The legal status of research data in Germany

Annex 3 to the Knowledge Exchange report
'The legal status of research data in the Knowledge Exchange partner countries'
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About Knowledge Exchange

Knowledge Exchange is a cooperative effort between four European organisations that support the use and development of Information and Communications Technologies infrastructure for higher education and research. The four partners are Denmark’s Electronic Research Library (DEFF), the German Research Foundation (DFG), the Joint Information Systems Committee (JISC) in the UK and the SURFfoundation in the Netherlands. Based on the four national strategies the joint vision of the initiative is to make a layer of scientific and scholarly content openly available and re-usable on the internet.

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Executive summary

The open access of research data can be restricted by intellectual property rights such as copyright or the database right. This report will observe to what extent research data can enjoy (and in practice generally do enjoy) intellectual property protection in German law. In this context, the legal features of copyright protection and database protection will be reviewed. Attention is also briefly paid to the issue of open access to personal research data.

Copyright
First of all, it has to be noted that there is no legal protection for bare facts, only the form in which facts are presented can enjoy protection. For copyright protection to arise, it is necessary that a work meets two requirements:

- Originality (an intellectual creation);
- a personal feature (individuality).

These criteria are often not complied with when it comes to research data since the data are usually a given from the outset and need merely to be assessed. Any leeway for personal decisions in choosing the results presented in a collection will hardly exist since collections of research data will often consist of a complete registration of data (e.g. the results from an experiment or from a survey) on which scientific conclusions can be based. Also in the shaping of such a collection personal choices will be scarce. The arrangement of test results will generally be determined by the nature of the object involved; the arrangement is mostly fixed. This makes copyright protection for research data and collections of research data fairly uncommon.

If a work is protected by copyright, the following use of the work can take place without consent of the author:

- Copying bare facts of a work and putting them in one’s own personal structure or choice of words;
- quoting a work;
- copying and making a work made by the authorities available (unless this work is explicitly protected by copyright);
- copying a work for personal use.

Consent is required for reproducing a copyright-protected work or for making it available. Consent can be arranged by concluding a licence with the right holder. Since copyright is non-transferrable in Germany, the right holder is always the author of a work.

A licence can contain all kinds of provisions, restrictions and prerogatives for both parties. The creation of a copyright-protected work by an employee within the framework of a labour agreement can give rise to an obligatory licence from the employee (the author) to the employer.
Database right

Databases can enjoy copyright and/or the database right protection (the respective protection is subject to different criteria). For the database right protection to arise a database has to be:

- Systematically or methodically arranged;
- the pieces of data in the database are able to be individually retrieved;
- the creation of the database has required a substantial investment.

A substantial investment in the obtaining of the data alone is not sufficient; the investment also has to pertain to the actual creation of the database. The person or entity which has made the substantial investment qualifies as the database producer and enjoys the exclusive rights to distribution, reproduction and granting access to the database.

Using a non-substantial portion of the database is allowed without consent from the database producer if the portion is quantitatively and qualitatively insignificant.

Consent is required for:

- reproduction of an entire database or of a substantial portion thereof;
- systematic and repeated reproductions of non-substantial portions of a database;
- communication of the database to the public;
- distribution of the database.

Consent is not required for a reproduction of a substantial portion of a legally protected database which has already been made available if this reproduction is made for:

- private use;
- personal scientific research;
- illustration for teaching;
- use in proceedings before a court, an arbitration court or authority and for purposes of public safety.

A compact guide to determine what use of existing data requires consent is given by the table on page 8, followed by an overview of the permitted and consent-required use of protected data on page 9.

Personal research data

Regarding the exploitation of personal research data the legal framework is primarily provided by the Bundesdatenschutzgesetz (hereafter: BDSG). According to the BDSG, personal data can only be used if the law provides for this (e.g. by a court order) or if the person concerned has given consent. In most cases consent will have to be given in writing.

Persons employed in processing personal data are not allowed to obtain, use or process the data unauthorized (obligation to observe confidentiality). Employees processing personal data for private
A specific provision exists in the BDSG on the processing and use of personal data by research institutions. It states that personal data collected or stored for scientific research purposes may be processed or used only for this purpose. The personal data shall be depersonalized as soon as the research purpose allows this. Until this time the characteristics enabling information on personal or material circumstances to be attributed to an identified or identifiable person shall be stored separately. They may be combined only to the extent required by the research purpose. Institutions conducting scientific research may publish personal data only if the data subject has given consent or if publishing the data is indispensable for the presentation of research findings on contemporary events.
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<th>In what way do you want to use existing data?</th>
<th>What is required?</th>
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<td>To copy bare facts and put them in a personal context.</td>
<td>No consent is required: bare facts are not protected by intellectual property rights (section 3.1).</td>
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<td>To make a copy of data for your own use.</td>
<td>No consent is required for copyright-protected works due to a copyright law exception (section 3.3.5). No consent is required for substantial portions of protected databases which have been made available due to a database law exception (section 4.2.5.1).</td>
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<td>To put data into a personal database/archive without sharing it with anyone else besides your own research team.</td>
<td>No consent is required for copyright-protected works due to a copyright law exception (section 3.3.5). No consent is required for substantial portions of protected databases which have been made available due to a database law exception (section 4.2.5.2).</td>
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<td>No consent is required due to a database law exception (section 4.2.5.3).</td>
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<td>Only allowed without consent if the portion is quantitatively and qualitatively insignificant (section 4.2.1 and 4.2.3).</td>
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<td>To make existing data available to persons other than your research team (including publishing).</td>
<td>Check whether the data is protected by: Copyright: Assess whether the data have an original character (intellectual creation) as well as a personal feature (individuality) → if this is the case copyright law applies and consent from the right holder is required for this kind of use (section 3.2.2) Database right: Assess whether the database is systematically or methodically arranged, the pieces of data in the database are able to be individually retrieved and the creation of the database has required a substantial investment → if this is the case the database right applies and consent from the database producer is required for this kind of use (section 4.1.)</td>
</tr>
<tr>
<td>To copy data.</td>
<td>Check whether the data are protected (see above). Consent is required for copying copyright-protected data and for copying a database right-protected database entirely or a substantial portion thereof.</td>
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Fig. 2. Use of research data protected by intellectual property rights
1. The legal status of research data

1.1. Definition of research data
The basis of this report is the report of the KoLaWiss Projekt AP-4 by Gerald Spindler\(^1\), which is primarily concerned with the legal protection of scientific research data of a medical nature, obtained by a university research institution in Germany. An important issue in the KoLaWiss Project is also the long-term archiving of data by the University of Göttingen within the framework of a long-term archive of intellectual goods of all kinds (intellectual heritance), based on objective criteria.

The objective of this report is to assess the legal status of research data in Germany in general. The term ‘research data’ will therefore not exclusively refer to medical research data obtained by university research institutions but to data as defined in the introduction. The content will however reflect large parts of the KoLaWiss report in which these data are the primary issue.

