FUNCTIONALITY IN EUROPE: WHEN DO TRADEMARKS ACHIEVE A TECHNICAL RESULT?

I. INTRODUCTION

Functionality plays a key role in any trademark system, preventing the registration of marks that competitors need to access in order to compete. As a doctrine it also channels certain technical or aesthetic characteristics of products into the patent, design or copyright system, and away from the trade mark system. Technical functionality, in particular, plays a crucial role in maintaining a competitive market. In Europe, the doctrine is embodied in Article 7(1)(e)(ii) of the EU Trade Mark Regulation (EUTMR), which prohibits the registration of "the shape, or another characteristic, of goods which is necessary to achieve a technical result." Despite its importance, there is little written about the situations in which a sign will be considered necessary to achieve a technical result, and how this can be proven. This article seeks to remedy this, by considering what is means for a mark to be technically functional, by identifying a four-stage test the European courts and tribunals have used to demonstrate technical functionality, and by analysing the types of evidence that have been employed to show that this test has been satisfied in individual cases. It starts with a brief overview of the European functionality provisions.

II. TECHNICAL FUNCTIONALITY IN EUROPE: A BRIEF BACKGROUND

A. Policy Considerations

Under the provisions of European trademark law,¹ any form of "sign" can be registered as a trademark.² A sign may include an aspect of the appearance of the goods themselves, such

¹ Regulation (EU) 2017/1001 of the European Parliament and of the Council of 14/06/2017 on the European Union

trade marks (Recast) ("TMD") replacing Directive 2008/95/EC of the European Parliament and of the Council of 22/10/2008 to approximate the laws of the Member States relating to trade marks [2008] OJ L 299/25.

² EUTMR, Art. 4 ("An EU trade mark may consist of any signs, in particular words, including personal names, or designs, letters, numerals, colours, the shape of goods or of the packaging of goods, or sounds ..."). Article 4(1)(a)

trade mark [2015] OJ L 336/ 1 ("EUTMR"), repealing (on October 1, 2017) Council Regulation (EC) 40/94 of 20/12/1993 on the Community trade mark [1994] OJ L 11/ 1 as amended by Council Regulation (EC) 207/2009 of 26/02/2009 on the Community Trade Marks [2009] OJ L 78/ 1, corresponding to Directive (EU) 2015/2436 of the European Parliament and of the Council of 16/12/2015 to approximate the laws of Member States relating to

as their shape. Yet registering product features comes with the risk of granting a monopoly in a type of product, or some aspect of how it functions.³ This disadvantages competitors. It also harms consumers by limiting choice and requiring payment of monopoly rents. In systemic terms, product configuration registration allows trademark owners to either bypass the patent system by obtaining trademark protection instead, or to extend patent terms through follow-on trademark protection. This is particularly problematic because trademarks, unlike other intellectual property rights, are of potentially infinite duration.⁴

However, there are difficult questions to be asked when alternative shapes or other characteristics are available that are capable of performing the same technical function.⁵ It can be argued that the need for competitors to access such shapes, or characteristics, is weaker because they could pick one of the alternative to achieve the same result (and hence access the same product market). Yet, the alternative shape may not be as efficient. Additionally, there is a risk that each alternative shape could be registered as a trademark, leading to eventual exhaustion of the possible shapes.⁶ There is also a policy argument for ensuring that technical shapes are not granted trademark protection of infinite duration, but instead are protected only for the limited duration of the utility patent or design protection systems. This is sometimes said to reflect the will of the legislator reflected in the design of the IP system,⁷ and also ensures that the appeal of other IP rights (particularly design protection) is not undermined.⁸ It also

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requires the sign to be capable of distinguishing, while Article 4(1)(b) requires it to be capable of being represented on the Register in a clear and precise manner.

³ In the European Union context, *see*, *e.g.*, Graeme Dinwoodie, *Non-Traditional Marks in Europe: Conceptual Lessons from their Apparent Demise?*, NYU Colloquium, at 3, 7 (Feb. 4, 2019), www.law.nyu.edu/sites/default/files/upload_documents/Graeme%20Dinwoodie.pdf; Apostolos Chronopoulos, *De Jure Functionality of Shapes Driven by Technical Considerations in Manufacturing Methods*, 3 Intell. Prop. Q. 286, 292-93 (2017). In the United States context, *see* Mark McKenna, *(Dys)Functionality*, 48(4) Hous. L. Rev. 823, 823-48 (2011-2012).

⁴ See, e.g., Annette Kur, Too Common, Too Splendid or "Just Right"? Trade Mark Protection for Product Shapes in the Light of CJEU Case Law, Max Planck Institute for Innovation and Competition Research Paper No. 14-17, at 2 (2014).

⁵ These arguments are discussed in considerable detail in the US context in McKenna, *supra* note 3 and Robert Bone, *Trademark Functionality Reexamined*, 7(1) Journal of Legal Analysis 183 (2015).

⁶ See e.g. Dinwoodie, supra note 3, at 3.

⁷ *Id*.

⁸ *Id*.

ensures that the subject-matter of the IPR falls into the public domain, rather than having perpetual protection. The fact that alternative shapes may be available does not address these concerns.

B. The Legislative Scheme

In Europe, the shape, or other characteristic, of the goods is barred from registration under Article 7(1)(e) EUTMR (and its equivalents)¹⁰ in three situations: Article 7(1)(e)(i) prevents the registration of shapes or other product characteristics that result from the nature of the goods themselves. Article 7(1)(e)(iii) blocks shapes or other product characteristics from trademark protection that give substantial value to the goods. This article considers Article 7(1)(e)(ii), which prohibits registration of "the shape, or another characteristic, of goods which is necessary to achieve a technical result." This provision is often referred to as the "technical functionality" exclusion.¹¹

The interests at stake are so important that Article 7(1)(e) is one of the few exclusions that cannot be overcome by evidence that the sign serves as an identifier of origin in practice.¹² The law, thus, tolerates a degree of consumer confusion in order to avoid monopolies in technical characteristics.¹³ Originally, the provision was limited to the shapes of products. However, the scope of the provision was extended to cover other characteristics of goods in the course of a more general reform of the EU trade mark regime.¹⁴ Examples of signs which fell outside Article 7(1)(e) because they were not considered to be "shapes" include a single L-

⁹ *Id*.

¹⁰ Article 7(1)(e) EUTMR corresponds to Article 4(1)(e) TMD and equivalent provisions in national trademark law of European Union member states. Below, references to Article 7(1)(e) are to be read as equally referring to Article 4(1)(e) TMD and the corresponding provisions of harmonized national law.

¹¹ See, e.g., Lego Juris v. OHIM, Case C-48/09 P, EU:C:2010:516, paragraph 85 (CJEU 2010).

¹² Benetton Group SpA v. G-Star International BV, Case C-371/06, EU:C:2007:542, at paragraph 27 (CJEU 2007).

¹³ On the risk of consumer confusion and resultant balancing act, see Kur, supra note 4, at 11.

¹⁴ Introduced in EUTMR, which entered into force on October 1, 2017. On the impact of this change, *see* Eleonora Rosati, *The Absolute Ground for Refusal or Invalidity in Article 7(1)(e)(iii) EUTMR/4(1)(e)(iii) EUTMD: In Search of the Exclusion's Own Substantial Value*, 15(2) Journal of Intellectual Property Law & Practice 103 (2020).

shaped groove that formed part of the tread design of a Pirelli tyre,¹⁵ the red sole of a Louboutin shoe¹⁶ and the transparent quality of the dust collection chamber of a Dyson vacuum cleaner.¹⁷ Under the legislation in its current form, such signs would arguably be "other characteristics" and so would be subject to a full consideration of whether they were functional or otherwise excluded under Article 7(1)(e).

The Court of Justice of the European Union (CJEU) has explained that the "rationale" of Article 7(1)(e)(ii) is to "prevent trade mark protection from granting its proprietor a monopoly on technical solutions or functional characteristics of a product which a user is likely to seek in the products of competitors." It aims to "prevent the exclusive and permanent right which a trade mark confers from serving to extend indefinitely the life of other rights which the EU legislature has sought to make subject to limited periods." While the Court has explained the policy behind the provision on a number of occasions, it has not provided a detailed explanation of which sorts of results will be considered "technical." Also, the CJEU has only recently commented, and then only in outline, on how to prove in practice that the characteristics embodied in a sign will achieve a technical result. Through a study of the case law of the European Intellectual Property Office (EUIPO) Boards of Appeal and other trademark registries, the General Court (GC), and the Guidelines produced by those registries, this article seeks to fill that gap. ²¹

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¹⁵ Pirelli Tyre v EUIPO - Yokohama Rubber (Représentation d'une rainure en forme de «l»), Case T-447/16, EU:T:2018:709 (GC 2018), at paragraphs 69-71, presently under appeal to the CJEU as Case C-818/18 P.

¹⁶ Louboutin and Christian Louboutin, C-163/16, EU:C:2018:423 (CJEU 2018), at paragraphs 20-27.

¹⁷ Dyson, Case C-321/03, ECLI:EU:C:2007:51 (CJEU 2007); EU:C:2006:558 (AG 2006). In this case the Advocate General opined at paragraph 88 that, despite not being a shape *per se*, the transparent quality of the chamber should have fallen under Article 7(1)(e)(ii). This was implicitly rejected by the CJEU, who ultimately determined that the shape could not be registered because it was not a 'sign'.

¹⁸ Lego Juris v. OHIM, Case C-48/09 P, EU:C:2010:516 (CJEU 2010) at paragraph 43; Hauck GmbH v. Stokke A/S, Case C-205/13, EU:C:2014:2233 (CJEU 2010) at paragraph 18.

