Chapter 5. Study case: the strategic importance of secrecy in the perfume industry

§ 1 Preliminary remarks on the methodology applied

Having examined the theoretical rationales underlying trade secrets protection, their legal nature and the liability conditions that inform the scope of the secrecy requirement from a comparative law perspective, this chapter addresses the increasing vulnerability and strategic importance of trade secrets in the context of the perfume industry. This manufacturing sector is used as an example case of the challenges holders face in keeping their confidential (technical and commercial) information undisclosed and of the importance of trade secrets for the competitiveness of certain sectors. To illustrate this, a three-fold approach is followed.

First, some background information about the perfume industry is provided in § 2. Next, § 3 looks into the levels of protection afforded to perfumery products by (A) copyright; (B) patents; (C) trade marks and (D) unfair competition. Other IPRs, such as utility models and design rights are not examined, due to the limited scope of the research on this topic, even though in practice perfume manufacturers may resort to them.[1990] The interplay between perfumery goods and IPRs is structured by analysing first the object and requirements of protection and then evaluating the advantages and drawbacks provided by each of the IPRs studied.

Finally, and drawing on the fact that no IPR protects perfumes as such, § 4 surveys (A) the importance of trade secrets for the fragrance industry and (B) the increasing challenges in keeping them undisclosed. This is mostly illustrated by reference to qualitative empirical research based on two semi-structured interviews conducted with the IP legal counsel of a multinational company and the maître parfumaire, Rosendo Mateu.[1991] At this point, it is worth noting that owing to the sensitive nature of the information, a substantial number of scent manufacturers declined to give interviews and the only producer that agreed did so under strict confidential-

1990 For a detailed overview please see Stefan Fröhlich, *Düfte als geistiges Eigentum* (Mohr Siebeck 2008) 113-121 and 170-174.

1991 Barbara DiCicco-Bloom and Benjamin F. Crabtree, 'The qualitative research interview' [2006] 40 Medical Education J 314, 316.

ity conditions; therefore, the identity of the firm can under no circumstances be revealed. The protocol of the questionnaire is attached in Annex 1 and the firm is referred to as "Perfume Company 1".

§ 2 *The perfume industry*

The development of a new perfume involves both creative talent and technical ability. During its composition, the maître perfumaire has to combine hundreds of basic raw materials, which may be of natural or synthetic origin, to create a unique and evocative fragrance.[1992] Yet, in order to commercialise the mixture as a final product, additional ingredients such as stabilisers, colorants or antioxidants must be added. Perfumes are complex chemical solutions that require their creators to have advanced knowledge of organic chemistry to ensure their quality and security for human use.[1993] It has been estimated that the fragrance industry devotes up to 18% of its annual turnover to R&D.[1994] Beyond their technical nature, perfumes are increasingly recognised as having an artistic dimension.[1995]

Creating a new perfume is an extremely complex process and may take years before the fragrance enters the market. Even then, advertising strategies play a central role in its success.[1996] Indeed, for some the appeal of a given perfume lies largely in its luxurious character rather than the actual composition of the formula.[1997] For this reason, they are frequently commercialised through selective distribution networks, particularly those

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1992 Pierre Laszlo and Sylvie Rivière, *Perfume, Arte y Ciencia* (Omega 2001) 14-23.

1993 According to IFRA, the fragrance industry devotes up to 18% of its year annual revenue to Research and Development <http://www.ifraorg.org/> accessed 15 September 2018.

1994 IFRA, 'Valuable yet vulnerable: Trade Secrets in the fragrance industry' (2013) IFRA Position Paper, 6 <www.ifraorg.org/view_document.aspx?docId=23107> accessed 15 September 2018.

1995 Agnieszka A. Machnicka, 'The Perfume Industry and Intellectual Property Law in the Jurisprudence of the Court of Justice of the European Union and National Courts' [2012] IIC 123, 124; Jean-François Blayn and others, *Questions de Parfumerie* (Corpman Editions 1988) 27-29.

1996 Pierre Laszlo and Sylvie Rivière 2001 (n 1992) 92-105.

1997 Annette Kur, Lionel Bently and Ansgar Ohly, 'Sweet Smells and a Sour Taste – The ECJ's L'Oréal decision' (2010) Max Planck Institute for Intellectual Property, Competition & Tax Law Research Paper Series No. 09-12 2, Paper No. 10/01, 2 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1492032> accessed 15 September 2018.

aimed at the higher-end segment of the market. However, this has not prevented the proliferation of counterfeit perfumes and imitations sold through grey market channels.[1998] Similarly, in recent years, the number of companies producing and placing on the market so-called "smell-alike" perfumes has steadily increased. In this case, perfumes are marketed under another trade mark, but at the point of sale, the consumer is informed of its equivalence to other well-known perfumes.[1999]

From an industry perspective, it is important to bear in mind that perfumes marketed under the trade mark of a luxury fashion brand are rarely created in-house.[2000] Instead, they are usually developed by flavour, fragrance and active cosmetic ingredient manufacturers following the directions (briefing) of luxury brand holdings.[2001] Scent producers are mostly unknown to the public, even though they are multinational companies worth millions of Euros, and in some cases, they are even traded publicly. The biggest market players include Givaudan in Switzerland; Takasago Int, Corp. in Japan; International Flavors & Fragrances Inc. in the U.S.; and Symrise AG in Germany. The spectrum of products that they manufacture ranges from fine fragrances (20%) to household products and detergents (50%) and personal care products (30%).[2002] During the last decade, these companies have actively lobbied to enhance the protection of scents through IPRs.

Indeed, this topic has garnered much attention in recent years, particularly after a series of decisions by the CJEU dealing with perfumes and trade mark law. Perfumes as such are not the object of any IPR. Yet, some of their intangible features may fall within the scope of specific IPRs. The following sections delve into the relationship between perfumes and

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1998 Annette Kur, Lionel Bently and Ansgar Ohly, 'Sweet Smells and a Sour Taste – The ECJ's L'Oréal decision' (2010) Max Planck Institute for Intellectual Property, Competition & Tax Law Research Paper Series No. 09-12 2, Paper No. 10/01, 2 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1492032> accessed 15 September 2018.

1999 This topic is discussed in detail in chapter 5 § 3 D) below.

2000 Only a few luxury maisons like Chanel, Hermès and Guerlain have their own in-house perfumists.

2001 Interview with Perfumist Rosendo Mateu (see Annex 2);

2002 Interview with Perfumist Rosendo Mateu (see Annex 2); also Antoon Quaedvlieg,'Copyright and Perfume: Nose, Intellect and Industry' (2011) 6, 7 (English translation by Margaret Platt-Homme) <http://www.klosmorel.com/en/our-people/antoon-quaedvlieg/publications/copyright-and-perfume-nose-intellect-and-industry/> accessed 15 September 2018.

IPRs (§ 3), prior to analysing the strategic importance of trade secrets for the perfume industry and the difficulties in concealing information (§ 4).

§ 3 The protection of perfumes through IPRs

A) Copyright

In 2006, the Supreme Courts of both the Netherlands and France ruled on the protection of perfumes under copyright law and remarkably they came to conflicting decisions. The former concluded in *Kecofa v. Lancôme*[2003] that the definition of what constitutes a work laid down in Article 10 of the Dutch Copyright Act is not exhaustive and thus does not preclude the protection of scents. Yet, three days earlier the French Supreme Court held that perfumes could not be the object of copyright protection owing to their industrial nature.[2004] This shows that the eligibility of perfumes as artistic works is by no means settled among EU Member States. The following sections explore such a possibility by examining whether perfumes can be regarded as the object of copyright protection (section I) and whether they fulfil the requirements set out in international conventions and most national regimes (section II). Finally, some conclusions as to the advantages and drawbacks of resorting to such means of protection are analysed in section III.

I. Object of protection

Traditionally, the perfume industry has sought to protect three distinct aspects of a perfume through author's rights: its formula, the aromatic impression it conveys and its composition.[2005] According to Article 2(1) BC, copyright affords protection to literary and artistic works, "irrespective of the form or mode in which they are expressed". Consequently, if copyright protection is afforded to a perfume's formula, such protection will be limited to the perception of the "set of chemical symbols showing the elements

2003 *Kecofa B.V. v. Lancôme parfumes et beauté. Et cie* S.N.C, No. C04/327 Hoge Raad (16 June 2006).

2004 Nejla *Bsiri-Babur v. Haarmann &Reimer et al*, Cass. Civ. 1st ch., 13 June 2006, *Propr. Intell.* 2006, 442-443.

2005 Stefan Fröhlich, *Düfte als Geistiges Eigentum* (Mohr Siebeck 2008) 21.

present in a compound and their relative proportions".[2006] From a practical standpoint, this appears to be of little relevance, because there seems to be consensus among chemists on the fact that a specific aromatic message can be achieved through the implementation of different formulas. These are, after all, only one of the possible descriptions of a fragrance, whilst chemical compositions act as their support.[2007] Thus, commentators who are in favour of affording copyright protection to perfumes suggest that the object of protection should be their aromatic message (i.e. the aromatic impression a perfume conveys).[2008]

II. Requirements for protection

Thus far, copyright law has not been fully harmonised in the EU. The legislations of Member States have only been aligned in specific areas, such as software and database protection.[2009] As a result, the requirements for protection beyond the harmonised subject matter and the obligations provided for in international treaties are left for Member States to regulate. The following sections survey three of the more common requirements of protection set forth by national copyright laws and their applicability to the

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2006 'formula,n' (*OED Online*, OUP June 2013) <https://en.oxforddictionaries.com/definition/formula> accessed 15 September 2018.

2007 J-Ch Galloux, 'Profumo di diritto – Le principe de la protection des fragrances par le droit d'auteur, note sous TGI Paris, 26 mai 2004' [2004] 36 Recueil Dalloz 2641, 2642.

2008 See further J-Ch Galloux, 'Profumo di diritto – Le principe de la protection des fragrances par le droit d'auteur, note sous TGI Paris, 26 mai 2004' [2004] 36 D 2641, 2642; see further Sergio Balañá Vicente, 'La perfumería toma posiciones en torno al derecho de autor "¿...fumus boni iuris?"' [2005] 19 Pe.i. 37, 48-49; a number of French decisions also support this view, particularly *L'Oréal v. Bellure*, *TGI Paris, 3rd ch., 26 May 2004, D. 2004*; 2641-2645 conversely, the Dutch Court of Appeal's in Hertogenbosch, *Lancôme Parfums et Beauté et Cie S.N.C., v. Kecofab B.V.*, C0200726/MA (8 June 2004) para 4.11.2 noted that the perfume's composition should be the object of protection, because the aromatic message can only be sensorily perceived in a subjective manner. The composition is sufficiently concrete and stable to be considered as a work for the purposes of copyright law. This decision was later upheld by the Dutch Supreme Court in *Kecofa B.V. v. Lancôme parfumes et beauté. Et cie* S.N.C, No. C04/327HR (16 June 2006).

2009 A detailed account of the Directives that harmonise copyright law is provided in Thomas Dreier and P. Bernt Hugenholtz, *Concise European copyright law* (2nd ed, Kluwer Law International 2016).

fragrance industry. To merit copyright protection, perfumes should be deemed literary and artistic works (section 1), be original (section 2) and be capable of being perceived through the senses (section 3).

1. Literary and artistic work

As noted above, Article 2(1) BC mandates Member States to protect "artistic and literary works" and provides a non-exclusive list of examples, in which no reference to perfumes is made.[2010] The recognition of fragrances as a form of artistic creation has been at the centre of the discussion in both legal academia and case law, particularly in France, the cradle of the perfume industry. The main argument against acknowledging their artistic nature is that they are created through the implementation of a set of skills and knowledge in an industrial context. Indeed, in 1975 the Paris Court of Appeals rejected the notion that fragrances could be protected under copyright law due to the industrial nature of their production.[2011] Yet, in later years, a number of decisions from lower courts followed a different line of argument. Most notably, in *Thierry Mugler Parfums v. GLB Molinard* (1999),[2012] *Beauté Prestige International v. Bellure* (2004)[2013] and *L'Oréal v. Bellure* (2004),[2014] the French courts concluded that the process of creating a fragrance goes beyond mere "*savoir-faire*"; fragrances were deemed an "*ouvre de l'esprit*" created through intellectual research with the aim of achieving an aesthetic composition.[2015] In a similar vein, commentators

2010 Claire Guillemin, *Law & Odeur* (Nomos 2016) 152; WIPO, *Guide to the Berne Convention for the Protection of Literary and Artistic Works* (WIPO Publications 1978) para 2.7.

2011 *Rochas v. de Laire*, CA Paris, 4th ch., 3 July 1975, *Gaz. Pal*.21-22 January 1976, pp. 43-45(as cited by Stefan Fröhlich, *Düfte als Geistiges Eigentum* (Mohr Siebeck 2008) 21).

2012 *Thierry Mugler Parfums v. SA GLB Molinard* , T.com. Paris, 15th ch., 24 Septembre 1999, *LPA* 3 March 2000, pp 13-16.

2013 *Beauté Prestige International v. Bellure and Euro Media*, CA Paris, 17 September 2004, *Propr. Intell*. 2005, pp. 47-49 (as cited by Estelle Derclaye, 'One on the nose for Bellure: French appellate court confirms that perfumes are copyright protected' [2006] 1 JIPLP 377-379).

2014 *L'Oréal v. Bellure*, *TGI Paris, 3rd ch., 26 May 2004, D 2004*; 2641-2645.