2. Copyright

2.1. Introduction
Works of literature, science and art can be protected by copyright law.\(^2\) Copyright gives the right holder the exclusive right to exploit a work. Whether a specific work enjoys copyright protection depends on the features of the work itself. Copyright law provides the criteria with which a work has to comply in order to be able to enjoy copyright protection:

- The work has to be a personal creation. This means that the work is the product of the subjective choices of its maker;
- the work is an intellectual creation. Routine-based acts are therefore never able to fall within the scope of copyright protection. The work must display a certain level of originality.

With regard to research data it can be said that these often concern bare facts. There is no copyright protection for bare facts, only the form in which facts are presented can enjoy copyright protection. Pure data remain unprotected.\(^3\) The physical definition of bare facts can however become copyright protected. This will be the case if:

- Facts are written down in personally chosen words;
- facts are otherwise physically defined in an individually determined fashion;
- bare facts form a collection of which the content and arrangement are the result of personal choices.

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\(^1\) KoLaWiss Projekt AP 4: Recht, Gerald Spindler unter Mitarbeit von Tobias Hillegeist, Universität Göttingen: 2009 (hereafter referred to as: KoLaWiss Projekt).

\(^2\) Section 1 of the German Copyright Act.

\(^3\) BGH GRUR 1985; 1041, 1047 – Inkasso-Program; GRUR 1991, 130, 132 – Themenkatalog; GRUR 1981, 352, 353 – Staatsexamensarbeit; Ahlberg in Möhring/Niccolini, § 2 Rn. 36; Schulze in Dreier/Schulze, § 2 Rn. 223; Loewenheim in Schricker, § 2 Rn. 61 from: KoLaWiss Projekt, p. 27.
2.2. When may research data be protected by copyright?

2.2.1. The form of the work
Copyright law protects ‘individual intellectual works’\textsuperscript{4}. From the case law and the literature it can be concluded that a ‘work’, in the sense of copyright law, is a personal creation with an intellectual content which has taken a perceptible form which expresses the individuality of the author. It is not required that the data are written down or physically present, they simply have to be able to be perceived. This means that an oral presentation can also be classified as a ‘work’ in the sense of copyright. A ‘work of speech’ is required to be an oral expression of intellectual content, used to convey information.

\textbf{Example}
Examples of a ‘work of speech’ are medical test results, general conclusions or statistic facts given in an oral interview. Also mathematical signs, symbols and numbers (like EKG results or conclusions drawn from statistical values) expressed in speech constitute a work. Raw data or bare facts (for instance, the results from measurements), cannot be protected by copyright law since they lack a perceptible form.\textsuperscript{5}

2.2.2 General criteria
The criterion of a ‘personal intellectual creation’ requires that the work is the result of an activity of human creativity. This requirement eliminates works resulting from routine actions. A degree of originality is required.\textsuperscript{6}

The individuality is expressed by the subjective choices of the author in shaping the creation; the personal stamp of the author. The data will have to owe its form to subjective choices by a person.\textsuperscript{7}

2.2.3. Copyright-protected research data
In what way do the criteria for copyright protection influence the legal status of scientific research data? The fact that certain devices or machinery are used to obtain the data does not have to stand in the way of a personal creation since these machines or devices usually require a person to set and control them. However, the form of the data does not depend on the person who ascertains them. The data originate with the person who undertakes the actual measurements or experiments from which the data emerge and consign them to a data-carrier. Physically-defined data are therefore neither an expression of the person requesting nor of the person obtaining the data. The data are a given from

\textsuperscript{4} Section 2, second paragraph of the German Copyright Act; Rehbinder, Urheberrecht, 15. Aufl. 2008, Rn. 145 f from KoLaWiss Projekt, p. 23.

\textsuperscript{5} A. Nordemann in Fromm/Nordemann, § 2 Rn. 23; Schulze in Dreier/Schulze, § 2 Rn. 41; Loewenheim in Schricker, § 2 Rn. 61, 64; all from KoLaWiss Projekt, p. 23.


\textsuperscript{7} BGHZ 9, 262, 268; Ahlberg in Möhring/Niccolini, § 2 Rn. 53; Loeweheim in Schricker, § 2 Rn. 18; A. Nordemann in Fromm/Nordemann, § 2 Rn. 24; Schulze in Dreier/Schulze, § 2 Rn. 23 on KoLaWiss Projekt p. 24.
the outset and need merely to be assessed. This is also the case when a new method is used for
discovering the data. The form of the data is not influenced by the new method; it merely makes it
possible to obtain the data.

Considering the above, it can be concluded that the criteria for copyright protection for research data
will often not be met in practice, making copyright protection for research data fairly uncommon.\(^8\)

### 2.2.4. Other ‘works’ in the sense of copyright

#### 2.2.4.1. Images

Research data do not always concern written or spoken material. Other kinds of data which are
included in the term ‘work’ in copyright are:

- Works of fine art including works of architecture and applied art and design concerning such
  works;
- photographic works, including works that are created by using, for example, light in the form of a
  sculpture;
- cinematographic works, including works that are created similar to cinematography; and
- representations of a scientific or technical nature, such as drawings, plans, maps, sketches, tables
  and plastic representations. This last category also contains slides and x-ray images.\(^9\)

**Example**

The criterion of an individual intellectual creation makes the copyright protection of x-ray images
difficult. It is true that the photographer decides on the angle at which the picture is taken and the
position of the body part photographed. However, these choices do not follow from a personal
decision of the photographer. They are based on the possibility of an effective diagnosis. The lack of
choice given to the photographer in making the image results in the photograph lacking individuality.
This excludes the image from copyright protection. X-ray images can also be protected by related
rights, more specifically by the right to the protection of photographs. In order for photographs (and
similar images) to be protected under this regime, the same criteria apply as for copyright protection.
This makes protection for X-ray images by any kind of legal regime rare.

Other works that can enjoy copyright protection are:

- Collections of data;
- databases.

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\(^8\) KoLaWiss Projekt, p. 25.
\(^9\) Section 2, first paragraph of the German Copyright Act.
2.2.4.2. Collections of data

Facts are usually not separately stored or presented but are laid down in tables or other structures. Copyright protection can also arise for such collections of data. The following criteria apply for copyright protection for collections of data:

- The collection consists of a gathering of multiple works, data or other independent elements;
- the collection must be a personal intellectual creation.\(^{10}\)

With regard to the registration of scientific research data it is likely that the data will be summarized in tables or diagrams. Especially in the area of science, the use of the data usually follows mainly from a certain compilation. Sets of research data thus often comply with the first requirement for a collection. The collection must also be a personal intellectual creation. This means that the combination or arrangement of elements in a collection contains a distinctive structure due to subjective choices by the author. Original intellectual content must be created and its meaning must extend beyond the mere sum of the incorporated data. In accordance with the consistent interpretation of Directive 96/9/EC\(^ {11}\) (hereafter: the Database Directive), criteria other than the choices of the author are not to be taken into consideration when deciding on whether a collection is protected by copyright. This avoids decision making based on the quality or the aesthetical value of the collection.\(^ {12}\)

Given the above, the gathering of data from measurements or statistical values put in a table will not automatically be protected by copyright. The compilation of the data has to demonstrate a truly distinctive structure due to subjective choices in the arrangement and layout. The requirement of a personal choice is specified by the case law.