¹⁹ Lego Juris, Case C-48/09 P, at paragraph 45; Hauck GmbH, Case C-205/13, at paragraph 19.

²⁰ Gömböc Kutató, Szolgáltató és Kereskedelmi Kft. v. Szellemi Tulajdon Nemzeti Hivatala, Case C-237/19, EU:C:2020:296 (CJEU 2020), at paragraph 34.

²¹ The present study has been limited to cases following *Lego* in 2010, where the CJEU provided its most detailed explanation of technical functionality. Even over this relatively long time period, there is only a small body of case law because many cases involving potentially functional marks have been rejected for lack of distinctiveness rather than functionality.

C. This Article

The remainder of this article considers how technical functionality works in practice. Part III considers how technical functionality has been defined. Part IV formulates the four-stage test that has been used in practice by the EUIPO Boards of Appeal in particular to implement this definition of technical functionality, locating its origins in the CJEU's *Lego* case. Part V focuses on how the technical-result element of the four-stage test has been articulated, while Part VI considers the types of evidence that have been successfully used to prove that a particular sign achieves the articulated technical result. Part VII concludes.

III. WHAT IS THE MEANING OF TECHNICAL FUNCTIONALITY?

A mark cannot be registered in Europe if it is "necessary to achieve a technical result", but when is a result "technical"? This section considers the meaning of technical functionality, and various definitional points therein. It considers whether technical functionality is in the remit of experts, or rather should, like other areas of trade mark law, be judged through the eyes of consumers. It documents the jurisprudence which considers whether tribunals should be allowed to look beyond the mark as it appears on the register. In particular, can tribunals rely upon evidence of how the mark is actually used in practice as part of a functional object, even if this use is not self-evident from the representation of the sign? It also considers how the technical functionality exclusion applies to packaging, and whether functionality of the packaging should be judged by reference to the packaging, or the goods contained therein.

A. What Does "Technical" Mean?

Although the Article 7(1)(e)(ii) exclusion covers shapes or other characteristics that are "necessary to achieve a technical result," there is remarkably little discussion of what it means for a result to be "technical." In *Tree Silhouette*, the EUIPO Board of Appeal held that "technical" should be "interpreted in the same way as in the framework of patent law."²³ This, however, presents some difficulties. While "technicality" determines whether subject matter is patent-eligible, its meaning in this context is highly contested with no comprehensive

²² Lego Juris, Case C-48/09 P, although many of the concepts articulated in Lego Juris are drawn from the CJEU's earlier case, Koninklijke Philips Electronics N.V. v. Remington Consumer Products. Ltd., Case C-299/99, ECLI:EU:C:2002:377 (CJEU 2002), which is discussed further below.

²³ L&D v. Julius Sämann Ltd., "Tree Silhouette," Case R1283/2013-4 (EUIPO Fourth Board of Appeal 2014), paragraph 32.

definition.²⁴ The EUIPO Cancellation Board offered a circular definition in the *Lego* case: "An invention is 'technical' if it is in a field of technology and if it solves a technical problem with technical means."²⁵

The EUIPO Guidelines also attempt to list the types of advantages that will count as "technical."²⁶ The examples include product features that:

- fit with another article;
- give the most strength;
- use the least material; or
- facilitate convenient storage or transportation.

If anything, these examples are under-inclusive. The second and third examples suggest that a product feature is functional if it works *better* than existing products on the market. Yet in *Lamp Base*, the Board of Appeal rejected an argument that a form was "less functional than traditional forms and is already in use in the sector in reference," because the provision "establishes a ban on the registration of a sign consisting of the form of the product needed to obtain 'any' technical result, and not only an 'additional and different' technical result than the commonly used forms."²⁷ Simply playing a role in how the product works was enough. The GC upheld this decision, stating that the "lesser functionality" of the lamp base compared to

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²⁴ Article 52(1) EPC 2000 provides that European (utility) patents "shall be granted for any invention in *all fields of technology*, provided that they are new, involve an inventive step and are susceptible of industrial application" (emphasis added). There has been much case law discussion on whether a particular contribution is technical within the context of the subject-matter exclusions of Article 52(2) European Patent Convention and s.1(2) UK Patents Act 1977. *See*, *e.g.*, Merrill Lynch's Application [1989] RPC 561, IBM/Data processor network (Case T 6/83) [1990] OJ EPO 5, Aerotel v. Telco Holdings [2006] EWCA Civ 1371. The EPO Guidelines G-I 2(ii) establish a clear link between the meaning of the term "invention" and subject matter which is "technical" ("the invention must be of 'technical character' to the extent that it must relate to a technical field, must be concerned with a technical problem and must have technical features in terms of which the matter for which protection is sought can be defined in the claim" (citations omitted)). *See also* Justine Pila, *The Requirement for an Invention in Patent Law*, Oxford Legal Studies Research Paper No. 40/2009, at 210-24 (2010); Colin Birss et al, Terrell on the Law of Patents, §§2.63-2-126 (18th ed. 2019).

²⁵ EUIPO Cancellation Decision of 30/07/2004, 63 C 107029/1, 'LEGO brick' at paragraphs 62-64.

²⁶ EUIPO Guidelines for Examination of European Union Trade Marks [hereinafter "EUIPO Guidelines"], Part B, Section 4, Ch. 6.

²⁷ In re Tecnodidattica S.p.A., "Lamp Base (3D)," Case R0076/2017-2 (EUIPO Second Board of Appeal 2018), at paragraphs 22-23.

other lamp bases, even if proven, would not prevent the lamp base from being classed as technical.²⁸

B. Manufacturing Advantages Not Within the Functionality Exclusion

In relation to the KIT-KAT chocolate bar shape, the CJEU found that a shape resulting from a more efficient process for manufacturing goods is not excluded from registration under Article 7(1)(e)(ii). It noted that the functionality exclusion's purpose is to prevent "a monopoly from being granted on technical solutions which a user is likely to seek in the goods of competitors." Consumers only care about how the goods function and are not concerned with their method of manufacture.²⁹ This is a surprisingly literal interpretation of language that is not statutory but comes from case law. This approach also differs from that in the United States, where manufacturing efficiency supports a finding of utilitarian functionality.³⁰ As discussed below in Section II.D, it is questionable whether technical functionality should be assessed through the eyes of consumers, given that the competition will be stifled regardless of whether consumers are aware of it, or not.³¹ Moreover, granting a monopoly in a manufacturing process can effectively result in a monopoly on the products manufactured by that method. This result is at odds with the articulated policy behind the functionality provision.

The Board of Appeal has narrowed the potential scope of this ruling, finding that ease of packaging and storage of the final item is an example of post-production functionality.³² Consequently, functionality does not arise from the manufacturing process.³³ While this result is consistent with the literal limitation placed on the exclusion in *KIT-KAT*, ease of packing and storage would, like benefits to manufacturing, be of interest to the manufacturer rather than the end user. This approach means that the final advantage identified in the Guidelines — a

²⁸ Tecnodidattica S.p.A. v. European Union Intellectual Property Office, Case T-752/18, EU:T:2020:130 (GC 2020), at paragraph 25. This decision is not available in English and so the translation is derived from Google Translate.

²⁹ Société de Produits Nestlé SA v. Cadbury UK Ltd, Case C-215/14, EU:C:2015:604 (CJEU 2015), at paragraph 55.

³⁰ *In re* Morton-Norwich Products, Inc., 671 F.2d 1332, 1341 (CCPA 1982) ("It is also significant that a particular design results from a comparatively simple or cheap method of manufacturing the article.").

³¹ See Chronopoulos, supra note 3, at 294.

³² Novartis AG v. SK Chemicals GmbH, "Device of a Square (fig.)," Case R2342/2014-5 (EUIPO Fifth Board of Appeal 2015), at paragraphs 52-54, *upheld in* Novartis v. EUIPO, Case T-44/16, EU:T:2018:48 (GC 2018).

³³ *Id*.

feature that "facilitate[s] convenient storage or transportation" —would survive the *KIT-KAT* ruling.

C. Are Some Shapes Inherently Functional?

In *Ground Anchor*, the EUIPO Board of Appeal suggested that some shapes are inherently functional.³⁴ The Board considered a ground anchor's purpose of being fixed into the ground so that another object can be anchored inside it, concluding that "[t]his purpose is already embedded in the definition of a 'ground anchor': an object that achieves a 'result', which is to fix another object in a secure manner."³⁵

This author suggests that where the shape is equivalent to the goods themselves, it may be functional *per se*. The exact limits of this approach are not clear, as in this case the mark represents the goods themselves and nothing more. In any event, the approach is consistent with Article 7(1)(e)(i) excluding shapes resulting from the nature of the goods themselves, which has been interpreted as barring registration of the generic shape of goods.³⁶

D. Through Whose Eyes?

According to the classic justification, trademark protection is granted to protect consumers from origin-based confusion. Consequently, many aspects of trademark law are judged through the eyes of an average consumer. Some argue, though, that this vantage is inappropriate for assessing technical functionality. The policy consideration underlying Article 7(1)(e)(ii) is to protect competition by preventing a monopoly on product features offering technical solutions. Competitive necessity is an objective question of what is required so that the market can function efficiently, rather than an inquiry into what *consumers think* is functional. Yet, there is significant uncertainty about whose perspective is to be used in evaluating the technical result element of Article 7(1)(e)(ii). This lies in contrast to the other element of the exclusion: whether the mark consists *exclusively* of characteristics necessary to achieve a technical result. The *Lego* Court gave detailed instructions on relevant evidence and the limited role of consumer perception in ascertaining the essential characteristics of the shape.³⁷

³⁶ Hauck GmbH, Case C-205/13, at paragraph 48.

