the 'might-is-right' stance some developed countries have taken in dealing with the global implementation of these flexibilities, has dissuaded certain Member States from taking advantage of these permissible interpretations and implementations of these provisions. The effect has been, and continues, to hamper the implementation of the TRIPS Agreement as it was foreseen on the 1st of January 1995. Those Member States critical of the continual growth of intellectual property rights are however gaining a greater understanding of the contents of the TRIPS Agreement and, in solidarity with other Member States in similar positions, are becoming more confident in taking advantage of the flexibilities contained therein – a 'right' expressly conferred on LDCs and indirectly on other Member States in the TRIPS preamble and the Decision on Measures in Favour of Least-Developed Countries. [587]

Whether or not the Member States make use of a simplified and more accessible compulsory license system should remain their prerogative. The choice, and ultimately the responsibility, is theirs.[588]

IV. Disclosure

Disclosure is the price an inventor pays to secure the exclusive rights conferred under Article 28 of the TRIPS Agreement. Disclosure is also the instrument that facilitates the spread of knowledge, technological development and commercial independence. Without disclosure there is no justification for the exclusive rights.[589] This symbiosis can only be legally, economically and socially validated where the disclosure is complete. If society is not able to reap the full rewards of the disclosure because it is incomplete then the inventor has not justified the exclusive rights it

compliant. Cf. *Kiehl*, 10 J.Intell.Prop.L (2002) p. 169. This point of view fails, amongst others, on *Kiehl's* view that any other alternative, ignoring the reasonableness or viability thereof, would make an Art 31 compulsory license TRIPS-inconsistent. The DSU has confirmed that alternative measures need be reasonable to be considered. See Chapter 5(C)(III)(2 and 3) above. Further, *Kiehl* infers that emergency concept in Art 31(b) will fail because other public health measures may be taken to minimise the emergency. The emergency concept is however only relevant to compulsory licenses that take place without prior negotiations with the rights holder. The existence of an emergency is not a requirement for a compulsory license.

587 Decision on Measures in Favour of Least-Developed Countries Art 2(iii).

588 The economic and social consequences of the use of compulsory license have not been considered here. They do, and will continue, to play a significant role in choosing which compulsory license policy is best suited for a Member State. *Reichmann* and *Hasenzahl* rightly refer to the decision as being a 'two-edged sword' and the active pursuit of a liberal or conservative compulsory license policy as both bringing advantages and disadvantages. Cf. *Reichman and Hasenzahl*, Non-voluntary Licensing of Patented Inventions: Historical Perspective, Legal Framework under TRIPS, and an Overview of the Practice in Canada and the USA (ICTSD/UNCTAD Geneva 2003) p. 23-25.

589 *Beier and Straus*, 8 IIC 5 (1977) p. 387-406, *Gervais*, The TRIPS Agreement: Drafting History and Analysis (2nd edn Sweet and Maxwell London 2005) p. 239.

seeks.[590] Disclosure not only serves to ensure the new and valuable information reaches the public realm but it also serves to demonstrate the invent-tion's novelty, non-obviousness and usefulness.[591] Thus, the fulfilment of the disclosure requirement is fundamental to determining the ideological and utilitarian justification for the grant of exclusive rights. The TRIPS Agreement confirms the mandatory requirement to disclose the invention in Article 29.

Article 29.1 states that an inventor 'shall disclose the invention in a manner that is sufficiently clear and complete for the invention to be carried out by a person skilled in the art'. Hence, the disclosed information must, first and foremost, be 'sufficiently clear and complete'. This is the primary standard for evaluating if the invention justifies the exclusivity. Disclosed information that fails to describe each of the elements of novelty, usefulness and non-obviousness of the invention will not justify the exclusive rights. The descriptions must further be vacant of terminology or formulations that cause confusion or misunderstandings. Although the standard does not require absolute compliance, the sufficient compliance infers a standard that is more than 'necessary'.[592]

The sufficiency of the disclosed information is determined, not by general standards, but according to the standard of a 'person skilled in the art'. Such a person is however a legal fiction and is determined in each patent application anew.[593] Thus, when the body reviewing the disclosure confirms that a person skilled in the art is able to work the invention in the manner described in the patent application and achieve the result claimed will the disclosed information suffice the Article 29.1 TRIPS requirement.[594]

The ordinary meaning given to the Article 29.1 TRIPS terminology has not been uniformly interpreted by the Member States. The reason for this is both the flexibility of the terminology used and the independence countries have in examining patent

590 Disclosure is not a condition for the continued use of the exclusive patent rights; it is instead a condition for the grant of the exclusive rights.