2015 *Beauté Prestige International v. Bellure and Euro Media*, CA Paris, 17 September 2004, *Propr. Intell*. 2005, pp. 47-49 (as cited by Estelle Derclaye, 'One on the nose for Bellure: French appellate court confirms that perfumes are copyright protected' [2006] JIPLP 377-379).

have argued that the distinction between artistic creations (concerning the aesthetic effect achieved) and industrial creations (constrained by technical and commercial limitations) contravenes the principle of "unity of the art" and results in an artificial classification. After all, the chemical composition of a perfume is always guided by its aesthetic purpose.[2016] These arguments did not seem persuasive enough for the French Supreme Court, which settled the debate in a decision from 2006 where it was ruled that, "the fragrance of a perfume, which results from the simple implementation of a skill may not benefit from the protection of copyright".[2017]

In line with the French Supreme Court, the European Copyright Society ("ECS"), in its opinion on the pending *Levola Hengelo v Smilde Foods BV*,[2018] case which concerns a request for a preliminary ruling submitted by a Dutch court to the CJEU on the possibility of protecting taste under the Information Society Directive, has identified two additional problems with conceptualising the taste of a food product as such (as well as smells) as an "artistic work". In the first place, the ECS convincingly submits that smells are "raw materials" that, just as abstract ideas, are excluded from the scope of Article 2(1) BC.[2019] Second, the ECS further argues that the BC only covers creations that can be "accessed or perceived" by the senses of "sight and hearing" in contrast to the senses of "taste, smell and touch".[2020] At the time that the BC was negotiated, smells and tastes in connection to food or perfumery goods were already valuable, but were nonetheless not included as examples of artistic and literary works in the BC. Consequently, their inclusion as subject matter protected under the BC could only be achievable by amending the convention with the approval of all parties.[2021]

2016 André Bassard, 'La composition d'une formule de parfum est-elle une (oeuvre de l'esprito au sens de la loi du 11 mars 1957?' [1979] 118 RIPIA 461, 463.

2017 *Nejla Babur v. Haarmann &Reimer et al*, Cass. 1st Civ., 13 June 2006, *Propr. Intell. 2006*, 442-443 (translation by Brad Spitz, <http://kluwercopyrightblog.com/2014/02/17/france-no-copyright-protection-for-perfume/> accessed 25 January 2018).

2018 Case C–310/17 *Levola v Hengelo Smilde Foods BV* submitted for a preliminary ruling on 29 May 2019.

2019 European Copyright Society, 'Opinion on the pending reference before the CJEU in Case 310/17 (copyright protection of tastes)' (19 February 2018) para 17 <https://europeancopyrightsocietydotorg.files.wordpress.com/2018/03/ecs-opinion-on-protection-for-tastes-final1.pdf> accessed 15 September 2018.

2020 Ibid paras 17-19.

2021 Ibid para 18.

2. Originality: author's own intellectual creation

Neither the BC nor TRIPs provide a uniform definition of "originality".[2022] However, all jurisdictions demand that works, in order to be eligible for copyright protection, achieve a minimum originality threshold.[2023] In this respect, common law (copyright) and civil law systems ("*droit d'autor*") have traditionally followed different understandings of this notion. In the UK, case law requires "independent creation" and "skill and labour" to find copyright protection.[2024] In the U.S., until the famous Supreme Court decision *Feist*, courts followed a similar approach under the "sweat of the brow" doctrine.[2025] However, in *Feist* the Supreme Court expressly rejected such a principle[2026] and introduced the "creative choices" benchmark at the centre of the assessment of originality.[2027] By contrast, in civil law countries under the author's right system, the threshold was much higher, as it was required that works bore the personal stamp of the author as a

2022 Daniel Gervais, 'The compatibility of the skill and labour standard with the Berne Convention and the TRIPs Agreement' [2004] 26 EIPR 75, 77: the author notes that the term "originality" is used throughout the BC with three different meanings: (i) first, it is used to refer to a work created by an author (Article 14ter (1)); (ii) it also applied to designate a work which will be reproduced or adapted (Arts. 2(3), 8, 11(2), 11*ter*(2), 14(2), Art.IV of the Appendix and (iii) lastly, it refers to an intellectual creation that falls under the scope of protection of the Convention.

2023 In Europe, see for instance, Article 10(1) of the Spanish Intellectual Property Act (Real Decreto Legislativo 1/1996, de 12 de abril, por el que se aprueba el texto refundido de la Ley de Propiedad Intelectual, regularizando, aclarando y armonizando las disposiciones legales vigentes sobre la materia) ; § 2 (1) of the German Copyright Act (Urheberrechtsgesetz vom 9. September 1965 (BGBl. I S. 1273), das zuletzt durch Artikel 1 des Gesetzes vom 1. September 2017 (BGBl. I S. 3346) geändert worden ist.); in the U.S. see Copyright Act, Public Law 94-553, 90 Stat. 2541 (1976) (codified as amended at 17 U.S.C. § 102 (a).) (U.S. Copyright Act).

2024 *University of London Press v University Tutorial Press* [1916] 2 Ch 601 (Ch), 608 "The word original does not in this connection mean that the work must be the expression of original or inventive thought. Copyright Acts are not concerned with the originality of ideas, but with the expression of thought (...) The Act [requires] that the work not be copied from another work – that it should originate from the author".

2025 Daniel Gervais, 'Feist Goes Global: A Comparative Analysis Of The Notion Of Originality In Copyright Law' [2002] 49 LJ of the Copyright Society of the USA 948, 958.

2026 *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*499 U.S. 340, 352-354 (1991).

2027 *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*499 U.S. 340, 348 (1991).

reflection of his personality.[2028] This principle was introduced within the acquis communautaire by virtue of the Software Directive,[2029] the Database Directive[2030] and the Term of Protection Directive,[2031] which set out that a work is original if it results from an "author's own intellectual creation". However, in recent years, the CJEU seems to have expanded this definition of originality to any copyright subject matter by means of judicial interpretation, beyond computer programs, photographs and databases.[2032] This has not been without controversy, particularly in the UK, where the originality bar was traditionally lower and was closely linked to the notion of investment in the creation of a work.[2033]

In the context of fragrances, there has been longstanding debate regarding whether they can be regarded as "original". As hinted at above, a number of French decisions from lower courts have acknowledged the artistic dimension of perfumes as works of art resulting from the "intellectual research of a composer, who resorts to his imagination and knowledge to create a bouquet of odorant materials with aesthetic purposes, which constitutes an "*ouvre d'esperit*" perceptible individually and which merits copyright protection".[2034] Notwithstanding this, in 2008, the French Supreme Court regarded that the elaboration of a perfume results from the mere implementation of a set of skills that do not result in the creation of a form of

2028 Eleonora Rosati, *Originality in EU Copyright* (Edward Elgar 2013) 69; according to Andreas Rahmatian, *Copyright and Creativity* (Edward Elgar 2011) 47 "While the Common law copyright systems focus on the work and its potential economic value, the author's right systems concentrate on the author and protect his work because it bears traces of the author's personality. It is not the work that protects (indirectly) the author/maker and his economic interests, but the author's protection as a person which extends to works emanating from that person".

2029 See Article 1 (3) Software Directive.

2030 See Article 3(1) Database Directive.

2031 See Article 6 Term of Protection Directive.

2032 As examined in footnote 1889; in this regard see for instance Eleonora Rosati 2013 (n 2028) 97-119.

2033 See Estelle Derclaye, 'The Court of Justice copyright case law: quo vadis?' [2014] 36 EIPR 716 -723.

2034 *Beauté Prestige International v. Belure et Eva France*, T. com., 4 June 2004, *Propr. Intell*. 2004, pp. 907.900; see also *L'Oréal v. Bellure*, *TGI Paris, 3rd ch., 26 May 2004,* D 2004, pp. 2641-2645.

expression that merits copyright protection[2035] and restated this position in 2013.[2036]

Outside of France, the Court of Appeals in Hertogenbosch (the Netherlands) in *Lancôme Parfums et Beauté S.N.C., v. Kecofa B.V* held that the perfume Trêsor had its own original character and bore the personal stamp of its author. It was developed from a particular creative path by choosing a limited number of olfactory elements among all of those available in order to create a unique and distinct work of art.[2037] This decision was upheld in 2006 by the Supreme Court, which, despite highlighting that the concept of work of art under the Copyright Act did not encompass those aspects necessary to achieve a technical effect, concluded that perfumes were not only concerned with technical aspects and thus could be protected under authors' rights.[2038]

In a similar vein, some German commentators have suggested that the "*kleine Münze*" doctrine, which affords copyright protection to works of "minor art", could be applied to fragrances.[2039] In this regard, the German Federal Supreme Court has held that works of minor art are simple but nonetheless protectable intellectual creations, such as musical works or non-scientific texts.[2040] Indeed, many have drawn parallels between the processes of composing a musical piece and creating a fragrance.[2041]

Even if in abstract it could be accepted that perfumes may be original for the purposes of copyright law, proving their originality remains prob-

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2035 *Beauté Prestige International v. Senteur Mazal*, Cass. 1st ch. 1 July 2008 [2009] GRUR Int 622.

2036 Cour de Cassation, *Tresor-Armani-Mania* (10 December 2013) Case No. 11-19.872, IIC 2014, 829-831: "The fragrance of a perfume results from the implementation of know-how and thus cannot be considered a creation of a form of expression that could enjoy the protection granted to works by copyright law".

2037 Dutch Court of Appeal's in Hertogenbosch, *Lancôme Parfums et Beauté et Cie S.N.C., v. Kecofab B.V*., C0200726/MA (8 June 2004) 4.12.1.

2038 *Kecofa B.V. v. Lancôme parfumes et beauté. Et cie* S.N.C, No. C04/327HR, (16 June 2006): "it is true that the concept of a work in the Copyright Act meets its limit where the work's own original character concerns only what is necessary to obtain a technical effect, but given that, in the case of a perfume, there is no question of a purely technical effect, the latter condition does not prevent copyright protection from being granted to the fragrance of a perfume".

2039 Stefan Fröhlich 2008 (n 2005) 52.

2040 BGH GRUR 1981, 267, 268 – *Dirlada*; for an overview of the "kleine Münze" doctrine see further Ulrich Loewenheim, 'Der Schutz der kleinen Münze im Urheberrecht' [1987] GRUR 761-769.

2041 André Bassard 1979 (n 2016) 463; Stefan Fröhlich 2008(n 2005) 53.

lematic. Odours can only be perceived through the sense of smell, which is highly subjective. Or to be more precise, their description remains very problematic.[2042] Courts in EU jurisdictions have followed mainly two criteria to assess it: (i) the labour and effort invested in creating it and (ii) the novelty of the fragrance.[2043] The first benchmark bears certain similarities to the English interpretation of originality, which is frequently identified with the "skill, judgement and labour" invested in the creation of the work.[2044] As applied to fragrances, it purports that the more difficult it is to create a perfume, the harder it will be to develop it independently, and thus it should be regarded as more original.[2045] This rationale was followed in the Netherlands by the Court of Appeals in Hertogenbosch in the *Lancôme Parfums et Beauté S.N.C., v. Kecofa B.V* decision, where the fact that the plaintiff's perfumist had selected 25 out of hundreds of available olfactory elements to make a distinctive and unique perfume was deemed essential to regard the fragrance as original.[2046]

In contrast, some argue that the originality of a perfume should be understood in terms of the novelty of the aromatic impression it conveys. This approach was adopted by a French court in *Thierry Mugler Parfums v. GLB Molinard* (1999)[2047] and the famous perfumist Edmond Roudniska, who equates originality with novelty and further states that a new form may result from the combination of known materials.[2048]

2042 Claire Guillemin, *Law & Odeur* (Nomos 2016) 56.

2043 Sergio Balañá Vicente 2005 (n 2008) 54-61.

2044 *Ladbroke v William Hill* [1964] 1 WLR 273, 282; for a more detailed account of the originality requirement in the English jurisdiction see Eleonora Rosati, 'Originality in U.S. and UK Copyright Experiences as a Springboard for an EU-Wide Reform Debate' [2010] IIC 524, 537.

2045 This is argued among others by Sergio Balañá Vicente 2005 (n 2008) 54-57.

2046 Court of Appeal's in Hertogenbosch, *Lancôme Parfums et Beauté et Cie S.N.C., v. Kecofab B.V.*, C0200726/MA (8 June 2004) 4.12.1-4.13.

2047 *Thierry Mugler Parfums v. SA GLB Molinard* , T.com. Paris, 15th ch., 24 Septembre 1999, *LPA* 3 March 2000, pp 13-16; such an approach was specifically rejected by the Ducht Court in Court of Appeal in Hertogenbosch in the aforementioned decision *Lancôme Parfums et Beauté et Cie S.N.C., v. Kecofab B.V.*, C0200726/MA (8 June 2004) 4.12.4, where it was noted that "for the granting of copyright law protection it is not required that the work is new in an objective sense, but only that it is original in a subjective sense (i.e. from the author's viewpoint)".

2048 Edmond Roudnitska, *Une vie au service du parfum* (Thérèse Vian Editions1991) 87 highlighting that: "La forme d'un parfum découle d'une combinaison esthétique, choisie, voulue et non du simple voisinage des matériaux dans leur mélange physique. Cette forme sera originale si la pensée que l'a fait naître a

Comparing two specific perfumes and assessing their similarities is ultimately guided by a subjective perception that varies from person to person.[2049] This stands as a major barrier to any originality claim.

