englisch_bgb/>.
12 Federal Court of Justice, X ZR 152/03, GRUR 2005, 663, Gummielastische Masse II
13 Section 742 Civil Code, Federal Supreme Court, X ZR 63/77, GRUR 1979, 540, Biedermeiermanschette
14 Federal Court of Justice, X ZR 223/98, GRUR 2001, 226, 227, Rollenantriebseinheit
15 Section 743(2) Civil Code
16 Federal Court of Justice, X ZR 152/03, GRUR 2005, 663, 664, „Gummielastische Masse II.“
17 Section 744(1) Civil Code
18 Section 745(1) Civil Code
19 Section 745(2) Civil Code
20 Section 744(2) Civil Code
21 The assertion may include the right to prevent the use of the patent, to claim damages and to be informed about the extent of use.
4. Legal Title to the Invention

4.1. Legal fiction in favour of the applicant

In proceedings before patent offices, the applicant is deemed to be entitled to exercise the rights to the patent. This legal fiction is intended to avoid the examination being delayed. An investigation into who is the legitimate inventor or owner of the rights does not take place at the patent office; what counts in the patent office is the person or entity named in the documents filed and in the register.

If someone contends that he or she has been wrongly omitted from the right to the invention, it is left to the challenger to file a court action seeking an assignment of the application. By means of this action an examination of right to the invention takes place. The EPO will stay grant proceedings if a third party institutes such national proceedings against the applicant. Such inventorship challenges are typically filed in national courts of the EPC states.

4.2. Legal Effects of the Register

Entries in the patent register have no "constitutive effect." That is, the acquisition of the patent right is not dependent on any entry on a national patent register. The true legal ownership of the patent may thus differ from what appears in the register. This divergence between the entries in the register and the actual legal situation occurs if the patent has been assigned by means of an agreement and so long as the new owner is not yet registered. Thus, if the entitlement of the registered owner is challenged by the defendant, the plaintiff must demonstrate and show that he is the entitled owner. At least the German law does not provide a legal fiction with respect to an entry in the register of a granted patent comparable to Article 60(3) EPC. However, it seems to be reasonable even under German law to attribute to an entry in the register at least some circumstantial evidence that the registered party is in fact legally entitled to assert the rights resulting from the patent.

This assumption is however refutable, in particular, if defendant’s submissions is not purely confined to unsubstantiated denial but refers to factual inconsistencies. In patent infringement proceedings, the registered owner could thus be challenged to prove that he or she is the owner of the patent and entitled to the damages for the claimed period. The problem becomes apparent if the patent has been assigned from the original applicant to a new entity and, eventually later to other entities. In such a situation it may thus be necessary to submit into the proceedings copies of the different assignment contract(s) showing a gapless chain from the original applicant to the entity named in the patent register.

If the legitimate owner is not mentioned in the register, it is necessary under German law that the registered party explicitly authorizes the new and legitimate owner to take action. Therefore, an assignment agreement should contain provisions dealing with the period until the new owner is finally named in the register after a requested change of the register ($30(3) Patent Act). Without any explicit authorization the new owner would be considered being an entitled party in the infringement proceedings until the patent office actually changed the registration.

Practice Note

According to German law the entry in the register of an owner of a granted patent does not provide a legal fiction comparable to Article 60(3) EPC. It is thus essential to assess the assignment situation prior to filing the patent infringement lawsuit.

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23 Article 60(3) EPC or Section 7(1) German Patent Act: "the applicant...shall be deemed to be entitled to request the grant of the patent"
24 Section 8 Patent Act, Article 60 EPC, Article II Section 5 IntPatÜG
25 Federal Court of Justice, X ZR 69/11, GRUR 2013, 713, „Fräsverfahren.“
26 Federal Court of Justice, X ZR 69/11, GRUR 2013, 713, „Fräsverfahren.“
5. Act on Employees’ Inventions

The statute governing the assignment of employee inventions to an employer is the Act on Employee’s Invention (ArbEG). The provisions of the ArbEG are mandatory on employers, which cannot simply require (as is common in the U.S.), that all inventions be assigned to the company. Rather, §22 of the ArbEG states that “the provisions of the Act cannot be modified by contract to the detriment of the employee.” For international entities acting within the German market, including through affiliates, it is crucial to know and apply these rules. The law is based on the concept that inventions made by employees initially belong to them. Under the ArbEG, special mandatory proceedings have to be applied in order for the invention to become the property of the employer. The employer and employee may not agree upon an automatic transfer of rights as to inventions or technical improvements made by the employee during the employment. Such clause would be invalid according to §22 ArbEG.

