

# Recent Developments in the Business of Patent Licensing

## — Technology Transfer from Universities and Research Institutions to Industry in Germany

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### 1. Historical Development

Before early 2002, more precisely, before February 7, 2002, technology transfer, particularly by way of licensing, from research institutions and universities in Germany to industry took place in a very indirect way only. The reason was that until then, as it will be explained in more detail below, inventions made by university professors and other individuals of a similar status belonged to such professors themselves. As a consequence, the inventors and professors directly had the right to transfer such inventions, e.g. by licensing, to industry cooperation partners. Typically, such researching professors had consultancy agreements with industry partners, which provided for financial contributions of the industry partner to the respective professor, such financial benefits for the professor either already including the remuneration for the inventions made by the professor under such a project, later on to be assigned and transferred to the industry partner, or such cooperation and consultancy agreements including license regulations for such inventions.

As a consequence of the aforementioned "Professor's Privilege," universities and similar research institutions did not acquire ownership of

the sometimes most valuable inventions made at such institutions by professors, rather, without leaving any trace in statistics of patent offices listing patent applicants and patentees, as far as ownership of such patent applications and patents by universities and research institutions were involved, the licensing and technology transfer, respectively, took directly place between the individual inventors (professors) and industry.

Things have changed dramatically since then, because on February 7, 2002, the Professor's Privilege was abolished. Since then, universities have the possibility to obtain ownership of inventions made by professors, too, like private companies from their employees, so that since then no direct technology transfer, in the sense of purchasing and/or licensing-in of patentable technology, from university researchers, particularly professors, to industry, can take place anymore. Rather, industry in general will have to conclude, as it will be shown below in more detail, an agreement with both the professor and the university, namely with the latter to get hold of patentable inventions, and with the professor in order to get certain rights and declarations from him/her which universities and research institutions because of the binding provisions of the German Law concerning Inventions made by Employees

cannot get from the professor.

Technology Transfer from universities and research institutions in Germany to industry being largely ruled by the last-mentioned law, in the following just designated as “The Law”, in the following the basic principles thereof will be described, as far as they are relevant for university inventions, followed by a proposal for a “trilateral agreement” of the aforementioned kind, well-known, in the meantime, in the legal art in Germany—and beyond—as “Berlin Agreement.”

## 2. Inventions made by University Employees — Old Law

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The “Old Law,” by the former version of Art. 42, provided for inventions of professors, lecturers and scientific assistants to be free, i.e. all such inventions were not subject to the restricting regulations of The Law as far as ownership and evaluation of inventions by employees, whether in private or in public service, are concerned. The aforementioned regulation privileged the aforementioned group of persons to a high extent and was the basis for most of the cooperations between university institutes and private sponsors, in order to create “independent” inventions in the sense that the sponsor could get hold thereof.

As a matter of course, professors only could use the aforementioned provisions fully if they made sure that no other “normal” employees of the university were involved in the coming into existence of inventions of the kind in question. Very often this was done by making sure that contributions to the invention only came from students, post-graduate scholars etc., all of which do not get into a regular employment arrangement with the university and the professor, respectively, rather only into a kind of private non-employment, but sponsored semi-tutorship under the respective profes-

sor.

If it was not avoidable that the university professor etc. makes use of “normal” employees in public service, e.g. of the university, including public servants, the above mentioned flexibilities of the Old Law had to be taken into consideration, namely with regard to participation of the universities etc. in the profits made out of such inventions.

It should be duly noted, however, that par. 42 of the “Old Law” even in cases of inventions made by professors etc. gave the possibility that the university in a case where specific university means were used for the coming into existence of the respective invention, the university might participate in the profit achieved by the professor etc.

According to the personal experience of the author, however, in most instances the aforementioned possibilities of universities to participate in the profit made by “normal” employees, public servants and professor, practically never were used.

Art. 42 of The Law was replaced, on February 7, 2002, by a new article 42.

## 3. University Inventions — New Law

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The new Law, by the revision of Art. 42, has given up, first of all, any distinction between inventions made, at universities, by “normal” employees, like workers, scientific personnel of a “non-professor” nature etc., provided that these employees have to do with research matters, and those of professors/assistants/lecturers.