3. Fixation

Article 2(2) BC provides that Member States are free to require works to be fixated in some material support in order to be protected under copyright rules. Consequently, most common law jurisdictions have established that fixation is a prerequisite to find an infringement,[2050] while civil law jurisdictions merely demand that the work is capable of being perceived by the senses.[2051]

Once a perfume is sprayed on the skin, it vanishes. It also reacts differently to skin types upon application and its perception differs from one individual to another.[2052] Consequently, the volatile and instable nature of fragrances is regarded as a major obstacle to protection in some countries. The French Supreme Court, in its most recent decision regarding the protection of perfumes as artistic works, echoed this argument and established that copyright affords protection to works perceivable by the senses so long as that form "may be identifiable with sufficient precision in order to make possible its communication".[2053] Accordingly, the court concluded that fragrances do not meet this requirement and thus cannot be protected under copyright law.[2054]

été elle-même originale. Des matériaux originaux ne sont évidemment pas contre-indiqués pour réaliser une forme originale mais il n'est tout de même pas inconcevable qu'avec des matériaux connus on puisse inventer une forme nouvelle, c'est-à-fire un "arrangement" nouveau, une "combinaison" nouvelle. "

2049 Claire Guillemin, *Law & Odeur* (Nomos 2016) 54-56.

2050 See for instance in the U.S. 17 U.S.C. § 102 (a) U.S. and in the UK Article (1) of the Copyright, Designs and Patents Act 1988.

2051 This is the case in Germany, see Dreier/*Schulze*, *Urheberrechtsgesetz* (5th edn, C.H. Beck 2015) § 2 Rn 13.

2052 Antoon Quaedvlieg,'Copyright and Perfume: Nose, Intellect and Industry' (2011) 6, 9 (English translation by Margaret Platt-Homme) <http://www.klosmorel.com/en/our-people/antoon-quaedvlieg/publications/copyright-and-perfume-nose-intellect-and-industry/> accessed 15 September 2018.

2053 Cour de Cassation, *Tresor-Armani-Mania* (10 December 2013) Case No. 11-19.872 [2014] IIC 829-831.

2054 Cour de Cassation, *Tresor-Armani-Mania* (10 December 2013) Case No. 11-19.872 [2014] IIC 829-831.

In view of the above, some commentators have argued that affording copyright protection to perfumes is not in line with the minimum standards of protection set forth in international treaties (i.e. the BC and TRIPs). In particular, it has been suggested that, pursuant to the wording of Articles 2(2) BC, works that cannot be perceived through the senses of sight and hearing do not fall under the scope of the BC, and therefore perfumes should be deemed subject matter outside the scope of copyright protection.[2055]

However, those in favour of the protection of fragrances through copyright law claim that the possibility of reproducing them is a clear indication that they constitute a "form" and that, for the purposes of copyright protection, the relevant issue is the expression, not the manner in which it is perceived.[2056] Similarly, the Dutch Supreme Court in its famous ruling noted that the definition of "work" laid down in Article 10 of the Copyright Act does not exclude scents so long as they can be identified through human perception.[2057] Along these lines, some suggest that the fixation or perception requirement was originally envisaged to prevent the protection of ideas, following the expression-idea dichotomy and that the use of perfumes is eminently a sensorial experience, beyond the realm of intellectual creations and thus the protection of perfumes cannot be equated to the protection of ideas.[2058]

In light of the above, it is submitted that owing to the volatile and instable nature of scents, it does not seem plausible that perfumes meet the fixation threshold in jurisdictions where such a requirement is mandatory. In

2055 Herman Cohen Jehoram, 'The Dutch Supreme Court Recognises Copyright in the Scent of a Perfume. The Flying Dutchman: All Sails, no Anchor' [2006] 28 EIPR 629, 630; also Antoon Quaedvlieg,'Copyright and Perfume: Nose, Intellect and Industry' (2011) 6, 10 (English translation by Margaret Platt-Homme) <http://www.klosmorel.com/en/our-people/antoon-quaedvlieg/publications/copyright-and-perfume-nose-intellect-and-industry/> accessed 15 September 2018; Claire Guillemin, *Law & Odeur* (Nomos 2016) 203.

2056 Interview with Perfumist Rosendo Mateu (see Annex 2); also also Antoon Quaedvlieg,'Copyright and Perfume: Nose, Intellect and Industry' (2011) 6, 10 (English translation by Margaret Platt-Homme) <http://www.klosmorel.com/en/our-people/antoon-quaedvlieg/publications/copyright-and-perfume-nose-intellect-and-industry/> accessed 15 September 2018.

2057 Translation of the relevant passage of the decision provided by P. Bernt Hugenholtz, 'Chronicle of the Netherlands Dutch copyright law 2001-2010' [2010] RIDA 226, text accompanying footnote 31.

2058 Sergio Balañá Vicente 2005 (n 2008) 63-64.

addition, the subjective nature of the perception of smells also presents a hurdle in civil law jurisdictions that require sensorial perception.

III. Evaluation

To be sure, protecting perfumes through copyright law would entail a number of advantages for their creators and for scent manufacturers. To begin with, the term of protection is longer than for most IPRs (seventy years after the death of the author).[2059] Furthermore, it is obtained by the mere fact of creation, without the need to fulfil any costly formalities, such as applying for its registration. This, in turn, would facilitate concluding licensing agreements and fighting so-called perfume "knock-offs".[2060] As a whole, protecting the overall impression conveyed by the aromatic message of a fragrance would allow for more comprehensive protection than resorting to simultaneous design and trade mark protection for the perfume's packaging, bottle and name.[2061]

Yet, copyright does not protect against the independent creation of the same scent, unlike patents or design rights, even though in practice cases where this may occur are rather exceptional.[2062] What appears more problematic is the enforcement of copyright against imitations. There has been a longstanding debate as to whether it is possible to set an objective standard that allows for comparing an original perfume with an alleged copy. Olfactory perception is always guided by personal appraisal, which renders judicial decisions on that matter highly subjective.[2063] This has been one of the most disputed aspects in cases concerning the protection of perfumes through copyright law.[2064]

Finally, a number of policy concerns have been raised regarding the protection of fragrances through authors' rights. Indeed, affording copyright protection to olfactory messages may hinder the free movement of per-

2059 See Article 1 of the Term of Protection Directive.
2060 Stefan Fröhlich 2008 (n 2005) 108.
2061 Stefan Fröhlich 2008 (n 2005) 108-109.
2062 Stefan Fröhlich 2008 (n 2005) 109.
2063 Sergio Balañá Vicente 2005 (n 2008) 52-53.
2064 This was particularly the case in *Thierry Mugler Parfums v. SA GLB Molinard* , T.com. Paris, 15th ch., 24 Septembre 1999, *LPA* 3 March 2000 pp 13-16.

fumery products within the common market.[2065] More generally, a number of Dutch commentators have expressed scepticism about the effects that extending protection for seventy years after the death of the author may have on free competition and the legal uncertainty surrounding the contours of the protected subject matter.[2066] For the time being, the Dutch Supreme Court's decision in *Kecofa v. Lancôme* is an isolated one within the EU landscape and it seems unlikely that in the near future other jurisdictions will follow its lead.

B) Patent Law

The protection of perfumes through patents has garnered much attention from scent manufacturers in recent years. The possibility of resorting to patent rights to protect the products and processes applied in the fragrance industry is examined following the structure implemented with respect to copyright law. Therefore, section I looks into the actual object of protection, while section II studies the requirements for protection. Finally, the advantages and drawbacks of resorting to patent protection are outlined in section III.

I. Object of protection

Patent rights, regarded by some to be the most robust of all IPRs, can be deployed to protect the technical aspects of a fragrance. Indeed, there is an increasing tendency among companies in the perfume industry to rely on patent protection.[2067] Yet, as with any other invention, they must fall within the eligible subject matter and fulfil the patentability requirements set

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2065 As noted by Herman Cohen Jehoram, 'The Dutch Supreme Court Recognises Copyright in the Scent of a Perfume. The Flying Dutchman: All Sails, no Anchor' [2006] 28 EIPR 629, 631; contrary, Charles Gielen, 'Netherlands: copyright – blend of ingredients in a perfume constituting a copyright work' [2006] 28 EIPR 174.

2066 Quaedvlieg A,'Copyright and Perfume: Nose, Intellect and Industry' (2011) 6, 7 (English translation by Margaret Platt-Homme) <http://www.klosmorel.com/en/our-people/antoon-quaedvlieg/publications/copyright-and-perfume-nose-intellect-and-industry/> accessed 15 September 2018 (citing *Ars Aequi* [2006] 821-824, note by P. Bernt Hugenholtz).

2067 Stefan Fröhlich 2008 (n 2005) 126-129.

forth in Article 52 EPC, namely they must be new, inventive and capable of industrial applicability. Of particular relevance for the perfume industry is that Article 52(2)(b) EPC prevents the patentability of aesthetic creations. This is further clarified in the Guidelines of Examination, where it is stated that an "aesthetic effect itself is not patentable, neither in product nor in a process claim".[2068] However, technical processes are not excluded from patentability by the mere fact of being applied in the production of an aesthetic creation.[2069] The aroma conveyed by a perfume cannot be the object of a patent due to its non-technical nature, even though indirect protection can be sought for its (i) aromatic compounds (chemical compounds) and (ii) compositions (the perfume's formula), as analysed in the following sections.[2070]

1. Aromatic compounds

Traditionally, perfumes were made up of absolute scents and essential oils of natural origin, which are very costly to obtain.[2071] In the XIX century, the advancement of chemistry allowed for the synthesis of odorous substances, which have been used alongside natural ones in the creation of fragrances ever since.[2072] Indeed, a multi-million dollar industry has emerged around the manufacturing of synthetic scents, technically known as "odorants" or "aromatic compounds".[2073] Before turning to their patentability, some background information is provided for a better understanding of the underlying technology.[2074]

2068 Guidelines of Examination in the EPO. Part G. Chapter II. Section 3.4.

2069 Guidelines of Examination in the EPO. Part G. Chapter II. Secction 3.4. explicitly provide that the proteciton of "a substance or composition defined by technical features serving to produce a special effect with regard to scent or flavour, e.g. to maintain a scent or flavour for a prolonged period or to accentuate it, is not excluded".

2070 Stefan Fröhlich 2008 (n 2005) 128.

2071 Thomas G. Field, 'Copyright protection for Perfumes' [2004] 45 IDEA 19, where the author provides an insightful example, whereby he notes that "800 pounds of jasmine blossoms yield only a pound of an essence".

2072 Pierre Laszlo and Sylvie Rivière 2001 (n 1992) 24-28.

2073 Biggest market player include Givaudan in Switzerland; Takasago Int, Corp. in Japan; International Flavors & Fragrances Inc. in the United States and Symrisew AG in Germany.

2074 Pursuant to Francis A. Carey, 'Aromatic Compound', *Encyclopaedia Britannica*, <http://www.britannica.com/science/aromatic-compound> accessed 15

In the first place, any aromatic compound is a type of chemical compound.[2075] As such, it can be the object of a product patent, process patent or use patent like any other chemical compound that meets the aforementioned patentability requirements.[2076] For the purposes of the present research and following the classification laid down by Fröhlich, the term aromatic compound is used to refer to both single odorous substances and individual elements of odorous mixtures.[2077]

A product patent on a new chemical substance will define the way in which its technical structure is construed.[2078] It confers absolute protection on the right to make, dispose of, offer to dispose of, use, import or keep the aromatic compound, whether for disposal or otherwise.[2079] Thus, any subsequent use of the patented odorant without the consent of the patent holder results in a patent infringement, irrespective of whether it is used in isolation or as part of a composition.[2080] Similarly, protection extends to the product per se, regardless of the process applied to manufacture it.[2081] An example of this is the patent obtained by one of the world's leading producers of synthetic scents, Guivaudan, for an odorant molecule known as Florymoss, which adds a fruity note to a fragrance.[2082]

September 2018, an aromatic compound is: "a class of unsaturated chemical compounds characterized by one or more planar rings of atoms joined by covalent bonds of two different kinds. The unique stability of these compounds is referred to as aromaticity. Although the term aromatic originally concerned odour, today its use in chemistry is restricted to compounds that have particular electronic, structural, or chemical properties. Aromaticity results from particular bonding arrangements that cause certain π (pi) electrons within a molecule to be strongly held".

2075 A chemical compound is defined by Cal R. Noller, 'Chemical Comound', *Encyclopaedia Britannica;* <http://www.britannica.com/science/chemical-compound> accessed 15 September 2018 as: "any substance composed of identical molecules consisting of atoms of two or more chemical elements".

2076 Stefan Fröhlich 2008 (n 2005) 148.

2077 Stefan Fröhlich 2008 (n 2005) 148.

2078 Gerald Paterson, 'The Novelty of Use Claims' [1996] IIC 179, 181.

2079 See Article 28 (1)(a) TRIPs Lionel Bently and Brad Sherman 2014 (n 125) 541; Rudolf Kraßer and Christoph Ann 2009 (n 120) § 11.III.c) aa). (criticism in§ 11.III.d)d)); Franz Lederer, 'Equivalence of Chemical Product Patents' [1999] IIC 275, 282; absolute patent protection for chemicals was established by the Federal Supreme Court in BGH GRUR 1972, 541 – *Imidazolines*.

2080 Stefan Fröhlich 2008 (n 2005) 161.

2081 Bernhard Jestaedt and Georg Benkard, 'Art. 64' Rdn 20 in Thomas Adams and others (eds) *Europäisches Patentübereinkommen* (4th edn, C.H. Beck 2012).

2082 PCT/EP2011/072590.

Pursuant to Article 64(2) EPC, the process of manufacturing an individual compound of a fragrance formula is also eligible for patent protection.[2083] In this case, protection only extends to the claimed process and the products obtained directly from it. Consequently, the patent can only be asserted against third parties who make use of the claimed process.

Of particular relevance for the perfume industry is that a new use of an already known compound may be eligible for patent protection in the form of use claims. This is best explained with an example. The use of a mixture containing Cis- and Trans-3-Methyl-y-Decalactone as a jasmine mixture was first claimed in 2004 by Symrise Gmbh & Co. Kg.[2084] Both individual compounds and the mixture were known, but its use as a jasmine odorant was deemed new under Article 54(1) EPC.