5.1. Scope of application

5.1.1. Material scope of application

The ArbEG covers technical inventions and makes a distinction between these and mere “technical improvements”. Technical inventions can be subject to a patent or a utility model, whereas technical improvements are not eligible for protection under an industrial property right. The Act does not cover other types of employee invention, such as rights to artistic creations and designs, which the employer and employee are usually free to agree in advance.

5.1.2. Applications to individuals

The ArbEG defines “employee” as a person employed by the employer according to the German Labour Act. An employee (who can also be an executive or junior manager) undertakes contractually-obligated tasks or provides contractually-obligated services within an organization. An employee is under the direction of the employer with respect to content, way, time and location of implementing the tasks or providing the services.

The Act does not apply to the employer or to people holding positions in the company that are similar to the position of an employer. This is the case for legal representatives of the company such as the executive director of a private limited company. Commercial agents and independent freelancers are also not covered by the Act. Agreements concluded with such people can (and should), therefore, include provisions whereby inventions made in the course of the contractual relationship are automatically assigned to the employer. Without such an agreement in place, a separate assignment of rights over inventions would be necessary and additional compensation would be owed to the executive employee, agent or freelancer.

5.1.3. Territorial application

If the employment relationship falls under German law, the ArbEG is applicable. The employment contract is usually governed by the law of the country in which the employee habitually carries out his or her work in the performance of his or her contract. Temporary re-assignment of, e.g., a US-based employee of a US company to work with a German subsidiary does not trigger the ArbEG. Temporary re-assignment

27 Unofficial translation.
28 Section 3, 20 ArbEG. Technical improvements, which are in practice of lower importance, are only eligible for compensation if they confer to the employer an advantage that is similar to a patent or utility model. This requires that the technical improvement be a useful improvement on the existing situation, with a commercial advantage, and not something obvious to the person skilled in the art or detectable without difficulty by any competitor: District Court Munich decision of 17 January 2007, 21 O 1788/05, BeckRS 2008, 18310, Keramikschneidwerkzeug
29 Federal Court of Justice, X ZR 58/88, GRUR 1990, 193, Autokindersitz
30 In German Leitende Angestellte: Appeal Court Hamburg, 3 U 89/58, GRUR 1960, 488, Geruchsbesetzungfahren
31 Federal Constitutional Court, decision of 18 February 2000, 1 BvR 491, 562/93, NZA 2000, 653
32 CEO of German Limited (GmbH): Federal Supreme Court, X ZR 165/04, GRUR 2006, 401, Zylinderrohr.
33 Federal Court of Justice, decision of 27 November 1975, X ZB 24/73, GRUR 1976, 385, Rosenmuation.
of a Germany-based employee of a German entity sent to work in a US subsidiary does, however, trigger the ArbEG. The ArbEG would apply to inventions in this case even the invention was not made in Germany.

**Practice Note**

A choice-of-law clause in an employment contract will basically not negate the mandatory provisions of the ArbEG if the employee’s usual place of employment is Germany. There may be some exceptions if the employing entity or the employee does not reside in Germany, or where the main tasks under the contract will be fulfilled partly inside and partly outside German territory, but these should be addressed on a case-by-case basis.

### 5.2. Service inventions and free inventions

The ArbEG is applicable to all inventions irrespective of where, when, in which technological area and why the invention has been made by the employee during the employment. But the Act distinguishes between two types of inventions, namely „service inventions“ and „free inventions“ (§4 ArbEG). Furthermore §4 (2) ArbEG subdivides service inventions in two categories: They either result from the assigned duties under the employment contract or are “decisively based upon experiences or activities” of the company. Service inventions according to the first category are connected to duties actually assigned to the employee. This is mainly the case if the employee is instructed to perform research and development activities. The second category does not necessarily require the assignment of such duties. It rather requires that the employee gets to the teaching thanks to the employer’s experiences or activities (i.e., technological information, knowledge, know-how, practices, etc., see §4(2) ArbEG). An enhanced causal connection between the inventive act and the “experiences or activities” of the employer’s company must be given. In the words of the law, the invention must “decisively” be based on such “experiences or activities”. A main characteristic of both types of service inventions is that they are essentially based on the employer’s initiative or resources.