All inventions made by employees, active in research, at universities are covered by the Law, including those made by professors, assistants and lecturers, in the following just designated as “professors,” in other words, the so-called “Professors’ Privilege” has been deleted.

Also the new Law, however, does not cover

inventions made by “non-employees” at universities, like students, scholars etc., so that in these cases special regulations will have to be found on a contractual basis between professors, universities, sponsors, etc.

All inventions made by university employees, including professors, will now have to be notified to the university, but only, if the inventor intends and is in agreement with, respectively, publication of her/his invention. If the inventor does not wish to publish, e. g. in cases where he/she considers a publication to be detrimental to public security, health, morality considerations etc., there is no duty to notify the invention to the university.

Two months after the notification of the invention to the university the inventor is entitled to publish the respective invention.

Within the normal “claiming” term, i. e. up to four months after the notification of the invention has been received by the university, the university can unrestrictedly claim the invention and therefore acquire ownership thereof, as in private practice.

Factually, however, the aforementioned four-month term which otherwise in private industry is available for a decision on whether to claim an invention and patent it or not for universities is restricted to two months, because of the regulation that the inventor “regularly” may publish two months after his notification of the invention to the university. That means, in practice, that universities that wish to patent inventions made by employees, such as professors, will only be given two months for this decision process, including formulation of a patent application and depositing it at a patent office, e.g. the German or the European Patent Office!

If the university has claimed the invention and thereby has acquired property thereof, and if the university later uses the invention e.g. by selling it or licensing it out, the inventor is entitled to 30%

of the gross income, as royalty income, from the university.

The new Law applies to all inventions, as already said, made by university employees after February 6, 2002. If carriers of the former Professors’ Privilege, because of existing contracts concluded with private cooperation partners, like industry companies, before July 18, 2001, are obliged to transfer their obligations, as it formerly was usually the practice in Germany, to the cooperation partner, the Professors’ Privilege for such inventions is extended to be applicable until February 7, 2003. Inventions made from February 7, 2002, till February 7, 2003, in other words, are still subject to the Professors’ Privilege, if the aforementioned conditions are fulfilled. Even if existing agreements provide for differently, inventions made after February 7, 2003, by professors will be subject to the new law, i. e. the universities will also in these cases have the possibility to acquire ownership of such inventions by claiming, with the remuneration consequences as discussed above.

With all probability, the revision of the law which has already taken place in Germany, ending nearly 60 years of the Professors’ Privilege, will lead to the result that all inventions made at universities in future will become available to the university for evaluation. First experiences since the coming into force of the new Article 42 of The Law have already proven this. For evaluation purposes, universities in Germany are now all provided with fully staffed intellectual asset management offices, as has been known for many years from e.g. U.S. universities. In Germany, departments of this kind had very little to do in the past, because the most valuable inventions, made by professors, were taken out of the universities’ hands by private cooperation agreements, as already discussed above. This practice has now finished Private industry has to negotiate with universities in

order to get hold of e.g. by licensing, university-based inventions, even if the cooperation partners of the industry company are professors, with whom otherwise a more or less “private” deal had been made in the past.

The rather high remuneration of university inventors, namely 30% of the gross e.g. royalty income of the universities, which is distinctly higher than normal remunerations paid for employees’ inventions in private industry, has already led to the result that many more university inventions are notified to the universities, the latter taking care of all patent application and evaluation procedures etc.

#### **4. Agreements on Research Cooperation between Industry and University — The “Berlin Agreement”**

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Immediately after the coming into force of new Art. 42 of The Law, it became clear to universities, industry, and legal scholars in Germany that a prosperous future of successful technology transfer from universities and research institutions to industry would depend on the development of a contract or agreement structure of a trilateral nature, namely between potential university inventors, i.e. professors, universities, and industry, in order to fulfil the following conditions: First of all, because of the binding character of new Art. 42 of The Law, the agreement would have to regulate that inventions made under a certain research project between a university and industry were, a) reliably brought into the possession of the university, by using the binding provisions of The Law, which also apply in private industry, (so-called “unrestricted claiming” of inventions), and b) would also regulate the remuneration industry would have to pay to the university for such inventions, as royalties, from which, on the other hand, again because of the binding charac-