2. Aromatic compositions

Complex aromatic compositions, under certain circumstances, may be eligible for patent protection. For the purposes of the current research and following Fröhlich, they are deemed to consist of multiple, interconnected, single (raw) substances that may be of natural or synthetic origin. The most paradigmatic examples of aromatic compositions are perfume compositions.[2085]

The patentability of aromatic compositions and compounds is examined in the following sections.

II. Requirements for protection

This section provides a brief overview of the main issues that arise in connection to the patentability of compounds and compositions used in the perfume industry. Article 52(1) EPC lays down the three cumulative requirements that any invention must overcome to merit patent protection, namely it must be new, involve an inventive step and be susceptible of industrial applicability.[2086] Therefore, the patentability of aromatic com-

2083 See Article 64 (2) EPC and Article 28 (1)(b) TRIPs.
2084 See DE502005005342D1, EP1761618A1, EP1761618B1, US8034761, US20080194455, WO2005123889A1.
2085 Stefan Fröhlich 2008 (n 2005) 153.
2086 This is examined further in chapter 6 below.

pounds and compositions is governed by the same rules that regulate the protection of chemical substances. Their specificities in the fragrance context are outlined in the following paragraphs.

Turning first to perfume compositions, in theory, they are eligible for patent protection just like any other chemical composition. Nevertheless, in practice, it has been noted that most of them lack inventive character.[2087] In the perfume industry, there are well-established principles for mixing substances. As a result, and following the case law of the Boards of Appeal of the EPO, if a person having ordinary skills in the art could have developed the same composition, it should not to be regarded as inventive.[2088] Similarly, and by virtue of the doctrine of equivalence,[2089] the substitution of one element of the composition with an analogous one does not merit patent protection. Of particular relevance for the perfume industry is the fact that a combination of known materials, with known features, in a known manner to achieve a known result lacks inventiveness. This is typically the case of Eau de Cologne, which is a scented solution containing alcohol, water and between 2% and 6% perfume concentrate.[2090] The selection of the ingredients and its formulation is a standard and routine practice for perfumists and chemists, thus lacking inventive character.[2091]

Finally, in connection to the patentability of aromatic compounds it should be highlighted that these follow the same rules of patentability as any other chemical compounds. In particular, scent manufacturers are individual compounds that when are subject to patent protection are referred to as "captive odorants", which can be used exclusively by the patent

2087 Stefan Fröhlich 2008 (n 2005) 138.

2088 See for instance T 426/88 [1992] OJ EP 427; see further Albert Ballester Rodes and others, *Case Law of the Boards of Appeal* (8th edn, 2016 EPO) § 8.1.1., where the person having ordinary skills in the art is defined as: "(…) an experienced practitioner who has average knowledge and abilities and is aware of what was common general knowledge in the relevant art concerned at a particular time (average skilled person). He should also be presumed to have had access to everything in the state of the art, in particular the documents cited in the search report, and to have had at his disposal the normal means and capacity for routine work and experimentation".

2089 See Article 2 of the Protocol on the interpretation of Article 69 EPC: "For the purpose of determining the extent of protection conferred by a European patent, due account shall be taken of any element which is equivalent to an element specified in the claims".

2090 'Compound' *Encyclopaedia Britannica* <http://www.britannica.com/art/cologne > accessed 15 September 2018.

2091 Stefan Fröhlich 2008 (n 2005) 139.

owners and against imitators. Yet again, overcoming the inventive step requirement is problematic in practice.

III. Evaluation

Based on the foregoing analysis, it is possible to conclude that the protection of perfumes through patent rights, as regards both the individual compounds and the fragrance compositions has advantages and limitations. Regarding the advantages, a patent on a composition or a compound confers upon its holder the right to exploit it exclusively on the market and thus prevents third parties from using the invention.[2092] Patent rights can also be assigned and licensed.[2093] As noted above, relying on patent protection provides greater legal certainty than secrecy does.[2094] The exclusivity conferred by the former lasts for twenty years as of filing, irrespective of whether the invention later becomes public, in contrast to what happens to trade secrets, where protection is lost upon disclosure. In addition, patent rights also afford protection against independent creation and reverse engineering, which is particularly problematic in the case of perfume formulas.

In contrast, every patent application is published eighteen months after it is filed at the latest, even if it turns out not to be granted.[2095] Of particular relevance is that pursuant to Article 83 EPC the content of European patent applications must be enabling, that is, sufficiently clear and complete so that a person having ordinary skill in the art is capable of carrying it out. The upshot of this is that even if the patent is not granted, competitors are able to learn the formula, the compound or the process to manufacture them. What is more, in the event that it is granted, it is likely that the disclosure will instruct competitors on how to invent around. Additionally, resorting to patent protection involves high costs regarding both the application and the annual renewal fees.[2096] According to the EPO, in 2015 the cost of taking a patent through the grant stage alone was estimated to be of around 5.655 €.[2097] The high cost of the patent system was iden-

2092 Stefan Fröhlich 2008 (n 2005) 166.
2093 See Article 72 EPC.
2094 Chapter 1 § 3 A) I. 2. c).
2095 Article 93(1) EPC.
2096 Stefan Fröhlich 2008 (n 2005) 167.
2097 As reported by the EPO <http://www.epo.org/service-support/faq/own-file.html#faq-199> accessed 15 September 2018.

tified by the head of IP of Perfume Company 1 as the main hurdle in seeking patent protection for their innovations.

Finally, it should be stressed that perfume manufacturers are wary of relying on patent protection for their formulas because the marketing of a perfume can extend beyond the twenty year term, after which a given patent falls into the public domain.[2098] Nevertheless, it is also true that since gas-chromatographs devices were developed in 1980, allowing to dissect the composition of a fragrance with an accuracy of 90% after the first chromatographic approach, it is now very easy get a precise picture of the formula of a perfume and produce a replica that can convey a similar olfactory message.[2099] With these considerations in mind, the following section explores the strengths of the protection conferred by trade mark rights to perfumery products.

C) Trade mark law

I. Object of protection

Trade mark rights can be applied to protect several aspects of perfumery goods, both individually and in connection to unfair competition provisions. In particular, they can cover their names (through verbal mark), the shapes of their bottles (through three-dimensional marks) and the packaging under which they are marketed (also through three-dimensional marks).[2100] For instance, four different EU trade marks protect the fragrance "1 million" by Paco Rabanne, one of the world's best-selling perfumes.[2101] The verbal marks "1 million"[2102] and "one million"[2103] have

2098 Agnieszka A. Machnicka 2012 (n 1995) 125; see further André Bassard 1979 (n 2016) 461.

2099 Pierre Laszlo and Sylvie Rivière 2001 (n 1992) 90-91; IFRA, 'Valuable yet vulnerable: Trade Secrets in the fragrance industry' (2013) IFRA Position Paper, 13 <www.ifraorg.org/view_document.aspx?docId=23107> accessed 15 September 2018; Claire Guillemin, *Law & Odeur* (Nomos 2016) 58-61; this was also discussed during the course of an interview with maître parfumaire Rosendo Mateu (see Annex 2).

2100 Agnieszka A. Machnicka 2012 (n 1995) 124-125.

2101 As reported by Sephora France <http://www.sephora.fr/Toutes-les-meilleures-ventes/Parfum/Parfum-Homme/Rimppag0000017/SC310;jsessionid=022FF75A3011336DACD557F8CE516DDE.wfr1n> accessed 15 September 2018.

2102 EUTM Number: 005682141.

2103 EUTM Number 005738489.

been registered in connection to the fragrance's name. A figurative trade mark protects the logo under which the perfume is marketed (see image 1 below).[2104] Also, a three-dimensional mark has been granted for the perfume's bottle, which represents a golden bar (as seen in image 2 below).[2105]

Image 1

Image 2

Then, there is the issue of smell marks' eligibility for protection, which is discussed in section II.2 in connection to the representation requirement.

II. Requirements for protection

Pursuant to Article 4 EUTMR[2106] (and Article 3 TMD) a trade mark may consist of a (i) sign (ii) capable of being represented. Furthermore, (iii) it must allow consumers to distinguish the goods or services of one undertaking from those of other undertakings. The three limbs of the trade mark definition and the issues they pose in connection to fragrances are discussed in the following sections.

2104 EUTM Number: 006601091.
2105 EUTM Number: 006826556.
2106 Regulation (EU) 2017/1001 of the European Parliament and of the Council of 14 June 2017 on the European Union trade mark [2017] OJ L154/1 (European Union Trade Mark Regulation or EUTMR).

1. Signs

Neither the EUTMR nor the TMD define the term "sign". They merely spell out a list of non-exhaustive examples of what may be deemed a sign for the purposes of trade mark law.[2107] The Encyclopaedia Britannica adopts the definition provided by the American semiotics philosopher Charles Sanders Pierce, who describes them as "something which stands to somebody for something".[2108] In line with this approach and following the literal wording of the EUTMR and the TMD, it seems that no restrictions have been placed on the eligibility of any potential sign as long as it is able to signal the origin of the goods to which it is applied.[2109] Indeed, in the latest reform of the EU Trade mark system, for the first time specific reference was made to non-conventional trade marks such as colours and sounds.[2110]

Regarding fragrances, it is clear that brand names, bottle shapes and packaging can act as signs that consumers associate with a given perfume, as illustrated by Paco Rabanne's "1 million" marks. With respect to the olfactory message, in a decision from 2002 (*Sieckmann v. DPMA*),[2111] the CJEU in abstract opened the door to the protection of signs that cannot be perceived visually (non-conventional trade marks), as would be the case of odours, but still restated the importance of the representation requirement. The following section explores this condition in the wake of the *Sieckmann v. DPMA* case.

2. Representation

Until the last reform of the EU trade mark system, the eligibility of a sign for trade mark protection was subject to the possibility of representing it in *a graphical manner.*[2112]

2107 That is, "words, including personal names, or designs, letters, numerals, colours, the shape of goods or of the packaging of goods, or sounds".

2108 'Semiotics', *Encyclopaedia Britannica* <https://www.britannica.com/science/semiotics> accessed 15 September 2018.

2109 Annette Kur and Thomas Dreier 2013 (n 506) 170.

2110 See Article 4 EUTMR and Article 3 TMD.

2111 Case C–273/00 *Sieckmann v DPMA* [2002] ECR I-11737.

2112 See Article 4 Council Regulation (EC) No 207/2009 of 26 February 2009 on the Community trade mark [2009] OJ L78/1 and Article 2 of Directive 2008/95/EC of the European Parliament and of the Council of 22 October

The scope of this requirement was interpreted by the CJEU in *Sieckmann v. DPMA*, following a referral by the German Federal Patent Court ("*Bundespatentgericht*"). The CJEU was confronted with the issue of graphical representation after the German Patent and Trade Mark Office ("DPMA") refused to register an olfactory mark on the grounds that it was not possible to represent it in a graphical manner.[2113] Mr Sieckmann had filed a trade mark application for a scent and had described it as "balsamically fruity with a slight hint of cinnamon".[2114] Along with the application, he deposited a sample of the relevant odour, provided a list of laboratories where additional samples could be obtained and submitted the fragrance's chemical formula.[2115] Against this background, the German Federal Patent Court stayed the proceedings and referred a question for a preliminary ruling to the CJEU to clarify two issues: (i) whether a trade mark may consist of a sign that is not perceived visually and (ii) whether the graphic representation requirement in the case of smell marks is satisfied by providing a written verbal description, or its chemical formula or by depositing samples of the scent (or a combination thereof).

Regarding the first question, the CJEU ruled that signs that cannot be perceived visually shall only be eligible for protection if it is possible to represent them graphically in a manner that "is clear, precise, self-contained, easily accessible, intelligible, durable and objective".[2116] The court shed further light on the accepted means of representing a smell mark in

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2008 to approximate the laws of the Member States relating to trade marks [2008] OJ L299/25; by virtue of Regulation (EU) 2015/2424 of the European Parliament and of the Council of 16 December 2015 amending Council Regulation (EC) No 207/2009 on the Community trade mark and Commission Regulation (EC) No 2868/95 implementing Council Regulation (EC) No 40/94 on the Community trade mark, and repealing Commission Regulation (EC) No 2869/95 on the fees payable to the Office for Harmonization in the Internal Market (Trade Marks and Designs) [2015] OJ L341/21 as of October 1, 2017 (second phase of implementation) the "graphical representation requirement" has been deleted and it suffices that the subject matter of protection is represented in a manner which enables to identify it in a clear and precise manner.

2113 As laid down in Article 8 (1) of the German Trade Mark Act of 1994 (Markengesetz vom 25. Oktober 1994 (BGBl. I S. 3082; 1995 I S. 156; 1996 I S. 682), das zuletzt durch Artikel 11 des Gesetzes vom 17. Juli 2017 (BGBl. I S. 2541) geändert worden ist).

2114 Case C–273/00 *Sieckmann v DPMA* [2002] ECR I-11737, para13.

2115 The chemical formula was C6H5-CH = CHCOOCH3.'

2116 Case C–273/00 *Sieckmann v DPMA* [2002] ECR I-11737 para 545; this interpretation was anticipated by Advocate General Ruiz-Jarabo Colomer in his opin-

its answer to the second question by noting that chemical formulas were not regarded as "sufficiently intelligible". Furthermore, it was held that chemical formulas did not represent the scent of a composition, but rather represent the composition itself.[2117] The written description of the smell for which protection was sought was also deemed not "sufficiently clear and precise", despite its graphical nature.[2118] Likewise, the deposit of a sample lacked stability and durability and was not of a graphical nature.[2119] Finally, it was held that the combination of the above-enumerated elements did not comply with the requirements of graphical representation.[2120]

After *Sieckman*, it seemed that the graphical representation requirement was an insurmountable obstacle for olfactory signs, at least until new and more precise graphical representation methods were developed,[2121] or this requirement was removed from the acquis communautaire. In fact, the absence of pertinent representation means was confirmed by the GCEU of the European Union in 2005 with respect to the "smell of ripe strawberries".[2122]

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ion, where he noted that "In any case, I believe that the abstract ability of a sign, capable of perception by the sense of smell, to fulfil an identification function is completely beyond question. If the intention is to symbolise goods or services of a particular origin in order to distinguish them from those of a different origin, or if it is a question of evoking specific source, a quality or the reputation of an undertaking, the best thing is to fall back upon a sense that, like the sense of smell, is undoubtedly, even persuasively, evocative". Case C–273/00 *Sieckmann v DPMA* [2002] ECR I-11737, Opinion of Ruiz-Jarabo Colomer, para 29.