**Example**

Measurement results which are laid down in a table in the order of the date and time of the measurements do not comply with the requirement of a personal intellectual creation. The arrangement is logical and is a given: a distinctive structure is missing.\(^ {13}\) Although the data are gathered, they are not valued or assessed and arranged accordingly. In cases concerning an extensive collection of bibliographic data without any recognizable conceptual contribution\(^ {14}\), a collection of stock market data (based on calculations of scientific factors by stock market analysts)\(^ {15}\) and also in the case of a telephone directory on CD-ROM\(^ {16}\), the court found that the collection did not correspond with the criterion of ‘a personal intellectual creation’. As to a collection of laws\(^ {17}\) and an archive of personal academic contributions by a writer\(^ {18}\), judges ruled that the criterion had been complied with.

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\(^{10}\) Section 4, first paragraph of the German Copyright Act.


\(^{12}\) OLG Nürnberg GRUR 2002, 607; Schulze in Dreier/Schulze, § 4 Rn. 11; Loewenheim in Schricker § 4 Rn. 8 on KoLaWiss Projekt p. 29.


\(^{14}\) OLG Hamburg ZUM 1997, 145 on KoLaWiss Projekt p. 30.

\(^{15}\) OLG Hamburg GRUR 2000, 319 – Börsendaten on KoLaWiss Projekt p. 30.

\(^{16}\) BGH GRUR 1999, 923 – Tele-Info-CD on KoLaWiss Projekt p. 30.

\(^{17}\) OLG Frankfurt GRUR 1986, 242 – Gesetzessammlung on KoLaWiss Projekt p. 30.

Collections of research data will often consist of the complete registration of gathered data – for instance, the results from an experiment or from a survey – on which scientific conclusions are based. It is therefore barely imaginable that in choosing the results presented in a collection any leeway exists for personal decisions. Also in the shaping of such a collection personal choices will be scarce. The arrangement of test results will generally be determined by the nature of the object involved; the arrangement is mostly fixed. Test results are usually presented in the order of the time of their appearance and survey results are generally presented in subdivisions based on the social features of the persons subject to the survey. As a result, a collection of scientific research data will usually not be protected by copyright. Such a collection can however be protected by the database right if the collection complies with the criteria set for database protection (see chapter 3).

2.2.4.3. Databases

A database can also enjoy copyright protection. The ‘work of a database’ is a sub-case of the ‘work of collection’ discussed above. For a database to be protected by copyright the following requirements apply:

- The elements in the database have to be arranged in a systematic or methodical way;
- the elements in the database have to be individually accessible by electronic means or otherwise;
- the database has to be a personal intellectual creation.

The requirement of a systematic or methodical way of arrangement requires the data not to be randomly placed in the database. An arrangement is systematic if an organizational classification schedule of some sort lies at the heart of the arrangement. Data are organized methodically if the structure follows a certain plan or manual. The gathering of research data usually shows a systematic or methodical organizational structure. It is also conceivable that specific data in the collection are accessible by electronic means or otherwise, for instance the medical data concerning a specific person in the case of a scientific study.

In order for databases to be protected by copyright they will also have to comply with the criterion of a personal intellectual creation. This can be expressed by the choices made in substance and arrangement. The choice in data will only be able to contribute to the threshold of originality, if an appropriate decision-making leeway is granted. A certain room for decision-making is generally lacking with regard to technical databases, which are as complete as possible. As was explained above, a collection of scientific research data is almost never subject to personal choices given the full amount of gathered data that are necessary for scientific conclusions. The arrangement of the data is

19 Ahlberg in Möhring/Niccolini § 4 Rn. 10; Kotthoff in Dreyer/Kotthoff/Meckel, § 4 Rn. 11; Marquardt in Wandtke/Bullinger, § 4 Rn. 8; Loewenheim in Loewenheim, § 9 Rn. 243; see also BT-Drucks. 13/7934, S. 34.
20 Section 4, second paragraph of the German Copyright Act.
21 The second paragraph of Section 4 refers to the first paragraph of the article in which the criterion of a personal intellectual creation is set; see KoLaWiss Projekt p. 31.
usually fixed in advance. It can be concluded that copyright protection for databases containing raw scientific research data is generally excluded on the ground of lacking a personal stamp.

Databases can also enjoy protection by the database right (under related rights) if the criteria of systematic or methodical arrangement and individual accessibility are met and a substantial investment has been made in order to create the database. Under the database right there is no requirement of a personal intellectual creation. The database right will be more thoroughly discussed in chapter 4.

2.2.5. How copyright protection arises
Copyright protection arises automatically through the creation of an intellectual work which complies with the criteria explained above.22 There is no institution where copyright protection can be applied for or which registers copyright-protected works. There is only an index of anonymous and pseudonymous works which is used for the cessation of anonymity or the disclosure of the pseudonym. It should also be noted that the copyright symbol is not necessary for a work to enjoy copyright protection.23

2.3. What actions require consent?
Copyright gives an exclusive right of exploitation to the right holder. As was stated above, not every aspect of the work is protected and therefore not every use requires the consent of the right holder. Copyright law furthermore exempts particular uses from the exclusive right of the right holder. This section will explore which actions require consent.

2.3.1 Some components of the work are not subject to copyright
Only the personal intellectual creation of a copyright-protected work is subject to protection. This contains the subjectively chosen structure or arrangement in which the data are presented. As was stated above, bare facts (or raw data) remain free to be used by others, subject to the condition that they are presented in a different shape, with a different choice of words or in a different structure.

2.3.2 What use is subject to copyright?
The right holder of a copyright-protected work has the sole right to exploit the work. When others want to use the work, not only the data but also the protected personal features of the work, it has to be determined whether the proposed use is of such a nature that consent from the author is required. Two primary rights that are covered by the right to exploitation are the exclusive rights to publication24 and reproduction25.

The exclusive right to publication contains the prerogative of the right holder to offer the original work to the public or to market it. It also applies to making the work available (by wire or wireless) to the

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22 Follows from article 5, paragraph 2 of the Berne Convention of 1886.
24 Sections 17 and 15, second paragraph in conjunction with 19a of the German Copyright Act.
25 Section 16 of the German Copyright Act.
public in a way in which members of the public have access to the work at any individually chosen place and time.