By contrast, “free inventions” make up all other inventions made by the employee, which do not meet at least one of the two criteria of being “service inventions” (i.e., they do not result from duties under the employment contract or they are not decisively based on the company’s know-how or developments). For instance an employee who is employed for improving software applications for aircraft invents a particular sport shoe. That invention would not fall within the category of a „service invention,“ provided that it is neither a result of the accomplishment of regular contractual duties nor decisively based on the know-how of the company.

In making the assessment between service inventions and free inventions, it does not matter when, for which reason, and where the inventor developed and completed the invention. The invention need not necessarily be developed at the usual working place of the employee. It is also irrelevant that third parties contributed to the invention. All employee inventions made during the period of employment are governed by the ArbEG. It is irrelevant, for application of the Act, that the invention was made during working hours or while staying at home in the evening.

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34 Article 8 of the Regulation EC No 593/2008
35 Federal Court of Justice, X ZR 155/03, GRUR 2006, 756, „Haftetikett.“
36 Federal Court of Justice, X ZR 165/04, GRUR 2006, 401, „Zylinderrohr.“
5.2.1. Reporting obligations

Service inventions
The employee has a duty to report all service inventions, including creative improvements to a previously completed invention, as soon as they are created.\textsuperscript{37} The aim of the report is to inform the employer about the invention so he can make a decision on whether to claim ownership or release the invention. Section 5 (2) ArbEG states

\textit{In the report, the employee shall describe the technical problem, its solution and how the service invention was achieved. Existing notes shall be attached provided if they are necessary for an understanding of the invention. The report must indicate the service instructions and directions received by the employee, use made of the expertise and activities of the enterprise, the employee’s collaborators and the nature and extent of their contribution and the report should indicate the contribution the reporting employee considers to have made personally. A report that does not meet [these requirements] will be deemed to be in order unless the employer states within a two month period that it is not sufficient and requests supplemental information. To the extent necessary, the employer must assist the employee in supplementing the report.}

Free inventions
If the employee believes the invention is free, he or she nevertheless has to inform the employer about it to give the employer the opportunity to object to the inventor’s characterization of the invention as free. The employee must also offer the employer a non-exclusive license under reasonable terms if the invention falls within the range of the employer’s actual or planned activities. A report which does not comply with these requirements is deemed to be valid if the employer does not declare within two months that and in what respect the report needs to be supplemented.\textsuperscript{38}

5.2.2. Acquiring service inventions

The German system is based on the concept that the rights to an invention made by an employee initially belong to the employee and not the employer. Accordingly, an acquisition process must take place in order for the employer to become the owner of the invention. The acquisition process starts with the reception of the report. As soon as the employer has received a report in appropriate form, a four-month period commences during which the employer may claim ownership over the service invention by means of a declaration (§6(1) ArbEG). This four-month period may be extended in certain circumstances, such as if the report is incomplete (§5(3) ArbEG).
After expiry of the four-month term following receipt of an invention report, an employer who stays passive automatically acquires rights to the service invention. Accordingly, the absence of an explicit claim does not hinder the employer from acquiring the rights to the invention. The employer may explicitly claim a service invention by executing a declaration to the employee (§6(1) ArbEG). An explicit claiming of the service invention, instead of automatically acquiring the ownership by the indicated fiction of law (§6(2) ArbEG), might be best if the employer does not want to wait until the end of the four-month period, for instance in order to fulfill obligations towards business partners or to create a legal certainty between the parties and in granting proceedings at the patent offices.

Prior to 2009, a serious pitfall arose if the employer failed to act on the employee’s report of an invention. Under the previous ArbEG, the employer’s claim had to be made “in a written statement, addressed to the employee, as soon as possible, and not later than four months from the receipt of a proper report.” The written statement had to be a signed. The period started to run as soon as the invention was duly reported, or, in the absence of such a report, at the latest at the filing date of the patent application, which was usually filed in the name of the employer. This, the courts consider the filing of the application by the employer as the trigger for the four-month deadline, even without any sufficient report about the services invention previously made by the employee.