ter of new Art. 42 of The Law, the university inventors are entitled to get 30%. Furthermore, industry would like to ensure that the inventing professors etc. would not only, make their inventions available to industry via the university, rather industry would also like to be sure that the professors would also give consultancy services, in connection with such inventions, to industry, and also would promise to transfer to universities even such inventions which they would not like to publish—otherwise, the professors according to Art. 42 of The Law would be entitled to “hide” such inventions until they choose to publish. All these legal effects can only be obtained by an agreement between industry and the professor.

As a result, the necessity of having a trilateral agreement of the kind already discussed was acknowledged by practically all interested parties in Germany.

As a consequence thereof, a group of experts from both the university environment and industry, namely, consisting, as far as universities were concerned, of TLO experts from Berlin universities, mainly represented through “ipal Gesellschaft für Patenverwertung mbH,” the central TLO for the majority of the Berlin universities, and in the case of industry comprising a number of large German companies, like BASF, Bosch, DaimlerChrysler, Schering, and others, have negotiated components of a master agreement which can be used, and currently is widely used, in research cooperations between German industry and universities. The result of the aforementioned discussions and negotiations between universities and industry, moderated by the author of this article, has been the current already rather famous “Berlin Agreement” or “Berlin Contract,” details of which can be found under [www.ipal.de](http://www.ipal.de), including comments and updatings, by anybody interested in in-depth knowledge and additional explanations.

In the following, as already discussed in an arti-

cle written by the author of this paper and Mr. Hermann Mohnkopf, IP Counsel for Rolls-Royce Deutschland Ltd. & Co. KG, Germany, published in *Les Nouvelles* December 2003, pp. 176 ff., based on the aforementioned paper the “Berlin Contract” will be discussed in more detail.

#### 4.1. Structure and Organisation

A preface dealing with the genesis and the proposed practical application of the Berlin Contract is followed by a brief introduction, which is intended to explain how the Contract components are to be handled. This is then followed by differentiation indicia for the Contract components in the Berlin Contract, which, it is hoped, will facilitate assigning a specific joint-research project between a university and industry to one of the categories of a contract for work and services, research commission or co-operation on research. These differentiation indicia should not be understood here as alternatives, nor should they apply cumulatively, but, as the very name suggests, they are merely intended to provide the practitioner with pointers to help him make the appropriate assignment.

After the above-mentioned list of “differentiation indicia” come Contract components for research commissions between universities and industry, followed by appropriate Contract components for co-operation on research and development, which is referred to in the following as “research co-operation.”

#### 4.2. Pointers Helping to Differentiate between Contracts for Work and Services, Research Commissions, and Research Co-operation

##### 4.2.1. Contracts for Work and Services

If an industrial partner commissions a university to carry out certain research work, with an unambiguous, known objective and lays down a defined way of performing that work, the univer-

sity will generally demand that the entire costs are assumed. The university, in the person of the research worker—here and in the following usually understood to mean the “project director” responsible—, is not required to interpret data or results in any way; neither the university nor the industrial partner has any interest whatsoever in publication. The result of a contract for work and services of this kind is an obligation owed by the university to the industrial partner. In this case, according to the Berlin Contract—and one is tempted to say that this ought to be self-evident!—all the results of the research, including any inventions that might be made by the university, i.e. by the research worker or by any other member of the university, belong to the industrial partner without any additional remuneration, and it is the latter which decides at its own discretion whether to file applications for any industrial property rights, to engage in exploitation actions, etc. It goes without saying that any applications for industrial property rights are filed by the industrial partner exclusively in its own name, without any right whatsoever on the part of the university to participate.

##### 4.2.2. Research Commissions

In the context of research commissions, the industrial partner places a targeted commission with the university to carry out certain research work, the result of which is nevertheless open, but the way of performing that work and the purpose of the study are defined. In this case too, the university will expect the entire costs to be assumed. The data or results have to be interpreted by the research worker. The industrial partner, having placed the commission, will as a rule be interested in receiving the results at short notice or at least on schedule. The university, or the research worker, for their part have an interest in seeing the results published. In this case, no successful result is owed by the university.