³⁴ Gebr. Sträb GmbH + Co v. Andotechna d.o.o., "Ground Anchor," Case R1363/2014-4 (EUIPO Fourth Board of Appeal 2015), at paragraphs 14-15.

³⁵ *Id*.

³⁷ Lego Juris, C-48/09 P, at paragraph 76.

Certain previous case law suggests that functionality should be judged through the eyes of consumers, or perhaps a hypothetical average consumer. In *KIT-KAT*, the CJEU explained that manufacturing efficiency was irrelevant under Article 7(1)(e)(ii) because "from the consumer's perspective, the manner in which the goods function is decisive and their method of manufacture is not important," suggesting that consumers perception should be used to assess technical functionality.³⁸ The Court pointed to its earlier statement in *Philips* that Article 7(1)(e)(ii) serves to prevent "a monopoly on technical solutions or functional characteristics of a product which *a user* is likely to seek in the products of competitors."³⁹

In *Shape of a Screw*, the Board of Appeal assumed that a consumer would be the barometer of functionality, finding that the typical consumer would see the convex screw head in question as a functional characteristic of the goods.⁴⁰ But while it is true that maintaining a competitive market benefits consumers, expecting an individual consumer (even a hypothetical one) to be able to look across the market and assess competitiveness is unrealistic. Moreover, as the Fourth Board has noted, the average consumer may not be technically knowledgeable enough to judge functionality.⁴¹ Consequently, in *Lego*, the CJEU found that the "presumed public perception" was not conclusive as to the technical functionality exclusion.⁴²

The CJEU's most recent functionality case, *Gömböc*, suggests that consumer perception of functionality is *not* relevant to determining whether a sign is necessary to obtain a technical result (stages 3 and 4 below), and is only relevant to ascertaining what the essential characteristics of a sign are (stages 1 and 2). The Court explained that "the relevant public does not necessarily have the required expertise to enable it to determine with accuracy what the technical features of the product in question are and the extent to which the shape of that product forming the sign contributes to the technical result sought." Moreover, information concerning consumer perception of technical function would be prone to uncertainty regarding the extent and accuracy of the public's knowledge. This article argues that this is a desirable outcome because the keystone of functionality, granting competitors access to the product

³⁸ Société de Produits Nestlé SA, Case C-215/14, at paragraph 55.

³⁹ Philips v. Remington, Case C-299/99, at paragraph 78 (emphasis added).

⁴⁰ In re SFS Intec SAS, "Shape of a Screw," Case R2140/2011-1 (EUIPO First Board of Appeal 2013), at paragraph 30.

⁴¹ Gebr. Sträb GmbH + Co, Case R1363/2014-4, at paragraph 23.

⁴² Lego Juris, Case C-48/09 P, at paragraph 76.

⁴³ Gömböc, Case C-237/19, at paragraphs 35-36.

features they need to compete, is an objective question, and not one that consumers have the specialist knowledge to answer.

At times, it has appeared that the intent of the designer of the goods in question might be relevant to determining whether a characteristic is technically functional. The *Philips* Court stated that the registration exclusion applies where the essential characteristics of the shape "perform a technical function and *were chosen to fulfil that function*." Yet the Court ignored the reasons for the design choice in the *Lego* case, stating that "once the essential characteristics of the sign have been identified, it is only necessary to assess whether those characteristics perform the technical function of the product concerned." Subsequent cases have not examined the designer's presumed or actual motivations for these design choices either. Presumably, though, evidence that the designer had included a feature for technical reasons would favor a finding of functionality. The inclusion of the feature in a patent document can be viewed as evidence that the trademark owner considered the feature to be functional. The willingness of tribunals to consider claims of functionality in advertising or on the applicant's website in the cases identified below would be similarly probative.

E. Looking Beyond the Mark as Represented

The general rule in the European Union is that a trademark representation is treated as self-contained and should not be interpreted by reference to how the mark might appear in use.⁴⁷ Yet the CJEU has held that extrinsic material may be considered in functionality cases. In *Pi-Design*, ⁴⁸ the following representations of each mark for various forms of cutlery

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⁴⁴ Philips v. Remington, Case C-299/99, at paragraph 81; *See* Lionel Bently and Brad Sherman, Intellectual Property Law 811 (3rd ed. 2009) (suggesting a three-stage test for when a shape is attributable to a technical result, with the second stage being whether the shape was chosen by the designer to achieve a technical result."); *cf.* Lionel Bently and Brad Sherman, Intellectual Property Law 966-68 (5th ed. 2018) (omitting the suggestion).

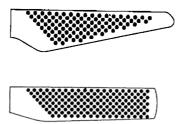
⁴⁵ Lego Juris, Case C-48/09 P, at paragraph 84.

⁴⁶ Indeed, Advocate General Campos Sánchez-Bordona has contemplated examination of the designer's intention in relation to technical functionality under EU copyright law, and similarly has suggested that patents could be used as evidence of such intentions – see SI, Brompton Bicycle Ltd v. Chedech/Get2Get, Case C-833/18, EU:C:2020:79 (AG 2020), at paragraphs 89-93.

⁴⁷ Sieckmann v. Deutsches Patent-und Markenamt, Case C-273/00, EU:C:2002:748 (CJEU 2002), at paragraph 52.

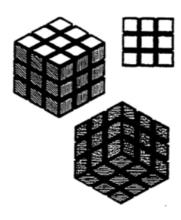
⁴⁸ Pi-Design AG v. Yoshida Metal Industry Co. Ltd, Case C-337/12 P, EU:C:2014:129 (CJEU 2014).

depicted a two-dimensional shape containing black dots which the applicant had identified as "figurative":



The EUIPO Board of Appeal found that the shape in fact was the outline of a knife handle and the black dots did not represent an abstract pattern, but rather dents to enhance grip in use. Despite masquerading as a figurative mark,⁴⁹ the design was therefore excluded by Article 7(1)(e)(ii). In reaching its conclusion, the Board considered photographs of the knives which the applicant actually sold, as well as technical descriptions about the knife contained in patent specifications that the company had filed. The Board's decision was overturned by the GC but reinstated by the CJEU, which held that the exclusion of Article 7(1)(e)(ii) overrode a sign's "general aptness to constitute a trade mark" as it appeared in the application form.⁵⁰

The CJEU took a similar approach in *Simba Toys*, where the sign in issue, seen below, was a cube with a grid structure for three-dimensional puzzles – i.e. the well-known Rubik's Cube.⁵¹



⁴⁹ See Dev Gangjee, Paying the Price for Admission: Non-Traditional Marks Across Registration and Enforcement, in The Protection of Non-Conventional Trademarks: Critical Perspectives, at 73-80 (Irene Calboli and Martin Senftleben, eds. 2018) (discussing further examples of attempts to escape grounds for refusal via

carefully framed representations of marks).

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⁵⁰ Pi-Design AG, Case C-337/12 P, at paragraph 58.

⁵¹ Simba Toys GmbH & Co. v. EUIPO, Case C-30/15 P, EU:C:2016:849 (CJEU 2016), as subsequently applied in Rubik's Brand v. EUIPO, "Simba Toys", Case T-601/17, EU:T:2019:765 (GC 2019).

The Court held that it was not possible to understand the mark without taking into account the rotatability of the cuboid elements of the Rubik's Cube puzzle in use. This was not self-evident from either the representation on the Register or from the specification of goods claimed.

The Advocate General in that decision noted that the CJEU had followed a similar approach in the foundational cases of *Philips* and *Lego*. ⁵² The Court had relied on its knowledge of the actual goods to view the former sign (triangle with circles) as a shaver-head and the latter (rectangular shape) as an interlocking building block. Any other approach would allow applicants to evade the exclusion by supplying imperfect information and thereby circumvent the public interest. ⁵³ Looking beyond the registered representation changed the whole outcome of the case, making it clear that the essential characteristics of the Rubik's Cube (the cube and grid structure), were not arbitrary shapes or patterns but what made the puzzle work.

This debate surfaced once again before the CJEU in *Gömböc*.⁵⁴ At issue was the sign, below, for which registration was applied for toys in class 28:⁵⁵



The object depicted is a "convex monostatic object made from homogeneous material, which has a single point of stable equilibrium and a single point of unstable equilibrium, that is to say, two points of equilibrium in total, the shape of which itself ensures that the object always

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⁵² Simba Toys GmbH & Co. KG v. EUIPO, Case C-30/15 P, EU:C:2016:350 (AG 2016). For an example where, in this author's opinion, the courts failed to fully take into account how the mark worked, *see* Best-Lock (Europe) Ltd v. OHIM, Case T-395/14, EU:T:2015:380 (GC 2015) upheld in Case C-451/15 P, EU:C:2016:269 (CJEU 2016), at paragraph 32 (finding that the circles on the back and bottom of a LEGO figure did not enable it to fit together with LEGO bricks).

⁵³ Simba Toys GmbH & Co. KG, Case C-30/15 P, at paragraphs 76-98 (AG Szpunar 2016).

⁵⁴ Gömböc, Case C-237/19.