This trigger of the deadline is not affected if that report of the employee is submitted later. Also, the employee’s own patent filing without a proper report, for instance by means of a verbal message to the employer may not represent a sufficient trigger for that deadline.

Inadvertently, some employers failed to present adequate written claiming statements to the employee-inventor. Often this was simply caused by lack of knowledge of the law or by a more or less unorganized handling of these issues by the employers. In such situations, the right to the invention stayed with the employee.

Practice Note

Many of those defects resulting from the old ArbEG are still undetected. These oversights have caused and will continue to cause problems for companies trying to enforce, assign or acquire patents which suffer from improper compliance with the old ArbEG. Prior to any assertion and acquisition of patents, the due diligence must cover the implication of that old law.

Figure 2

### Employer’s Options with Respect to Service Inventions

<table>
<thead>
<tr>
<th>Release Claim</th>
<th>Explicit Claim</th>
<th>Implicit Claim</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicated in writing to the employee.</td>
<td>Communicated in writing to the employee before the end of the four month period.</td>
<td>No reaction from the employer within four month period.</td>
</tr>
<tr>
<td>Employee remains owner of the invention and is entitled to apply for an industrial property right.</td>
<td>Employer becomes owner of the invention as of the date of the employee’s receipt of the claim.</td>
<td>Employer becomes default owner of the invention.</td>
</tr>
</tbody>
</table>

39 Unofficial translation.
40 Federal Supreme Court, X ZR 155/03, GRUR 2006, 756, “Haftetikett,” Federal Supreme Court, X ZR 64/15 „Lichtschutzfolie.”
41 Federal Supreme Court, X ZR 64/15 „Lichtschutzfolie.”
42 Federal Supreme Court GRUR 2011, 733, „Initialidee.”
5.2.3. Protecting service inventions

National Filing
If the employer acquires the service invention, it is obliged to file a national patent application as early as possible after the acquisition. This could be a German patent application; or a European patent application designating Germany; or an application under the Patent Cooperation Treaty, designating Germany; or, if more appropriate, a German Utility Model “domestic application”. The employer must keep the inventor informed about the progress of the prosecution of the patent. If the employer fails to file the application on time, the employee may start the application or registration proceedings on his or her own initiative in the name of the employer.

International Filing
The employer must inform the employee which countries it does not intend to file a foreign application for, and must inform the employee in good time so that terms under international treaties can be respected. The employee should be given enough time to file applications in these countries if he or she chooses to do so. The employee must bear the cost of these applications. The employer may reserve a non-exclusive right to use the invention in these countries. If the employer intends to abandon a patent application or granted patent in certain countries, the employer may take over the application or the patent, but will then have to handle the prosecution in his or her name. The employer may retain a non-exclusive right of use as long as the employee does not show that this represents an undue burden on him or her. If the employer fails to protect the invention, the employee could be entitled to claim damages.

5.2.4. Employee’s compensation

If the employer acquires the invention, the employee is entitled to compensation. The employer is obliged to compensate the employee even if the invention is later assigned to a third party. The compensation claim can be assigned by the employee and is inheritable.

5.2.4.1. Individual agreements

Individual agreements on the type and amount of compensation are permissible and codified in Section 12(1) ArbEG but can only be concluded after the service invention has been reported to the employer. Such agreements can be subject to later review, namely:

- In case of significant inequity which can be asserted by both parties until six months after the termination of the employment agreement.
- Furthermore, both parties may claim from the other party an adaptation of the compensation in case of substantial changes being essential for the assessment.
Compensation can take the form of an ongoing payment, or it can be paid as a lump sum.\textsuperscript{56} Lump sum payments are usually agreed within incentive programs with the purpose of motivating employees to better performance. The agreement of a lump sum payment may have the advantage of removing insecurity relating to future changes with respect to the scope of use of the invention and, more importantly, it can eliminate the administrative burden on the employer. The employer may additionally use the compensation agreement to obtain a release from formal obligations, such as the duty to protect the invention or to release it for foreign countries.

5.2.4.2. Calculation methods
The amount of the compensation is governed by a Directive issued by the Federal Minister of Labour,\textsuperscript{57} which provides three methods for calculating the compensation paid to an employee for an invention:

- License analogy (Directive N° 6-11)
- Benefits to the employer (Directive N° 12)
- Estimation of the value of the invention (Directive N° 13).