The parties involved in drawing up the Berlin Contract are unanimous in their opinion that, when research commissions are organised in this way, the university has a fundamental right to remuneration for any invention. The rights in the inventions concerned, including the right to file the first application and to carry out subsequent applications in other countries, also need to be settled in detail.

#### 4.2.3. Research Co-operation

In the case of research co-operation, the industrial partner places a research commission with the university, the objectives and results being open ; the implementation is not defined in detail, and the intended practical application is neither known in detail nor definitively laid down. Both partners, i.e. the university and the industrial partner, contribute to carrying out the research project on which they are co-operating by providing personnel and/or assuming a share of the costs. The industrial partner, having placed the commission, has a medium to long-term interest in the outcome, both partners have a pronounced—and possibly a joint—interest in publishing the results. In this case, the university has no obligation vis-à-vis the industrial partner regarding the success of the research co-operation agreement.

The parties involved in drawing up the Berlin Contract are unanimous in their opinion that, in the case of research co-operation, the industrial partner has a separate obligation to remunerate the university for any invention, the details of which need to be settled depending on the situation, as do the filing rights with regard to patents, etc.

#### 4.3. Features Common to Research Commissions and Research Co-operation

A common feature of the contractual arrangements both in the case of research commissions and with regard to research co-operation is that,

for the reasons which have in the meantime already been discussed in detail in the literature, a “trilateral” contract between the university, the industrial partner and the research worker is necessary.

Briefly, this necessity is based on the fact that, because of the pre-emptory provisions of the law on employees’ inventions, it is only possible for the contractual agreement between the university and the industrial partner to regulate the situation concerning rights, and obligations to acquire the rights etc., in inventions which can be covered by patents or utility models. Any additional know-how and advisory services which the industrial partner wishes to receive “in person” from a specific research worker who is particularly important to him as a co-operation partner (e.g. a professor) can only be reliably obtained by the industrial partner on the basis of an appropriate contractual agreement with the research worker himself, since any “indirect route” via the university might in this case affect the research worker’s personal rights with regard to research and teaching, which are guaranteed by the constitution.

A direct agreement between the research worker and the industrial partner is also needed if the research worker is to waive his negative publication rights. The same applies to any advance waiver of the research worker’s right to take over any applications for industrial property rights or the industrial property rights themselves and to file applications in other countries.

For the reasons explained above, the members of the working party consider it appropriate, both in the case of research commissions and with regard to research co-operation, to conclude a “tripartite agreement” between the university, the industrial partner and the research worker. “Research worker” here is understood to mean the project director responsible who has been appointed by the university and the industrial

partner. If—and this is likely to apply in most cases—other members of the university, whether students or university staff (employees), are involved in carrying out the work on the research project concerned, it needs to be ensured in advance, by means of an appropriate declaration of association, that the obligations of the project director also apply, *mutatis mutandis*, to that group of individuals.

#### 4.4. Contract Components for Research Commissions

According to the model contract, research results arising from a research commission belong exclusively to the industrial partner, irrespective of the extent to which the research worker or other “associated” members of the university is/are involved in the production of the corresponding research results, especially inventions.

Regarding the filing of any applications for industrial property rights, referred to in the following as “patent applications” for short, it is envisaged that the first application is filed either by the university or alternatively by the industrial partner, though of course in a manner to be settled in advance, but always as joint applications on behalf of the university and the industrial partner. This arrangement is intended to satisfy the universities’ interests in appearing in the relevant “ranking” lists with a corresponding number of first applications. The industrial members of the working party accept the fact that “ranking” positions of this kind are becoming more and more important in assessing the performance and the general reputation of universities for the sake of international comparisons.

It is the industrial partner alone which decides whether to file foreign applications in the case of research results based on research commissions, and any foreign applications are also filed solely by the industrial partner in its own name.

