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Sui Generis Protection of Non-creative Databases

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I. INTRODUCTION

One of the most controversial acts of EU harmonization in the field of copyright law, and one of the first copyright directives, was without doubt Directive 96/9/EC on the legal protection of databases.[1] Many of its definitions, the narrow scope of its exceptions and the lack of coordination with general copyright law have been heavily criticized. Yet, the most challenged and discussed provision was and remains its Article 7, which introduced as a worldwide novelty the so-called *sui generis* right.

The aim of the Directive was to create two paths for database protection, depending on their degree of originality. The first was conceived for databases that were original in structure and arrangement and used traditional copyright protection. The second was envisioned for databases that did not meet this originality threshold, but still required a substantial investment in obtaining, verifying and presenting their content, an investment which the EU legislator wanted to incentivize by protecting database makers from parasitic behaviors, unfair competition and freeriding. The latter entitlement was conceptualized as the right to prevent extraction and reutilization of the whole or substantial parts of the base, designed to be independent from copyright, and having a completely different rationale, requirements for protection, duration, exceptions. This new *sui generis* right was presented as the tool that would have bolstered the EU database industry against its fiercest competitors, and chiefly against the United States which, ironically, around the same period saw their judiciary increase the originality threshold for database protection under copyright, and their legislator cross out the idea of introducing any new form of exclusivity on collections of data and other materials.[2]

The *sui generis* right, which failed to spread internationally as much as the EU legislator desired, remained a European *unicum*, and was subject to strong critiques for its unbalanced nature and risky tendency to create informational and data monopolies, yet without performing an effective role in fostering industrial investments. Its introduction brought within the tangles of EU copyright law another entitlement which was meant to protect investments and not creativity, as most of the neighboring rights which copyright systems had already accommodated for decades. Yet, compared to traditional neighboring rights, Article 7 Database marked the debut of a very broad exclusivity akin to a property right, potentially perpetual, uncertain in its scope, subject to very narrow limitations and

[1] Directive 96/9/EC of March 11, 1996 on the legal protection of databases, March 11, 1996, OJ L 77/20, March 27, 1996 [hereinafter Database Directive].

[2] With the seminal case *Feist Publications Inc v Rural Telephone Service Co* 499 US 340 (1991), the US Supreme Court denied protection to a telephone directive, stating that a database that contained plain information without any minimum original creativity cannot be protected by copyright. On the US approach to database protection, also in comparison with the EU approach, see Estelle Derclaye, *The Legal Protection of Databases: A Comparative Analysis* (Edward Elgar 2008).

immune from copyright exceptions. This not onlychanneled into the copyright system a foreign element that was predestined to create systemic short-circuits and problems in the implementation by national legislators and even more by national courts, but it also opened the floodgate for an extension of exclusive rights to cover realms which traditionally belonged to the public domain, without adequate antibodies that could maintain the traditional balance set by copyright law.

This chapter will provide an overview of the road that led to the Database Directive, analyzing and commenting on its most relevant provisions on the *sui generis* right, their rationale and interpretations (Section II). It will then offer a detailed overview of the evolution of key concepts and definitions related to Articles 7–11 Database in the case law of the CJEU (Section III), look at the assessment of the national implementations and overall impact of the *sui generis* right provided by the European Commission and by copyright scholars (Section IV), and conclude on outstanding challenges and the way forward (Section V).

II. THE ROAD TO THE DATABASE DIRECTIVE

Before the adoption of the Directive, and along the lines of Article 2(5) of the Berne Convention,[3] most national copyright laws provided for the protection of collections of works that were original based on the selection and arrangement of content. Each Member State, however, presented a different approach, depending on the national requirements for copyright protection. In general, countries belonging to the *droit d'auteur* tradition protected only databases that were original enough to represent an intellectual creation, with different degrees of originality requested by courts, while countries from the common law tradition applied the skill and labor doctrine, thus protecting also nonoriginal databases that required "sweat of the brow" to be produced.[4] In addition, some Member States provided special forms of protection for catalogues (e.g., Sweden, Denmark and Finland).[5]

Data from 1990 showed how 50 percent of European online database services were based in the UK, a country that protected a wide array of databases and offered more legal certainty than continental jurisdictions, where the situation was much more controversial and fragmented.[6] This evidence of clear unbalance between Member States, coupled with the obstacles created for the internal market by the patchwork of legal solutions, called for a harmonizing intervention from the European Community, which had to find a midway between national approaches and, at the same time, cover with other entitlements those nonoriginal databases which would have fallen out from copyright protection in common law jurisdictions due to the increased originality threshold.[7]

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[3] Berne Convention for the Protection of Literary and Artistic Works, September 9, 1886, as revised at Stockholm on July14, 1967 828 UNTS 221. On the protection of databases in international norms, see Daniel Gervais, 'The Protection of Databases' (2007) 82 Chicago Kent Law Review 1109, 1111–17.

[4] See the overview provided by Mark Davison, The Legal Protection of Databases (CUP 2003) 10–49.

[5] See Gunnar Karnell, 'The Nordic Catalogue Rule' in Egbert Dommering and Bernt Hugenholtz (eds) *ProtectingWorks of Fact* (Kluwer 1991) 67.

[6] As indicated in European Commission, Panorama of EC Industry 1990: over 165 sectors of manufacturing and service industries in focus, Brussels, 1990, at 30.17.

[7] Ibid.

The first preparatory work mentioning the need to provide legal protection for databases for internal market needs was the Green Paper on Copyright and the Challenges of Technology (1988).[8] The Green Paper asked stakeholders and the public whether the protection of compil- ations under copyright law should have been extended to databases containing materials not protected by copyright, and whether the preferred regulatory solution was copyright or a *sui generis* right.[9] The responses were channeled in the follow-up to the Green Paper (1991),[10] which indicated the intention to introduce as soon as possible blended solutions to cover both original and nonoriginal databases.[11]

A year later, the EC tabled the Initial Proposal, describing databases as a "vital tool in the development of an information market within the community," particularly in light of the "exponential growth [.. .] in the amount of information generated and processed annually in all sectors of commerce and industry," which "required investment [.. .] in advanced information management systems."[12] The new harmonized framework was deemed necessary for the development of a strong and competitive European database industry, still lagging behind comparedto its main trading partners.[13]

This first draft covered only electronic databases and included both a protection by copyright anda "right to prevent unfair extraction from a database," the second being very broad, albeit limited by compulsory licenses.[14] The EC excluded the suitability of a copyright-only solution for two parallel reasons. On the one hand, copyright protection alone could have not covered all noncreative databases.[15] On the other hand, harmonizing the originality standard to the level needed to protect as many databases as possible, without revolutionizing the continental model, would have excessively lowered the benchmark in *droit d'auteur* countries while still raising it in common law jurisdictions, thus reducing the protection the latter

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[8] European Commission, Green Paper 'Copyright and the Challenge of Technology: Copyright Issues Requiring Immediate Action' COM(88) 172 final, ch. 6.

[9] ibid at para 6.7.1.

[10] Responses were more for copyright protection than for *sui generis* protection. See Michel M Walter and Silke von Lewinski, *European Copyright Law: A Commentary* (OUP 2010) 9.0.12; P Bernt Hugenholtz, 'Something Completely Different: Europe's *Sui Generis* Database Right' in Susy Frankel and Daniel Gervais (eds) *The Internet and the Emerging Importance of New Forms of Intellectual Property* (Kluwer 2016) 207.

[11] European Commission, Working Programme of the Commission in the Field of Copyright and Neighbouring Rights. Follow-up to the Green Paper, COM (90) 584, 18 et seq.

[12] Proposal for a Council Directive on the Legal Protection of Databases, COM (92) 24 final, OJ C-156/4 (Initial Proposal), Recital 9.

[13] As explained in the Explanatory Memorandum of the Initial Proposal, Part 1, paras 2.2.11 and 5.1.1.

[14] Initial Proposal, Article 1. For an analysis of the drafting history of the directive, see P Bernt Hugenholtz, 'Implementing the Database Directive', in Jan JC Kabel and Gerard JHM Mom (eds) *Intellectual Property and Information Law: Essays in Honour of Herman Cohen Jehoram* (Kluwer 1998); Annemarie C Beunen, *Protection for Databases: The European Database Directive and Its Effects in the Netherlands, France and the United Kingdom* (Wolf 2007).

[15] Despite the UK proving to be a nonoriginal database-friendly jurisdiction thanks to its skill and labor standards (see, eg, *Ladbroke Football Ltd* v *William Hill Football Ltd* [1964] 1 WLR 273), and early case law from some continental jurisdictions admitted to protection of some nonoriginal databases as "information works" (see, eg, Cour de Cassation November 9, 1983, Droit de l'informatique 1984/1, 20; Cour de Cassation October 30, 1987, Droit de l'informatique 1988/1, 34), a mixed system such as the Dutch one shows much more reluctance, denying protection, for instance, to a telephone directory and a dictionary (*Dale v Romme*, Decision of January 4, 1991, [1991] NJ 2543 (no 608)).

offered to a wide range of noncreative databases.[16] On this basis, the proposal adopted a harmonized, higher threshold for copyright protection of original databases, based on the notion of originality and crossing out the lower "sweat of the brow" standard adopted in the common law environment. To cover nonoriginal databases that still required a qualitatively or quantitatively substantial investment for obtaining, verifying and presenting the materials, the proposal introduced a new *sui generis* right to prevent extraction and reutilization of the whole or a substantial part of their content.[17]

The discussion on the legal nature of this new right was expectedly heated. The Initial Proposal did not specify any definition, but for the introduction of the label *sui generis* right and its derivation "from regimes such as unfair competition law or the law repressing parasitic behavior."[18] However, since the EC had no intention to harmonize unfair competition law across the Union in light of the great differences among Member States,[19] and of the incapability of unfair competition law to repress parasitic acts beyond those committed by competitors,[20] the draft left to Member States the decision on how to implement the right.[21]

The proposal got the positive opinion of the Economic and Social Committee, while the European Parliament adopted several amendments,[22] mostly intervening on the definition of the legal nature of the *sui generis* right, which became a fully-fledged intellectual property right to prevent "unauthorized" (and not "unfair," as in the original proposal) extractions.[23] The draft was then subject to a heated debate before the Council, where it took two full years to reach a Common Position, which substantially departed in terms of structure, degree of details and scope from the original proposal.[24] The new text extended the protection to nonelectronic databases, and provided a much clearer distinction between provisions on copyright and provisions on *sui generis* right. The latter was described as a proprietary – and thus subjective, exclusive and transferable – right and not as a mere entitlement to protection based on unfair competition law and limited to relationships between competitors.[25] This emerged clearly in the definition of its subject-matter, identified in a qualitatively/quantitatively substantial investment. With a careful balancing exercise, the proposal restricted the protection to uses involving the entire database or

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[16] Explanatory Memorandum to the Initial Proposal (n 12) Part 1, para 5.1.1. See also Jens L Gaster, 'The EU Council of Ministers' Common Position Concerning the Legal Protection of Databases: A First Comment' Entertainment Law Review (1995) 260.