The reproduction right is the right to make copies of the work, whether temporarily or permanently, by any means and in any number. A reproduction of a work can be defined as ‘any physical definition of a work suitable for making the work of the human senses in any way, directly or indirectly, perceptible’. Reproduction also entails the transmission of the work on devices for repeatable playback (video or audio recording), irrespective of whether the transmission takes place for the purpose of reproducing the work itself or for the transferring of the work onto another device. This means that long-term archiving of copyright-protected data falls within the scope of an act of reproduction in the sense of copyright law for which consent from the right holder is thus required.

2.3.3 Exception: works produced by the authorities
The use of works produced by the authorities generally requires no consent. Laws, ordinances, official decrees and notices, as well as decisions and official written policies on decisions do not enjoy copyright protection. This also applies to other official works which have been published in the official interest or for general knowledge. When using these works, the provisions on the prohibition on changing the original work and the notification of sources are to be applied.

The copyright on private standard works is affected if laws, regulations, decrees or official notices refer to them, without reproducing their wording.

2.3.4 Exception: citations
It is allowed to freely use parts of a copyright-protected work when this is done for the purpose of citation. The use of the copyright-protected work has to be justified in its quantity by the specific purpose.

Citations are explicitly permitted by copyright law in cases in which:

- A citation refers to a work which is incorporated in a new scientific work in order to clarify the content;
- a work is incorporated in a new work of speech;
- fragments of music are incorporated in a new work of music.

26 BT-Drucks. IV/270, 47; BGH NJW 1955, 1276; Dreyer in Dreyer/Kotthoff/Meckel, § 16 Rn. 6; Dustmann in Fromm/Nordemann, § 16 Rn. 9; Heerma in Wandtke/Bullinger, § 16 Rn. 2. All on KoLaWiss Projekt p. 46.
27 Section 5 of the German Copyright Act.
28 Section 5, paragraph 2 in conjunction with sections 62 and 63 of the German Copyright Act.
29 Section 51 of the German Copyright Act.
2.3.5 Exception: private copy

Personal copies made by natural persons for private use are permitted by copyright law.\(^{30}\) The requirement that the private copy has to serve a personal use results in copies made for professional scientific research falling outside the scope of this exception. Copies made for personal scientific use are allowed but have to be necessary and must not serve a commercial purpose.\(^{31}\) A copy is also allowed for inclusion in a personal archive when the copy is necessary and intended to be used as a template for a reproduction of one’s own work.\(^{32}\) The exception for copies for inclusion in a personal archive does not apply to digital database works.

Can the archiving of copyright-protected data by research institutions be covered by the exception of private use? Since the archiving of protected data by research institutions usually serves the purpose of enabling consultation (by more than one person) and the exchange of the data (with other researchers), archiving protected data by institutions within the framework of scientific research will generally not fall within the scope of the private copy exception.

2.4. The right holder and the exploitation of the work by others

The author of a copyright-protected work is also the right holder. Unlike in other legal systems, copyright is non-transferable in Germany. Copyright can only be inherited when the author dies.\(^{33}\) It is not possible for legal entities to own a copyright.

In order to make works usable for and exploitable by others, the right holder can grant a licence (or multiple licences) by which he gives consent for his work to be reproduced or made available.\(^{34}\) There are exclusive and non-exclusive licences. Licences provided for by law (such as the private copy exception) are also referred to as extended collective licences.

In this section, the legal rules applying to licences will be observed. Relevant in this section are also shared copyright and works created within the framework of a labour agreement.

2.4.1. Licences

Copyright law provides the right holder with the possibility to grant consent to the (copyright relevant) use of the work by others by licensing.\(^{35}\) As stated above, the right holder will always remain the right holder. Licences can contain all sorts of provisions; the use of the work can be limited to content, time or place. When the licence does not clearly stipulate for which use consent is granted, the scope of the use will have to be determined and interpreted according to the original intended purpose of the parties signing the licence.\(^{36}\) This interpretation according to purpose is specified further by copyright

\(^{30}\) Section 53 of the German Copyright Act.

\(^{31}\) Section 53, second paragraph, no. 1 of the German Copyright Act: KoLaWiss Projekt p. 54.

\(^{32}\) Section 53, second paragraph, no. 2 of the German Copyright Act; KoLaWiss Projekt p. 54.

\(^{33}\) Sections 28 and 29 of the German Copyright Act.

\(^{34}\) The German Copyright Act uses the term ‘Nutzungsvereinbarung’ which literally means ‘user agreement’. This user agreement pertains, however, to the granting of consent for copyright-relevant use (reproducing and making the work available). This is generally referred to as licensing. For clarity and consistency with other documents the term licence will therefore be used in this report with regard to the German ‘Nutzungsvereinbarung’.

\(^{35}\) Section 31 in conjunction with section 37 of the German Copyright Act

\(^{36}\) Section 3, fifth paragraph of the German Copyright Act.
In the case of an exclusive licence, the contracting party receives the sole right to exploit the work. The exploitation rights of the author can be restricted as a result of such an agreement. The contracting party receiving the exclusive exploitation rights will also be entitled to grant user rights to third parties. It is also possible to conclude licences for future works. Unlike other licences, this licence is required to be concluded in written form. The agreement can be terminated by both parties after five years since the conclusion of the contract. The right to termination cannot be waived in advance, regardless of contractual agreements stating otherwise. Exploitation rights can also be granted by free licences, like the Creative Commons licences.

2.4.2. Works created within the framework of labour agreements

An exceptional situation occurs if an employee of a research institution is the right holder of a work. In this case, the labour agreement can give rise to a duty on the part of the employee to grant a licence to the research institution. This will only be the case if the work is created by activities of the employee performed in the light of the labour agreement. A clear example of this is when the work is the result of a specific research project which was assigned by the employer. Usually a licence like this is concluded in advance, together with the labour agreement. At the latest it can be arranged with the final delivery of the work. The free grant of user rights to the employer does not mean that the author is left without any compensation; the author is entitled to fair compensation.

Since copyright is in principle not transferable as such, contract clauses concerning the transfer of copyright from the employee to the employer are ineffective. It should be noted that special rules apply to works created by academic professors or other scientific employees, to the extent in which the scientific works involved can be considered to be their own. In these cases the employer is not entitled to user rights. Special rules also apply to authors of computer programs in employment or service. The law determines that in a case where a computer program has been created by an employee in the execution of his duties or following instructions given by his employer, the employer is exclusively entitled to exercise all economic rights concerning the computer program, unless otherwise agreed. The law thus allows employers and employees to deviate from these consequences by concluding an agreement including other rules on the assignment of economic rights.