591 The contents of the claim form the boundary for the patent: 'what is not sufficiently disclosed cannot be claimed' *Kraßer*, 23 IIC 4 (1992) p. 470-471. Compare German Patent Act sec 14, *Kirin Amgen Inc. and others v. Hoechst Marion Russel Ltd.* UKHL 46 [2004], (2005) 38 GRURInt 4 343-350 at 344. Lord Hoffman states '[w]hat is not claimed is disclaimed'.

592 The disclosure 'must not merely be necessary; it must be sufficient'. *Kirin Amgen Inc. and others v. Hoechst Marion Russel Ltd.* UKHL 46 [2004], (2005) 38 GRURInt 4 343-350 at 349. Cf. *Rebel*, Gewerbliche Schutzrechte (4th edn Carl Heymanns Berlin 2003) p. 185.

593 *Rebel*, Gewerbliche Schutzrechte (4th edn Carl Heymanns Berlin 2003) p. 185.

594 The usability of a patent, as set out in the disclosure, forms part of the disclosure requirements set out in Art 29 of the TRIPS Agreement. Cf. *Hüni*, 8 IIC 6 (1977) p. 501, *Kraßer*, 23 IIC 4 (1992) p. 470. Contrast the position taken by the UK Courts: *Kirin Amgen Inc. and others v. Hoechst Marion Russel Ltd.* UKHL 46 [2004], (2005) 38 GRURInt 4 343-350 p. 345. Lord Hoffman does however note in the *Kirin Amgen* case that the interpretation is a matter of national law.

applications.[595] These characteristics of Article 29 of the TRIPS Agreement permit Member States to structure the disclosure requirements in a number of ways.

The 'person skilled in the art' is, as stated above, a fictional legal standard. It is used by the examiner to determine, *inter alia*, whether the information disclosed is sufficient to enable its duplication. A standard that confers the skilled person substantial knowledge would mean that the information disclosed need not be particularly comprehensive to be 'sufficient'. It follows that countries wishing to increase the amount of information transferred will regard the skilled person as having lesser knowledge. Adjusting the skilled person's standard to reflect the technological development and knowledge of a country would reflect the objectives of the TRIPS Agreement, i.e. 'intellectual property rights should contribute to … the transfer and dissemination of technology … in a manner conducive to social and economic welfare'. By setting the standard lower for developing countries, the patent applicant will be obliged to disclose more information, thus putting additional information into the public arena and increasing the knowledge wealth of a country. A lower standard would also enable examiners in developing countries with lower technological understanding the ability to better understand the application and make more informed decisions. Adjusting the standards according to national skills levels would also ensure that domestic knowledge deficiencies, where present, are filled by the disclosure of information. The national adjustment of the disclosure levels by way of the skilled person standard will further ensure that, upon the expiry of the patent, the citizens of that country will have the choice of whether to use the knowledge disclosed or not. An inability in that country to understand or duplicate the invention upon the expiry of the patent would effectively extend the exclusivity period and the country would have been deceived out of the technical, economic and social development it bargained for.[596]

It would be erroneous to infer that the disclosure/domestic skills relationship would necessarily result in a relative novelty standard. A distinction needs to be drawn between the disclosure requirement and the novelty requirement. Although both requirements are interrelated – requiring the patent applicant to comply with both – it would be possible for a Member State to permit a national skilled person standard and an absolute novelty requirement.[597] Whereas the former refers to the disclosure standard the latter refers to the determination of novelty.

595 Art 4bis of the Paris Convention states: '1. Patents applied for in the various countries of the Union by nationals of countries of the Union shall be independent of patents obtained for the same invention in other countries, whether members of the Union or not. 2. The foregoing provision is to be understood in an unrestricted sense, in particular, in the sense that patents applied for during the period of priority are independent, both as regards the grounds for nullity and forfeiture, and as regards their normal duration.'

596 *Beier and Straus*, 8 IIC 5 (1977) p. 393, TRIPS Agreement Art 7.

597 Absolute novelty refers to the destruction of novelty by the description in print or made known in any other way in any country prior to the date of the patent application. Relative novelty refers to the destruction of novelty by a locally printed publication, local prior use and/or a combination of these with international publication. Cf. *Ladas*, Patents, Trademarks,

In addition to the skilled person standard being used to increase the scope of the information being disclosed, a Member State could also enforce a strict disclosure system that restrictively interprets 'sufficiently clear and complete'. As Article 29 of the TRIPS Agreement refers to disclosure as a whole, Member States could interpret the concept to include not only the core claims but also the those elements that accompany the specification.