[17] ibid para 5.3.7.

[18] ibid para 5.3.6.

[19] ibid para 5.3.9.

[20] ibid para 5.3.10.

[21] ibid para 2.5.

[22] As in Walter and von Lewinski (n 10) para 9.0.4.

[23] See Explanatory Memorandum of the Amended Proposal for a Council Directive on the legal protection of databases, OJ C-308/1, p. 2. On the new proposal, see the comments of Simon Chalton, 'The Amended Database Directive Proposal: A Commentary and Synopsis' (1994) 3 EIPR 94.

[24] Common position adopted by the Council on July 10, 1995, OJ C 288/14. The position, inter alia, streamlined the text, clarified the wording of several provisions and increased the number of Recitals from forty to sixty.

[25] The difference between the *sui generis* right and an entitlement deriving from unfair competition law is also that in the former case, the right is attributed a priori, while the latter sanctions behaviors a posteriori. For similar observations see Jerome H Reichman and Pamela Samuelson, 'Intellectual Property Rights in Data?' (1997) 50 Vanderbilt Law Review 51, 81; Hugenholtz (n 14) 187.

substantial parts thereof – once again based on the negative impact of the conduct on the investment – but it also eliminated compulsory licenses in favor of a much stricter list of exceptions. The hybrid nature of the new right made it possible also to provide its renewal every time the content of the database was subject to a substantial modification by virtue of a new qualitatively and/or quantitatively substantial investment.[26]

Both the Parliament and the Commission approved the revised proposal with few cosmetic amendments, enacting Directive 96/9/EEC as a "cornerstone of intellectual property protection in the new technological environment."[27] The *sui generis* right represented an absolute novelty in the IP (Intellectual Property) arena worldwide, and became so much of a flagship for the Community that the Commission tabled before the Committees of Governmental Experts of WIPO (World Intellectual Property Organization) a proposal for an international treaty on the *sui generis* protection of databases, to be conceived as a Berne Protocol or as a new instrument.[28] Initially the idea was very well received by several delegations, including the USA, which responded with a partially different draft.[29]

The chairman of the Committee of Experts presented a merge of the EU and US proposals at the WIPO diplomatic conference in December 1996. The draft should have been discussed along the proposals for the two WIPO Internet Treaties,[30] but the time available did not allow it. The only product of the discussion was a recommendation to follow up with the matter,[31] but years of discussion did not lead to any consolidated product.

The only explicit international references to databases remained, thus, Article 10(2) of the TRIPs Agreement[32] (Trade-Related Aspects of Intellectual Property Rights) and Article 5 of the WCT (World Copyright Treaty), which use an almost identical language to require copyright protection for "compilation of data or other material," whether in electronic or any other form, "which by reason of the selection or arrangement of their contents constitute intellectual creations." Both provisions specify that the exclusivity should not extend to the data or material itself and should not prejudice any copyright subsisting on the database content. The two treaties, entered into force in 1995 and 2002, aimed at making sure that contracting States extended their copyright protection also to compilations of raw data and materials which are not subject to any exclusive right.[33] Significantly, both

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[26] As explained in the Common position (n 24) 11.

[27] European Commission, 'Follow-up to the Green Paper on Copyright and Related Rights in the Information Society' COM(96) 483 final, 8.

[28] WIPO Committee of Experts, Basic Proposal for the Substantive Provisions of the Treaty on Intellectual Property in Respect of Databases to be Considered by the Diplomatic Conference, WIPO Doc CRNR/DC/6 (August 30, 1996). See Gervais (n 3) 1114–15, 1119.

[29] This proposal and the parallel legislative attempts within the USA are carefully examined by Philip J Cardinale, '*Sui Generis* Database Protection: Second Thoughts in the European Union and What It Means for the United States' (2007) 6(2) Chicago-Kent Journal of Intellectual Property 157.

[30] The WCT and WPPT were indeed approved in that session. WIPO Performances and Phonograms Treaty, December 20, 1996, S. Treaty Doc No 105–17 (1997); 2186 UNTS 203; 36 ILM 76 (1997); WIPO Copyright Treaty, December 20, 1996; S. Treaty Doc No 105–17 (1997); 2186 UNTS 121; 36 ILM 65 (1997)

[31] WIPO doc CRNR/DC/88.

[32] Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994 – Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 UNTS 3; 33 ILM 1197 (1994).

[33] For an overview of the drafting process and preparatory works see Mihaly Ficsor, *The Law of Copyright and the Internet: The*

the WCT and the TRIPs requested only a protection by means of traditional copyright, which entailed the need for the compilation to represent an "intellectual creation," that is a product that meets the requirements set by national laws to be qualified as a protected "work" (originality and/or creativity, sweat of the brow, etc.).

Against this background, the approach adopted by the EU legislator represented a worldwide *unicum.*

a) THE *SUI GENERIS* RIGHT IN THE EU DATABASE DIRECTIVE(96/9/EEC)

i) The Directive in General

In the original EC proposal, the new directive should have covered only those electronic databases that could not be eligible for copyright protection under national copyright law.This was usually the case of compilations of raw data and materials other than traditional "works," or where data were arranged by software.[34] Despite their lack of originality or personal touch, such products still required substantial and risky investments to be developed, and had a relevant potential market, thus a top-down intervention from the European legislator was perceived as strongly needed to support the database industry.[35] When the proposal reached the Council, the TRIPs Agreement and the WCT were either already approved or about to be approved, and with them the obligation for contracting parties to protect also nonelectronic databases via copyright. This led to the opening of the scope of the Directive to databases in anyform, not only in the field of copyright but also in that of the *sui generis* right.[36]

The Directive devotes two separate chapters to the regulation of copyright and *sui generis* rights, mirroring also in its structure the legislative intention to maintain separated their respective justifications, general principles, requirements, rights and exceptions, with the aim of avoiding systematic confusion in the judicial evolution of the subject.

According to Article 1 Database, the Directive covers collections[37] of independent works, dataand other materials, "arranged in a systematic or methodical way and individually accessible by electronic or other means," with the exclusion of software programs used in its making or operation. Recital 17 specifies that a database may include any type of protected work or other material "such as texts, sound, images, numbers, facts and data," with the exclusion of "the compilation of several recordings of musical performances on a CD," both because this product does not meet the requirement for copyright protection and because it does not represent a substantial enough investment to be eligible under the *sui generis* right (Recital 19). On the contrary, the protection also covers materials necessary for the operation or consultation of certain databases, as in the case for indexation and thesaurus systems (Recital 20).

1996 WIPO Treaties, Their Interpretation and Implementation (OUP 2002) ch. 2; Daniel Gervais, *The TRIPS Agreement: Drafting History and Analysis* (4th edn, Sweet & Maxwell 2012) 62 ff.

[34] As illustrated in the Explanatory Memorandum to the Initial Proposal (n 12) 3.1.

[35] ibid at 3.2.

[36] On this debate see Walter-von Lewinski (n 9) 9.1.1–9.1.4.

[37] The Preamble clarifies that "collection" should be understood as a synonym of "compilation" (Recital 13).

The definition provided by the Directive is purposefully broad and comprehensive. The term "in any form" is conceived to be overarching and cover, *exempli gratia*, both online and offline databases (as in Recital 22), or static and dynamic databases.[38] Similarly, Article 1 does not specify the amount of material necessary to have a "collection," nor does it require the materials to come from one or multiple sources, or to be or not be created by the person or entity making the collection. Restrictions come, instead, from the requirements of independence of the materials, individual accessibility by any means[39] and arrangement in a systematic or methodical way, which exclude from protection both creations that may rather amount to individual works or unitary non-protectable creations, and unstructured or arbitrary accumulation of data.[40]

The definition of the subject-matter of the Directive is the product of a careful balancing between opposite considerations and features an attentive selection of terms and requirements.

Yet, the inevitable vagueness of some of the criteria and concepts used could not but give rise to heated academic debates and, expectedly, to a rich roster of judicial decisions, as we will see in more in Section II.III. The same happened, due to the novelty of most of its concepts and terms, to the *sui generis* right, introduced by Article 7.

ii) The "Revolutionary" Sui generis Right

Article 7(1) Database marks a clear distinction between the two sets of rights conferred by the Directive. The provision, in fact, describes the *sui generis* right as an entitlement conferred to the "maker" of a database "which shows that there has been qualitatively and/or qualitatively a substantial investment in either the obtaining, verification or preservation of the contents." The use of the term "maker" and the connector "which" stands in clear opposition with the attribution of copyright to the "author" of the database, who is a natural or group of natural person(s), and a legal person only if admitted under national copyright law. At the same time, the requirement for protection is not the originality in the selection or arrangement of the materials, but the evidence of a substantial investment, measured in qualitative or quantitative terms, and directed to obtain, verify or preserve the content of the base.[41]

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[38] On the broadness of the definition of databases see, eg, Simon Chalton, 'The Effect of the EC Database Directive on United Kingdom Copyright Law in Relation to Databases: A Comparison of Features' (1997) EIPR 278; Davison (n 4)61 ff; Derclaye (n 2) 65–67; Mathias Leistner, 'The Protection of Databases' in Estelle Derclaye (ed) *Research Handbook on the Future of EU Copyright* (Edward Elgar 2009) 431.

[39] This requirement may exclude, for instance, materials of neural networks. See Thomas Dreier, 'Die Harmonisierung des Rechtsschutzes von Datebanken in der EG' (1992) GRUR International 739. See also FW Grosheide, 'Database Protection: The European Way' (2002) 8 Washington University Journal of Law and Policy 39.

[40] The concept of "systematic or methodical" is not interpreted strictly, although in some Member States, such as Germany and Austria, it is used to distinguish between collection works in general and database works, the latter being structured around logical criteria. On this see also Estelle Derclaye, 'What Is a Database? A Critical Analysis of the Definition of a Database in the European Database Directive and Suggestions for an International Definition' (2002) 5 Journal of World Intellectual Property 981.

[41] Along the same line see Grosheide (n 39) 55; Willliam Cornish, '1996 European Community Directive on Database Protection' (1996) 21 Columbia Journal of Law and the Arts 1, 8; see also Gerald Dworkin, 'Copyright, Patent or Protection for Computer Programs' (1996) Fordham International Intellectual Property Law and Policy 183; for a broader overview Michal Koščík and Matěj Myška, 'Database Authorship and Ownership of *Sui Generis* Database Rights in Data-Driven Research' (2017) 31 International Review of

More specifications come from the Preamble. Recital 41 helps clarifying that the "maker" is a natural or legal person taking the initiative and bearing the risk of investing on the construction of the database. This clearly suggests that the Directive does not demand a direct engagement with development activities but only the assumption of initial steps – both organizational and financial – toward the endeavor. The key importance of the investment risks is also emphasized by the exclusion of subcontractors, and thus also employees, from the notion of "maker."[42]

The key notion, however, remains that of "substantial investment." "Investment" entails the use of "human, technical, and financial resources" (Recital 7), but also the use of time, effort and energy (Recital 2).[43] Although Recital 39 refers to "financial and professional investment," there is no other hint which would suggest the legislative intention to exclude from protection databases which are developed out of noncommercial efforts from private individuals who only later decide to exploit them.[44] Most importantly, not all investments give rise to a *sui generis* protection, but only those which are necessary to obtain, verify or present the contents. This implies that an investment for the acquisition of an already-made database is not a sufficient basis to trigger the application of Article 7 Database while, on the contrary, an investment in technical devices necessary to obtain data, even if in an unstructured form, may be enough (Recital 39), as long as it was purposefully directed to the subsequent structuring of a database.[45]

The question of whether "obtaining" content could also include investments directed to create materials, instead, required, as we will see, an intervention of the CJEU (Court of Justice of the European Union).[46] The exclusion of investments for the self-production of data is directed to avoid the privatization of data corpora which are generated by a single source, which would have strong anticompetitive effects.[47] For this reason, Article 7 would still protect databases where the investment was directed to collect fully re-elaborate raw data.[48] The same distinction between generated and obtained data has to be made with regard to the investments made to verify the content, that is to make sure that information are updated and reliable, and to the presentation of the data, that is their structuring and

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[42] As noted by Walter-von Lewinski (n 9) 9.1.6.