The arrangement regarding remuneration in the case of research commissions has the following structure according to the Berlin Contract:

After the first application has been filed, the industrial partner pays the university a first remuneration amounting to €2,500.00. This is then followed by remuneration payments according to the following alternatives:

- a) €2,500.00 at the beginning of exploitation, this remuneration rising to €10,000.00 if exploitation begins more than 7 years after the first application; the industrial partner may, however, redeem the obligation to pay the increased lump sum by paying a further remuneration of €2,500.00 before the expiry of the above—mentioned 7—year period.
- b) When certain turnover thresholds are reached, further lump-sum payments are made, though it is necessary to lay down the details on this in the contract.
- c) After exploitation has begun, an appropriate remuneration is paid, depending on the degree of exploitation, which is subject to later negotiation.

#### 4.5. Research Co-operation

The research results arising from research co-operation are in principle broken down into results achieved by the industrial partner, joint results and university results.

Results achieved by the industrial partner are research results attributable solely to the industrial partner’s staff. Joint results mean research results in which the university’s, or the university staff’s, share of the invention is no more than 50 %. University results are research results, in which the university’s share of the invention is more than 50 %.

##### 4.5.1. Industrial Partner’s Results

Research results which fall into the category of “industrial partner’s results” belong exclusively to the industrial partner. The latter has the sole

right to file applications for industrial property rights, exclusively in its own name where appropriate; the industrial partner has no obligations vis-à-vis the university whatsoever to pay any remuneration.

#### 4.5.2. Joint Results

In the case of joint results where the university's share of the invention is no more than 25 %, the industrial partner has the right to file the first application exclusively in its own name.

If the university's share of the invention is more than 25 %, the arrangement corresponds to the one for research results based on research commissions, i.e. the first application is filed as a joint application either by the industrial partner or alternatively by the university, in the names of the university and the industrial partner.

On the whole, in the case of joint results, foreign applications are filed in accordance with the arrangements regarding research commissions (see 2.4.), i.e. by the industrial partner and exclusively in its own name.

The remuneration for an invention which the industrial partner has to pay the university is settled as follows in the case of joint results: if the university's share of the invention is less than 50 %, the remuneration for the invention is paid in the same way as with research commissions. If the university's share of the invention is 50 %, the industrial partner pays the university remuneration for the invention as in the case of the university results, which will be discussed below (see 2.5.3), but deducting 10 % from the remuneration agreed for university results of that kind.

#### 4.5.3. University Results

University results, i.e. research results emanated from research co-operation, in which the university's share of the invention is more than 50 %, belong exclusively to the university. The industrial partner does, however, have an option on taking out an exclusive licence on reasonable terms.

The corresponding remuneration for the invention may comprise one or more lump-sum payments or a reasonable licence fee. The members of the working party regarded the sample calculations annexed to the Berlin Contract as being appropriate for the standard situation.

In the case of university results, the university has the right to file the first application in its own, exclusive name. After the option is exercised—and only in this case does remuneration for the invention have to be paid to the university by the industrial partner, obviously, the corresponding application rights revert to the industrial partner in a manner to be agreed.

The full text modules of the “Berlin Contract” (or “Berlin Agreement”) can be found, as already mentioned, under [www.ipal.de](http://www.ipal.de).

## 5. Conclusion

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Technology Transfer in Germany between Universities and Research Institutions, on the one side, and industry on the other side, has dramatically changed since the coming into force of the new Art. 42 of The Law. Since then, hundreds of successful cooperation contracts between university and industry in Germany have been concluded on the basis of the text modules of the “Berlin Agreement.” For the first time in modern history, German universities appear, in a significant number, in patent statistics of the patent offices of this world, due to the fact that technology transfer is no longer taking place directly from university professors to industry.

As a result of the practice in Germany, one may state that cooperation between industry and university, as far as inventions by professors who already in the past had successful working cooperation agreements with industry, has not deteriorated. As a second, highly welcome effect, as acknowledged by many industry companies, many

more inventions from the academic (university) world have become available for evaluation to industry, due to the fact that the new system provides, a challenge to university inventors by its incentive mechanism, which otherwise would just have published their results, in the hope of getting

scientific acknowledgement, to make use of the new mechanisms for easily obtaining patent protection by universities and having their inventions evaluated by them, publication only taking place after “clearance” by the respective TLO.

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