2117 Case C–273/00 *Sieckmann v DPMA* [2002] ECR I-11737, para 69.

2118 Case C–273/00 *Sieckmann v DPMA* [2002] ECR I-11737, para 70.

2119 Case C–273/00 *Sieckmann v DPMA* [2002] ECR I-11737, para 71.

2120 Case C–273/00 *Sieckmann v DPMA* [2002] ECR I-11737, para 72.

2121 In this regard, it is worth noting that prior to *Sieckmann* "the smell of fresh cut grass" was registered in connection to tennis balls Case R 156/1998-2 *Vennootschap onder Firma Senta Aromatic* [1992] OHIM OJ 1239 paras 14-15; thus far, this is the only smell mark registered with EUIPO and according to Advocate General Ruiz-Jarabo Colomer "this seems to be a 'pearl in the desert', however, an individual decision which is unlikely to be repeated" Case C–273/00 *Sieckmann v DPMA* [2002] ECR I-11737, Opinion of Ruiz-Jarabo Colomer para 32; Cristina Hernánder-Martí, 'The possibility of IP protection for smell' [2014] 36 EIPR 665, 668.

2122 Case T–305/04 *Eden SARL v OHIM* [2005] ECR II-04705, para 34 "It is, moreover, common ground that, at the present time, there is no generally accepted international classification of smells which would make it possible, as with international colour codes or musical notation, to identify an olfactory sign ob-

A number of scholarly works purported that the graphical representation requirement was an anachronism in the digital era, and that legal certainty no longer calls for a paper registry system.[2123] Thus, some suggested that it should not be considered when assessing the eligibility of a sign for protection.[2124] Instead, the focus should be placed on the capability of the sign to distinguish the goods and services of one undertaking from another.[2125]

Ultimately, this rationale has crystallised in the new wording of Article 4(b) EUTMR, by virtue of which the relevant criterion is that the signs are capable of "being represented on the Register of European Union trade marks, ("the Register"), in a manner which enables the competent authorities and the public to determine the clear and precise subject matter of the protection afforded to its proprietor".[2126] Consequently, the representation of the sign (not necessarily in a graphical manner) is still a relevant condition to access the registry, even though the new wording shows the EU legislature's clear preference for broadening the scope of protection for non-conventional signs and considering alternative means of representation.[2127] However, despite some isolated interpretations, it appears that the EU legislature when drafting this provision had in mind the registration of musical tunes, 3D marks or colours as such, not smell marks.

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jectively and precisely through the attribution of a name or a precise code specific to each smell".

2123 Max Planck Institute for Intellectual Property and Competition, 'Study on the Overall Functioning of the European Trade Mark System' (2011) 65-67 <http://ec.europa.eu/internal_market/indprop/docs/tm/20110308_allensbach-study_en.pdf> accessed 15 September 2018; Sergio Balañá Vicente, 'El entorno digital, ¿segunda oportunidad para la marca olfativa?: estudio acerca de la capacidad del signo olfativo' [2005-2006] 26 Actas de Derecho Industrial y Derecho de Autor 18, 24-27.

2124 Max Planck Institute for Intellectual Property and Competition 2011 (n 2123) 67-68; Sergio Balañá Vicente 2005-2006 (n 2123) 24-27; see Nadia Ianeva, *Registration of Non-conventional Signs Under the Community Trademark Regime* (Wissenchaftlicher Verlag Berlin 2008) 146-14.

2125 Max Planck Institute for Intellectual Property and Competition 2011 (n 2123) 67-68.

2126 Article 4(b) EUTMR.

2127 See Recital 10 EUTMR: "A sign should be permitted to be represented in any appropriate form using generally available technology, and thus not necessarily by graphic means, as long as the representation is clear, precise, self-contained, easily accessible, intelligible, durable and objective".

Indeed, the EUIPO Guidelines of Examination unequivocally state that: "Smell/olfactory or taste marks are currently not acceptable".[2128] According to the Office, the current state of technology does not allow for the representation of smells and taste in a manner that is "clear, precise, self-contained, easily accessible, intelligible, durable and objective", in line with the criteria laid down in *Sieckmann*.[2129] Pursuant to the Guidelines, any such application will be regarded as "not filed".[2130] However, even if new technological means allow for the representation of a scent, it is questionable whether odours can meet the third requirement of protection, i.e.whether they can be regarded as distinctive, as examined in the following section.

3. Distinctiveness

The raison d'être of trade mark law is to afford protection to signs provided that they are able to distinguish the goods and services offered by one competitor from those offered by another competitor (essential origin function of trade marks).[2131] Such a requirement is indispensable in order to ensure that the policy objectives that justify trade mark law are accomplished and has been codified as an absolute ground for refusal in Article 7(1)(b) EUTMR, which corresponds to Article 4(1)(b) TMD. In the assessment of the distinctive nature of a trade mark the following two parameters are considered: (i) the goods and services object of the registration and (ii) the perception of the sign by the relevant pubic.[2132]

2128 EUIPO Guidelines for Examination in the Office, Part B, Section 2, page 3.

2129 See Annette Kur and Martin Senftleben, *European Trade Mark Law* (OUP 2017) para 4.24 noting that "The situation is not expected to change soon. In particular, it is unlikely that courts and offices will in the future accept the deposit of samples in lieu of graphic representation. Such samples as well are not "easily accessible" and may also not be durable".

2130 EUIPO Guidelines for Examination in the Office, Part B, Section 2, page 33.

2131 See Case C–329/02 P *SAT.1 SatellitenFernsehen GmbH v European Union Intellectual Property Office* [2004] ECR II-08317, para 23; see further Case C–299/99 *Koninklijke Philips Electronics NV v Remington Consumer Products Ltd* [2002] ECR I-05475, para 30; the legal discussion surrounding the trade mark functions theories in Europe is discussed in more detail in chapter 5 § 3 C) II. 4 below in connection to the *L'Oréal v. Bellure* case.

2132 See Joined Cases C–468/01 P to C-472/01 P *Procter & Gamble Companyv. OHIM* [2004] ECR I-05141 para 33.

The general principle in the appraisal of the distinctive character of a trade mark, according to the case law from the CJEU, is that no distinction should be made as to the category of trade marks when considering their capacity to distinguish goods and services from different undertakings.[2133] Nonetheless, the court has stated that in the case of non-conventional marks, the average consumer is less prone to make assumptions about the origin of goods.[2134] In the context of fragrances, the distinctiveness requirement poses issues with respect to smell marks and the three-dimensional shapes used to protect perfume bottles. In particular, regarding bottles, the CJEU has pointed out that the shape for which protection is sought should go beyond a mere combination of common elements; to a certain extent, it must be striking.[2135] Following this premise, only those perfume recipients that "depart significantly from the norm or usages of the sector"[2136] are deemed distinctive. Continuing with the "1 million" example, using the shape of a golden bar seems to depart substantially from the other perfume bottles in the market.

The same rationale applies to smell marks. Even if the representation requirement could be overcome, it is not clear that odours could function as trade marks due to their lack of distinctiveness. It is less likely that a scent can convey information about the commercial origin of the goods in connection to which it is registered, because it does not suffice that the consumer identifies the scent as being familiar; he should be able to recognise it as an indicator of the source (the producer).[2137] The EUIPO Board of Appeals confirmed this in the *Myles* case, which was decided in 2001, prior to *Sieckmann*.[2138] There, the registration of the "scent of raspberries" was refused in connection to class 4 goods, "Fuels, including motor fuels, particularly diesel as heating fuel, fuel and engine fuel", owing to its lack of distinctiveness and not because of the impossibility of representing it graphically. The Board held that the average consumer would perceive the scent of raspberries as an attempt to convey a more pleasant smell, not as an in-

2133 Case T–194/01 *Unilever NV v OHIM* [2006] ECR II-00383 para 44; Guidelines for Examination in the Office, Part B, page 18.
2134 Case C–136/02 P *Mag Instrument Inc v OHIM* [2004] ECR I-09165 para 30.
2135 Case T–129/04 *Develey Holding GmbH & Co. Beteiligungs KG v OHIM* [2006] II-0811 paras 50-53.
2136 Case T–129/04 *Develey Holding GmbH & Co. Beteiligungs KG v OHIM* [2006] II-0811 para 53.
2137 Bettina Elias, 'Do scents signify origin? - An argument against trademark protection for fragrances' [1992] 82 TMR 475, 480.
2138 Case R 711/1999-3 *Myles Limited* (OHIM Boards of Appeal, 5 December 2001).

dicator of origin. The overall impression conveyed by the mark would not allow for distinguishing the goods at the time of purchase.[2139] In addition, it was contested that the olfactory sign for which protection was sought was not stable and durable, thus precluding registration.[2140]

4. Functionality

Drawing on the above analysis, it should be noted that functionality concerns have been raised in connection to smell marks. Before turning to them, some general remarks as to the functionality doctrine should be made.

The general principle underlying the exclusion of functionality from trade mark protection is to avoid that a single manufacturer can monopolize (potentially with no end in sight) the commercial use of the shape (or any other characteristic of a product) that results from its nature, technical features or that confers substantial value to the product in question. In line with this, the European legislature has laid down three categories of functionality as absolute grounds for refusal in Article 7(1)(e) EUTMR.[2141] The first one (paragraph i) prevents the registration of signs that result from the nature of the shape or other characteristics of the goods in question, such as the registration of the shape of a car for a vehicle.[2142] Next, paragraph (ii) refers to the so-called "technical functionality" and precludes the registration of the technical aspects of those signs that exclusively comprise the shape or other characteristics of the goods required to achieve a technical result. This ground of refusal has been applied to deny the registration of the "Red Lego Brick" as a three-dimensional trade mark in relation to "construction toys".[2143] Finally, pursuant to the ornamental functionality provision laid down in Article 7(1)(e)(iii) EUTMR, a sign that essentially

2139 Case R 711/1999-3 *Myles Limited* (OHIM Boards of Appeal, 5 December 2001) paras 43-44.

2140 Case R 711/1999-3 *Myles Limited* (OHIM Boards of Appeal, 5 December 2001) para 40.

2141 Which corresponds to Article 4(1)(e) TMD.

2142 This is the example provided by the EUIPO Guidelines for Examination in the Office, Part B, Section 4, Chapter 6, page 5; see further Annetted Kur, 'UMV 2017 Art. 7 Absolute Eintragungshindernisse' Rdn 117-118 on Annette Kur, Verena von Bomhard and Friedrich Albrecht, *BeckOK Markenrecht* (14th edn, C.H. Beck 2015).

2143 Case C–48/09 P *Lego Juris v OHIM* [2010] ECR I-08403.

consists of the shape or other characteristics that confers substantial value to a specific good is not eligible for trade mark protection. Following the EUIPO Guidelines, such a provision applies when "the aesthetic value of a shape (or by analogy other characteristic) can in its own right, determine the commercial value of the product and the consumers choice to a large extent".[2144] However, the fact that the relevant analysis does not take into account the long-term effects on competition of monopolising a given shape or characteristic of a product has not been without criticism.[2145]

At this point, it should be recalled that until the entry into force of the first phase of the Amending Regulation on 23 March 2016,[2146] the refusal to register a trade mark by the EUIPO was limited to "signs which consist exclusively of the *shape*" of certain functional features of products. This may have led some to think that the functionality exception was not applicable to smell signs, as they do not constitute a shape as such. However, the amended wording of this provision now also refers to other *"characteristics of goods"*, thereby ensuring their scope of application to smell marks.[2147]

The first and third types of functionality described above stand as major barriers to the protection of smell marks. For instance, the application of a

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2144 EUIPO Guidelines for Examination in the Office, Part B, Section 4, Chapter 6 , page 9; the leading case on the issue of aesthetic functionality is T–508/08 *Bang & Olufsen A/S v OHIM* [2011] ECR II-06975.

2145 For a critical analysis of the "aesthetic functionality" requirement see Annette Kur, 'Too pretty to protect? '139, 139-140 in Josef Drexl and others *Technology and Competition, Contributions in honour of Hanns Ullrich* (Editions Larcier 2009) alerting of the effects of such an approach for competition law: "(…), the focus should not only rest on how the public, at a given point in time, perceives and evaluates a certain shape. The crucial test should consist of an analysis of the competitive potential of the form at stake, considering to what extent its assignment to one particular right holder would be liable to impede, or even exclude, efficient and meaningful competition. This means that a sign's rising potential to constitute a source identifier is only one factor in the assessment- it does not however, automatically lead to a proportionate decrease in the weight given to competition.

2146 Regulation (EU) 2015/2424 of the Europan Parliament and of the Council of 16 December 2015 amending Council Regulation (EC) No 207/2009 on the Community trade mark and Commission Regulation (EC) No 2868/95 implementing Council Regulation (EC) No 40/94 on the Community trade mark, and repealing Commission Regulation (EC) No 2869/95 on the fees payable to the Office for Harmonization in the Internal Market (Trade Marks and Designs) [2015] OJ L341/21 (Amending Regulation).