[43] See, eg, Paul Gaudrat, 'Loi de transposition de la directive 96/9du 11 mars 1996 sur les bases de données: le champ de la protection par le droit *sui generis*' (1999) 52 (1) RTD Com 100–02; Cornish (n 41) 9; Grosheide (n 39) 62 ff, analyzing also national case laws.

[44] On the debated treatment of so-called spin-off databases, see the detailed analysis of P Bernt Hugenholtz, 'Program Schedules, Event Data and Telephone Subscriber Listings under the Database Directive: The "Spin-Off" Doctrine in the Netherlands and Elsewhere in Europe, Paper presented at Eleventh Annual Conference on International IP Law & Policy, Fordham University, New York, April 14–25, 2003.

[45] See the comprehensive analysis of Estelle Derclaye, 'Database *Sui Generis* Right: What Is a Substantial Investment? A Tentative Definition' (2005) 36 International Review of Intellectual Property 2, and the national case law account of Grosheide (n 39) 62 ff.

[46] See Section II.IV.B.

[47] See, eg Guido Westkamp, 'Protecting Databases under US and European Law: Methodical Approaches to the Protection of Investments between Unfair Competition and Intellectual Property Concepts' (2003) 34 International Review of Intellectual Property 772, 782.

[48] As in Leistner (n 38) 438.

arrangement, and their presentation via software or other means.[49]

To obtain protection, the investment should be substantial. This characterization introduces a benchmark that aims at excluding from the scope of Article 7 those databases the production ofwhich did not require the assumption of an entrepreneurial risk that was high enough to justify a monopolization of their content.[50] Substantiality has represented one of the most debated and controversial notions introduced by the Database Directive, for it triggered a plethora of different scholarly views and contrasting interpretations in national case laws.[51] It generally translates into the notion of "considerable" from a qualitative or quantitative perspective, which Recital 7 connects to the cost necessary for copying or accessing the base independently. From this perspective, the legislative intent seems to qualify the substantiality of the investment on the basis of a comparison between the high costs needed to develop the base and the low cost of freeriding, with the exclusion of any other criteria and in line with the teleological justification of the *sui generis* right.[52] Criteria used to establish whether the benchmark is met are both qualitative and quantitative, in order to take into account both the amount of effort, money and time invested in the endeavor, and the value of the specific skills, techniques and equipment used in obtaining, verifying and presenting the content.[53]

The justification underlying the introduction of the *sui generis* right also represents the reason of the careful definition of its subject matter. In fact, Article 7 extends the protection only to the whole of the content or to a substantial part thereof, evaluated qualitatively and/or qualitatively. This criterion clearly departs from the notion of originality which is used to determine the minimum excerpt still protected by copyright and thus amounting to a partial reproduction.[54] The reason is quite simple and intuitive. Copyright protects creativity and the personal touch of the author, thus it also protects rightholders' interest in remaining in control of any use of the work which, albeit minimal and thus not in competition with its normal exploitation, still involves fractions that carry its "spirit."[55] On the contrary, the protection offered by the *sui generis* right is directed only to secure the risky investments faced by the database maker against cheap acts of freeriding or unauthorized acts of exploitation that may endanger the market of the database.[56] A confirmation of this reading comes from Recital 42, which specifies that the rig[redacted]n and/or reutilization "relates not only to the manufacture of a parasitical

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[49] ibid a[redacted]

[50] Simila[redacted]e Westkamp (n 47) 781; and Michael Tappin et al., *Laddie, Prescott and Vitoria on the Modern Law ofCopyright* (5th edn[redacted] 2018) 1076. Against the setting of a high threshold see Mathias Leistner, 'Legal Protection forthe Database Maker: Initial Ex[redacted]man Point of View' (2002) 33 International Review of Intellectual Property 439, 449–50; contra Derclaye[redacted]) 10.

[51] See the account of the ac[redacted]ebate provided by Derclaye (n 45), 8–12.

[52] With the exclusion, for ins[redacted]of subjective criteria such as the financial situation of the investor or the size of the company, or secondary factors[redacted] the potential market success of the database. See Walter-von Lewinski (n 9) 9.7.13–14.

[53] Broadly see Derclaye (n 2) 7[redacted]ample references to national case law; similarly in Davison (n 4) 97 ff; Grosheide (n 39) 52 ff; Leis[redacted]n 38) 439; Gaudrat[redacted]01. On the amplitude of the qualitative criterion see Hugenholtz (n 14) 134–36.

[54] As [redacted]rosheide (n[redacted]

The CJEU [redacted] in case C-5/08 *Infopaq International A/S v Danske Dagblades Forening* [2009] ECR I-6569. For a broader analysis see Caterina Sganga, 'The Right of Reproduction' in Eleonora Rosati (ed) *Routledge Handbook on EU Copyright Law* (Routledge 2021) ch. 14.

[56] As in Westkamp (n 47) 784.

competing product but also to any user who, through his acts, causes significant detriment, evaluated qualitatively or quantitatively, to the investment." For this reason, the notion of "substantial" part has to be established on the same grounds of the "substantiality" of the investment, and consider any type of use, regardless of its commercial or noncommercial/private nature.[57] A part may be substantial not only if the quantity of the materials extracted and reused is remarkable compared to the entire database, but also if the materials extracted, regardless of its quantity, required a qualitatively and/or quantitatively substantial investment to be collected, verified and presented.[58] Along the same lines, the extraction and/or reutilization of insubstantial parts may still become substantial and impair the investment in specific circumstances, that is when the extraction and/or reutilization is repeated and systematic, insomuch as to conflict with a normal exploitation of the database, or to unreasonably prejudice the legitimate interests of the maker (Article 7(5) Database).[59]

The protection offered by the *sui generis* right is defined as the possibility to prevent the "extraction" and "reuse," both terms which do not find any correspondence in copyright law nor in any related right.

The notion of "extraction," meaning "the permanent or temporary transfer of all or a substantial part of the contents of a database to another medium by any means or in any form," is conceptually close to that of reproduction under Article 2 InfoSoc,[60] or even broader, since also the transfer to another medium without a duplication may entail an extraction, as indirectly confirmed by the CJEU.[61] As it is the case for every other exclusive right, the definition has to be read broadly and in light of the goal of Article 7, which is to guarantee to database maker an adequate return by protecting them against any unauthorized appropriation of the results of their investment.[62] While it is uncontested that the transfer to "another" medium does not require a change in kind, but only that the origin and destination are different and independent from each other, it remains questionable whether some form of consultation or displaying on screen may fall under the prohibition of Article 7 Database.[63] Recital 44 states that the right covers all instances where an extraction is needed to perform an onscreen display, which *e contrario* suggests that the displaying itself is outside the scope of the provision. The same can be said for consultations if no transfer is involved.[64]

The act of "reutilization" covers both acts of exploitation and acts performed without any commercial aim. Article 7(2)(b) refers to "any form of making available to the public" of all or a substantial

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[57] ibid.

[58] This interpretation will be later confirmed by the CJEU in a strain of decisions. See infra Section II.IV.C.

[59] Some countries classified these repeated and systematic extractions and reuse as extraction and reuse of substantial parts. In some national laws the two sets of acts are regulated adjacently. See, eg §87b (1), sentence 2, German Copyright Act; Art. 2 Dutch Database Act. See Walter-von Lewinski (n 9) 9.7.22.

[60] Directive 2001/29/EC of May 22, 2001 on the harmonization of certain aspects of copyright and related rights in the information society (2001) OJ L167/10.

[61] First, albeit not directly, in the BHB decision (infra n 72), and later in Directmedia and Apis-Hristovich (infra n 126 and 133). See infra Section II.IV.D.

[62] Directmedia and Apis-Hristovich (infra n 126 and 133)

[63] See, more extensively, Derclaye (n 2)104.

[64] ibid.

part of the database, and specifies as examples the distribution of copies, and online and other forms of transmission. Despite the exclusion of rental and lending, this remains the most overarching and comprehensive part of Article 7, for it extends to any form of communication to the public and to the transfer of the database on a tangible support, the latter being subject to exhaustion.[65] However, and differently than for the notion of "extraction," the use of terms that are common in copyright law has facilitated the reference to general definitions andtheir judicial interpretation, easing the interpretative short-circuits caused by the introduction of new concepts within the tangles of national laws.[66]

To tackle the potential overlaps between different rights – *sui generis* over the content, copyright over the database structure, copyright and other exclusive rights on single materials – the Directive sets some basic rules to guide their interplay.[67] Article 7(4) specifies that the *sui generis* right applies irrespective of the application of copyright on the structure and of the protection of the contents by copyright or other rights. Article 7 also clarifies that the *sui generis* right leaves unprejudiced any right existing on the database content, while Recital 46 reiterates that the *sui generis* right does not establish a new right in the works, data or materials, making a cumulation of protection on the very same piece of content highly unlikely to occur. At the same time, Recital 45 states that the *sui generis* right does not constitute an extension of copyright protection to items that are not eligible for it, suchas mere facts or data, in this way highlighting the intention of the EU legislator to circumscribe the scope Article 7 Database and prevent information monopolies.

Originally set in ten years and then prolonged to fifteen to ensure a full amortization of the investment,[68] the term of protection starts from the first of January of the year following the dateof full completion. The most controversial aspect remains, however, the possibility to extend the term in case of qualitatively or quantitatively substantial change of content (Article 10(3)), which may open the door for the conferral of perpetual exclusivity, and creates relevant legal uncertainty as to its scope, since the extent and type of change determine the subject matter of the term extension.[69] When a static database is integrated by additional parts that required a substantial investment, in fact, the new term applies only to the new extensions. In the case of dynamic databases that require substantial investments to be updated, instead, the renewal concerns the entire base, which is thus subject to a potentially perpetual protection that goes much beyond the duration of the protection conferred by copyright.[70] The reasons underlying this difference are said to lie on the rationale of the two rights: since

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[65] Analogously see Hugenholtz (n 3) 213.

[66] This is the belief of Walter-von Lewinski (n 9) 9-7-36.