All three methods depend on the benefits that the employer receives from the service invention.\textsuperscript{58} The compensation therefore requires that the invention has a financial effect, with objectively determinable advantages for the employer,\textsuperscript{59} and a share of these benefits is allocated to the employee.\textsuperscript{60} Benefits relating to third parties, however, such as benefits for licensees or the assignee of the service invention, are irrelevant for the assessment.\textsuperscript{61}

Contribution Factor (Directive M° 30)
When assessing the amount of compensation, the “contribution factor” must be determined. The purpose of the contribution factor is to determine how much the employee as an individual contributed to the invention. For example, a scientist whose duties of employment are characterised mainly by research and development, receives less compensation than someone who is not principally employed to perform research and development.

The contribution factor is based on three elements: the extent of the respective contributions of the employer and employee in defining the problem that resulted in the invention, their respective contribution in finding the inventive solution and the position and duties of the employee within the company. Accordingly, the contribution factor influences the royalty rate to be paid to the employee as compensation. For example, in the case of an employee focused primarily on solving needs predetermined by the employer, the employee’s compensation might be a low percentage of a reasonable royalty. The average contribution factor ranges from 15 to 25 per cent.

License analogy
Typically, the license analogy is the appropriate method if the invention can be allocated to products manufactured by the employer. A number of factors are usually taken into account in the calculation of the employee’s compensation. The following comparable factors are also used for determining damages:

- Reference base (Directive N° 8): A reference base needs to be identified as the relevant basis for applying a reasonable royalty. (Directive N° 19).

For instance, if the product (as protected by the patent) is composed of a plurality of components, German courts usually refer to those components of that product which are decisively influenced by the invention. The reference base for a patent that

\textsuperscript{56}Federal Court of Justice, decision of 20 November 1962, I ZR 40/61, GRUR 1963, 315, 317, Pauschalabfindung.
\textsuperscript{58}Federal Court of Justice, X ZR 137/07, GRUR 2010, 223, 225, Türninnenverstärkung
\textsuperscript{59}Federal Court of Justice, X ZR 137/07, GRUR 2010, 223, 225, Türninnenverstärkung
\textsuperscript{60}Federal Court of Justice, X ZR 137/07, GRUR 2010, 223, 225, Türninnenverstärkung
\textsuperscript{61}Arbitration Board, Decision 58/07
claims a car is not necessarily the value of the whole car. It rather depends on the influence of the invention on the car and which part or parts of the car are decisively characterised by the invention. On the other hand, if the decisive character of the invention influences the whole product (this could be the case with respect to pharmaceutical substances, where the inventive aspect is tied to an active agent) it is reasonable to refer to its whole value. If the invention influences only parts of the product, it is acceptable to take only a percentage of its value. To determine the reference value, German courts are weighing the problem solved by the patented invention and its relevance for the product concerned.

- **Net sales revenues**: These revenues do not contain costs for packaging, discounts, value added taxes VAT and agent’s commissions.

- **Reasonable royalty rate**: Reference can be made to license agreements that have already been concluded by the employer with third parties. In the absence of such agreement(s), industry practices must be considered.

- **Scaling**: If the product is manufactured and sold in very high numbers, employers like to apply a sliding scale, which has a reducing effect on the compensation starting from a certain quantity. This must, however, be common practice in the relevant industry sector or require that high numbers of sold products can be attributed to efforts and achievements of the employer. The success of a product is not necessarily triggered by the patent of which the product makes use. Also other factors such as the branding, advertisement, reputation of the company etc. might be decisive for the decision of the purchaser. Accordingly, the royalty rate is progressively reduced depending on the turnover achieved with the product. For instance, the Appeal Court Düsseldorf applied in matter a scaling starting from a turnover which exceeded 13 Mio, i.e. for the turnover below 13 Mio, the full royalty, from 13 Mio - 25 Mio only ⅜ of the royalty rate, from 25 Mio - 50Mio only ½ of the royalty rate, above 50Mio only ⅓ of the royalty rate had to be paid. This is only an example. The case law gives examples where a scaling was applicable starting from even significantly lower turnovers (1.5 Million).