2147 Annette Kur and Martin Senftleben 2017 (n 2129) paras 4.175-4.176.

smell mark covering the scent of pineapple in connection to juices or yoghurts should be rejected on the grounds that it results from the nature of the good itself (as per Article 7(1)(i) EUTMR). Otherwise, the trade mark holder could prevent competitors from entering the yoghurt market. The same provision prevents the registration of smell marks for perfumes, as the scent results from the nature of the goods themselves. Additionally, the ornamental functionality doctrine is a major obstacle in the protection of the olfactory message conveyed by fragrances, pursuant to Article 7(1)(e)(iii) EUTMR. Indeed, the aesthetic message of a perfume or any other primary scent determines the commercial value of the product and, largely, the consumer's choice. Following the above-mentioned example, Paco Rabanne's "One Million" value lies mainly in its aromatic appeal to consumers, despite the importance of other factors, such as marketing campaigns and selective distribution agreements. As a final note on technical functionality (Article 7(1)(ii) EUTMR), it has been suggested that smell marks in connection to so-called "product scents" (those used to manufacture soaps, detergents or shampoos) are of a functional nature, as their main objective is to neutralise or mask the smell of the main component. However, the application of this provision appears less straightforward than the two previous cases.[2148]

III. Evaluation

As is apparent from the above, the use of a trade mark in connection to a fragrance's name and packaging provides strong protection against the marketing of counterfeit products, which is further enhanced by the application of the Customs Regulation.[2149] Crucially, relying on trade marks also facilitates concluding licensing and selective distribution agreements, which are of paramount importance to the luxury perfume industry. Another remarkable advantage is that trade marks are the only IPR that is not subject to time limitations. As long as they are used in trade and the appro-

2148 Sergio Balañá Vicente 2005-2006 (n 2123) 45-46.

2149 Regulation of the European Parliament and of the Council E 608/2013 of 12 June 2013 concerning customs enforcement of intellectual property rights and repealing Council Regulation (EC) No 1383/2003 concerning customs enforcement of intellectual property rights [2013] OJ L181/15 (Customs Regulation).

priate renewal fees are paid, the protection of the registered signs could extend perpetually.

Notwithstanding this, trade mark rights are subject to a number of limitations. For the time being, the representation requirement remains an essential condition of protection in the EU, and it seems unlikely that odours can overcome this hurdle in the near future. Furthermore, even if new technological means allow for the representation of smells in a "clear, precise, self-contained, easily accessible, intelligible, durable and objective" manner, functionality and lack of distinctiveness may be invoked against the registration of scents. Crucially, trade mark rights do not confer protection against imitations that do not have a sign attached, as in the case of "smell-alikes". Instead, this is achieved through the joint protection of trade marks and unfair competition law. Indeed, de lege lata the most effective means of enjoining the distribution of smell-alikes is provided by the MCAD, by virtue of which the presentation of advertied products as replicas is deemed unlawful, as analysed in the following section.

D) Unfair competition – Comparative advertisement

The present section delves into the protection of perfumes through unfair competition law. In particular, and owing to the broad scope of application of unfair competition rules, it is confined to the study of the legal framework for comparative advertisement and trade mark law regarding smell-alikes. Over the last decade, the national courts of a number of Member States have rendered multiple decisions on this topic, and even more so since the CJEU decided on the famous *L'Oréal v Bellure* case. Following the structure implemented in the previous sections, the object of protection, together with the requirements and the advantages and disadvantages of resorting to comparative advertisement by fragrance manufacturers are examined. In this context, the CJEU's decision *L'Oréal v Bellure* is used as the guiding authority.

I. Object of protection

Article 2(c) MCAD defines the concept of "comparative advertisement" as "any advertising which explicitly or by implication identifies a competitor

or goods or services offered by a competitor".[2150] The provisions regulating such a marketing practice attempt to strike a balance between three conflicting interests: (i) the advertiser's interests in referring to a leading brand (referential function), (ii) the consumer's need for reliable information ("assisting rational consumers' choice")[2151] and (iii) the competitor's interest in protecting his goodwill from tarnishing and blurring practices.[2152] In line with this three-fold approach, but at a more abstract level, the EU legislation on comparative advertisement aims at achieving the appropriate equilibrium between the "rights of privacy and commercial personality and the freedom of commercial speech and competition".[2153] However, from a competition law perspective, opinions are divided among those who purport that such a practice strengthens competition in the market by increasing transparency and consumer attention and those who are wary of the distortion it generates.[2154]

Comparative advertising as a marketing practice is particularly relevant in the high-end fragrance sector because the number of stores from which perfume smell-alikes can be purchased has steadily increased in recent years.[2155] The analysis conducted throughout this chapter has shown that perfumes "as such" are not the object of protection of any IPR, unless their packaging and bottles bear a protected trade mark or contain a patented compound. Thus, manufacturing and putting in the market perfumes that convey the same olfactory message as other well-known fragrances is lawful according to intellectual property law. Notwithstanding this, following the CJEU's famous *L'Oréal v Bellure* ruling, comparing an original fine perfume with an imitation for marketing purposes shall be deemed unfair. Hereafter, the necessary conditions to regard an act of comparative adver-

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2150 Another widely cited definition is provided by William L. Wilkie and Paul W. Farris, 'Comparison Advertising: Problems and Potential, Source' [1975] 39 J of Marketing 7, 7 where comparative advertisement is defined as advertising that: "1. Compares two or more specifically named or recognizably presented brands of the same generic product or service class, and 2. Makes such a comparison in terms of one or more specific product or service attributes".

2151 See Recitals 6 and 8 of MCAD.

2152 Ansgar Ohly and Michael Spence, *The Law of Comparative Advertising* (Hart Publishing 2000) 57-59.

2153 Jochen Glöckner, 'The Regulatory Framework for Comparative Advertisement in Europe- Time for a new Round of Harmonisation' [2012] IIC 35, 39.

2154 Jochen Glöckner 2012 (n 2153) 39.

2155 Cristina Fontgivell, 'Equivalenza proyecta 20 aperturas en Estados Unidos' *Diario Expansión* (Barcelona, 20 April 2015) <http://www.expansion.com/catalunya/2015/04/20/5534b784268e3ee1648b4576.html> accessed 15 September 2018.

tisement as lawful are outlined in the wake of the *L'Oréal v Bellure* decision.

II. Requirements for protection in the wake of L'Oréal v Bellure

The EU legislature has laid down a two-step test to assess the lawfulness of acts of comparative advertisement, which consists of the appraisal of (i) whether there is an actual act of comparative advertisement and (ii) if pursuant to the criteria of fairness spelt out in Article 4 of the Directive, the relevant conduct is permitted.[2156] Each of these is analysed in turn and particular emphasis is given to one of the cumulative conditions in Article 4 MCAD: the presentation of products as imitations.

1. Two-step test: Definition of comparative advertisement and the appraisal of fairness

According to the case law from the CJEU, the MCAD applies to direct acts of representation as well as representation by implication to a competitor and the goods and services offered by him.[2157] Furthermore, there must be a competitive relation between the advertiser and the undertaking identified in the advertisement in question. Such an assessment should take into account the state of the market and consumer habits together with the territory in which the advertisement is released. According to the CJEU, attention should be paid to the relevant features of the promoted product.[2158]

The second benchmark of the test assesses whether the reference enshrined in the advertisement is fair. To this end, Article 4 of the Directive

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2156 Ansgar Ohly and Michael Spence, *The Law of Comparative Advertising* (Hart Publishing 2000) 44.

2157 Case C–112/99 *Toshiba Europe GmbH v Katun Germany GmbH* [2001] ECR I-07945 para 29 "The test for determining whether an advertisement is comparative in nature is this where it identifies, explicitly or by implication, a competitor of the advertiser or goods or services which the competitors offers".

2158 Case C–381/05 *De Landtsheer Emmanuel SA v Comité interprofessional du Vin de Champagne and Veuve Clicquot Ponsardin SA* [2007] ECR I-03115 paras 20-23; Ansgar Ohly, 'Vergleichende Werbung für Zubehör und Warensortimente - Anmerkungen zu den EuGH-Urteilen 'Siemens/VIPA' und 'LIDL Belgium/ Colruyt'' [2007] GRUR 3, 4-5.

spells out eight cumulative conditions to be satisfied by any comparative advertisement in order to be deemed fair and thus permitted. Such a marketing practice shall only be allowed when it is not misleading (Article 4(a)); it compares products intended for the same purpose (Article 4(b)); it objectively compares one or more material, relevant, verifiable and representative features of those products (Article 4(c)); it does not discredit or denigrate the trade marks and the like of a competitor (Article 4(d)); it refers to products with the same designation of origin (Article 4(e)); it does not take unfair advantage of the reputation of a trade mark, trade name or other distinguishing marks of a competitor (Article 4(f)); it does not present goods as imitations (Article 4(g)); and it does not cause confusion (Article 4(h)).

2. Presentation of products as imitations in the wake of L'Oréal v Bellure

Of particular relevance for the perfume industry is Article 4(g) MCAD, which provides that products that are presented as imitations of those they refer to shall never benefit from comparative advertisement protection. The extent of this provision and its implications for the smell-alike industry were discussed by the CJEU in *L'Oréal v Bellure*. The main facts and findings of the court are summarised below.

Bellure, one of the three defendants, produced a number of fragrances imitating some of L´Oréal's best-selling perfumes. In particular, the perfumes marketed under the names "La Valeur" and "Coffret d'Or" aimed at imitating the "Trésor" brand, whereas "Pink Wonder" imitated "Miracle". In all three cases, the bottles and packaging under which they were marketed were similar in appearance to those of the original perfumes, although "Coffret d'Or" was deemed only "slightly" similar. Notably, for marketing purposes, Malaika and Starion (the distributing companies and the two other defendants) provided retailers with a comparison list, which essentially indicated the correlation between the word mark of the original fragrance and the name under which the smell-alike was marketed. Under this fact pattern, L'Oréal brought proceedings seeking to enjoin the sale of the imitating perfumes on two grounds. In the first place, the French company claimed that the comparison list amounted to trade mark infringement under section 10(1) of the UK Trade marks Act 1994 (which corresponds to Article 10(2)(a) TMD). Secondly, it argued that "Trésor's" word mark, bottle word and figurative marks and packaging marks together with "Miracle's" word mark, packaging mark and bottle mark amounted

to trade mark infringement under section 10(3) of the Trade Marks Act 1994 (which corresponds to 10(2)(c) TMD and deals with the protection afforded to trade marks having a reputation). Upon appeal, the referring court submitted five questions for a preliminary ruling to the CJEU, which mostly revolved around the issue of whether the use of a trade mark that does not mislead consumers and does not have an adverse effect on the reputation and distinctive nature of the mark, but provides an advantage to the trader, should be deemed unlawful. The court structured its legal reasoning in three sections, which are outlined below.

The first one dealt with the scope of the protection of Article 10(2)(c) TMD vis-à-vis marks with a reputation, where there was no likelihood of confusion and neither the repute nor distinctiveness of the mark were affected. According to the decision, the packaging the defendants used allowed consumers to establish a link with some of the trade marks used by L'Oréal for the packaging and bottles of its fine fragrances, which was perceived as conferring a commercial advantage to the plaintiffs.[2159] The CJEU famously held that "riding on the coat-tails" of a mark with a reputation in order to take advantage of its power of attraction, reputation and prestige and without providing any compensation should be deemed unlawful and amounts to trade mark infringement.[2160] In its assessment, the court gave particular relevance to the investment and marketing efforts the proprietor of the trade mark took to create and maintain the mark's image.

The remaining enquiries touched upon comparative advertisement. In particular, the first and second questions posed by the referring court attempted to clarify whether the double identity prohibition laid down in Article 10(2)(a) TMD and the prohibition to use in the course of trade signs that are similar or identical to the registered trade mark and to the goods or services it covers, where there is likelihood of confusion between the signs and the trade marks (as set forth in Article 10(2)(b) TMD) is also applicable in the context of comparative advertisement when the essential origin function is not adversely affected. The CJEU premised its decision

2159 Case C–487/07 *L'Oréal v Bellure* [2009] ECR I-05185, para 47.

2160 The view expressed by the CJEU has been criticized, among many others by Dev S. Gangjee and Robert Burrell, 'Because You're Worth It: L'Oréal and the Prohibition on Free Riding' [2010] 73 MLR 282-295 who suggest that the fact that taking advantage of the reputation of a mark as such is deemed unlawful amounts to an unjustified expansion of trade mark law. The general prohibition on free riding laid down in *L'Oréal v Bellure* impedes referential function and "building on the efforts of others, which may ultimately negatively affect the competitiveness of the Single Market".

on the fact that comparison lists fall under the scope of the definition of comparative advertisement laid down in Article 2(c) MCAD and that the provision at issue was Article 10(2)(a) TMD (the double identity clause). Indeed, in the case under review the signs were identical (the fragrance's brand name) and they were applied to identical goods (i.e. perfumes). Against this backdrop, it was ruled that the holder of a registered trade mark can enjoin the use of a sign identical to its trade mark in connection to identical goods, provided that the conditions spelt out in Article 4 MCAD are not cumulatively met and that one of the trade mark functions is affected.[2161] Crucially, the court concluded that the essential origin function does not necessarily have to be jeopardised so long as "one of the other functions of the mark is affected".[2162]

With this statement, the CJEU clarified that the "essential origin function" is not the only function protected by trade mark law, thereby broadening the scope of protection afforded under the EU trade mark regime.[2163] In particular, reference was made to the "communication, investment or advertising functions".[2164] This was later confirmed in a number of decisions[2165] and has given rise to vehement criticism from legal scholars, who have mostly raised concerns regarding the expansion of trade mark rights to benefit large undertakings and against the interests of con-

2161 As pointed out by Annette Kur, Lionel Bently and Ansgar Ohly, 'Sweet Smells and a Sour Taste - The ECJ's L'Oréal decision' (2010) Max Planck Institute for Intellectual Property, Competition & Tax Law Research Paper Series No. 09-12 2, Paper No. 10/01, 3, footnote 4 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1492032> accessed 15 September 2018 noting that the French and German translations of the decisions use the terms of "porter atteinte" and "beeinträchtigen"; and that these terms have a negative connotation, because they imply that the function of the mark has to be jeopardised to some extent. The English version of the decision makes a similar statement in para 60, referring to the "detriment to any of the functions".