[67] In its Original Proposal, the Commission restricted its *sui generis* right to the parts of the database content that were not protected by any other right. When the Council modified Article 7 to exclude insubstantial part of the database from the *sui generis* protection, excluding compulsory licenses, the *sui generis* right was extended again to cover theentire base, from which it came the need to clarify the interpretation of potential cases of rights overlaps. See Statement of the Council Reasons, Common Position (n 24) no 14.

[68] See Explanatory Memorandum of the Amended Proposal (n 23) 6.

[69] See the attentive analysis of Derclaye (n 2)137 ff. On term perpetuity and the propertization of information see Reichman-Samuelson (n 25) 85–86. As for the date of completion, the burden of proof of the subsistence of the requirement for extension lies on the maker (Recital 54).

[70] The problems raised by the difference between static and dynamic databases are addressed also by Guido Westkamp, 'EU Database Protection for Information Uses under an Intellectual Property Scheme: Has the Time Arrived for a Flexible

the *sui generis* rights protect investments, it appears logical and consequential to grant additional protection every time a new investment is made to ameliorate the product. However, the potentially perpetual renewal is left without any stronger counterbalancing measure and, absent a system of registration of database rights, puts on competitors and users the cost of ascertaining duration and scope of the term extension, despite the imposition of the burden of proof of the changes on the database maker.[71]

iii) Lawful Uses and Exceptions

Considering the implications of the *sui generis* right on access to information and the risk of informational monopolies, the EU legislator has introduced a set of provisions directed to strike a balance between rightholders' and users' interests.

Article 8 Database is devoted to the rights and obligations of lawful users, "whose access to the contents of a database for the purpose of consultation results from the direct or indirect consent of the maker of the database."[72] The first paragraph excludes the possibility for rightholders to prevent a lawful user from extracting and/or reutilizing insubstantial parts of the database contents, evaluated qualitatively or quantitatively, for any purpose.[73] In this sense, the provision adds little to Article 7, which already exclude from infringement extraction and reutilization of insubstantial parts, as long as they are not repeated and systematic and hurt the maker's interests.

The goal of Article 8, however, is probably different, and namely that of ensuring that the balance set by law and the scope of Article 7 are not modified by the market. Article 15, in fact, declares any contractual provision contrary to Article 8(1) null and void, using the same approach adopted in the Software Directive for the backup and interoperability exceptions.[74]

In order to avoid abuses, Article 7(5) Database provides an exception to lawful uses, ruling that a repeated and systematic extraction and reutilization of unsubstantial parts of a database amount to an infringement of the *sui generis* right if it conflicts with the normal exploitation of the base or which unreasonably prejudice the legitimate interests of the maker. Along the same lines, Articles 8(2) and (3) forbid lawful users to perform acts having similar effects, and to cause prejudice to the holder of copyright or related rights on works that are contained in the database.

Exceptions are carefully tailored. Article 9 Database admits unauthorized extractions and reutilization of substantial parts of the database content for private purposes in case of non-electronic databases,

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Assessment of the European Database Directive?' (2003) < https://ssrn.com/abstract=1115432> accessed 28 February 2021.

[71] As well pointed out by Jerome Reichman and Paul Uhlir, 'Database Protection at the Crossroads: Recent Developments and Their Impact on Science and Technology' (1999) 14 Berkeley Technology Law Journal 793, 801.

[72] The definition comes from case C-203|02 *The British Horseracing Board Ltd and Others v William Hill Organization Ltd* [2004] ECR I-10415, para 58. Recital 34 defines it indirectly by referring to the user to whom "the rightholder has chosen to make available a copy [...] whether by an on-line service or by other means of distribution." On the notionsee Vinciane Vanovermeire, 'The Concept of the Lawful User in the Database directive' (2002) 31 International Review of Intellectual Property and Competition Law 62.

[73] Accordingly, Derclaye (n 2) 127, suggests that the provision is "redundant and misleading."

[74] The reference goes to Article 5(2) and Article 6 of Directive 91/250/EEC on the legal protection of computer programs (1991) OJ L122–42.

for illustration for teaching or scientific research, and for public security or administrative or judicial procedures. The provision, which is deemed exhaustive and of maximum harmonization, is limited to uses for noncommercial purposes and has to be interpreted narrowly.[75] Differently than what is provided under Article 6 Database for copyright protection, there is no reference to the possibility for Member States to add further derogatory provisions from national copyright laws,[76] and also the content of Article 9 exceptions is in some instances narrower if compared to the correspondent exceptions to copyright.[77]

Considering the exhaustive nature of the list of exceptions provided by Article 9 Database, subsequent directives have intervened to add new limitations to tackle emerging balancing needs that could not be addressed under the provision. An example comes from the Marrakesh Directive, which introduces a mandatory exception (also) to Articles 5 and 7 Databases in order to enable visually disabled individuals and authorized entities to make accessible copies of protected works and to communicate them to the public.[78] Recently, and after years of debate,[79] the Directive on Copyright in the Digital Single Market has tackled the problems that database protection raised for the operation of artificial intelligence (AI) agents and machine learning processes, introducing two mandatory text-and-data-mining (TDM) exceptions.[80] The first is dedicated to TDM activities for the purpose of scientific research, entailing reproductions and extractions made by research organizations and cultural heritage institutions (Article 3). The provision is not overridable by contract, allows the retention of copies of works, and requires the adoption of appropriate security measures and proportionality in the activities carried out. The second exception allows general TDM activities but subordinates the exception to the fact that rightholders have not expressly reserved such uses (Article 4). The TDM exceptions have been introduced to tackle the most evident criticalities that Article 7 Database have raised in the context of the AI and data economy, where information monopolies act as strong obstacles to data flows and sharing of data corpora, and thus to innovation and to the development of economies of scales.[81] However, they represent only a

[75] The exhaustiveness is derived from Recital 50. See, in this sense, Jean-Paul Triaille and Alain Strowel, *Le droit d'auteur, du logiciel au multimédia: droit belge, droit européen, droit compare* (Kluwer 1997) 287.

[76] Recital 52 only permits certain Member States to maintain their exceptions for rights comparable to the *sui generis* right. The reference mostly goes to the catalogue right and its exceptions (see supra n 5).

[77] Compare, eg, Article 6(2)(b) on the copyright exception for purposes of illustration for teaching and research, which covers also online transmission or transmission on a large screen, while the corresponding provision for the *sui generis* right, Article 9(b), is limited to extraction and does not extend to reutilization, which would cover the act of making available to the public.

[78] Directive (EU) 2017/ of September 13, 2017 on certain permitted uses of certain works and other subject matter protected by copyright and related rights for the benefit of persons who are blind, visually impaired or otherwise print-disabled (2017) OJ L242/6.

[79] See, inter alia, Christophe Geiger, Giancarlo Frosio and Oleksandr Bulayenko, 'Text and Data Mining in the Proposed Copyright Reform: Making the EU Ready for an Age of Big Data?' (2018) 49 International Review of Intellectual Property and Competition Law 814; Reto Hilty and Moritz Sutterer, 'Position Statement of the Max Planck Institute for Innovation and Competition on the Proposed Modernisation of European Copyright Rules' (March 4, 2017) <https://pure.mpg.de/rest/items/item_2527200/component/file_2527201/content> accessed 28 February 2021; Thomas Margoni and Martin Kretschmer, 'The Text and Data Mining Exception in the Proposal for a Directive on Copyright in the Digital Single Market: Why It Is Not What EU Copyright Law Needs' (April 25, 2018) <www.create.ac.uk/blog/2018/04/25/why-tdm-exception-copyright-directivedigital-single-market-not-what-eu-copyright-needs> accessed 28 February 2021; Eleonora Rosati, 'An EU Text and Data Mining Exception for the Few: Would It Make Sense?' (2019) 13(6) Journal of Intellectual Property Law & Practice 429.

[80] Directive (EU) 2019/790 of April 17, 2019 on copyright and related rights in the Digital Single Market (2019) OJ L130/92.

[81] As in Geiger-Frosio-Bulayenko (n 79).

circumscribed solution tosome of the problems triggered by the *sui generis* right, offering no response to the challenges raised by the lack of flexibility of Article 9 Database and the nonalignment of general copyright exception and *sui generis* exceptions.

III. THE *SUI GENERIS* RIGHT IN THE CASE LAW OF THE COURT OF JUSTICE OF THE EUROPEAN UNION

As foreseeable considering the many general definitions and broad terms used in the Directive and the relative novelty of the concepts it introduced, the CJEU had to intervene several times to untie important interpretative knots. Compared to the high number of cases in the field of general EU copyright law, the number of database decisions is relatively limited. Yet, their clarity and consistency are remarkable, as so has been their impact on the development of the discipline.

For the sake of conciseness, this chapter analyzes only decisions concerning Article 7 Database and the definition of *sui generis* right, which are nevertheless the great majority of the cases issued by the CJEU on the Database Directive.[82] In this context, the Court's case law mostly intervened on four areas: (i) the definition of "database" and its content; (ii) the notion of "substantial investment" as a requirement for the *sui generis* right protection; (iii) the notion of "substantial part" and "insubstantial part" to define the subject matter and scope of the provision; and (iv) the scope of the exclusivity, that is the notions of "extraction" and "reutilization."

a) The Definition of "Database" and Its Content

The CJEU's first attempt to draw the boundaries of the notion of "database" under Articles 1(2) and 7 Database is marked by *Fixtures Marketing Ltd v OPAP*, one of the three Fixtures Marketing cases decided by the Grand Chamber in November 2004,[83] all concerning the use of fixture lists of professional football matches, prepared yearly by a working group consisting of representatives of the clubs. Fixtures was the company retained by the organizers of English and Scottish leagues to manage the exploitation of fixture lists outside the UK. The defendant, OPAP – the Greek company having the national monopoly on gambling activities – used without authorization information from the lists and was thus sued for violation of Fixtures' *sui generis* right.

The interpretation provided by the CJEU is very useful to bring order in the assessment of the applicability of the Database Directive. The Court clearly excluded the need for the materials tocome

[82] This analysis will omit, for example, commenting on Case C-604/10 *Football Dataco Ltd et al v Yahoo! UK Ltd et al* [2012] EU:C:2012:115, through which the Court brought clarity on the requirement of originality to confer copyright protection to databases under Article 3 of the Directive, crossing out the application of any existing national requirement, such as the UK notion of skill and labor, and specified once again the autonomy of the protection conferred to database by copyright and by the *sui generis* right, underlining that they can subsist independently fromeach other and that the qualification of a collection as a database under Article 1 of the Directive does not require meeting the requirements of Articles 3 and/or 7 Database.