37 Section 37 of the German Copyright Act; see also Vanhees, Een juridische analyse van de grondslagen, inhoud en draagwijdte van auteursrechtelijk exploitatiecontracten, Apeldoorn 1993: Maklu publishers.
38 Section 31, third paragraph in conjunction with section 35 of the German Copyright Act; KoLaWiss Projekt p. 65.
39 Section 40 of the German Copyright Act.
40 Section 43 in conjunction with section 31 of the German Copyright Act.
41 BGH GRUR 1991, p. 523, 525; 1952, p. 257, 258 – Krankenhauskartei; Dreier in Dreier/Schulze, § 43 Rn. 18; Dreyer in Dreyer/Kothoff/Meckel, § 43 Rn. 7, 13; A. Nordemann in Fromm/Nordemann, § 43 Rn. 1; Rojahn in Schircker, § 43 Rn. 37; Wandke, GRUR 1999, 390, 392 on KoLaWiss projekt p. 66.
42 BGH GRUR 1974, 480, 483 – Hummelrechte; A. Nordemann in Fromm/Nordemann, § 43 Rn. 30 on KoLaWiss Projekt p. 67.
43 Section 32 in conjunction with section 36 of the German Copyright Act.
44 KoLaWiss Projekt p. 67.
45 Article 69b of the German Copyright Act.
2.4.3. Shared copyright and joint exploitation

The main rule is that the author of the work is the right holder. However, a situation can occur in which more than one person has created a work. It is not uncommon that several scientists or researchers are involved in a project which leads to the creation of a work. When a work comes into being, the question arises how the copyright is allocated.

If several persons have jointly created a work without being able to exploit their own share separately, they are the co-authors of the work. It is important that the authors have had a joint will to create a work together. Mere assistance does not suffice for co-authorship. The right to exploit the work lies with all co-authors together; this means that all authors have to give consent for publication or reproduction. Unless otherwise agreed, the co-authors receive revenues from the use of the work to the extent of their participation in the creation of the work. A co-author may waive his or her share in the exploitation rights by declaration. By doing so, the share of the other co-authors increases.

If several authors have connected their works in joint exploitation, each of the authors can give consent for publication, utilization and modification of the associated works if the consent of the other author(s) is to be expected in good faith.

2.5. Summary

For copyright protection to arise, it is necessary that a work meets the requirements of originality (intellectual creation) as well as a personal feature (individuality).

The foregoing sections have shown that these criteria are often not complied with when it comes to defined research data.

If a work is protected by copyright, certain uses of the work can take place legitimately without the consent of the author:

- The copying and use of bare facts of a work and putting them in one’s own personal structure or choice of words;
- the quoting of a work;
- the copying and use of a work made by the authorities (unless this work is explicitly protected by copyright);
- the copying of a work for personal use.

Consent is required if the copyright-protected work is otherwise exploited (copied or made available). Consent can be arranged by concluding a licence with the right holder, which is the author. The licence can contain all kinds of provisions, restrictions and prerogatives for both parties. If the granted exploitation rights in a licence are not stipulated clearly, copyright law determines that the scope of the use is to be interpreted according to the intended purpose of the agreement. Copyright law grants a

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46 Section 8 of the German Copyright Act.
47 Section 9 of the German Copyright Act.
certain amount of protection in this ‘interpretation according to purpose’; the author is deemed to have retained exploitation rights.

3. Related rights: protection of database producers

3.1. When are research data protected by database rights?
Besides copyright protection, research data can also be subject to other legal protection following the provisions concerning related rights, which are also incorporated in the German Copyright Act. The protection of the database producer is one of these related rights. The database producer is the person or legal entity which has made a substantial investment to which the database owes its existence. Since the legal protection for database producers grants the producer the sole right to distribution and reproduction of the database, this use of the database by others is subject to consent by the producer (i.e. the right holder). This prevents the free use of the database by others and enables the producer to recover his investment.

The criteria for the legal protection of the database producer differ from those for copyright protection. Database protection does not require a personal intellectual creation. It does require a certain arrangement of the content, the individual accessibility of independent elements and a substantial investment. A database in the sense of copyright law is defined as:

‘A collection of works, data or other independent elements systematically or methodically arranged and individually accessible by electronic means or otherwise and of which the obtaining, verification or presentation has required a substantial investment. According to law, the investor in the database is the database producer.’

Three different elements which play a role in determining whether a collection of data can be qualified as a database according to related rights can be subtracted from this definition:

- The database must be systematically or methodically arranged;
- the pieces of data in the database can be individually retrieved;
- the creation of the database has required a substantial investment.

There are exceptions to the exclusive right to the use of the database by the database producer (see section 3.2.5). These exceptions, however, only apply to databases which have already been made publicly available, meaning that they are publicly accessible. A database can only be made publicly available by the database producer or with the producer’s consent. The producer is thus not obliged to make a database available to the public.

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48 Section 87a of the German Copyright Act.
3.1.1. Arrangement

The criterion of a systematic or methodical arrangement of data requires that the data are structured in a certain fashion. Unlike in copyright, the structure does not have to be determined by personal subjective decisions. The results of scientific research are often presented in a chronological manner which enables scientists to compare them and monitor developments. Such a structure in a database will be sufficient to comply with the criterion of a systematic or methodical arrangement.

3.1.2. Searchability

The pieces of data incorporated in the database will have to be able to be individually retrieved by electronic means or otherwise. This is the case if elements of a database can be separately accessed in accordance with specific instructions by the database user.

Example

Individual accessibility can be achieved by opening a book or looking through a card index in which single data are orderly stored, by searching a CD-ROM or calling up data from an online database. Electronic, electro-optic and analogue techniques all qualify for achieving searchability in the sense of database protection by related rights.

3.1.3. Substantial investment

The third requirement is that the database producer has made a substantial investment in order to:

- Obtain the data;
- verify the data; or
- present the database.

The investment can be of a qualitative or quantitative nature. It can involve time, finances, energy, labour, but can also exist in the ongoing verification of the contents of the database. Whatever kind of investment has been made, it has to be a substantial one. The term substantial is not specified in domestic law or in European law. The term has been clarified through domestic case law, though not defined materially or applied consistently. There have been cases in which considerable personal or general financial expenses were demanded; there have also been cases in which the bar was set somewhat lower. Sometimes the courts have found a periodic actualisation of a database to be sufficiently substantial. Conclusive for the determination of this criterion is whether the obtaining,
verifying, or the presentation of the data has required an, by objective standards, substantial investment. Interpretation according to objective criteria will only exclude those databases from the legal definition of a database which could have been created by anyone without the specific investment.54

There is also EU case law on the subject of substantial investment. In the so-called Fixtures cases55 of 2004 the European Court stated that a substantial investment in the sense of the Database Directive “refers to the resources used to seek out existing independent materials and collect them in the database. It does not cover the resources used for the creation of materials which make up the contents of a database. In the context of drawing up a fixture list for the purpose of organising football league fixtures, therefore, it does not cover the resources used to establish the dates, times and the team pairings for the various matches in the league.”56

3.1.3.1. Investments in retrieving data
Case law gives examples of situations in which financial expenses that were incurred in order to retrieve and structure data were not characterized as being a substantial investment.57 A presumption that scientific research data from studies or other research projects in a database are connected to substantial financial investments is therefore incorrect. The processing of the data, time and effort can be earmarked as the investment to which the database owes its existence: the substantial investment.