⁵⁵ The application also covered decorative items in classes 14 and 21, but these were not subject to a technical functionality objection, but rather that the shape added substantial value. This aspect was also reviewed by the CJEU in Gömböc, Case C-237/19.

returns to its position of balance."⁵⁶ Put simply, the shape always returns to its original position without relying upon any internal counterweight. While this property was not apparent from the representation submitted in the application for registration, the Hungarian National Intellectual Property Office argued that the relevant public would be familiar with the shape and its properties because of the extensive publicity the Gömböc had received in Hungary. The CJEU found that, while trade mark offices should take the graphical representation as their starting point, they should also take additional available information into account,⁵⁷ provided that this was objective and reliable (including, for instance, the description of the product in the trade mark application, data regarding IP rights conferred for the product, surveys, expert opinions and any relevant documentation, such as scientific publications, catalogues and websites, which describes the technical features of the product).⁵⁸ However, knowledge of the function(s) on the part of the public was not helpful because the degree of public knowledge was likely to be uncertain, and the public's understanding of how the product worked might not be accurate.⁵⁹

This approach - taking into consideration the mark as used, rather than just the mark as registered - is apparent elsewhere in the CJEU's trademark jurisprudence. It taps into the wider debate of whether purity of the register or how marks are used and understood in the marketplace should take precedence. Favouring purity of the register allows the trade mark register to fulfil its notice function, by accurately indicating to all who consult it the extent of trade mark owner's rights. However, this runs the risk that trade mark owners will benefit where their registration does not accurately reflect how consumers perceive the scope of their marks, or when they apply for marks different in scope from their marks as used. For example, in #darferdas?, 60 the CJEU found that it was permissible, when judging distinctiveness, to take into account how the mark might be used, even in the case of a standard work mark. (Here, the mark in question, applied for in respect of clothing, might be used either on a label *or* on the front of a t-shirt.) Analogously, in *Specsavers v Asda*, 61 the CJEU instructed the national court

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⁵⁶ *Id.* at paragraph 11.

⁵⁷ *Id.* at paragraph 33.

⁵⁸ *Id.* at paragraph 34.

⁵⁹ *Id.* at paragraphs 35-36.

⁶⁰ AS v. Deutsches Patent- und Markenamt, Case C-541/18, EU:C:2019:725 (CJEU 2019) concerning a German trademark application for the mark #darferdas? ("Darf er das?" translating to "Can he do that?")

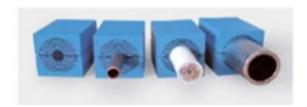
⁶¹ Specsavers International Healthcare Ltd et al. v. Asda Stores Ltd, Case C-252/12, EU:C:2013:497 (CJEU 2013).

that it was permissible to take into account the fact that the senior mark had always be used in green in considering whether there was a likelihood of confusion for infringement purposes. This was despite the fact that the senior mark had been registered in black and white.

Concentric Blue Circles is a further example demonstrating the relevance of context in terms of functionality.⁶² The application was for a figurative mark consisting of a black square with seven concentric blue circles, which appeared on its face to be an abstract logo:



Yet the Board took pictures illustrating the "logo" in use into account. These showed the mark in operation as a sealing module having concentric peelable layers to accommodate cables or pipes of different diameters:



The Board of Appeal also noted in its decision that the applicant had filed multiple trademark applications for the same "concentric circle" figurative mark in different colors, demonstrating "strategic filing" in an attempt to monopolize a technical solution. 63 The decision of the Board of Appeal was upheld by the GC,64 and the CJEU refused to allow an appeal against the GC's decision to proceed.⁶⁵ There is some similarity here with *Gömböc* (discussed in detail below).⁶⁶

⁶² Wallmax S.r.l. v. ROXTEC AB, "Device of a Black Square Containing Seven Concentric Blue Circles (fig.)," Case R0940/2017-2 (EUIPO Second Board of Appeal 2018).

⁶³ Id., at paragraph 52; see also in re AGA Med. Corp., "Shape of a Stopper (3D mark)," Case R0042/2013-1 (EUIPO First Board of Appeal 2013) at paragraph 28 (noting that different patterns of wire for occluders were possible but that allowing registration would open the door to monopolizing every possible visual embodiment of this technical solution).

⁶⁴ Roxtec v EUIPO, Case T-261/18, EU:T:2019:674 (GC 2019) at paragraphs 49 and 83.

⁶⁵ Roxtec v EUIPO, Case C-893/19 P, EU:C:2020:209 (CJEU 2020).

⁶⁶ Gömböc, Case C-237/19, paragraph 32. Although unlike in Blue Concentric Circles, in Gömböc, there was no suggestion of strategic filing.

There too, the representation did not show the shape of the entire product, but the CJEU held that technical functionality could be found when only part of a functional product shape was depicted, provided that all the aspects that were depicted were functional.

F. Packaging

When a sign consists of the shape of packaging for a product, there remains an unanswered question: does the relevant criterion concerning the function of "the goods" refer to the function of the *packaging* or the function of the goods contained within that packaging? If it is the packaging function that is relevant, then all packaging shape marks would be *prima facie* functional,⁶⁷ since all are designed to contain the goods packaged therein. While it is true that, typically, alternative forms of packaging are possible, as is discussed below the availability of alternatives does not remove a shape that performs a technical function from the scope of the exclusion. The CJEU has not confronted this question. In *Henkel*,⁶⁸ the CJEU considered whether the "shape exclusions" were relevant to the shape of packaging. It confirmed that where the goods are liquids or powders, for example, which do not have an intrinsic shape (and so must be sold packaged), the shape of the packaging is assimilated to the shape of the goods. In other words, the shape of the packaging will form the basis of an examination under the functionality exclusion. Nevertheless, the decision did not resolve whether the pertinent question is how the shape functions as packaging, or whether the packaging contributes to the way the goods contained *in that packaging* actually works.

In the *Shape of a Golden Bottle/Shape of a Pink Bottle* cases,⁶⁹ the registered marks consisted of opaque gold and pink bottles respectively for various forms of alcoholic drinks. The validity of these marks was challenged on the ground that, contrary to Article 7(1)(e)(i), the shape of the bottle resulted from the nature of the goods. While the GC agreed that the shape of the bottle (packaging) should be treated as the shape of the product, it did not agree that the subject shapes *did* result from the nature of the goods, because of the many other bottle shapes, or even other forms of packaging, which could be used to contain the liquid goods in question. Thus, the focus was on the goods inside the packaging, rather than the format of the

⁶⁷ Unless they also feature other, non-minor essential characteristics.

⁶⁸ Henkel KGaA v. Deutsches Patent- und Markenamt, Case C-218/01, EU:C:2004:88 (CJEU 2004), at paragraphs 32-37.

⁶⁹ VI.TO. v. EUIPO - Bottega (Form of a golden bottle), Case T-324/18, EU:T:2019:297 (GC 2019) and VI.TO. v. EUIPO - Bottega, Case T-325/18 (Shape of a pink bottle), EU:T:2019:299 (GC 2019).

packaging. By analogy, this would suggest what is relevant to Article 7(1)(e)(ii) is how the goods contained within the packaging functions, rather than how the packaging functions.⁷⁰ As discussed above, this would mean that the situation where all packaging *prima facie* falls within the Article 7(1)(e)(ii) exclusion would be avoided.

In contrast is the *Crystal Head Vodka* decision,⁷¹ which considered a bottle shaped like a skull which had been registered in respect of vodka:



An applicant for invalidity argued that the shape of the packaging added substantial value to the goods because consumers purchased that particular vodka brand because of the aesthetic appeal to the skull-shaped bottle, and consequently, the mark should be invalidated under Article 7(1)(e)(iii). The EUIPO Cancellation Division considered evidence of both how consumers reacted to the aesthetics of the bottle, and how consumers perceived the quality of the vodka which the bottle contained. Ultimately, it found that it was not the aesthetics of the packaging, but the vodka itself that motivated consumers to buy the product, and so the skull shape mark did not add substantial value to the goods. However, at no point did the Cancellation Division suggest that value derived from the packaging was irrelevant, but rather that it was not proved in this case. Indeed, in a previous decision, the Board of Appeal found substantial value based on the aesthetic characteristics of a diamond-shaped bottle for alcoholic drinks and spirits:⁷²

⁷⁰ In fact, a technical functionality point *was* raised in the case concerning the opacity of the bottle, but was rejected because at the time of registration, Article 7(1)(e) was limited to the *shape* of the goods.

⁷¹ skulduggery Rum Limited v. Globefill Incorporated, Cancellation No 20063 C (Invalidity) of 10/22/2019.

⁷² Barcardi & Company v. Occhi Blu Foundation, Case R1313/2012-1 (EUIPO First Board of Appeal 2013).



By analogy, these cases could suggest that it is the function of the packaging that is the relevant criterion, or perhaps the combination of the packaging *and* the goods contained therein. If this were so, it would mean that all signs consisting of the shape of packaging could be *prima* facie⁷³ technically functional.

In summary, despite the significant implications of the answer to this question, the application of technical functionality to packaging has not been directly addressed and analogous decisions under the other functionality provisions suggest that differing approaches are possible. While this section has considered technical functionality as a definitional matter, the following section articulates the test that has been used for assessing whether any given sign is technically functional.

IV. THE TECHNICAL FUNCTIONALITY TEST

There has been little attempt to articulate a practical test for determining whether a sign is technically functional. Both the EUIPO Guidelines and the UK Registry Trade Mark Manual are rather vague on this point.⁷⁴ It is noted, however, that the CJEU set out a basic framework in *Lego*. The EUIPO Boards of Appeal have adopted this framework, which seems to have evolved into what amounts to a four-part test.⁷⁵

A. Stage 1: Identifying the Essential Characteristics

For a mark to be excluded from registration under Article 7(1)(e)(ii), it must consist "exclusively" of a shape or other characteristics necessary to achieve a technical result. If the sign has a mixture of technical and non-technical characteristics, it will be easier for

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⁷³ Although they would fall outside the exclusion if they included non-minor, non-functionality essential characteristics.