[83] Case C-444/02 *Fixtures Marketing Ltd v Organismos prognostikon agonon podosfairou AE (OPAP)* [2004] ECR I- 10549, which the Grand Chamber decided on the very same day (November 9, 2004) together with case C-46/02 *Fixtures Marketing Ltd v Oy Veikkaus Ab* [2004] ECR I-10365 and case C-338/02 *Fixtures Marketing Ltd v Svenska Spel AB* [2004] ECR I-10497. The Opinions were all delivered by Advocate General Stix-Hackl. See the comments of Mark J Davison and P Bernt Hugenholtz, 'Football Fixtures, Horse Races and Spin-offs: The ECJ Domesticates the Database Right' (2005) 27 European Intellectual Property Review 113.

from external sources and for the database to be original, since the definition of a collection as "database" under Article 1 of the Directive is independent from the assessment of whether the same database qualifies for copyright protection under Article 3 and/or for the *sui generis* protection under Article 7.[84] Then, it grounded its answer on a teleological reading of the Database Directive, finding several indications of the legislative intention to conceptualize the term "database" as having a wide scope "unencumbered by considerations of a formal, technical or material nature."[85] Such evidence ranges from the reference to "any form" (Article 1(1)) to the later inclusion of nonelectronic databases (Recital 14),[86] the very broad exemplificative list of potential content in Recital 17,[87] and the final version of Article 1(2), where the EU legislator eliminated the definition of a database as a collection of a "large number" of materials, thus revealing the willingness to offer protection to every database, regardless of its size.[88] More specifically, the Court argued that the notion should be defined "in terms of its function"[89] which, according to Recitals 10 and 12, is to store and process information.[90] On this ground, it concluded that there should be "a collection of independent materials," which are separable from one another without their informative, literary, artistic, musical or other value being affected,[91] and "systematically or methodically arranged and individually accessible in one way or another." The CJEU gave a broad reading of "autonomous information value," including, for instance, geographical maps that are made up of independent data points. While the arrangement should not be physically apparent, the collection should be embedded in a fixed base and include means that make it possible to retrieve any independent material contained in it,[92] the latter feature being the one that distinguishes a database from a plain collection.[93]

b) The Notions of "Substantial Investment"

The very first clarification of the requirements of protection set by Article 7 Database, which have an inevitable impact on the definition of its content and scope, came from *Fixtures Marketing Ltd v Oy Veikkaus Ab*, the second decision of the Grand Chamber trio, followed by *Fixture Marketing Ltd v OPAP*, and *Fixtures Marketing Ltd v Svenska Spel AB*,[94] which used an almost identical reasoning and language.

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[84] *Fixture Marketing Ltd v OPAP* para 26.

[85] ibid para 20.

[86] ibid para 22.

[87] ibid para 23. According to Recital 17, "the term 'database' should be understood to include literary, artistic, musical or other collections of works or collections of other material such as texts, sound, images, numbers, facts, and data."

[88] ibid para 24.

[89] ibid para 27.

[90] ibid para 28.

[91] ibid para 29.

[92] ibid para 30. This is derived from Recitals 21 and 13. Technical means can be, in this sense, "electronic, electromagnetic or electro-optical processes, in the terms of the 13th recital of the preamble to the directive, or other means, such as an index, a table of contents, or a particular plan or method of classification."

[93] ibid para 31.

[94] As in the other cases, Svenska was a betting company sued by Fixtures after refusing to enter into a license agreement with the latter for the use of data from the fixture lists. See Fixtures/Svenska Spel, paras 11–13

In *Fixtures Marketing v Oy Veikkaus*, the key question was whether the notion of "obtaining" under Article 7 Database may cover also investments directed at the creation of the database content.[95] To answer, the CJEU deemed necessary to define the extent of the protection conferred by the *sui generis* right.[96] Using the teleological method of interpretation, it high- lighted how Recitals 9, 10, 12 and 39 Database explain that the purpose of the *sui generis* right isto promote and protect investments in the storage and processing systems of existing information to foster the development of an information market,[97] and "to safeguard the results of the financial and professional investments made in obtaining and collecting the contents of a database," thus excluding the creation of the materials from the definition of obtaining.[98] Then, it underlined that Recital 19 excludes that the compilation of several recordings of musical performances on a CD may constitute "a substantial enough investment to be eligible under the*sui generis* right," reading this statement as a confirmation of the fact that the resources used forthe creation of works or materials "cannot be deemed equivalent to investment in the obtainingof the contents of that database and cannot, therefore, be taken into account in assessing whether the investment in the creation of the database was substantial."[99] On these bases, the Court concluded that the expression "investment in [.. .] the obtaining, verification or presentation of the contents" should be referred to the investment in the creation of the database as such,[100] and thus to the resources "used to seek out existing independent materials and collect them in the database, and not to the resources used for the creation as such of independent materials."[101]

Teleological arguments, and particularly the language used by Recitals 7, 39 and 40 also assisted the CJEU in defining "investment" as the deployment of human, financial or technical resources, where the quantitative assessment refers to quantifiable resources and the qualitative assessment to efforts which cannot be quantified, such as intellectual effort or energy.[102] This led the CJEU to admit that even if the development of the database was connected to the exercise of a principal activity in which the database maker also created the material, the *sui generis* protection could still be claimed if the maker proved that obtaining, verifying or presenting the content required an additional, independent substantial investment.[103]

The CJEU used an almost identical reasoning in *British Horseracing Board (BHB) Ltd v William Hill*,[104] another landmark case also decided on November 9, 2004. The case, however, is also important for the guidance it offered on the notion of "substantial part" and "insubstantial part" of the contents of a database, indispensable to define the subject matter and scope of the *sui generis* right.

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[95] As rephrased by the CJEU in Fixtures/Oy Veikkaus, para 29.

[96] ibid at para 31.

[97] ibid at para 33.

[98] ibid para 35. Similarly, see Fixture/OPAP, para 39, and Fixtures/Svenska Spel, para 25.

[99] Fixtures/Oy Veikkaus, para 39, and Fixtures/Svenska Spel, para 26.

[100] ibid para 35.

[101] ibid para 44. Similarly, see Fixture/OPAP, para 40, and Fixtures/Svenska Spel, para 27.

[102] Fixtures/Oy Veikkaus, para 38. Similarly, see Fixture/OPAP, paras 41–42, and Fixtures/Svenska Spel, para 28.

[103] Fixtures/Oy Veikkaus, paras 39–40. Similarly, see Fixture/OPAP, paras 45–46, and Fixtures/Svenska Spel, para 29.

[104] Supra n 72.

c) The Notion of "Substantial Part" and "Insubstantial Part"

BHB concerned the use of a database containing a large amount of information on pedigrees of horses and prerace information from the UK. The defendant, William Hill, operated an online betting service that offered to its clients also information taken from the BHB's feed. Despite the amount of data used represented only a very small proportion of the BHB's database and it was arranged differently on William Hill's website, BHB still sued the latter for infringement of their *sui generis* right.

The BHB decision focused on the notion of "substantial part" since the referring court asked whether Article 7 Database could still apply where the systematic or methodical arrangement and the condition of individual accessibility of the materials extracted from the database had been altered by the person carrying out the extraction and/or reutilization.[105] To answer, the CJEU used again the teleological approach. From Recital 32, which identifies among the main aims of the Directive that of preventing that a user, "through his acts, causes significant detriment, evaluated qualitatively or quantitatively, to the investment," the Court derived the need to assess the substantiality of the part by referring to the investment required for its creation, and to the prejudice caused to the investment by extracting or reutilizing that part.[106] In this sense, a quantitatively substantial part refers to a volume of data that is substantial compared to the entire database, and which required substantial resources to be deployed.[107] A qualitatively substantial part is a part that required significant human, technical or financial investment for that material to be obtained, verified and presented, regardless of its size. In both cases, the intrinsic value of the materials affected, their importance for the database maker and the resources eventually used for their creation do not matter for the assessment of substantiality.[108] Against this background, it appears evident that no change made by the person making the extraction and reutilization to arrangement and accessibility of the data may have any effect on the substantial or insubstantial nature of the part extracted and reutilized.[109] Parallel to this, the CJEU clarified also the scope of the prohibition laid down by Article 7(5) Database. Looking at the goal of this safeguard clause,[110] which is to prevent the circumvention of the *sui generis* right by acts which are not singularly relevant, but cumulatively may seriously prejudice the database maker's investment,[111] the CJEU deemed not relevant whether the acts were carried out to create of another database or in the exercise of other activities, since what mattered was only the impact on the maker's economic interests.[112]

Similar arguments were raised in 2009 in *Apis-Hristovich v Lacorda*,[113] where the contested act was the alleged extraction and reutilization by Lacorda of 82.5 percent of Apis-Hristovich's database of legal

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[105] BHB, para 68.

[106] ibid para 69.

[107] ibid para 70.

[108] ibid paras 71–72, 78–79.

[109] ibid para 81.

[110] Common Position (n 24), point 14.

[111] BHB, para 86.

[112] ibid para 87.

[113] Case C-545/07 *Apis-Hristovich EOOD v Lakorda AD* (2009) ECR I-1627.

materials, allegation denied by Lacorda, which argued that the content, albeit similar, was taken from other sources – mostly publicly accessible – and the database was differently and originally organized and structured. Remarkably, the CJEU admitted that the non-accessibility to the public of the sources of certain materials may affect the assessment of whether there has been a substantial investment in obtaining them under Article 7(1) Database, but denied that this factor was enough to exclude the presence of an infringement.[114] Similarly, the Court excluded that the non-protectability under copyright of some of the database content exempted national courts from verifying the presence of the requirements for protection set by Article 7 Database and its eventual violation.[115]

However, the area where the CJEU was the most prolific – and understandably, considering the importance of such notions for the interpretation of the scope Article 7 Database, was the definition of the notions of "extraction" and "reutilization."

d) The Scope of "Extraction" and "Reutilization"

The Court was called for the first time to rule on the matter in *BHB*, where it had to establish whether the protection offered by Article 7 Database also covered the use of data which, although originally derived from a protected database, were obtained by the user from other sources. The question was dense of implications, since it aimed at understanding how far the exclusivity conferred by the *sui generis* right on data could go, particularly regarding indirect conducts.

To provide a balanced interpretation, the CJEU referred once again to the objective of investment protection pursued by Article 7 Database,[116] and highlighted that Recital 42 also specifies that the *sui generis* right "relates not only to the manufacture of a parasitical competing product but also to any user who, through his acts, causes significant detriment, evaluated qualitatively or quantitatively, to the investment." This proves in the opinion of the Court, the irrelevance of the purpose underlying the extraction or reutilization of the database content.[117] Reading these statements together with Article 7(2)(a) and (b), the CJEU concluded that the EU legislator intended to give to extraction and reutilization a very wide definition,[118] as suggested by the use of expressions such as "by any means or in any form" and "any form of making available to the public,"[119] which indicated that the two terms should be interpreted as referring "to any act of appropriating and making available to the public, without the consent of the maker of the database, the results of his investment, thus depriving him of revenue which should have enabled him to redeem the cost of the investment."[120]

Against this background, the Court had no doubt in stating that Article 7(2) should also cover indirect

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[114] ibid paras 66–68.

[115] ibid paras 69–70.

[116] BHB, paras 45–46, with reference to Recitals 42 and 48.

[117] ibid paras 47–48.

[118] ibid para 49.

[119] ibid para 51.