Example
Financing a medical study which involves retrieved data is often quite costly and the feature of the substantiality of the investment will generally be sustained if a database containing such results is created. However, the results of another kind of study, like a survey, are more dependent on an investment in the form of time, since it takes a great deal of work (and thus time) to process the results. The investment, timewise, will then probably be characterized as being the substantial investment according to objective criteria.

It is therefore necessary to assess whether the investment has been made merely at the stage of data retrieval. Case law generally rules out legal protection if an investment is limited to the stage of data retrieval. Decisive is whether activities can be regarded as a substantial investment in the construction of the database.

3.1.3.2. Investments in presentation
Making tables or creating a system for accessing individual data can already be qualified as a substantial investment in the presentation of a database. Making tables requires investing time. Since...

54 Kotthoff in Dreyer/Kotthoff/Meckel, section 87a Rn. 30.
55 Judgement of the European Court of Justice of 9 November 2004 in cases C-46/02, C-203/02 and C-444/02.
nowadays most tables are made by computer programs, the costs of obtaining such programs can also be considered a substantial investment in the sense of the Copyright Act, together with expenses incurred for data carriers, like the paper on which the data is written down.\(^{58}\)

### 3.2. What actions require consent?

If a database complies with the above-mentioned criteria, the investor who has made the substantial investment qualifies as the database producer. The database producer has the exclusive right of communication to the public, as well as of reproduction and distribution of the entire database or a substantial part thereof. If a person, besides the database producer, wants to use the database or a large portion thereof, consent from the database producer will be needed.

Repeated and systematic reproductions, distributions or public presentations of minor parts of the database also constitute actions for which the consent of the database producer is required.\(^{59}\)

#### 3.2.1. Reproduction

The meaning and scope of the exclusive right of database producers to reproduce is largely equal to the meaning of the term ‘retrieving’ in the Database Directive. The right to reproduction comprises the permanent and temporary transfer of a database, or a substantial portion thereof, onto another carrier. It includes all forms of transferring (digital or analogue) by any means.

**Example**

The display of the contents of a database on a screen, as a result of a search instruction, will only qualify as a reproduction if the displaying has required a copy of the entire database or a substantial part thereof onto another device.\(^{60}\) Writing down the search results on paper will only constitute a reproduction in the sense of related rights if the copied data concerns the entire database or a substantial portion thereof.

Copying separate items from the database without the accompanying structure is allowed since bare facts are free.

It is not important whether a copy is made of the original data(base) or of a copy. A reproduction of a database in the sense of related rights can thus be made by a person who does not have access to the original database.\(^{61}\)

Consent from the database producer is required for:

- The reproduction of an entire database or of a substantial portion thereof (see section 3.2.3);
- the systematic and repeated reproductions of non-substantial portions of a database.

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\(^{58}\) KG CR 2000, 812, 813; Thum in Wandtke/Bullinger, § 87a Rn. 39; Czychowski in Fromm/Nordemann, § 87a Rn. 20; Vogel in Schröder, § 87a Rn. 29; KG ZUM 2001, 70, 71 f.; OLG Dresden, 2001, 595 f.; Vogel in Schröder, § 87a Rn. 28 f.; Thum in Wandtke/Bullinger, § 87a Rn. 40; a.A. Czychowski in Fromm/Nordemann, § 87a Rn. 19 on KoLaWiss Projekt p. 36.

\(^{59}\) Section 87b, first paragraph of the German Copyright Act.

\(^{60}\) Kothoff in Dreyer/Kothoff/Meckel, § 87b Rn. 5.

\(^{61}\) Kothoff in Dreyer/Kothoff/Meckel, § 87b Rn. 3, 4, 5; article 7, second paragraph 1 of the Database Directive.
3.2.2. Distribution and communication to the public

The exclusive right to distribute and communicate the database to the public constitutes ‘reuse’; a term used in the Database Directive. It is to be applied similarly to the right to publication in copyright and thus entails the exclusive right of the right holder to offer the original work to the public (making the database accessible) or to market it.

3.2.3. Substantial portion

The term ‘substantial portion’ is not specified by law. The European Database Directive gives no direction on how the term is to be interpreted and applied in practice. The reproduction of data from a database onto a single record (or few records) can hardly be considered as a substantial portion. In such a case there is surely no reproduction of an entire database. If a reproduction of such a small amount of the database would be regarded as sufficient in order to be considered substantial, the limitations on the use of a substantial portion would be virtually ineffective.

For determining whether a reproduction counts as a reproduction of a substantial part of a database or of the entire database, no general legal standard can be applied. An assessment of the reproduction has to be made individually, on a case by case basis, using the features of quality and quantity and applying them in the light of the aim of the Database Directive.

3.2.4. New databases and derivation

Sometimes a database is updated, or otherwise changed. This can give rise to the question whether a new database is created. Substantively changing the contents of a database in terms of their nature or size can lead to the existence of a new database if the change has required a qualitatively or quantitatively substantial investment. This means that the period of time for database protection (15 years after publication or creation) will start once again for a database which can be considered a new database.

The legal provisions concerning databases seem to follow the reasoning that a database which shows similarities to a previously created database does not automatically form an infringement of the rights of the database producer of the previously created database. If the new database is the result of data obtained and collected by other research than the research on which the previously created database is based and a different substantial investment has been made in order to create the new database, there is no infringement of database rights. If the second database is the result of repeated and systematic reproductions of the previously created database, however, there will be an infringement of the database right concerning the previously created database (unconsented repeated reproductions are prohibited, see 3.2.2.). Reproductions qualify as repeated and systematic if they obviously serve interests which are in conflict with the interests of the database producer. This is the case if the reproductions are either in conflict.

62 The German legislator has chosen to use different terminology when implementing the Database Directive, see: Kothoff in Dreyer/Kothoff/Meckel, § 87b Rn. 1, 2; article 7, second paragraph of the Database Directive.
63 Articles 17 and 19a of the German Copyright Act.
64 Article 87a, first paragraph in conjunction with article 87d of the German Copyright Act; KoLaWiss Projekt p. 62.
with the normal use of the database or impair the legitimate interests of the right holder. What use constitutes ‘normal use’ is determined by the database producer. The producer can subject the use of the database to certain conditions. Use which does not comply with these conditions will be considered to be in conflict with normal use. For example: if free use of a database is restricted to non-commercial users only, a commercial user which accesses the database without paying will be in conflict with the normal use of the database.\textsuperscript{65}

### 3.2.5. Exceptions

The law provides for exceptions to the exclusive rights of the database producer.\textsuperscript{66}

The reproduction, distribution and public performance of a substantial nature or substantial part of a database is permitted for use in proceedings before a court, an arbitration court or authority and for purposes of public safety. The reproduction of a substantial portion of a database without the consent of the producer is furthermore allowed if the reproduction is made for:

- Private use;
- personal scientific research;
- illustration for teaching.