2162 Case C–487/07 *L'Oréal v Bellure* [2009] ECR I-05185, para 58.

2163 Case C–487/07 *L'Oréal v Bellure* [2009] ECR I-05185, para 58: "These functions include not only the essential function of the trade mark, which is to guarantee to consumers the origin of the goods and services, but also its other functions, in particular that of guaranteeing the quality of the goods and services in question and those of communication, investment or advertising".

2164 Case C–487/07 *L'Oréal v Bellure* [2009] ECR I-05185, para 63.

2165 See among others: Case C–323/09 *Interflora Inc. and others v Marks & Spencer and others* [2011] ECR I-08625, para 48; Case C–236/08 *Google France SARL and Google Inc. v Louis Vuitton Malletier SA* [2010] ECR I-02417, paras 75-79; Case C–206/01 *Arsenal Football Club plc v Matthew Reed* [2002] ECR I-10273, para 48.

sumers and third parties and, more generally, competition in the market.[2166] Yet, a deeper study of the trade mark function theory in the EU falls outside the scope of the present research.[2167]

Third, the CJEU held that any explicit or implicit statement in a comparative advertisement that presents goods or services as imitations or replicas of a mark having a reputation shall be regarded as infringing for the purposes of Article 4(g) MCAD. More specifically, the court ruled, following the opinion of Advocate General Mengozzi, that it is irrelevant whether an advertisement shows that the product bearing the protected marks is imitated as a whole or for one of its essential characteristics (in the case under review, the smell of the products).[2168] Finally, it was concluded that any act of comparative advertisement where the product is presented as an imitation of a product bearing a well-known trade mark shall be considered to have taken "unfair advantage" of the reputation of said mark, as per Article 4(f) MCAD.[2169] The doctrine followed by the CJEU in *L'Oréal v Bellure* regarding the intersection between comparative advertisement and trade mark law has crystalised in the new wording of Article 10(3)(f) TMD, by virtue of which the use of a sign in comparative advertisement in a manner that is contrary to MCAD is proscribed and therefore leads to dual infringement: unfair competition and trade mark law.

To be sure, *L'Oréal v Bellure* is one of the most contested decisions on the interplay between unfair competition and trade mark law the CJEU has rendered. It has spurred criticism among several authors, who argue that its findings substantially limit one of the pillars upon which modern intellectual property systems are built: the freedom to imitate principle. According to said principle, products that are not specifically covered by

2166 Mats Björkenfeldt, 'The Genie is out of the Bottle: the ECJ's Decision in L'Oréal v Bellure' [2010] 5 JIPLP 105, 106.

2167 Academic works that study this topic include among others: Annette Kur, 'Trade Marks Function, Don't They? CJEU Jurisprudence and Unfair Competition Principles' [2014] IIC 434 -454 and Martin Senftleben, 'Function Theory and International Exhaustion – Why It Is Wise to Confine the Double Identity Rule to Cases Affecting the Origin Function' [2014] 36 EIPR 518; see also Nicole Van der Laan, 'The use of trade marks in keyword advertising: Developments in CJEU and national jurisprudence' 231, 253-256 in Nari Lee, Ansgar Ohly, Annette Kur, Guido Westkamp (eds), *Intellectual Property, Unfair Competition and Publicity* (Edward Elgar 2014).

2168 Case C–487/07 *L'Oréal v Bellure* [2009] ECR I-05185, para 75 but also, Opinion of Mengozzi, para 88.

2169 Case C–487/07 *L'Oréal v Bellure* [2009] ECR I-05185, para 80.

any IPR should be free to imitate,[2170] as famously noted by the U.S. Supreme Court in *Bonito Boats*, "imitation and refinement through imitation are both necessary to invention itself, and the very lifeblood of a competitive economy".[2171]

From the analysis conducted throughout this chapter, it appears that no single IPR affords protection to perfumes as such. Indeed, the possibility of imitating perfumes was not disputed throughout the proceedings. The salient question was whether the defendants could inform consumers that the products being sold were imitations of well-known fragrances. Against this background, some suggest that the CJEU favoured the interest of trade mark holders in preserving the exclusivity of their products through the application of rules preventing comparative advertisement of lawful products where no likelihood of confusion arises, rather than the general interest of consumers in knowing relevant information that may assist them in their rational choice.[2172]

This gave rise to numerous reactions from both academia and national courts, which mostly revolved around the implications of the CJEU's decision on the unlawfulness of marketing products that are not protected by any IPR. One of the most vehement criticisms was expressed by Jacob J, the referring Judge in England, when delivering his judgement after the CJEU's decision. He stressed that "I do not agree with or welcome this conclusion -it amounts to pointless monopoly. But my duty is to apply it".[2173] The judge argued that the ruling of the CJEU negatively affects

2170 Ansgar Ohly 2010 (n 1102) 506-524 concluding that imitation should not be deemed unfair, but may be subject to limitations.

2171 *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.,* 489 U.S. 141, 146 (1989).

2172 Annette Kur, Lionel Bently and Ansgar Ohly, 'Sweet Smells and a Sour Taste - The ECJ's L'Oréal decision' (2010) Max Planck Institute for Intellectual Property, Competition & Tax Law Research Paper Series No. 09-12 2, Paper No. 10/01, 3, footnote 4 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1492032> accessed 15 September 2018.

2173 *L'Oréal SA v Bellure NV* [2010] EWCA Civ 535 [50].

commercial freedom of speech[2174] and hinders market competition.[2175] He further noted that comparison lists play a central role in ensuring that consumers are informed about the characteristics of competitors' products, thus allowing proper competition.[2176] This is crucial for spare parts manufacturers and generic drug producers and, more generally, to allow consumers to make an informed decision.[2177] Along these lines, Ohly submitted that the legal reasoning developed by the CJEU limits the freedom of imitation and the possibility of informing consumers through the referential use of a mark.[2178] In the same vein, he argued that the interpretation of Article 10(2)(c) TMD the CJEU followed applies the French rationale of "parasitic competition" and seems to regard any act that takes advantage of another trader's reputation as prohibited, without assessing the fairness of the act. In his view, this contravenes the spirit of Article 10(2)(c) TMD and Article 4(f) of the MCAD, which were not drafted to protect the skill, labour and economic resources invested in the creation of a "product im-

2174 *L'Oréal SA v Bellure NV* [2010] EWCA Civ 535 [9]-[14] noting that "poor consumers are the losers. Only poor would dream of the defendant's products. The real thing is beyond their wildest dreams. Yet they are denied their right to receive information which would give them a little bit of pleasure; the ability to buy a product for a euro or so which they know smells like a famous perfume"; this view is also supported by Annette Kur, Lionel Bently and Ansgar Ohly, 'Sweet Smells and a Sour Taste – The ECJ's L'Oréal decision' (2010) Max Planck Institute for Intellectual Property, Competition & Tax Law Research Paper Series No. 09-12 2, Paper No. 10/01, 4 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1492032> accessed 15 September 2018, who note that "Freedom of expression and information are enshrined in Art. 11 of the Charter of Fundamental Rights of the European Union (2007/C 303/01), and also figure in Art. 10 of the European Convention of Fundamental Rights (ECHR), to which all EU Member States have adhered". The authors also remind readers that the ECtHR regards commercial speech as falling within the scope of Article 10.

2175 *L'Oréal SA v Bellure NV*. [2010] EWCA Civ 535; [15].

2176 In the words of Jacob J "If a trader cannot (when it is truly the case) say. "my goods are the same as Brand X (a famous registered mark) but half the price", I think there is a real danger that important areas of trade will not be open to proper competition"; *L'Oréal SA v. Bellure NV*. [2010] EWCA Civ 535, [16].

2177 Annette Kur, Lionel Bently and Ansgar Ohly, 'Sweet Smells and a Sour Taste - The ECJ's L'Oréal decision' (2010) Max Planck Institute for Intellectual Property, Competition & Tax Law Research Paper Series No. 09-12 2, Paper No. 10/01, 3-4 footnote 9 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1492032> accessed 15 September 2018.

2178 Ansgar Ohly 2010 (n 1102) 135-139.

age".[2179] In sum, critics have argued that the legal reasoning applied by the CJEU limits commercial speech to the detriment of consumers' choices.

However, one crucial distinction should be made. Unlike generic drugs or spare parts, which may be protected under patent rights, utility models and design rights for the features of appearance that do not enable mechanical parts to be connected,[2180] perfumes as such are not the object of IPRs. Most notably, perfumery goods are particularly vulnerable to reverse engineering practices.[2181] Consequently, some commentators have taken a more conservative approach to the protection of marks with a reputation in the context of well-known fragrances and have suggested that products imitating them should not be considered "lawful products", as noted by Jacob J. In this respect, Machinka[2182] underscores that the notion of "quality of a product" was construed in a wide sense by the CJEU in *Copad SA v Christian Dior couture SA* in the context of a trade mark license to include "the allure and prestige image which bestows on them an aura of luxury".[2183] This, in turn, was considered to contribute to the "image of the product", which constitutes an important part of the product itself. Consequently, the CJEU held that an "impairment to that aura of luxury is likely to affect the actual quality of those goods".[2184] In this context, she concludes that, to the extent that comparison lists hinder the quality of products by negatively affecting their image, the protection of fragrances against comparison lists appears justified, as it ultimately results from the wider protection conferred to marks with a reputation.[2185]

While the CJEU's interpretation may appear suitable to ensure that incentives to create new perfumes do not disappear, it cannot be overlooked that it ultimately sets general interpretative principles both for trade mark and comparative advertisement law across all industry sectors, beyond per-

2179 Ansgar Ohly 2010 (n 1102) 521-522.

2180 Article 7(2) Directive 98/71/EC of the European Parliament and of the Council of 13 October 1998 on the legal protection of designs [1998] OJ L289/28 (Design Directive).

2181 See chapter 5 § 4 B) I.

2182 Agnieszka A. Machnicka 2012 (n 1995) 136.

2183 Case C–59/08 *Copad SA v Christian Dior couture SA*, ECR [2009] I-03421 para 24.

2184 Case C–59/08 *Copad SA v Christian Dior couture SA*, ECR [2009] I-03421 para 26; the CJEU has confirmed this interpretation in the context of selective distribution agreements of luxury cosmetic and perfume products in Case C–236/2016 *Coty Germany GmbH and Parfümerie Akzente GmbH* (6 December 2017).

2185 Agnieszka A. Machnicka 2012 (n 1995) 136-138.

fumery goods. For this reason, it is concluded that the doctrine enshrined in *L'Oréal v Bellure* undoubtedly limits the possibility of making referential use of trade marks, thereby substantially limiting consumers' choices and hindering competition in the market.

III. Evaluation

The broad interpretation of the imitation clause in Article 4(g) MCAD has become a powerful tool for manufacturers of fine perfumes to prevent the placing on the market of smell-alikes of their fragrances. In the wake of *L'Oréal v Bellure*, many national courts have ruled against undertakings that implement Bellure's business model.

In Spain, the EU Trade mark Court in Alicante decided in favour of the Puig Group, owner of EUTMs having a reputation, such as "Carolina Herrera", "Ultraviolet", "Paco Rabanne", "Black XS", "One Million", "Nina Ricci" and "J Paul Gaultier" and against four undertakings that offered, marketed and promoted smell-alikes of these perfumes using comparison lists.[2186] Puig launched proceedings against Caravan Fragrancias SL, Grupo del Árbol Distribución y Supermecados SA, Industria Aragonesa del perfume SL and Laboratorios Saphir SA for an infringement of the above listed marks having a reputation pursuant to the three types of conduct set out in Article 9 EUTMR (and 34 of the Spanish Trade Mark Act)[2187] and for carrying out acts of unfair competition.

In its judgement, the court applied the same line of argument as the CJEU in *L'Oréal v Bellure* and ruled that the defendants' conduct amounted to a violation of the double identity clause laid down in Article 34(2)(a) of the Spanish Trade mark Act (Article 9(2)(a) EUTMR), but also of Article 34(2)(c) of the Spanish Trade Mark Act (Article 9(2)(c) EUTMR), which provides enhanced protection to marks with a reputation when the use of the sign without due cause takes unfair advantage of, or is detrimental to, the distinctive character or the repute of the mark. Furthermore, it was noted that the marketing of smell-alikes through comparison lists might

2186 See SJMer n° 2 de Alicante n°3/15, de 14 de enero de 2015 (Acting as the Community Trade mark Court of First Instance). This decision that was subsequently upheld by the Court of Appeals in Alicante (SAP Alicante nº 1536/2015, de 14 de septiembre de 2015) and the Spanish Supreme Court in STS 3115/2015, de 16 de noviembre de 2016.

2187 Ley 17/2001, de 7 de diciembre, de Marcas (Spanish Trade Mark Act).

have a negative impact on other trade mark functions recognised by the CJEU. The decision under review expressly refers to functions such as guaranteeing the quality of the product or service, communication, investment and advertising. Secondly, the court found that a number of unfair competition provisions were infringed. In particular, it was held that the conduct of the respondents amounted to acts of unfair comparison (pursuant to Article 10(d) of the Spanish Unfair Competition Act, which corresponds to Article 4(g) MCAD) and taking unlawful advantage of a competitor's reputation (pursuant to Article 12 of the Spanish Unfair Competition Act). Finally, it was held that the promotion of smell-alike perfumes through comparison lists fell within the scope of Article 18 of the Spanish Unfair Competition Act, which prohibits unlawful publicity.