[120] ibid.

conducts, since "acts of unauthorized extraction and/or reutilization by a third party from a source other than the database concerned are liable, just as much as such acts carried out directly from that database are, to prejudice the investment of the maker of the database."[121] The extension is not without limit, though. The CJEU excluded, in fact, that the *sui generis* protection could cover the consultation of a database,[122] and underlined that where the database maker authorizes a third party to reutilize the content, they also consent that the database is made accessible to the public.[123] This does not imply, however, that a lawful user who is authorized to consult the database may extract or reutilize its content, since the *sui generis* right does not get exhausted on the basis of the maker's consent to consultation (see Recital 43).[124] In other words, no matter if the maker has made the content of the database available to the public as a whole or in part, or authorized a third party to do so, any act of extraction (that is the transfer of content to another medium) and act of reutilization (that is the making available of the database to the public) require the authorization of the rightholder.[125]

Four years later, the Court returned to the same points in *Directmedia Publishing GmbH v Albert-Ludwigs-Universitat Freiburg.*[126] *Directmedia* revolved around a collection of German poems (XVII–XIX centuries.) compiled by Mr. Knoop, arranged according to citation frequency and supplemented by bibliographic compilation, and allegedly copied by Directmedia, which marketed a CD-ROM containing 1,000 poems, 856 being also in Mr. Knoop's list, which Directmedia used as a guide although it took the texts from own digital resources. More explicitly than in BHB, the referring court asked whether the concept of extraction covered also the transfer or elements from one database to another upon visual consultation of the former and a selection based on the personal assessment of the person operating the move.[127] At stake there was the need, according to Directmedia, to narrow down the interpretation of the *sui generis* right to cover only the physical transfer of all or of part of the database to another medium, but not its use as a source of consultation, information and critical inquiry.[128]

The CJEU grounded its answer on a literal, contextual and teleological interpretation of the Directive. It reiterated that Article 7 requires offering to the concept of extraction a wide definition and that, in order to protect the database maker from any act of freeriding by a user or a competitor,[129] the concept of extraction could not be made dependent on the nature and form of the mode of operation used.[130] This entails that the decisive criterion is the presence of a "transfer" of all or

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[121] ibid paras 53–54. For the CJEU, this conclusion is also backed by Article 7(2)(b), which excludes the application of exhaustion on the right to control extraction and reutilization of the contents.

[122] ibid para 54.

[123] ibid paras 56–57.

[124] ibid paras 58–59, also on the basis of Recital 44.

[125] ibid para 61.

[126] Case C-304/07 *Directmedia Publishing GmbH v Albert-Ludwigs-Universitat Freiburg* [2008] ECR I-7565.

[127] ibid para 22.

[128] ibid para 19.

[129] Directmedia, para 33, recalling Fixture/OPAP, para 35 and BHB, paras 32, 45, 46, 51, 67.

[130] Directmedia, para 35.

part of the database to another medium of whatever nature. It is immaterial, instead, the way how the transfer is made – manually or technically[131] – whether the amount transferred is insubstantial,[132] or whether the transfer leads to an arrangement that is different from the original database, since the Directive is clear in considering any unauthorized act of copying as a threat against the database maker's interests.[133] Similarly, no relevance should be given to the objective pursued by the act, its competitive or noncompetitive nature, or whether or not the act is part of an activity other than the creation of a database.[134]

Directmedia tried to oppose such a broad interpretation by arguing that a too-wide definition of the scope of the *sui generis* right would have established a pure ownership over information, promoting informational monopolies and infringing users' right to free access to information.[135] The CJEU, however, rejected the claim, arguing that users' access rights were ensured by the fact that consultation fell outside the scope of Article 7,[136] and that the Directive was sensitive to competition law concerns, as showed by Recital 46, which leaves unprejudiced EU and national competition rules,[137] and by Article 16(3) Database, which calls the Commission to periodically report on the interferences between the *sui generis* right and free competition.[138]

Apis-Hristovich added to this framework the interpretation of the concepts of "permanent transfer" and "temporary transfer" under Article 7(2)(a),[139] emphasizing that the distinction, lying in the duration of storage of the materials on another medium, is relevant only to assess the gravity of the infringement and thus the damages to be compensated.[140]

One had to wait until 2013 to get the first answer of the CJEU on the much more challenging question of the applicability of Article 7 Database to the activities of metasearch engines. In *Innoweb BV v Wegener ICT Media BV et al.*[141] the plaintiff, Innoweb, ran a metasearch engine on car sales (GasPedaal), which used search engines from other websites to answer the queries of its users. The results were merged into one document with links to all the original sources. Every day, GasPedaal performed approximately 100,000 searches on Wegener's AutoTrack website, which corresponded to approximately 80 percent of its collection. Each query, however, triggered the showing of only a small party of the AutoTrack's content, always determined by the user through his search. On this basis,

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131 ibid paras 36–38, backed also by the reference to Recital 14, which recalls the protection offered to nonelectronic databases, and Recital 21, which highlights that the protection afforded by the Directive does not require the materials contained in the database to "have been physically stored in an organised manner."

132 ibid para 43, in line with BHB, para 50.

133 Directmedia, para 39, with reference to Recital 38.

134 ibid para 47, in line with BHB, paras 47–48.

135 ibid para 50.

136 ibid para 52.

137 ibid para 56.

138 ibid para 57.

139 ibid para 42.

140 ibid paras 43–44.

141 Case C-202/12 *Innoweb BV v Wegener ICT Media BV et al.* [2013] EU:C:2013:850.

Wegener sued Innoweb for violation of its *sui generis* right and succeeded before the first instance court. Innoweb appealed, and the Regional Court of Appeal of the Hague decided to refer the case to the CJEU to receive clarification on whether the indirect activities of a metasearch engine met the requirements set by Article 7(1), (2) and (5) to have an infringement of the *sui generis* right.[142]

The question gave the opportunity to the Court to offer a more detailed interpretation of the concept of reutilization. First, the CJEU underlined the need to exclude from the definition the substantiality of the part reutilized, and to give to the concept a broad interpretation.[143] Then, it recalled the objectives of the *sui generis* right to reiterate the broad definition of reutilization offered by *Directmedia*[144] and, to determine the applicability of the provision to metasearch engines, it looked at the purpose of their activities and their effects.

Metasearch engines provide access to the entire contents of other databases by means other than those intended by their makers. Since end users no long have the need to go to the original databases website, database makers are likely to lose revenues which they need to redeem the cost of the investment in building and operating the databases. This risk is not excluded if the result page hyperlinked to the original database webpage to have access to the database content, since the potential negative impact on the website traffic and advertisement inflow remains.[145] And even if Article 7 Database does not cover consultations of freely accessible databases,[146] the activity of a metasearch engine cannot be assimilated to a consultation, since the engine only provided indirect access to external databases to users who could have had access to and consult the same databased directly from the respective websites. In this sense, such activities "come close "to the manufacture of a parasitical competing product as referred to in Recital 42 [.. .]albeit without copying the information stored in the database concerned" and, "in view of the search options offered," the metasearch engine "resembles a database, but without having any data itself."[147] For the CJEU, thus, metasearch engines perform acts of making available of the contents of other databased for the purpose of Article 7(2)(b), thus engaging in an unauthorized reutilization of the whole or substantial part of their contents, for they generally perform mirrored search on the entire databases they "scrap."[148]

e) Private Autonomy and the Balance of Countervailing Interests: The Ryanair *Decision*

The most recent decision concerning the Database Directive, *Ryanair v PR Aviation* (2015),[149] also revolved around the activities of a metasearch engine – PR Aviation – that operated a website on which consumers could search through the flight data of low-cost airlines, compare prices and book a flight on

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[142] ibid paras 8–18.

[143] ibid paras 33–34, in line with BHB, para 51, and Directmedia, para 32, and as reiterated by case C-173/11 *Football Dataco Ltd and others v Sportradar GmbH and others* [2012] EU:C:2012:642, para 20.

[144] Innoweb, paras 37–38, as in BHB, para 67; Apis-Hristovich, para 49; Football Dataco, para 20.

[145] Innoweb, para 45.

[146] ibid para 46, as in BHB, para 53.

[147] ibid para 48.

[148] ibid paras 50 and 53

[149] Case C-30/14, *Ryanair Ltd v PR Aviation BV* [2015] EU:C:2015:10.

payment of a commission. The website gave access also to Ryanair dataset and booking system, despite access to the Ryanair website requested the application of its general terms and conditions, among which an exclusive distribution clause – which specified that only Ryanair.com was authorized to sell Ryanair flights – and a "permitted use" clause, which explicitly forbade using the website other than for limited private noncommercial purposes. Screen-scraping activities like the one performed by PR Aviation were prohibited unless the third party had directly concluded a written license agreement with Ryanair, and limitedly to the sole purpose of price comparison.[150]

The question to the Court was based on the premise that the Ryanair dataset could be classified as a database under Article 1(2) Database, but was not protected by copyright on the basis of Article 3 Database and/or of the *sui generis* right on the basis of Article 7 Database.[151] It aimed at understanding whether the mandatory balance set by Articles 6(1), 8 and 15 of the Directive, winning over freedom of contract, should apply to any collection of works featuring the characteristics indicated by the general definition provided by the EU text, regardless of whether that the collection itself met the requirements to be actually protected by any of the two exclusive rights introduced by the Database Directive.

The response of the CJEU was fully to the negative. The definition of Article 1(2) applies "for the purposes of this Directive," which is "the legal protection of databases" by means of copyright and *sui generis* rights. In this sense, the fact that a database corresponds to the definition set out in Article 1(2) of Directive 96/9 does not justify the conclusion that it falls within the scope of the provisions of that directive governing copyright and/or the *sui generis* right if it fails to satisfy either the condition of application for protection by copyright laid down in Article 3(1) of that directive or the conditions of application for the protection by the *sui generis* right in Article 7(1) thereof.[152]

Article 6(1) Database could therefore apply only to databases protected by copyright; Article 8 only to databases protected by the *sui generis* right; and Article 15, which affirms the mandatory nature of certain provisions of the Directive by declaring null and void any contractual provision contrary to it, applies only when Articles 6 or 8 apply, thus it does not prevent the adoption of contractual clauses concerning the conditions of use of databases not protected by copyright or *sui generis* right under the Directive.[153]

In the opinion of the CJEU, this interpretation was in line with the general scheme of the Directive and the balance it sets out between the rights of database makers and the rights of lawful users. And it could not be argued that this would reduce the interest in claiming the protection instituted by EU law, since database makers would have more contractual freedom if operating outside its scope.[154] In fact, the Database Directive offers automatic protection through two exclusive rights, with no administrative formalities nor any prior contractual arrangement needed,[155] and limits the database

[150] ibid paras 15–16.

[151] ibid para 29.

[152] ibid para 35.

[153] ibid paras 36–39.

[154] ibid paras 40–41.