Article 29.1 of the TRIPS Agreement provides a further possibility Member States have in requiring in the disclosure the 'best mode' to acquire the results mentioned in the application. The benefit of the 'best mode' requirement is that it simplifies the duplication of the invention. The 'best mode' requirement also has the effect of indirectly including know-how and even trade secrets in the patent application and, depending on the scope of the disclosure requirements, may require the disclosure of such restricted knowledge in points that are not directly related to the invention.[598] Failure to comply with this requirement would result in the denial of the patent grant. The US implementation of this system[599] is generally regarded as referring to the 'technically' best method of duplication to be disclosed. The TRIPS Agreement does not prohibit a Member State from interpreting best to mean commercially best. A third and more direct understanding was the Canadian approach where the patentee is required to 'put the public in possession of the invention in as full and ample a manner as he himself possesses it and give them the opportunity of deriving benefits therefrom equal to the benefits accruing to him'.[600] Despite the fact that the relevant Canadian provision is no longer in effect, the formulation would nonetheless meet the requirements of the TRIPS Agreement.

The above examples of interpreting Article 29 of the TRIPS Agreement in an expansive manner will likely have one of two possible results. The first foreseeable consequence is that some inventors would view the disclosure as being too onerous and requiring information they deem 'too valuable' to put into the public realm.[601] This will only be an effective tactic where the patent's disclosure in other countries does not include this additional information and where this information is unlikely to become public. The reverse side of the coin is that competitors would have free reign to develop equivalent products without fearing infringement claims. The second and most likely consequence is that inventor will comply with the disclosure requirements. Although onerous, the economic benefits would be viewed to outweigh the disclosure requirements.

and Related Rights Vol. 1 (Harvard University Press Cambridge 1975) p. 22, *Baxter et al,* World Patent Law and Practice Vol. 2 (Lexis Nexis New York 2005) p. 4-3-4-8.

598 *Adelman et al,* Cases and Materials on Patent Law (2nd edn Thomson/West St. Paul 2003) p. 497.

599 *Adelman et al,* Cases and Materials on Patent Law (2nd edn Thomson/West St. Paul 2003) p. 497-524.

600 *Goldsmith*, Patents of Inventions (Carswell Toronto 1981) p. 110.

601 *Watal*, Intellectual Property Rights in the WTO and Developing Countries (Kluwer The Hague 2001) p. 107.

It would thus seem to be in a developing country's interest to enforce a detailed and comprehensive disclosure system.[602] The additional information would assist knowledge hungry countries and would accelerate the development of that country. An information laden disclosure system does however have a significant drawback: as patent offices are currently struggling to process the information at present, it would be unclear how it would cope where the disclosure requirements would to be increased.[603] One possibility to overcome this overload and still maintain a wide dissemination of information would be to make increased use of digital applications. Another would be to make references to foreign fillings. A further possibility would be to ease the proceedings for oppositions to patent grants.[604] As failure to make a sufficient disclosure in the patent application can lead to the annulment of the patent,[605] an extended opposition period together with a simplified and inexpensive opposition process would also help ensure that the disclosure requirement serves its purpose of transferring knowledge.[606]

V. Exhaustion

The exhaustion of rights doctrine is the 'principle that once the owner of an intellectual property right has placed a product covered by that right into the marketplace, the right to control how the product is resold in the marketplace within that internal market is lost'.[607] The basic principle behind the doctrine of exhaustion is that the rights of an intellectual property rights holder do not extend *ad infinitum*[608] The

602 The transfer of technology and the development of poor countries is one of the core goals of the TRIPS Agreement. The disclosure requirement should be interpreted in this regard; failure to do so would ensure that patents become a barrier to trade and contrary to the TRIPS Agreement and WTO Agreements as a whole. To ensure this does not occur, developing Member States are legitimately empowered under the TRIPS Agreement to structure the disclosure requirement to further the 'developmental and technological objectives' and the 'transfer and dissemination of technology'.

603 *Watal*, Intellectual Property Rights in the WTO and Developing Countries (Kluwer The Hague 2001) p. 107.

604 *Watal*, Intellectual Property Rights in the WTO and Developing Countries (Kluwer The Hague 2001) p. 108.

605 EPC Art 138(1)(b), German Patent Act sec 21(1)(2).

606 TRIPS Agreement preamble, Art 7.

607 Webster's Third New International Dictionary.

608 For a brief introduction to the principle of exhaustion see *Hubmann*, Gewerblicher Rechtschutz (6th edn CH Beck Munich, 1998) p. 174-175. A further key aspect of the exhaustion doctrine is that the product or service which embodies the intellectual property right must be put onto a/the market with the intellectual property rights holders consent. Cf. *Burrell*, Burrell's South African Patent and Design Law (3rd edn Butterworths Durban 1999) p. 135, *Splittgerber and Schröder*, Lizenzen und Open Source rechtlich einwandfrei nutzen (Interest Kissing 2005) p.11. Contrast *UNCTAD/ICTSD,* Resource Book on TRIPS and Development (CUP New York 2005) p. 106-107 where there is the suggestion that any legal or legitimate putting onto the market would suffice. This would thus extend to products produced under a