The previous analysis shows that the CJEU in *L'Oréal v Bellure* set a powerful precedent to enjoin the commercial activity of smell-alike manufacturers and retailers, as they are not allowed to advertise the equivalence of their fragrances with fine perfumes marketed by high-end brands. This is particularly important for the perfume industry, as there is no single IPR that protects perfumes as such and because their formulas can be easily unveiled through cheap reverse engineering techniques.

§ 4 The role of trade secrets in the protection of perfumes

A) Importance of trade secrets for the perfume industry

From the foregoing analysis, it can be concluded that odours are not the object of any specific IPR. Patents, copyright and trade marks, alongside unfair competition, only afford protection to some of the intangible assets involved in the creation, development and marketing of fragrances and new scents. Beyond traditional IPRs, in practice trade secrets play a central role in ensuring the appropriation of returns from innovation and the creation of new products in the perfume industry, as seen in Table 3 below.

TABLE 3: IRPs APPLICABLE BY THE FRAGRANCE INDUSTRY IN THE PROTECTION OF THEIR INTANGIBLE ASSETS[2188]

IPR	Patents	Copyright	Trade marks	Trade Secrets
Molecules	✓		✓[2189]	✓
Processes	✓			✓
Client lists				✓
Suppliers list				✓
Raw materials (stabilisation, processing and sourcing)	✓			✓
Know-how / Institutional knowledge				✓
Client product knowledge				✓
Market knowledge and surveys				✓
Logos, Brands and images			✓	

As is apparent from the above table, trade secrets are key to ensuring the competitiveness of the perfume industry, as they afford overarching protection at every stage of the creation, manufacture and marketing phases. They are used along with patents to protect molecules, production processes and raw materials (stabilisation, processing and sourcing). Despite their

2188 This table is mostly based on the table included in IFRA, 'Valuable yet vulnerable: Trade Secrets in the fragrance industry' (2013) IFRA Position Paper, 11 <www.ifraorg.org/view_document.aspx?docId=23107> accessed 15 September 2018.

2189 See Guivaudan's U.S. Trademark 79038147 "Florymoss" under which one of its molecules is marketed.

non-exclusive nature, from a practical perspective they are often preferred over patent rights, as the maintenance and enforcement costs of the latter are higher than those for informal means of protection are.[2190] Resorting to trade secrets protection also avoids the risk of disclosing an invention in a patent application that may eventually not be granted and thereafter fall into the public domain. Furthermore, trade secret law provides incentives in areas that are not covered by traditional IPRs, such as small incremental innovations developed over time that are not eligible for patent protection but are nonetheless central to the sector's economic growth.

In recent decades, traditionally small and family-owned perfume companies have substantially grown to become SMEs or even large multinational companies, such as the Esteé Lauder Group, which now employs more than 42.000 people.[2191] Thus, the number of employees, suppliers and retailers has risen accordingly. Ultimately, this has led to a substantial increase in the leakage of confidential information. The following section identifies the main factors responsible for such an escalation and the measures perfume companies have adopted to prevent it.

B) Increasing vulnerability of trade secrets in the perfume sector

The fragrance industry has traditionally relied strongly on trade secrets protection. As examined in § 2, this is mainly caused by the fact that there is no IPR that affords protection to perfumes as such. However, following an international trend, keeping information secret within the sector has become increasingly problematic.[2192] This section surveys the main factors behind the difficulties in concealing information.

From the existing literature and the interviews conducted, four factors have been identified as the main causes behind the leakage of trade secrets within the perfume sector: (i) reverse engineering practices; (ii) demands for disclosure and transparency; (iii) new means of electronic storage and transmission and (iv) employee mobility. Each of these are analysed in turn. Finally, (v) the main measures to prevent the unauthorised acquisition, use and disclosure of confidential information are examined.

2190 As disclosed by Perfume Company 1 (see Annex 1).

2191 See <https://en.wikipedia.org/wiki/Est%C3%A9e_Lauder_Companies> accessed 15 September 2018.

2192 Conversation with the Head of IP of Perfume Company 1 (see Annex 1).

I. Reverse engineering

The development of gas chromatography-mass spectrometry techniques in the 1980s allowed competitors to identify the main compounds in a fragrance and their proportions at a relatively low cost.[2193] This only requires an inexpensive device (known as an "artificial nose") which provides an accurate analysis of the mixture after introducing a small sample of the analysed perfume.[2194] A skilled chemist can interpret the results of such an analysis and develop a similar or identical perfume. In fact, some commentators note that after the first chromatograph approach, 90% of the perfume components are revealed, which can increase to 99% with olfactory adjustment.[2195]

In this regard, perfumist Roseando Mateu indicates that to achieve an identical olfactory message, the formula alone does not suffice, as the supplier's identity in the case of organic compounds and mixtures is also relevant. He uses the case of lemon scent as an example. The one supplied by Italian producers is more intense than the one manufactured in Spain due to the technology applied to obtain it. In Italy, the technique is more artisanal, as only the outer layers of the lemon rind (the ones with a more intense smell) are used. This results from the fact that old machines are deployed. In contrast, Spanish manufacturers use modern equipment that uses the entire lemon rind. Hence, the smell of odorous compounds manufactured in Spain is less intense, but also cheaper.[2196]

In the same vein, the head of IP of Perfume Company 1 argues that there is not an exact answer to the question of whether it is possible to reverse engineer perfumes to find out their formulas, as an array of factors come into play. In particular, it is noted that to avoid imitations, very expensive ingredients are included in high-end fragrances. Consequently, exclusivity is achieved through the use of highly priced compounds.[2197]

The policy arguments underlying reverse engineering are examined in greater detail in chapter 6.[2198]

2193 IFRA, 'Valuable yet vulnerable: Trade Secrets in the fragrance industry' (2013) IFRA Position Paper, 14 <www.ifraorg.org/view_document.aspx?docId=23107 > accessed 15 September 2018.
2194 Pierre Pierre Laszlo and Sylvie Rivière 2001 (n 1992) 23.
2195 Claire Guillemin, *Law & Odeur* (Nomos 2016) 60.
2196 Interview with Rosendo Mateu (see Annex 2).
2197 Interview with the Head of IP of Perfume Company 1 (see Annex 1).
2198 Chapter 6 § 2 B) II.

II. Demands for disclosure and transparency

Due to safety and environmental concerns, scent and perfume producers are compelled to disclose their fragrance formulas and the ingredients, following the obligations laid down in the EU legislation that regulates the cosmetic sector.[2199] For the same reasons, clients frequently want to know the formula and ingredients used, thus increasing the likelihood of subsequent trade secret disclosure. Ultimately, this may enable them to produce the secret product or ask a competing firm to do it at a lower price.[2200]

Notwithstanding the aforementioned, the Head of IP of Perfume Company 1 considers that the disclosure to business partners is a "controlled risk", since cooperation with third parties is based on a long-term relationship of trust. Thus, prior to disclosing any sensitive information, the company builds up a stable relationship in order to ensure that adequate measures to protect secret information are adopted.

III. Electronic information storage and transmission

The advent of new technologies has enabled the dissemination of information faster than ever before. In addition, new storage mechanisms like USB sticks and cloud computing allow potential infringers to collect large amounts of data within a few seconds. From the perspective of trade se-

2199 See Article 21 of the Regulation (EC) of the European Parliament and of the Council (EC) No 1223/2009 of 30 November 2009 on cosmetic products [2009] OJ L342/59, which provides the disclosure of the composition, with limitations as to the quantity: "Without prejudice to the protection, in particular, of *commercial secrecy* and of *intellectual property* rights, the responsible person shall ensure that the *qualitative and quantitative composition* of the cosmetic product and, in the case of perfume and aromatic compositions, the name and code number of the composition and the identity of the supplier, as well as existing data on undesirable effects and serious undesirable effects resulting from use of the cosmetic product are made easily accessible to the public by any appropriate means. The quantitative information regarding composition of the cosmetic product required to be made publicly accessible shall be limited to hazardous substances in accordance with Article 3 of Regulation (EC) No 1272/2008" (emphasis added).

2200 IFRA, 'Valuable yet vulnerable: Trade Secrets in the fragrance industry' (2013) IFRA Position Paper, 15 <www.ifraorg.org/view_document.aspx?docId=23107> accessed 15 September 2018.

crets holders, this poses high risks.[2201] Indeed, the empirical analysis shows that some undertakings in the fragrance sector have restricted the use of e-mail communications to share information with a view to minimising the likelihood of leakage.[2202] Likewise, the use of so-called "data loss prevention software" is becoming widespread among companies that place great value on their confidential information. In essence, this type of software gives notice to the legal department of an unusual download and sharing of information within the company, thereby allowing the company to take action before the information concerned is actually made public.[2203] In practice, this has proven extremely useful to prevent the spill-over of secret information.

IV. Employment mobility

The assessment of post-employment non-disclosure obligations is one of the most contested aspects of the law of trade secrets. In this regard, perfume and scent manufacturers have expressed concerns as to the increasing employee mobility within the sector and the loss of confidential information it entails.[2204] To avoid such a situation, the Head of IP of Perfume Company 1 states that creating a working environment where loyalty among employees is promoted is essential and is a very important part of the values of the company. Particularly, owing to the fact that under the applicable law of the Member State where the country is based, non-compete covenants are allowed for a maximum of two years and subject to very high consideration.[2205]

2201 IFRA, 'Valuable yet vulnerable: Trade Secrets in the fragrance industry' (2013) IFRA Position Paper, 15 <www.ifraorg.org/view_document.aspx?docId=23107> accessed 15 September 2018.

2202 Interview with the Head of IP of Perfume Company 1 (see Annex 1).

2203 John Hull, 'Information Matters: Telecoms Business – employee misuse of business information and database' (23 March 2015) <http://www.farrer.co.uk/News/Briefings/Telecoms-Business–Employee-misuse-of-business-information-and-database/> accessed 15 September 2018.

2204 IFRA, 'Valuable yet vulnerable: Trade Secrets in the fragrance industry' (2013) IFRA Position Paper, 15 <www.ifraorg.org/view_document.aspx?docId=23107> accessed 15 September 2018.

2205 Interview with the Head of IP of Perfume Company 1 (see Annex 1); the issues raised by employment mobility are analysed further in chapter 6 § 1 A).

V. Measures adopted to protect the company's trade secrets

This section provides an overview of the measures adopted by manufacturers of scents and perfumes to prevent the unlawful acquisition, use and disclosure of their trade secrets. The analysis is based on the responses provided by the Head of IP of Perfume Company 1.

In the first place, a distinction is made between the two types of measures: physical and legal.[2206] Physical measures in the fragrance industry include limiting the number of employees who have access to trade secrets, which results in information being fragmented within a company. Only those employees who need to have actual knowledge of the information are allowed to access it (access on a "need-to-know" basis). For instance, a perfumist can only examine the formulas of the fragrances that he develops. Furthermore, the use of email is also restricted to the sharing of certain information. Likewise, sometimes each employee receives a personalised copy of a document, which he signs, undertaking an obligation not to share it. Finally, in the case of more valuable secrets, the information is deposited within a notaire office.

Surprisingly, Perfume Company 1 does not resort to specific legal measures (typically confidentiality agreements). It is believed that otherwise employees would regard as secret only the information covered by specific agreements.

§ 5 Conclusion

In chapter 5 the perfume industry has been used as an example case to illustrate the increasing challenges that the holders of valuable information face in keeping it undisclosed. From a research perspective, the fragrance sector is particularly interesting because there is no single IPR that affords protection to perfumes as a whole and their formulas can be reversed engineered at a very low cost by competitors.

In the EU, copyright on olfactory messages has only been accepted in the Netherlands in what so far seems an isolated decision. The analysis conducted above also underscores that odorous compounds and fragrance compositions seldom meet the patentability conditions of novelty and inventive step. Likewise, despite the recent legislative amendments at the EU

2206 See chapter 2 § 2 B) II. 3. a).

level, smells, unlike other unconventional signs, are not eligible for protection under the trade mark legal regime in force.

In this context, the empirical research conducted highlights that trade secrets play a central role in allowing scent and perfume producers to appropriate returns from their creations and small incremental innovations. However, it also reveals that over time it is becoming increasingly difficult to conceal sensitive information. This has a number of implications from the standpoint of the complementary relationship between trade secrets and IPRs, but also from a competition law perspective. On the one hand, secrecy is necessary to encourage competition among market participants. If every market participant had access to a competitor's information, competitive pressure would decline, which may in extreme cases lead to a market failure within the fragrance industry. On the other, concealing information can also result in a de facto monopoly and the elimination of effective competition in the market.

Notwithstanding this, chapter 5 has also highlighted that trade mark rights, along with unfair competition provisions that regulate comparative advertisement may provide additional incentives to create information by conferring an aura of luxury and exclusivity to the products that incorporate secret information, thereby allowing their manufacturers to internalize the cost of creation and development of said products. Yet, following the CJEU's *L'Oréal v Bellure* doctrine, this is often achieved at the expense of free speech and limiting consumers' choices.

In sum, the study of the perfume industry has underscored that the increasingly vulnerability of concealed information has reduced the lead time conferred by secrecy, which in turn limits the possibility of the trade secret holder of recouping the investment made in the development of the goods. It has furthermore revealed that secrecy presents a dual dimension: (i) internal within a given company and (ii) external with respect to third parties. The challenges posed by these two distinct spheres are further studied in chapter 6 with a view of finding the optimal balance between openness and secrecy.