[155] ibid para 42.

maker's freedom of contract only in circum- scribed lawful uses to balance the broad exclusivity granted to rightholders – exclusivity which authors of nonprotected databases may claim only under national law or under the much weaker tool of contractual provisions.[156]

IV. THE IMPLEMENTATION OF THE DIRECTIVE AND ITS EFFECTS: THE 2005 AND 2018 EVALUATIONS AND THE WAY FORWARD

Already before its enactment, and widely after its adoption, the *sui generis* right was subject tostrong critiques. Article 7 was challenged for being unclear in scope, not fit to stimulate innovation and growth, and triggering the risk of a data and information lockup, to the detriment of the scientific community and of competitors and other industries relying on the availability and free flow of data and information to conduct their business or research.[157]

To answer to such objections, the Commission conducted two assessment exercises. The first evaluation of the Directive was issued in 2005, with the aim to verify whether its policy goals had been achieved and whether the *sui generis* right had negative effects on competition.[158] The Commission's findings were remarkable, both from a legal and from economic perspective.

The Evaluation provided some snapshots of the application of the new rules by national courts and authorities. Expectedly, while the notion of database found a uniform application, the definition of the *sui generis* right, due to its novelty, created a number of conflicting judgments, mostly on the definition of "substantial investment," and on the treatment of spin- off databases and metasearch engines.[159]Criticisms remained, particularly on the tilted balancebetween the interests of makers, lawful users and the general public, on the excessively broad and uncertain scope of the *sui generis* right, and on the too-narrow scope of exceptions.[160] From an economic perspective, the evaluation concluded that the impact of the *sui generis* right ondatabase production was unproven or rather negative, since the EU database production in 2004fell back to pre-Directive levels,[161] and the economic gap with the USA had not been reduced.[162]The policy options opened at this stage were the repeal of the whole Directive, impossible considering internal market needs, and the withdrawal of the *sui generis* right to maintain only a copyright protection having a high originality threshold,

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[156] ibid para 44.

[157] For a summary of the academic debate see Davison (n 4) 237 ff; and Derclaye (n 2) 271 ff; see also Reichman- Samuelson (n 25) 80–90. For an overview of the academic criticisms considered by the Commission in their last evaluation and of the complaints moved by stakeholders, see 'Study in Support of the Evaluation of Directive 96/9/EC on the Legal Protection of Databases. Annex 1 – Legal Analysis' (2018) <https://ec.europa.eu/newsroom/dae/ document.cfm?doc_id=51600> accessed 28 February 2021.

[158] European Commission, First Evaluation of Directive 96/9/EC on the legal protection of databases (DG Internal Market and Services Working Paper, Brussels, December 12, 2005).

[159] ibid 11–12, reporting the most significant case law from Member States.

[160] ibid 22–23, providing an overview of the complaints received by the Commission by stakeholders' associations.

[161] ibid 5 and 20, reporting the results of the Gale Directory of Databases (GDD), and the responses of online surveys conducted by the Commission, which showed that 90 percent of interviewed database makers felt the *sui generis* rightessential for their business.

[162] As reported in the GDD (ibid 22), showing a decrease in the share of global database production for Western Europeand an increase in the North American share.

following the successful US example.[163]

Yet, since no significant administrative or other regulatory burdens on the database and other industries had been detected, no intervention was deemed necessary for the time being.[164]

The second Evaluation dates 2018. It was introduced by the Communication *Building a European Data Economy* in 2017 as necessary to determine the fitness of the regulatory framework with the needs of global data markets and industries working with machine-generated data and artificial intelligence agents.[165] The Commission grounded the Evaluation on an external study which comprised online surveys, workshops with stakeholders and an in-depth comparative legal analysis of the state of the implementation across Member States, looking at data within the timeframe 2005–18.[166]

The Evaluation observed that the implementation and acceptance of the *sui generis* right had kept contentious, and the right itself remained a low-profile legal instrument generating limited interest among stakeholders.[167] In addition, from 2005 the economic and technological use and value of data had witnessed an impressive shift, increasing the number of datasets that may be considered databases despite the narrowing down of the scope of Article 7 by the CJEU.[168]

The study highlighted a neat distinction between copyright and the *sui generis* right.[169] National reports showed little practical interest and litigation on copyright database protection, with only a few national cases revolving around the definition of the concept of "author's own intellectual creation" and "creative choice," generally aligned to the CJEU guidelines in *Football Dataco*.[170] The situation is largely different for the *sui generis* right.[171] National courts have been split on the interpretation of key concepts such as those of substantial investment, showing disagreement on the minimum threshold,[172] with several Member States taking a permissive approach as long as the investment was not trivial.[173] The same can be said for the notion of "substantial part," with cases ranging from 20

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[163] ibid 26.

[164] ibid.

[165] European Commission, Communication 'Building a European Data Economy' COM (2017) 9 final, 10.1.2017.

[166] See Study in support of the evaluation of Directive 96/9/EC on the legal protection of databases – Final report (2018) <https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=51599> accessed 28 February 2021. The report is complemented by a legal analysis (n 157), an economic analysis and the synopsis of stakeholders online surveys, interviews and workshops <https://ec.europa.eu/digital-single-market/en/news/study-support-evaluation-database-directive>accessed 28 February 2021.

[167] See the results of the public consultation ran by the Commission and the low level of turnout, as reported also in the Commission Staff Working Document 'Evaluation of Directive 96/9/EC on the Legal Protection of Databases' SWD (2018) 146 final, 12.

[168] ibid 13.

[169] ibid esp n 48.

[170] ibid 14, with reference to Bundsgerichtshof August 13, 2009 — I ZR 130/04 (on 1,000 poems that everyone should read) and Cour de Cassation (civ I) May 13, 2014, RIDA 2015, No 244.

[171] This is widely explained in Annex 1 – Legal Analysis (n 157) 45, esp para 6.1.

[172] ibid para 8.1, and the cases cited therein. All cases are also reported in Annex 6 – Country grids, available at <https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=51602> accessed 28 February 2021.

[173] This has been called a 'de minimis exclusion rule' by Matthias Leistner, 'Big Data and the EU Database Directive 96/ 9/EC: Current Law and Potential for Reform' in Sebastian Lohsse, Reiner Schulze and Dirk Staudenmayer (eds) *Trading Data in the Digital Economy: Legal Concepts and Tools* (Nomos 2017) 30.

percent to 50 percent of the database, and for the classification of indirect conducts such as those of metasearch engines (e.g., web-scraping and the like).[174] The legal analysis highlighted divergences also in the conceptualization of the database maker,[175] while there seems to be a relative alignment to the CJEU case law on the general definition of extraction and reutilization.[176]

Despite such results, the Commission concluded that "engaging in a process of limited reform of the *sui generis* right would be, at this stage, largely disproportionate," and would first "need to be substantial, and build a stronger case, considering the policy debates around the data economy."[177] This conclusion, however, did not close the debate on the shortcomings of the Database Directive. Aside from long-standing theoretical objections to the privatization of data and information, several academic and policy contributions have advanced very specific reform proposals to address the pitfalls in the Directive and in its national implementations.

It has been maintained, for instance, that the concept of maker should be clarified, and identified in the person responsible for substantial investment, or in the "producer," with a clearer split between "makership" and "authorship."[178] Some commentators have suggested to eliminate the notion of "substantiality" to evaluate the investment required for the *sui generis* protection, considering the uncertainties surrounding its definition and application. To counterbalance the move, they have proposed the introduction of a more stringent regime, featuring narrower rights, a significant substantiality threshold to assess infringements and more exceptions.[179] Others have flagged the risk that this would go to the detriment of users, who are less deep pocket and more risk-adverse, but would be put in charge of keeping the floodgate of nonoriginal database protection shut. As an alternative, these contributions suggest removing the uncertainty associated with the substantiality criterion by standardization mechanisms such as a system of registration, annual meeting of EU and national judges, the creation of a database of national decisions and so forth.[180]

Similar criticisms on its uncertainty and proposals of reform concern the definition of the subject matter of the investment necessary to obtain *sui generis* protection, and the notion of substantial part and of repeated and systematic use of insubstantial parts to draw the boundaries of infringement. As to the former, both commentators and stakeholders have underlined the difficulties in distinguishing between obtaining and creating data and other content, especially in the context of the new (collaborative) data economy and of the Internet of Things.[181] To tackle such problems, they have proposed either to extend the *sui generis* right to cover also investments in the creation of database materials, or to introduce other exclusive rights over data if needed, separating them more clearly from the *sui generis* right. In order to counterbalance the increased risks of informational monopolies, they

[174] Legal analysis (n 157) paras 8.2.2. and 12.2.2 with reference to infringement.

[175] Evaluation (n 167), para 6.1.5, with reference to French and Dutch cases.

[176] As confirmed by the limited number of cases cited in the Legal analysis (n 157) 68.

[177] Evaluation (n 167) 47.

[178] See, eg Koščík and Myška (n 41) 53; Beunen (n 14) 154.

[179] See the literature overview provided by Derclaye (n 45) 62 ff.

[180] As by Lionel Bently and Estelle Derclaye, main authors of the Legal Analysis (n 157) 57.

[181] The reference goes, for example, to sensor-generated data, meteorological data, etc. See Evaluation (n 167) 35–37.

also envisioned the provision of ad hoc balancing tools, such as compulsory licensing schemes or tailored exclusions of specific categories of data.[182] As to the latter, critics refer particularly to the conflicting output of national case laws and to the doubts surrounding the treatment of indirect acts of extraction and reutilization, both having substantial chilling effects on the activities of lawful users and competitors, especially after the *Innoweb* decision. While license agreements remain a valid alternative to more paternalistic regulatory solutions, they may prove ineffective in case of unbalances in bargaining power and polarization and centralization of data ownership – situations where compulsory licensing schemes would still be the most effective solution to solve market failures.[183]

The most problematic aspect of the *sui generis* protection, however, remains the regulation of exceptions. The list provided by Article 9 is criticized for its exhaustiveness, optional nature, scarce or no coordination with general copyright exceptions under the InfoSoc Directive, and incapability of accommodating basic countervailing interests, especially with regard to the reuse of data.[184] While the introduction of the TDM exceptions have partially tackled this issue, the very limited room left to limitations in the field of *sui generis* right makes the latter a much more absolute entitlement than copyright is, leading rightholders to privilege Article 7 as the main toolto protect their interests.

Against this background, the EU legislator had plenty of hints to assess reflect on the impact of the Database Directive on the EU policies on the data economy, and how such hints were univocally pointing to specific directions. Still, the most recent preparatory works and reforms acts and proposals limited their interventions on Directive 96/9/EC on very sectorial aspects, without really taking care of the coordination between the EU Data Package and EU database law.

V. THE DATABASE DIRECTIVE IN THE CONTEXT OF THE EUROPEAN STRATEGY FOR DATA: A MISSED REVOLUTION

Early in 2017, in the Communication "Building a European data economy"[185] the Commission highlighted the need to intervene on the EU legislation in order to develop an ecosystem that could facilitate the cooperation between market actors, users and public entity in making data accessible and reusable, and thus in allowing the extraction of their value and the development of applications having great economic, technological and social potential. To this end, and in line with the GDPR,[186]

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[182] See, inter alia, Westkamp (n 70) 7; Hugenholtz (n 14) 89.