⁷⁴ See supra note 27.

⁷⁵ The numbering of the stages is my own.

competitors to "design around" the mark in question, meaning that there is a lesser risk of monopoly.⁷⁶

As the CJEU explained in *Lego*, the essential characteristics are the "most important" elements of the sign.⁷⁷ Identification of the essential characteristics must be on a case-by-case basis. There is no hierarchy of importance among different elements of the sign, and the assessment can be conducted based on the impression made by the sign overall or by examining each of the components of the sign in turn. This can be done through visual analysis or detailed examination involving surveys and expert opinions.⁷⁸ The characteristics of a mark will be considered essential unless they are minor or arbitrary.⁷⁹

B. Stage 2: Are Any of Those Essential Characteristics Clearly Non-Functional?

If any of the essential characteristics identified at Stage 1 are non-functional, as will be the case if they are decorative or imaginative, then the entire sign will fall outside of the exclusion because it will be possible for competitors to avoid the non-functional features of the registered mark yet still use the functional features.⁸⁰

The bar for what constitutes a non-functional "essential characteristic" has sometimes been set quite low. For example, a "Croc" logo on the side of plastic clogs⁸¹ and a flat "shoulder" (i.e. where the triangular and rectangular portions meet) on a piece of fencing⁸² were both found to be essential enough to remove the entire sign from the scope of Article 7(1)(e)(ii):

⁷⁸ *Id.* at paragraph 71.

⁷⁶ Lego Juris, Case C-48/09 P, at paragraph 72.

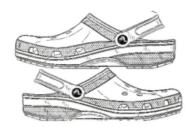
⁷⁷ *Id.* at paragraph 69.

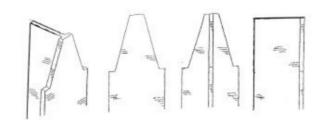
⁷⁹ *Id.* at paragraph 52.

⁸⁰ *Id.* at paragraphs 52, 72. For an example of a decorative feature, *see* Birkenstock Sales GmbH's Registration, UK Trade Marks Registry O-505-16 (October 31, 2016), at paragraph 92 (pattern on the sole of a shoe was one of many that could have been chosen and so was decorative rather than technical).

⁸¹ Lidl Stiftung & Co. KG v. Crocs, Inc., "Shape of Footwear (3D)", Case R3021/2014-5 (EUIPO Fifth Board of Appeal 2016).

⁸² Siderurgica Ferro Bulloni SPA v. Grillages Vermigli SA, "Shape of a Fence Post (3d Mark)," Case R2526/2013-5, (EUIPO Fifth Board of Appeal 2015).



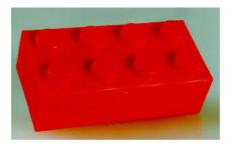


C. Stages 3 and 4: Are all of the Essential Characteristics Necessary to Achieve a Technical Result?

If the sign includes no important non-functional features, those features identified are then assessed to determine whether they all contribute to achieving a technical result. Tribunals have done this by identifying the overall function of the product in question (referred to here as Stage 3), then considering whether each characteristic contributes to achieving this function (Stage 4). Stage 3 is a relatively abstract articulation of the function of the goods, whereas Stage 4 is an evidence-led exercise to ascertain whether each individual characteristic contributes to achieving that function.

D. Stage 1 to 4 in Operation: An Example from the Lego Case

Lego provides an example of this entire approach to Article 7(1)(e)(ii).⁸³ At Stage 1, the CJEU identified the most important elements of the LEGO brick as being the two rows of studs on the upper surface of the brick; the red color of the brick had already been held by the Grand Board of Appeal to be merely a minor arbitrary element and therefore not an essential characteristic of the product.



At Stage 2, the Court confirmed that there were no important non-functional elements of the brick. At Stage 3, the court confirmed that the studs were necessary to obtain the technical result of the goods in question, namely, the assembly of toy bricks. This was demonstrated at

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⁸³ Lego Juris, Case C-48/09 P, at paragraphs 63-76.

Stage 4 by the fact that this function of the studs had been described in the company's own prior patents.

V. STAGE 3: IDENTIFYING THE TECHNICAL RESULT

Central to any functionality assessment is understanding what the technical result is that the sign is meant to achieve. This is also a question on which there is very little scholarship and equally little guidance from the CJEU. This section seeks to further our understanding of how to analyse this by looking at examples from actual cases.

A. Understanding 'Technical Result' through examples

As noted above, it is difficult to identify a guiding principle to identify the borderline between technical and non-technical. Instead, in each case, the tribunal articulates the technical purpose of the characteristic (or combinations thereof), and identifies evidence supporting the stated function or result. The lack of a comprehensive definition of what counts as a technical result gives tribunals the flexibility to reason backwards from the specific matrix of features contained in the sign they are considering. Indeed, the Fifth Board of Appeal of the EUIPO has explicitly acknowledged that what takes place is a form of "reverse engineering."

Examples of articulated functions include:

• The technical purpose of all of the elements of the shape of rebound boots was to "enable a rebound in a balanced, controlled and stable way to be able to take sport or entertain":85



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⁸⁴ Novartis AG, Case R2342/2014-5, at paragraph 58.

⁸⁵ eXpresio v. Etablissement AMRA, "KJ PRO Kangoo Jumps XL (3D)," Case R2696/2017-1 (EUIPO First Board of Appeal 2018), paragraph 34.

• In a case concerning a tree silhouette for air fresheners, "the technical function of an air freshener is to refresh air": 86



• In a case concerning a circular exercise hoop with molded waves inside, the technical result was the "result of tightening and strengthening the user's core when the wavy ridges makes contact with the user's body, avoiding injury":⁸⁷



• The functional requirements of a disposable-cartridge ear piercing tool included accuracy, hygiene and client comfort, as well as durability and reliability:⁸⁸



• The function of the "design elements" in a sealing ring for a pipe, which consisted of concentric circles, was to allow the plurality of layers to be stripped out to achieve a correct diameter for the insertion of a tube or pipe:⁸⁹

⁸⁶ L&D, SAU, Case R1283/2013-4, at paragraph 33. Although ultimately the sign was found not to be functional because of its considerable non-functional essential characteristics.

⁸⁷ In re Kun Yuan, "Shape of a Circular Exercise Hoop (3D)," Case R0316/2014-2 (EUIPO Board of Appeal 2015), at paragraph 30.

⁸⁸ In re Studex Corporation, "Shape of Piercing Cartridge (3D)," Case R1877/2017-2 (EUIPO Board of Appeal 2018), at paragraph 20.

⁸⁹ Wallmax S.r.l., Case R0940/2017-2, at paragraph 52.



• For a spoon-shaped container for packaging medicines and other liquids, the function was to "store liquid goods and to mix solutions": 90



• For bag-sealing clips, "the visible features of the sign [had] the function of closing hermetically sealed bags and packs in order to maintain the food fresh longer and to better protect its qualities/properties":91



Truly the best way to understand the dividing line between what is technical and what is not would be to contrast the examples given above with other decisions where the characteristic in question has been found to *not* be technical. However, it is difficult to find examples of cases that demonstrate this counterfactual. Consequently, there is little discussion on what lies on the borderline of technicality. Of course, the fact that there is some technical aspect does not always translate into barring the sign from registration since, as has been discussed above, a mark will only be excluded from registration on technical functionality grounds if *all* of its essential elements are found to achieve a technical result. Often marks will be composed of functional and manifestly non-functional elements and so will escape the exclusion.

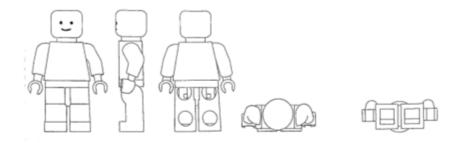
Indeed, in the course of writing this article, only one example where technical functionality was argued, but roundly rejected by the courts has come to light of a mark – the

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⁹⁰ In re Wladimir Poljanskii, "Shape of a spoon (3D)," Case R0582/2017-5 (EUIPO Fifth Board of Appeal 2017), at paragraph 27.

⁹¹ *In re* Lindén International AB, "Shape of a Sealing Clip (3D Mark)," Case R2048/2013-5 (EUIPO Fifth Board of Appeal 2014), at paragraph 13.

Best-Lock case concerning LEGO Minifigures.⁹² Best-Lock applied unsuccessfully to invalidate a shape mark registration for a LEGO Minifigure (depicted below) on technical functionality grounds. This mark had been registered for "Games and playthings; decorations for Christmas trees":



The GC upheld the Board of Appeal's finding that none of the essential characteristics, *vis*, its head, body, arms and legs of the minifigure had a technical function. ⁹³ Even the various apertures under the figure's feet and inside the backs of its legs were held not to have a technical function, because Best-Lock's evidence had not made it clear that these holes were designed to enable the figures to interlock with Lego's building blocks. ⁹⁴ This decision is in marked contrast with the *Rubik's Cube* case, ⁹⁵ discussed above, where the CJEU was willing to draw on its knowledge of how the toy worked in finding that essential characteristics were technical. Although it seems that the quality of the evidence was a significant issue in the *Best-Lock* case, even if the technical function of the apertures had been properly demonstrated, the GC found that the mark has a whole would not be caught by the functionality exclusion because the head, body, arms and legs clearly served no technical function. ⁹⁶

B. Marks with Multiple Features that Achieve Different Technical Results

Typically, shape mark representations depict a product shape having more than one important feature. Two approaches to protection are possible in this situation. The first would apply the exclusion where all characteristics are necessary to achieve a technical result, but a different technical result is achieved by each characteristic. In the second approach, the

95 Simba Toys GmbH & Co., Case C-30/15 P.

⁹² Best-Lock (Europe) Ltd v. OHIM, Case T-395/14, EU:T:2015:380 (GC 2015) upheld in Case C-451/15 P, EU:C:2016:269.