- **Plurality of Patents**: A further aspect which has decreasing effect on the royalty rate is the question whether other patents are used by the concerned product. If a plurality of patented inventions applies to a particular product, German courts consequently decrease the royalty of the different individual inventions.

**Other Methods: Benefit to the employer or estimation of the invention’s value**

Another (rarely used) method which can be taken for calculation the employee’s compensation is based on the benefit to the employer relating to the internal cost savings that the employer can achieve as a result of the invention. This method is most useful in

**Figure 3**

<table>
<thead>
<tr>
<th>Calculation Methods</th>
<th>Benefit to the employer</th>
<th>Estimation of the invention’s value</th>
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<tr>
<td>License analogy</td>
<td>Appropriate method for innovations and improvements that can only be realised within the company and have no direct effect on turnover or sales.</td>
<td>Useful in cases of cross-licensing where the value of the patent cannot be measured by a royalty income.</td>
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62 Federal Court of Justice, X ZR 71/86, GRUR 1994, 271, Vinylchlorid
63 InstGE 4, 165, 181
cases where the invention consists of technical improvements that can only be realised within the company and therefore the license analogy method would not furnish a meaningful value.

The third (also rarely used) method is based on a free estimation of the value of the invention. This calculation method may be used where the value of the patent cannot be measured by a real royalty income.

5.2.4.3. Example

The following simple formula can help with calculating the compensation on the basis of the commonly used Licences Analogy method. The example does not:

\[ E \times A = C \]

\( E \) = Value of the invention:
\( E \) makes reference to quotient of the reference base (see above) and the reasonable royalty. If the reference base refers to the value of the whole product, the revenues of the net sales price have to be multiplied with reasonable royalty which price usually paid for the invention on the market (turnover x reasonable royalty). The right royalty rate depends on many factors (see above). If the product is sold in high numbers, the employer may apply a slide scaling to the royalty rate, with decreasing effect.

\( A \) = Contribution factor:
The contribution factor depends on the circumstances surrounding the tasks that led to the invention, how the problem was solved and the employee’s role and position in the company. This factor is inherently open to dispute. Average factors range between 10 to 20 per cent. Reference can be made to the following point scale:

\[ a+b+c = 3 \quad 4 \quad 5 \quad 6 \quad 7 \quad 8 \quad 9 \quad 10 \quad 11 \quad 12 \quad 13 \quad 14 \quad 15 \quad 16 \quad 17 \quad 18 \quad 19 \quad 20 \quad (20) \quad (p) \]
\[ A \quad = \quad 2 \quad 4 \quad 7 \quad 10 \quad 13 \quad 15 \quad 18 \quad 21 \quad 25 \quad 32 \quad 39 \quad 47 \quad 55 \quad 63 \quad 72 \quad 81 \quad 90 \quad (100) \quad [%] \]

The following sub-factors of \( A \) (\( a+b+c \)) are used to assess the quantity of points \( (p) \). Each quantity of points corresponds to a percentage (such as \( 6 \ p = 10 \ per \ cent \)).

\( a \) = Contribution of the employee (1-6 points):
The employer sets the problem, but also gives the employee specific instructions as to the method he or she needs to employ to solve the problem (low number of points, e.g., 1p). The invention lies outside or is far removed from the employee’s usual area of responsibilities and he or she solved the problem independently (high number of points, e.g., 6p).

\( b \) = Contribution of the company (1 to 6 points):
To what extent does the employee rely on company resources to solve the problem? The less the company contributes, the higher the number of points.

\( c \) = Position of the employee within the company (1 to 8 points):
The more the employee is involved in research and development, the lower the number of points.

**Case:**
Inventor discovered the problem to be solved on his or her own: However, he knew of shortcomings in the company which led him to the problem: \( a = 2 \)
Inventor found solution using a combination of individual knowledge and company resources: \( b = 2 \)
Inventor holds a university degree and is a research assistant in the company: \( c = 4 \)

\[ a + b + c = 8 = Contribution \ Factor \ 15 \ per \ cent. \]
In total this would lead to compensation of 15 per cent of the reasonable royalty rate.

**Practice Note**
Of course, compensation needs to be assessed on a case-by-case basis. The formula above is only to be used as a guide when calculating a payment.