[183] As this is generally the case in intellectual property law. In copyright, see Peter Menell, 'A Remix Compulsory Licensing Regime for Music Mashups' in Michelle Bogre and Nancy Wolff (eds) *The Routledge Companion to Copyright and Creativity in the 21st Century* (Routledge 2020).

[184] See Evaluation (n 167) 30.

[185] European Commission, Communication "Building a European data economy", COM(2017) 09 final, preceded by the Communication "Towards a thriving data-driven economy", COM(2014) 442 final, which already recognized the need to introduce modern and coherent EU-wide norms to allow the free flow of data across borders, since "the complexity of the current legal environment together with the insufficient access to large datasets and enabling infrastructure create entry barriers to SMEs and stifle innovation" (ibid at 3).

[186] Regulation (EU) 2016/679 of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data ProtectionRegulation), OJ L-119/1 of 4 May 2016.

the Communication underlined the need to create a clear policy and legal framework for the data economy, eliminating obstacles to the circulation of data and facing legal uncertainties created by new technologies. At the same time, it moved upfront the goal of launching consultations, studies, and impact assessments to achieve the free circulation of data, the portability of non-personal data, the interoperability of data and infrastructures, and a clearer regulation of ownership, access and transfer of machine-generated data, also by rebalancing the contractual power of SMEs, start-ups and big companies and reducing lock-in effects for consumers.[187] Regulatory solutions envisaged by the text ranged from the full openness of data to the creation of a data producers' rights, flanked by compromise options such as the introduction of compulsory licenses, contractual standards, boilerplate fairness and transparency clauses and exceptions subordinated to the payment of fair compensation.[188]

The 2017 Communication represented the foreground for the introduction of the Regulation on the free flow of non-personal data,[189] and the 2019 Open Data Directive, which modified the 2013 PSI Directive and broadened the range of data from public bodies that are subject to the obligation of being made available for commercial and non-commercial reuse. Together with other important step forwards in the definition of standard procedures, contracts and technical features, the ODD made it practically impossible for public entities to exercise any exclusive right on data they detain, including rights under Article 7 Database, yet without excluding their ownership.[190]

In 2020, another Communication ("A European strategy for data")[191] set the goal to "The aim is to create a single European data space – a genuine single market for data, open to data from across the world – where personal as well as non-personal data, including sensitive business data, are secure and businesses also have easy access to an almost infinite amount of high-quality industrial data, boosting growth and creating value, while minimizing the human carbon and environmental footprint."[192] To this end, the Commission planned four lines of action, the first and key one being a set of regulatory interventions to create a data governance framework that (i) ensures the functioning of "common European data spaces" based on principles of findability, accessibility, interoperability and reuse (FAIR) and on data altruism; (ii) identifies high value datasets to be made publicly available for free, in machine-readable form via standardized APIs, in light of their potential for innovation and PMIs; (iii) incentivized B2B and B2G data sharing, by intervening on data ownership and existing IP rights – particularly database rights – in order to increase data access and reuse.[193]

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[187] Building a European data economy, p.11.

[188] See Herbert Zech, 'Building a European data economy', in *IIC*, 48(5) (2017) pp.501 ss.

[189] Regulation (EU) 2018/1807 of 14 November 2018 on a framework for the free flow of non-personal data in the European Union, OJ L-303/59 of 29 November 2018.

[190] Similarly in Mireille Van Eechoud, 'A Serpent Eating Its Tail: the Database Directive Meets the Open Data Directive' in *IIC*, 52 (2021) pp.375 ss.

[191] European Commission, Communication "A European strategy for data", COM (2020) 66 final. On the change of paradigm on the conceptualization of data ownership, see Maria Lilla Montagnani, '*Dati e proprietà intellettuale in* Europa: dalla "proprietà" all'"accesso"', in Diritto dell'economia 66(1) (2020) pp.539 ss.

[192] Ibid at 5.

[193] Ibid at 17.

The first intervention, the Data Governance Act (DGA), extended the principles of the ODD to a broader range of public body information, covered by IP rights, commercial or statistic confidentiality or other limitations due to personal data protection.[194] Yet, the Commission did not intervene on the Database Directive, which still theoretically admits the possibility for public sector bodies to hold rights over data obtained, verified and organized by public investments, albeit without being able to exercise them.[195]

A few months later, the Parliament Resolution on a European strategy for data[196][196] requested the Commission to introduce as early as possible a draft Data Act to allow a broader and more equitable flow of data in every sector, creating EU data spaces that facilitate cross-sectorial and cross-border data exchange between industry, academia, relevant stakeholders and the public sector.[197][197] To this end, the Parliament suggested to clarify data ownership and access regimes, thus tackling market unbalances caused by the concentration of data control in the hands of a few players, to the detriment of SMEs.[198] The proposed Data Act (DA), issued in February 2022,[199] has been conceived as a horizontal instrument having five goals, which are (i) to facilitate access and reuse of data by consumers and market players, (ii) to allow public bodies to use, in exceptional circumstances, data detained by companies and platforms; (iii) to make it easier to switch between cloud and edge services; (iv) to provide safeguards against illegal data transfers towards third countries' governments; and (v) to impose interoperability standards for data. In this context, and among several other measures, the Commission decided to intervene on the Database Directive. However, the reform it proposed has a much more limited scope than what the two impact assessments suggested as necessary to correct existing flaws.[200]

Article 35 of the proposed Data Act, in fact, introduces only a mere clarification of the subject matter covered by Article 7 Database, excluding databases whose data have been generated or obtained from the use of a product or service. The goal is to allow users to use and share their data with third parties, that is to exercise the rights granted to them by Articles 4-5 DA. Recital 84 only specifies that the provision aims at avoiding the risk that the holder of data obtained or generated from the physical components of an IoT product or service claims a sui generis right under Article 7 Database, thus frustrating users' prerogatives under the Data Act. In this sense – the Preamble continues – Article 35 DA does not introduce any new rule, but only clarifies that Article 7 Database does not apply in such cases "since the requirements for protection are not fulfilled".

Although the goal pursued by the EU legislator was limited to excluding producers' control over data

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[194] Regulation EU 2022/868 of 30 May 2022 on European Data Governance and amending Regulation EU 2018/1724 (Data Governance Act), L 152/1 of 3 June 2022.

[195] Also in Van Eechoud (n 190) at 377.

[196] Resolution of the European Parliament of 25 March 2021 of a European strategy for data (2020/2217(INI)) (2021/C 494/04).

[197] Ibid at 3.

[198] Ibid at 4.

[199] Proposal of a Regulation on harmonised rules on fair access to and use of data (Data Act), COM (2022) 68 final (DA).

[200] *Study to Support an Impact Assessment for the Review of the Database Directive – Final Report*, January 2022, available at https://ec.europa.eu/newsroom/dae/redirection/document/83514 (last accessed 23 December 2022).

generated by IoT devices and allowing the application of Articles 4-5 DA on data stemming from the use of such products/services, the regulatory options available were still many. Some of them would have allowed intervening on general rules and definitions, such as the notion of substantial investment and its subject matter, or the notion of substantial part in assessing the presence of a violation.[201] The EU legislator, however, decided to adopt the simplest solution, *de facto* and indirectly modifying the scope of Article 7 Database without taking the opportunity for a conceptual reordering of EU database law,[202] and without excluding that Member States can regulate differently matters outside the scope of the Database Directive (as data stemming from the use IoT devices are now).[203] At the same time, the proposed DA doesnot introduce any remedy against the contractual or TMPs overridding of the protection it provides in its Article 4,[204] and does not put forward key reforms advocated for by the 2018 Impact Assessment, such as the exclusion of public bodies from the range of potential rightholders, theintroduction of a research exception going beyond TDM purposes, and the streamlining of copyright and sui generis right exceptions.[205]

If approved as it stands today, the Data Act will leave unsolved most of the flaws of the Database Directive highlighted in the past years by scholars and stakeholders, and possibly create further problems, despite all the good intentions showed by the European Strategy for Data.

CONCLUSIONS

At the time of the discussions leading to its introduction in 1996, it was already clear that the suigeneris right would have brought within the tangles of EU copyright law a "foreign" entitlement which, despite being investment-protection-driven as many other neighboring rights, had little to share with this category, and much more pervasive effects. From the very limited range (andclosed list of) exceptions to the potentially perpetual term of protection and the very wide – and similarly very uncertain – scope of exclusivity, the sui generis right introduced under the umbrella of copyright law and exclusive right that "propertized" not only materials already protected by copyright or other rights, but also data and information traditionally belonging to the public domain for conscious and consolidate policy choices.

A quarter of century after its enactment, the Database Directive has been subject to two rounds of evaluation by the European Commission, and its sui generis right has been articulated by the CJEU and national courts with a wide array of doctrines and specifications. Some of these interventions have brought more clarity, tempering the chilling effect that the legal uncertainty surrounding Article 7

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[201] Ibid, at 3-4.

[202] In fact, Article 35 DA is based on the wrong assumption that data produced by IoT devices do not meet the requirements of protection of Article 7 Database, while this is not the case, for instance, for investments directed to install sensors that are able to collect data on the use of a specific device. At the same time, the definition offered byArticle 35 DA to "data generated by the use of a product connected to a service" is much broader than the subject matter of IoT devices, for it may easily cover also data transmitted by a physical object through a communication service, such as in the case of use of a fidelity card in a shop.

[203] As in Husovec-Derclaye, p.11. The Impact Assessment explicitly suggested to intervene on the matter (pp.56 ss.).

[204] Ibid at 57.

[205] Ibid at 52 ff et seq.

Database had on the activities of users, researchers and market actors. Some others have only contributed, with their pitfalls, to highlight the shortcomings of the Directive, still without any impact on the legislative agenda of EU policymakers.

With the increasingly more important role played by data flows and data sharing in the new data economy and for the development of artificial intelligence agents and machine-learning processes, the obstacles posed by Article 7 Database to EU data research, industry and market have become so prominent to force the legislator to turn back its attention to the sui generis right and correct its most evident distortions. Two new exceptions for text and data mining have been introduced by the Copyright Directive In 2019, to balance between exclusivity and access to database, but with an effective impact only on non-profit research activities. There were discussion on the opportunity to introduce a data producer's right on machine-generated data,[206] while the ODD has excluded the application of the sui generis right if owned by public entities, yet without intervening on its attribution. Later on, the European Strategy for Data and its first product, the DGA, have extended the ODD principles to a broader range of information held by public bodies but subject to third-party rights, confidentiality obligations or other limitations for data protection, introducing specific conditions for their reuse, but without coordinating the new provisions with the Database Directive, which is only blocked in its application without discussing its ultimate applicability to data obtained, verified and structured by public entities or funding.[207] According to the Commission's plan and on the basis of the last Impact Assessment, the proposed Data Act should have intervened more incisively on EU database law to correct its flaws and align it to the EU policy goals in the field of data. Unfortunately, the mountain roaredand brought forth a mouse, for it missed to intervene on the most pressing shortcomings of the Database Directive and introduced, to a certain extent, further unclear elements that are prone to create additional interpretative problems in the future.

[206] Building a European Data Economy, at 13.

[207] Cfr. Van Eechoud (n 190), p.377.