It has to be noted that the exceptions only apply to reproductions of a \textit{substantial portion} of a database which have \textit{already been made available}, e.g. not for databases which are merely used in a private setting and have therefore not been made accessible.\textsuperscript{67}

That the legal exceptions only apply to reproductions of a substantial portion of the database and not to reproductions of the whole database is somewhat controversial but, nevertheless, remains the leading doctrine.\textsuperscript{68} The exceptions can furthermore apply solely to databases which have already been made available, meaning that they have been made publicly accessible. This is often not the case with databases concerning scientific research data.

With regard to personal scientific research and illustration for teaching, the law also requires the original work (from which the data are derived) to be explicitly mentioned.\textsuperscript{69}

The German database right contains no exception to the exclusive rights of distribution or reproduction of a substantial portion of government databases. European legislation on the Reuse of Public Sector Information\textsuperscript{70} (hereafter: PSI Directive) from 2003 has not led to the incorporation of an exception to the use of government databases in the German Copyright Act (in which related rights and database right are also incorporated). The PSI Directive was transposed into German law by the Informationsweiterverwendungsgesetz (hereafter: IWG) which entered into force in December 2006.

According to the Directive, the reuse of public sector information can be subject to fees.\textsuperscript{71}

\textsuperscript{65} Kothoff in Dreyer/Kothoff/Meckel, § 87b Rn 14, 15.
\textsuperscript{66} Section 87c of the German Copyright Act.
\textsuperscript{67} KoLaWiss Projekt p. 57 (on public accessibility) and p. 60 and 61 (on a substantial portion).
\textsuperscript{68} The term ‘substantial portion’ is also used in article 9 of the Database Directive, of which section 87c of the German Copyright Act is a transposition.
\textsuperscript{69} Section 87c, first paragraph of the German Copyright Act.
\textsuperscript{71} Article 6 of the PSI Directive.
3.2.5.1. Private use

Making a copy of a database for private use is allowed without the consent of the database producer.\textsuperscript{72} This exception does not apply to databases which are limited to electronic accessibility. The use is also restricted to private use, meaning that the copy is made only to satisfy personal curiosity and not to serve commercial or professional purposes.\textsuperscript{73}

\textbf{Example}

A university institution wants to archive a database of which it is not the producer. Archiving the database entails making a copy. This copy cannot be considered to fall within the scope of the private use exception while the archived copy will serve as a tool for professional and commercial scientific research. These purposes of the use are not included in this exception. The exception will probably also lack application in cases which are alike, while most databases which have opted to be copied by research institutions are digital databases.

3.2.5.2. Personal scientific research

A reproduction for personal scientific research is allowed to be made without consent if the copy is necessary and the scientific research does not serve commercial purposes.\textsuperscript{74}

First of all, the reproduction has to be necessary, which means that the scientific activities require it and a purchase of the copy seems unreasonable or is problematic.

Furthermore, the scientific research is not supposed to be of a commercial nature; the research has to be aspired by a methodical search for knowledge.\textsuperscript{75}

The copy is also required to be for one’s own scientific use. This is the case if the copy is made within a closed environment and no disclosure to others is intended, even not after archiving.\textsuperscript{76} Copies made by research institutions will only fall within the scope of this exception if there is no intention to pass on the data to outsiders, such as to collaborating research institutions.

3.2.5.3. Illustration for teaching

The third exception entails the illustrative use of publicly accessible databases for teaching.\textsuperscript{77} This use is only permitted if no commercial purpose is involved. Teaching pertains to various forms of education. Meetings and lectures at universities are also included.

\textsuperscript{72} Section 87c, first paragraph, no 1 of the German Copyright Act.
\textsuperscript{73} BGH GRUR 1981, 355, 358 – Video-Recorder; Dreier in Dreier/Schulze, § 87c Rn. 6 mit Verweis auf § 53 Rn. 7; Dreyer in Dreyer/Kotthoff/Meckel, § 53 Rn. 15; Kotthoff in Dreyer/Kotthoff/Meckel, § 87c Rn. 7; Vogel in Schröck, § 87c Rn. 11 on KoLabProjekt p. 58.
\textsuperscript{74} Section 87, first paragraph, no. 2 of the German Copyright Act.
\textsuperscript{75} Dreyer in Dreyer/Kotthoff/Meckel, § 53 Rn. 51; W.Nordemann in Fromm/Nordemann, § 53 Rn. 19; Loewenheim in Schröck, § 53 Rn. 22.
\textsuperscript{76} BGHZ 134, 250, 257 f. – CB Infobank I; Decker in Möhren/Nicolini, § 53 Rn. 18; Dreier in Dreier/Schulze, § 87c Rn. 9; W. Nordemann in Fromm/Nordemann, §§ 53 Rn. 16; siehe auch BT-Drucks. 10/837 S.9.
\textsuperscript{77} Section 87c, first paragraph, no 3 of the German Copyright Act.
3.2.6. Consent, consultation, and contractual arrangements

If the database producer has given consent for a copy to be made or for access to be granted, contractual agreements seeking to oblige the persons having a copy of, or having access to, the database to refrain from reproducing, distributing or making qualitatively and quantitatively insubstantial parts of the database publicly available are invalid to the extent in which these actions run counter to the normal exploitation of the database or unreasonably impair the legitimate interests of the database producer. 78

It is possible for a research institution to conclude confidentiality clauses with their researchers/employees regarding the data obtained and processed by the institution. German civil law restricts the use of confidentiality clauses to specific cases. 79 A case in which a confidentiality clause can be allowed is if research has required significant resources which result in the research institution having a specific interest in retaining control of the availability of the data. Protecting uncontrolled distribution of the data can also be justified if the data concern (medical) personal information for which an institution has a special duty of care. So even though confidentiality clauses are not allowed in every situation, they do provide a possibility for research institutions to prevent the transmission of data, regardless of whether the data are protected by copyright or related rights. 80

3.2.7. Borrowing from another database containing research data

With regard to the use of data from a protected database for scientific or scholarly research, it is necessary to determine to what extent this is allowed without the consent of the database producer. The basic rule is still that bare facts can be freely used. The use of a non-substantial part of the database is also allowed. For the use of substantial parts, however, consent is required unless one of the exceptions apply. This leads to the conclusion that copying, making the database available or distributing it in any way (for instance, as part of a new publication) requires the consent of the database producer.

78 Section 87e of the German Copyright Act.
79 Sections 305-309 of the German Civil Code; KoLaWiss Projekt p.102-105.
80 KoLaWiss Projekt p.107.
3.3. Who is the right holder?
The right holder is the producer of the database. The producer is not necessarily the author of the database or the person who has obtained the data included in the database. The legal requirement for a database producer is making a substantial investment (and thus bearing a risk) in order to enable the creation of the database. Unlike copyright, which can only belong to natural persons, database producers can also be legal entities.81 If a substantial investment in creating a database has been made by a legal entity, like a university institution, this entity becomes the database producer and obtains the relevant exclusive rights.