⁹³ *Id.* at paragraph 31.

⁹⁴ *Id.* at paragraph 33.

⁹⁶ Best-Lock, Case T-395/14, at paragraph 33.

exclusion would apply where all the characteristics are necessary to achieve a single result. The former approach will exclude a greater range of signs, because if all the characteristics achieve the same function, the sign will be caught by the second approach, while the converse is not true. The former approach has been adopted.⁹⁷ To be excluded, it is not necessary for all the sign's important features to cooperate with each other to achieve a single, overall, function. I would argue that this is the correct approach. Requiring all of the characteristics to achieve a single technical result could encourage artificial granularization in the way in which the functions of relatively simple marks are articulated, in the hope of avoiding the exclusion. For example, the medicine spoon mark described above could be reformulated so that the bowl feature of the spoon is for containing medicine while the handle feature is for holding the spoon.

Additionally, given that the exclusion now covers other characteristics of the goods and not just their shape, there is a greater chance under the first approach of excluding a sign composed of a greater number of different elements each having a different function. Allowing such functional combinations to fall outside the exclusion would seriously limit the ability of Article 7(1)(e)(ii) to prevent monopolies in product features that other traders may need to use in order to compete.

In the following situations, the Boards of Appeal have dealt with combinations of characteristics where each achieves a different technical function:

• A mark consisting of patches for treatment of Alzheimer's disease was excluded from registration where the square shape contributed to ease of packaging and storage. 98 The overlapping plastic layer contributed to easy application to the body, preventing exposure prior to use, and the circular central patch adapted to the body's movement ensuring better affixation to skin than other shapes. 99 The circular domes around the central patch created space during transport reducing loss and exposure of medical substance. 100

⁹⁷ Novartis AG, Case R2342/2014-5, at paragraphs 45-47. In reaching this conclusion, the Board cites the implicit approach taken in *Lego Juris*, LEGO Case R0856/2004-G, at paragraph 54, and by the GC in *Reddig v. OHMI*, "Morleys (Knife handles)," Case T-164/11, EU:T:2012:443 (GC 2012), at paragraphs 30 and 43.

⁹⁸ Novartis AG, Case R2342/2014-5, at paragraphs 58-76.

⁹⁹ *Id*.

¹⁰⁰ *Id*.



• A sign for a ground anchor "had a tubular part to take up the object to be anchored, a point (bottom part) that allowed for an easier entry into the ground, and a top part which, because of its flange structure and holes stabilised the object, in particular against lateral movement, and allowed it to integrate into the soil and in particular into the vegetation" was excluded from registration.¹⁰¹



 A sign for a clamp locking device had clamping jaws that supported the formwork elements, a locking wedge for fastening, and a row of teeth that determined the displacement of the claws and secured the clamping was excluded from registration.¹⁰²



• A sign for a 3D container was excluded where the curved disc accommodated objects such as fruit within the curvature of the walls, and a central rod enabled connection of

¹⁰¹ Gebr. Sträb GmbH + Co, Case R1363/2014-4, at paragraph 34.

¹⁰² In re Peri GmbH, "Shape of a concrete formwork (3D)," Case R1178/2013-1 (EUIPO Board of Appeal 2014), at paragraph 21.

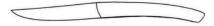
one container to another of the same shape to either form an étagère, or be stored in a space-saving manner. 103



 A sign for the shape of a screw was excluded where the screw head was convex to contain the recess, a six-pointed star accommodated a screwdriver, and a collar fixed the screw in place.¹⁰⁴



• A representation of a knife was excluded from registration where the rounded form of the handle followed the contour of a user's hand to provide a better grip, thereby making the knife easier to use, whereas the shape of the blade facilitated cutting.¹⁰⁵



• The shape of a ceramic cutter was excluded from registration where the two levers were positioned to activate the two cutting mechanisms and the base was used as a surface on which the tile would be placed; longitudinal guides and a movable separator were used to make a precise longitudinal cut.¹⁰⁶ Overall, the cutter in question stood out

¹⁰³ Koziol ideas for friends GmbH, "Shape of a Container (3d Mark)," Case R0582/2012-1 (EUIPO First Board of Appeal 2013) at paragraphs 44-45.

¹⁰⁴ SFS Intec SAS, Case R2140/2011-1, at paragraphs 30-32.

¹⁰⁵ Le Coute de Tie, AL, "Shape of Knife (Figurative Mark)," Case R0631/2011-1 (EUIPO Board of Appeal 2012), at paragraph 32.

¹⁰⁶ Germans Boada, SA, "Shape of a Ceramic Cutter (3D)," Case R1856/2010-1 (EUIPO First Board of Appeal 2011) at paragraphs 17-18.

"owing to its simplicity, robustness and user-friendliness, enabling simple, rapid cutting of the tile." ¹⁰⁷



Once the technical result of the product embodied in a trade mark has been articulated, it is then necessary to consider whether the particular essential elements of the mark in question contribute to achieving that technical result. If they do, the mark will be barred on functionality grounds. It is to this that we turn in the next section. This is a very fact-specific process, and so the next section concentrates on different forms of evidence that have been used to demonstrate how product characteristics are there for technical reasons.

VI. STAGE 4: PROVING THAT THE ESSENTIAL ELEMENTS CONTRIBUTE TO THE TECHNICAL RESULT

A number of indicators have been used to establish that particular elements of signs under scrutiny contribute to the technical result achieved by the goods for which protection is sought. Applicants have also attempted to use other factors to refute functionality objections, but these have been questioned by the courts. Until very recently, there was no authoritative list of types of evidence proving that essential elements contribute to a technical result, and the relevance of the respective factors had to be pieced together from looking at how such cases were argued before the tribunals. However, in the recent *Gömböc* case (discussed already), the CJEU has provided a non-exhaustive statement of which types of evidence may be relevant. These are:

- any description of the product submitted at the time of filing of the application for registration of the mark;
- in data relating to intellectual property rights conferred previously in respect of that product;
- surveys or expert opinions on the functions of the product;

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¹⁰⁷ *Id*.

¹⁰⁸ Gömböc, Case C-237/19, at paragraph 34.

- scientific publications which describe the technical features of the product;
- catalogues which describes the technical features of the product; and
- websites which describe the technical features of the product.

It remains helpful to consider in detail how each of these forms of evidence has been used to evaluate technical contribution in practice, and it is to this that this article now turns.

A. Pre-existing Patent

The fact that a product feature is described in a patent application is very strong evidence of technical functionality, 109 although it is not determinative, 110 since much turns on the context in which the feature appears. As noted by the Advocate General in Lego, this is similar to the approach taken by the United States Supreme Court. 111 Pre-existing IP rights are also mentioned in the $G\ddot{o}mb\ddot{o}c$ list, above.

Evidence that the trademark owner has described the sign for which protection is now sought in a patent or patent application has led to a finding of functionality in a number of decisions. Generally, the court considers whether the patent text explains how the essential characteristics of the sign contribute to the technical functioning of the goods embodying the sign. A particularly detailed example is seen in *Shape of a Stopper*, a case concerning a circular

¹⁰⁹ Lego Juris, Case C-48/09 P, at paragraph 80. Appearance of a product feature in a patent application is labelled

[&]quot;prima facie evidence" in the EUIPO Guidelines and the UKIPO Trade Marks Manual, p.162, though the latter notes that presence in a patent does not exclude the feature for trademark protection per se. EUIPO Guidelines, ch. 6, § 3; UKIPO Trade Marks Manual, § 3(2)(c). In *Reddig*, Case T-164/11, at paragraph 31, the presence of an expired patent was described as "practically irrefutable" evidence of functionality.

The patent must also cover the actual mark applied for, rather than some other aspect of the product more generally. For example, in *L&D*, a decision concerning the "Magic Tree" air freshener, the fact that patent protection had been secured for a means of delivering the fragrance contained in a sachet within the product was not evidence of functionality of the tree shape. *L&D*, *SAU*, Case R1283/2013-4, at paragraphs 44-46.

¹¹¹ TrafFix Devices, Inc. v. Marketing Displays, Inc., 532 U.S. 23 (2001), cited by AG Mengozzi in Lego Juris, Case C-48/09 P, EU:C:2010:41, at paragraph 67.

¹¹² Novartis AG, Case R2342/2014-5, at paragraphs 69-76; Reddig, Case T-164/11, at paragraphs 30, 43; Gebr. Sträb GmbH + Co., Case R1363/2014-4, at paragraph 16; eXpresio, Creative Study, Case R2696/2017-1, at paragraph 30; Pirelli Tyre SpA v. The Yokohama Rubber Co Ltd, Case R2583/2014-5 (EUIPO Fifth Board of Appeal 2016), at paragraphs 37-38, *reversed* at Pirelli Tyre v. EUIPO, Case T-447/16, EU:T:2018:709 (GC 2018) (noting that the tire tread in the mark was not a "shape," and that the revision to extend the exclusion to "other characteristics" was not yet introduced."), appeal docketed, Case C-6/19 P.

occluder comprising an internal wire framework implanted to treat holes located in the interventricular septum of a patient's heart:





The Board reviewed a number of patent documents, noting that one patent document identified the circular shape as being optimal, since shapes with corners could cause perforations.¹¹³ Another patent identified the sign's disc shape as being "particularly well suited for occluding."¹¹⁴ The rosette configuration of the wires was also described as being "all important in determining a number of important properties of the device."¹¹⁵ Elsewhere, it was explained that a dense arrangement of wires ensured enough cell growth in the area to fill the hole.¹¹⁶

Description in a patent specification is such important evidence that it may override an applicant's submission that a feature's inclusion is incidental, and that in reality, the characteristic has no technical function. This was the case before the United Kingdom Trade Mark Registry in *Hambleside Danelow's Application*.¹¹⁷ It was also the case in *Shape of a Stopper* (described above), where the patents' description of the role of each feature disproved the applicant's claim that each of those features was arbitrary.¹¹⁸ This must be the correct approach, given that it is the objective meaning of the patent (as understood by a hypothetical person skilled in the art) that actually is relevant in patent law, and not the patentee's intent, belief, or assertion of what their technical contribution is. The scope of the patent monopoly, which the CJEU has stated should not be extended by trademark law, is also determined objectively.¹¹⁹

¹¹⁵ *Id*.

¹¹³ *In re* AGA Med. Corp., Case R0042/2013-1, at paragraphs 20-25.

¹¹⁴ *Id*.

¹¹⁶ Id

¹¹⁷ In re Hambleside Danelaw Ltd., O/203/18, [85].

¹¹⁸ *In re* AGA Med. Corp., Case R0042/2013-1, at paragraph 27.

¹¹⁹ See, e.g., Lego Juris, Case C-48/09 P, at paragraph 45; Hauck GmbH & Co KG, Case C-205/13, at paragraph 19.

The territory covered by the patent or patent application is not relevant when establishing technical functionality. In *Kangoo Jumps*, the Board of Appeal considered United States and Canadian patents, while in *Exercise Hoop*, reliance was placed on a United States patent.¹²⁰

The fact that a product feature is not patented does not mean that is not technically functional. It is easy to imagine a feature that is technical in nature but lacks novelty, or is obvious, and so does not meet the basic requirements of patent protection. An example might be the legs of a table, which support the tabletop and have done so for tables throughout the generations. In *Flamgas*, the GC held that the existence of a Spanish utility model (an exclusive right in an invention that falls short of the requirements for a patent) for the feature in question forms "almost irrefutable" evidence of technical functionality. This confirms that the bar for technical functionality is set at a lower level than that required for protection by patent law.

B. Prior Registered Design

In *Kangoo Jumps*, the Board found technical functionality in part because the trademark holder had already enjoyed protection from two now-expired Registered Community designs and an expired United States patent). The Board did not fully explain how the designs were relevant to the outcome of the case, but any automatic acceptance of prior design protection as evidence of technical functionality would be problematic. Design protection straddles both functional and aesthetic aspects of goods, and the design regime envisages an overlap between design and trademark protection. Nevertheless in *Gömböc*, the CJEU referred to IP rights in general, rather than just, say, utility patents, suggesting that pre-existing registered designs could be relevant.

¹²⁰ See cases cited supra notes 96 and 104.

¹²¹ See Jay Franco & Sons, Inc. v. Franck, 615 F.3d 855, 858 (7th Cir. 2010) (Easterbrook, J.).

¹²² Flamagas, SA v. EUIPO (CLIPPER), Case T-580/15, EU:T:2017:433 (GC 2017), at paragraph 47; *see also* Madly v. Werkhaus Design & Produktion GmbH, Cancellation No. 12442 (EUIPO Invalidity Division 2016), at 7 (Cancellation Division stresses that utility model not filed as evidence would have been useful).

¹²³ eXpresio, Creative Study, Case R2696/2017-1, at paragraph 51.

¹²⁴ Features of appearance of a product which are "solely dictated by technical function" are excluded from design protection – *see* Article 8 of Council Regulation (EC) No 06/2002 of 12 December 2001 on Community Designs, and its equivalents.

¹²⁵ For example, a "product" is defined in Article 3(b) of Community Design Regulation 06/2002, as including "packaging, get-up, graphic symbols and typographic typefaces." *See* Dinwoodie, *supra* note 3, at 33.

C. Functionality Claims from the Applicant's Advertising or Website

A number of cases have considered marketing claims made on the applicant's own website, particularly where the claims relate individual features of the goods back to specific functions. For example, the applicant's website in *Shape of a Container* showed the design being used as a stackable fruit bowl having "tiers slot together for easy assembly and removal" where "each tier can be used on its own" and offering "sturdy, stable construction" and "easy to clean ... space-saving storage." 128

Functionality determinations based on competitor third-party website material describing the technical advantages of a specific product feature have been made.¹²⁹ Detailed and specific claims in product brochures have also been used as evidence of functionality.¹³⁰ Descriptions on websites (without any indication of whether they needed to be the trademark applicant's or could originate with a third party) were mentioned in *Gömböc*.¹³¹

D. Expert Evidence and Third-Party Technical Literature

Given the sometimes highly technical nature of products examined for technical functionality, there is surprisingly little use of expert evidence to ascertain whether a characteristic has a technical result. Although the possibility of using expert evidence was mentioned fleetingly by the Advocate General in *Lego*, this study has not revealed significant use of expert evidence for this purpose. Nevertheless, *Gömböc* re-iterates the possibility of

¹²⁷ *In re* Studex Corp., "Shape of Piercing Cartridge (3D)," Case R1877/2017-2 (EUIPO Board of Appeal 2018), at, paragraph 16; Koziol ideas for friends GmbH, Case R0582/2012-1, at paragraph 45 ("Like all its siblings, BABELL BIG can be taken apart and its elements slotted").

¹²⁸ Koziol ideas for friends GmbH, Case R0582/2012-1, at paragraph 45.

¹²⁹ AGA Med. Corp., Case R0042/2013-1, at paragraph 27 (relying on an explanation of the technical properties of occluders from a competitor's website).

¹³⁰ Gebr. Sträb GmbH + Co., , Case R1363/2014-4, at paragraph 16 ("it is explained in detail [in the brochure] what purpose the object shall fulfil and how it is used . . . ").

¹³¹ Gömböc, Case C-237/19, at paragraph 34.

¹³² Lego Juris, Case C-48/09 P, at paragraph 67, cited in "Device of a Chair (3D mark)," Case R0664/2011-5, at paragraphs 16-17.

using expert evidence.¹³³ Third-party technical literature has been used on occasion to assess whether the sign in question achieves a technical result.¹³⁴ *Gömböc* envisages this also.¹³⁵

E. General Knowledge

In a case concerning a two-dimensional representation of an elastic band fastening system for cardboard furniture, the Cancellation Division found that the sign had the function of "allowing small items to be assembled":¹³⁶



It was well known that such a fastening system could be used to assemble objects from cardboard without glue, nails, bolts or screws. The Division found that it could rely on knowledge that was well-known and "likely to be known by anyone or can be learned from generally accessible sources."¹³⁷ In this case, the Cancellation Division on its own initiative, located images on the Internet showing such fastening methods in operation.

Similarly, the Board has explicitly stated that it is entitled to rely upon "common sense" and "common knowledge" of the nature of a clasp-locking device: 138

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¹³³ Gömböc, Case C-237/19, at paragraph 34.

¹³⁴ See Pirelli Tyre SpA, Case R2583/2014-5, at paragraph 39 (relying on the "Tread Design Guide," a third-party publication aimed primarily at tire professionals and forensic police investigators).

¹³⁵ Gömböc, Case C-237/19, at paragraph 34.

¹³⁶ Madly, Cancellation No. 12442.

¹³⁷ *Id*.

¹³⁸ Louis Vuitton Malletier SA v. C&A Buying KG, "Device of a Clasp Lock (fig.)," Cases R1222/2012-1 and R1231/2012-1 (EUIPO First Board of Appeal 2015), at paragraphs 82-93; *see also* Novartis AG, Case R2342/2014-5, at paragraph 63 ("[T]he analysis of the essential characteristics of a shape, once identified, may require evidence in certain cases as the Office cannot be considered omniscient in all matter technical, particularly in specialised areas of expertise. However, where the functionality in a representation is obvious, evidence will be not always be necessary.")



Consequently, the Board found that the sign was not technically functional because it was common knowledge that a bulky lock like the one for which registration was sought would not be used on the goods claimed, namely shoes, belts, and slippers.

In other decisions, tribunals have relied on their own assessment of functionality without any specific evidence.¹³⁹

F. Witness Statement from the Applicant

In a case involving the functionality of a stool design, statements by the applicant's own marketing director were used to prove its technical nature where he admitted that "[t]he device has been chosen for its aesthetic qualities as well as to provide maximum strength and durability for the upper part of the recliner/chair/stool as required." The applicant's statement to the examiner that the mark consisted of the goods themselves was found to be an admission of functionality. 141

G. Witness Statement from Customers

The test for whether a product feature is functional, or not, is an objective one; the CJEU has therefore held that consumer perception is not determinative. Nevertheless, in *Piercing Cartridge*, the Board of Appeal conducted an in-depth examination of witness statements from end-users, some of which identified how the specific features of the applicant's sign related to

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¹³⁹ *In re* Wladimir Poljanskii, "Shape of a spoon (3D)," Case R0582/2017-5 (EUIPO Fifth Board of Appeal 2017), at paragraph 27; *In re* SFS Intec SAS, Case R2140/2011-1, at paragraphs 30-33; Le Coute de Tie, AL, Case R0631/2011-1, at paragraphs 28-34; Germans Boada, SA, Case R1856/2010-1, at paragraphs 17-19. Likewise, in *Ekornes ASA's Application*, the Appointed Person found that the "mechanical properties" of the s-shaped stool legs applied for were "readily apparent." *Ekornes ASA's Application*, UK Trade Marks Registry (Appointed Person) O-017-06, paragraph 11.