Example
Databases containing data obtained by a research institution will often be the result of the necessary labour for obtaining, verifying and presenting data by employees, for which the research institution bears the costs (by paying salaries). On top of that, the research institution often also incurs expenses in obtaining or updating computer programmes which are necessary for creating databases. When these costs are not incurred purely for retrieving data, they can be qualified as a substantial investment. In these cases, the research institution will be the database producer and thus the right holder of the exclusive rights granted by law. If another person or a legal entity other than the research institution bears the investment risk, the research institution will not qualify as the database producer. The person taking the investment risk will be the producer. The research institution will need the consent of the producer to use the database. This can occur if the institution wants to archive a copy of the database. This requires reproduction for which consent is required.

Research projects are often financed by external funding; whether the institution itself can be regarded as the database producer cannot thus be taken as a given but has to be assessed in every single case.

3.4. Relationship to copyright
The protection of a database by related rights does not exclude copyright protection. Databases can be protected by related rights and also be copyright-protected as a collection at the same time.82 In order for the database to be copyright-protected it will have to comply with the requirements of originality and individuality.

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81 Kotthoff in Dreyer/Kotthoff/Meckel, § 87a Rn. 40; Czychowski in Fromm/Nordemann, § 87a Rn. 25, 27; Dreier in Dreier/Schulze, § 87a Rn. 20, from KoLaWiss Projekt p. 37.
82 Czychowski in Fromm/Nordemann, § 4 Rn. 49; Vogel in Schricker, Vor 87a ff. Rn. 32; Thurm in Wandtke/Bullinger, Vor §§ 87a ff. Rn. 29, from KoLaWiss Projekt p. 48.
3.5. Summary
A database may be protected according to related rights if the collected data is systematically or methodically arranged, the pieces of data in the database can be individually retrieved and the creation of the database has required a substantial investment.
A substantial investment in obtaining the data alone is not sufficient; the investment also has to pertain to the actual creation of the database. The person or entity that has made the substantial investment qualifies as the database producer and enjoys the exclusive rights to distribution, reproduction and granting access to the database.
Using a non-substantial portion of the database is allowed without the consent of the database producer. Consent is required for:

- The reproduction of an entire database or of a substantial portion thereof;
- the systematic and repeated reproductions of non-substantial portions of a database;
- communication of the database to the public;
- distributing the database.

Consent is not required for the reproduction of a substantial portion of a database which has already been made available if this reproduction is made for:

- Private use;
- personal scientific research;
- illustration for teaching;
- use in proceedings before a court, an arbitration court or authority and for purposes of public safety.

4. General remarks on the archiving/storage of data by research institutions
Archiving or storing scientific data protected by either copyright or related rights is not free from obstacles in the current legal situation. As we have seen, the legal exceptions to the exclusive rights of the right holders will often not apply to the storage of protected research data by research institutions.
When considering copyright, this is primarily the case since the exception to copy for private use does not allow the copied data to be passed on to others. Research institutions will, however, wish to exchange the stored data and provide access to it within the framework of collaboration agreements.
Such knowledge exchange is necessary for research institutions in order to remain a competitive player on the scientific level. It is of even greater importance since research projects are nowadays often realized through external funding. The KoLaWiss project therefore recommends that the legislator extends the exception for private use in copyright so that storing protected data is not confined to mere personal purposes, but that availability to other scientists is also allowed.
Similar problems exist for heritage institutions like the German National Library which stores copyright-protected works, although is not allowed to make them available. Since further adjustments of copyright law in favour of research, education and science have already been introduced and advocated by politicians, it is to be expected that this issue will receive the necessary attention in the future.83

The exclusion of collections of data from the exceptions stems directly from European law, meaning that the German legislator is restricted in extending the current exceptions to those works. Such an amendment will have to take place at a European level. The exclusion of collections of data is, however, not expected to provide many practical problems for long-term storage since research data rarely take the form of a copyright-protected collection of data.

A need for change is also apparent with regard to the exceptions to the database right considering that these only apply to copies of a substantive portion of a database and not to copies of an entire database. Since this is the norm set by the European legislator, actions on a European level are required to change the current situation. After the expiry of the European fixed term of protection (15 years), databases can be archived and made available without consent. Cases in which protected databases of which the research institution is not the right holder nor is entitled to user rights will hardly be able to be changed by the German legislator, considering the binding European provisions. Therefore the (university) research institution will have to put in a timely request to the right holder to obtain the necessary licences.84

5. Privacy

Open access to personal research data is subject to legal provisions on the protection of personal data. The primary source for legal provisions on the use of personal data is the Bundesdatenschutzgesetz (hereafter: BDSG).85 The BDSG applies to the obtaining, processing and use of personal data by public federal and state-level authorities and non-government institutions. Besides the existing federal law, each of the 16 Länder (states) in the German federation has its own law. If state law contradicts federal law, federal law will prevail. The BDSG does not interfere with medical confidentiality obligations for medical professionals.86 Personal data can only be used if the law provides for this (e.g. by a court order) or if the person concerned gives consent. In most cases consent will have to be given in writing.87

Persons employed in processing personal data are not allowed to obtain, use or process the data without authorization (the obligation to observe confidentiality). Employees processing personal data

83 A possible legal change is in draft form: the so-called “Dritter Korb”. The possible changes which this initiative will provide are still uncertain.
84 KoLaWiss Projekt p. 72, 73.
85 Federal data protection law.
86 Section 1 of the BDSG.
87 Section 4, first paragraph in conjunction with section 4a of the BDSG.
for private institutions are required to agree to confidentiality. The obligation to observe confidentiality continues after the termination of their employment.\textsuperscript{88}

Specific provisions exist on the use of personal data for the purpose of research. First of all, the German Basic Law guarantees the freedom of scientific research.\textsuperscript{89} The Constitutional Court has found that it is the duty of the state to take necessary financial and organizational measures in order to ensure and promote independent scientific (or academic) activity.\textsuperscript{90} The BDSG contains specific provisions on the processing and use of personal data by research institutions. It states that personal data collected or stored for scientific research purposes may be processed or used only for the purpose of scientific research. The personal data shall be depersonalized as soon as the research purpose allows this. Until this time the characteristics enabling information on personal or material circumstances to be attributed to an identified or identifiable person shall be stored separately. They may be combined only to the extent required by the purpose of the research. Institutions conducting scientific research may publish personal data only if the data subject has given consent or if publishing the data is indispensable for the presentation of research findings on contemporary events.\textsuperscript{91}

\textsuperscript{88} Section 5 of the BDSG.
\textsuperscript{89} Section 5, third paragraph of the German Grundgesetz.
\textsuperscript{90} BVerfGE 35, 79, 114.
\textsuperscript{91} Section 40 of the BDSG.