¹⁴⁰ Ekornes ASA's Application, UK Trade Marks Registry (Appointed Person) O-017-06, paragraph 11.

¹⁴¹ Gebr. Sträb GmbH + Co., Case R1363/2014-4, at paragraph 16. The goods in question were a ground anchor, which the Board had found to be intrinsically functional.

¹⁴² Lego Juris, Case C-48/09 P, at paragraphs 75-77.

the operation of the ear-piercing cartridges.¹⁴³ For example, certain parts held the stud accurately, while others ensured that neither the operator nor the earring touched the ear during operation.¹⁴⁴ This made the cartridge more hygienic than traditional methods.¹⁴⁵

Notably, the end users in this case were professional ear- and body-piercing technicians. One might therefore expect them to have an expert degree of knowledge of how such machines work, and what features are desirable. In other cases, the end user will often be a member of the public. Interestingly, in *Gömböc*, ¹⁴⁶ the CJEU held that survey evidence may be relevant. This is surprising as, assuming that it is the public or at least consumers of the goods who are to be surveyed, it would suggest that evidence of consumer perception could be used.

H. Counterfunctionals

In *Land Rover*, the United Kingdom Trade Mark Registry considered a number of marks filed for different variations on the shape of a LAND ROVER vehicle:

3164282 (DEFENDER 110)



3158948 (DEFENDER 110 SPARE WHEEL)



The Registry accepted that a "boxy slab-sided" shape of the vehicle mitigated against a finding of functionality because it was inefficient in terms of fuel consumption and therefore "counter functional." ¹⁴⁷ The suggestion is that a characteristic that hinders the function of a good will not fall within Article 7(1)(e)(ii). ¹⁴⁸

This rule is difficult to reconcile with *Lamp Base*, where the Board of Appeal rejected the argument that a sign was not functional because it was "less functional than traditional forms and is already in use in the sector in reference." The *Land Rover* rule would also assign

¹⁴⁵ *Id*.

¹⁴³ Studex Corp., Case R1877/2017-2, at paragraphs 16-19.

¹⁴⁴ *Id*.

¹⁴⁶ Gömböc, Case C-237/19, at paragraph 34.

¹⁴⁷ Jaguar Land Rover Ltd. v. Ineos Indus. Holdings Ltd, UK Trade Marks Registry O-589-19 (October, 3, 2019), at paragraph 137.

¹⁴⁸ *Id*.

¹⁴⁹ In re Tecnodidattica S.p.A., Case R0076/2017-2, at paragraphs 22-23, as upheld by the GC.

trademark examiners the complex task of determining not only if a characteristic contributes to how a good works, but also in ascertaining whether it works better (or worse) than those of the market. While this may have been a simple assessment in *Land Rover*, it is likely to be contested in many decisions and would require complicated and expensive expert evidence.

I. Aesthetic Elements

The fact that the product feature in question might have aesthetic appeal or has been inspired by aesthetic considerations does not rule out a finding of technical functionality. The Board has observed that the same feature can perform two roles at once and "there is no three-dimensional article under the sun to which one could not ascribe an aesthetic value or effect." Furthermore, if dual aesthetic-technical characteristics were not within the exclusion, undertakings would remain able to gain a monopoly on previously patented product characteristics on the basis that they were chosen because they looked attractive. 152

J. Availability of Alternatives

Tribunals have consistently refused to admit evidence of the availability of alternative designs for the product or function in question.¹⁵³ Likewise, they have refused to consider whether registering the sign in question would lead to the grant of a monopoly in the technical result to a single undertaking.¹⁵⁴ The relevance of the availability of alternative was first discussed in *Philips*. The question arose whether a shape was only "necessary" to achieve a technical result, as referenced in the provision, if there were no other ways of achieving the same result. The CJEU found that the availability of alternative shapes was not determinative in view of the provision's aim of "not allowing individuals to use registration of a mark in order

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¹⁵⁰ Tractel Greifzug GmbH v. OHIM, Case T-621/15, EU:T:2017:254 (GC 2017), at paragraph 25.

¹⁵¹ Studex Corp., Case R1877/2017-2, at paragraph 22; Flamagas, SA, EU:T:2017:433, at paragraph 58; Gebr Sträb GmbH + Co., Case R1363/2014-4, at paragraphs 36-37 (rejecting arguments that the ground anchor was not functional because it was evocative of the Statue of Liberty or a carrot).

¹⁵² *Id*.

¹⁵³ Tractel Greifzug GmbH v. OHIM, EU:T:2017:254, at paragraph 28; Studex Corp., Case R1877/2017-2, at paragraph 24; Madly, Cancellation No. 12442, at 8 (involving a rubber band fastening system for cardboard furniture, finding it was irrelevant that other methods could be used for the fastening, or that other shapes of rubber bands could be used).

¹⁵⁴ Flamagas, SA, EU:T:2017:433, at paragraph 59.

to acquire or perpetuate exclusive rights relating to technical solutions."¹⁵⁵ Granting trademark rights for one technical shape would permit the applicant to gain rights over one technical solution, even if other solutions to the same problem remained available.

The CJEU has also downplayed the significance of alternatives for more nuanced reasons. In *Philips*, AG Jacobs noted that the simultaneous registration of multiple ways of achieving the same technical result could lead to competitors eventually being blocked. ¹⁵⁶ The *Concentric Blue Circles* case is a practical example of this. ¹⁵⁷ The *Lego* Court also pointed to the fact that once a mark is registered, it can be used to block other similar marks, raising the possibility that unregistered alternatives would also be blocked by infringement actions. ¹⁵⁸

The United Kingdom Trade Mark Registry has suggested that where a large number of shapes is available for a particular product, the choice of any one shape or characteristic may point to the shape being design-led rather than functional.¹⁵⁹ Assessing the registrability of the shape of a land vehicle in *Land Rover*, the Hearing Officer noted that while car windows would be technically necessary, the exact positioning and shape of a window was a design-led choice, and so outside the technical shape exclusion.¹⁶⁰ While the Hearing Officer sought to clarify that this is "different to saying that the technical result(s) could be achieved using other shapes," it is difficult to draw the line in practice.¹⁶¹ Every product has must have some form, and so it is difficult to know which shapes will be considered to have what the Hearing Officer labeled "design input." ¹⁶² More importantly, the fact that there is design input does not stop a sign consisting of product characteristics from blocking access to those characteristics for competitors, as the EUIPO Board of Appeal has recognized.¹⁶³

¹⁵⁵ Philips, Case C-299/99, at paragraph 82.

¹⁵⁶ Philips, Case C-299/99, at paragraph 39.

¹⁵⁷ Wallmax S.r.l., Case R0940/2017-2, discussed *supra* in Section III.E.

¹⁵⁸ Lego Juris, Case C-48/09 P, at paragraph 56.

¹⁵⁹ Jaguar Land Rover Ltd., O-589-19, at paragraph 38; *see also* Birkenstock Sales GmbH's Registration, UK Trade Marks Registry O-505-16, paragraph 92 (October 31, 2016) (noting that "the pattern is one of many which could have been selected and is, in my view, more akin to a decorative, rather than functional, feature.").

¹⁶⁰ *Id*.

¹⁶¹ *Id*.

¹⁶² *Id*.

¹⁶³ Studex Corp., Case R1877/2017-2, at paragraph 22.

It appears that the Appointed Person's decision in the *Ekornes Stool* case, ¹⁶⁴ is the roots of this "form over function" approach. This case concerned the shape a stool with curved, S-shaped legs. While it was correct that legs and a seat were essential functional elements of a stool, the Appointed Person found that the particular shape had a high degree of stylisation. This meant it did not consist of "essentially of features attributable only to the technical result of using that shape". Instead, there was a "surplus of form over function." Rather than being a direct consideration of alternatives in assessing whether the legs were functional, what this appears to be is a pre-*Lego* attempt to articulate the concept that, where are a mixture of functional and non-functional features, significant non-functional features will allow the sign to escape the functionality exclusion.

To sum up, there is an open list of forms of evidence that can be used to demonstrate that a product feature is there for a technical reason. We may expect further clarity in this area following *Gömböc*, although there is generally a good correlation between the forms of evidence mentioned in that case and the types of evidence identified in this article collated by examining previous decisions. These can be broadly grouped into evidence from the existence of previous IP rights, functionality claims made by trade mark applicants themselves, expert evidence and general knowledge. There are also forms of evidence that will have no impact on the assessment, namely the availability of alternatives and the fact that the element has aesthetic properties.

VII. CONCLUSION

Despite Article 7(1)(e)(ii)'s central importance in ensuring a competitive market by restricting the registration of product shapes and other product characteristics, there remains a surprising degree of uncertainty regarding the meaning of its central concepts. While the CJEU has clearly and consistently stated the policy behind the provision, there is a lack of authoritative guidance of what makes a result "technical" and how to prove this. While the early case law considered the meaning of whether a sign is "necessary" to achieve a technical result and the relevance of alternatives, it did not go on to fully explain the key clause of "achieving a technical result." The focus has instead been on the preliminary stage of identifying the characteristics of goods. Nevertheless, this article has argued that, by looking

¹⁶⁴ Ekornes ASA's Application, O-017-06, although this case was not cited explicitly by the Appointed Person in *Land Rover*.

¹⁶⁵ *Id.* at paragraph 16.

at the developing case law, we can see the beginnings of a multi-step methodology for determining whether a sign for goods consists exclusively of the characteristics that are necessary to achieve a technical result.