

MODULE VI

INDUSTRIAL DESIGNS AND LAYOUT-DESIGNS OF INTEGRATED CIRCUITS

A Introduction

This module deals with the provisions of the TRIPS Agreement that set out standards for protection of industrial designs (Articles 25 and 26 in Section 4 of Part II of the Agreement) and protection of layout-designs or topographies of integrated circuits (Articles 35 to 38 in Section 6 of Part II). As for all sections of Part II, these sections have to be read together with the relevant provisions of pre-existing treaties in the area of international IP law, which are incorporated by reference into the TRIPS Agreement. Reference will be made to these treaties in the sections below. This module will also have to be read in conjunction with other relevant provisions of the TRIPS Agreement that are explained in other modules (such as those concerning non-discrimination, enforcement of IP rights, and the administration of IP). Wherever appropriate, cross-references are made to other modules.

B Industrial designs

WTO members' obligations with respect to the protection of industrial designs are set out in Articles 25 and 26, which make up Section 4 of Part II of the TRIPS Agreement. Under these provisions, at least ten years of protection must be available for industrial designs, during which owners of protected designs must be able to prevent the manufacture, sale or importation for commercial purposes of articles bearing or embodying a design which is a copy, or essentially a copy, of the protected design. Members must also comply with the relevant provisions of the Paris Convention on industrial designs.

1 What is an industrial design?

The term 'industrial design' is not defined in the TRIPS Agreement, but is generally understood to refer to the ornamental or aesthetic aspect of an article rather than its technical features. Designs can consist of three-dimensional features, such as the shape of an article, or of two-dimensional features, such as patterns, lines or colours. Industrial designs are present in a wide variety of industrial products including medical instruments, watches, jewellery, electrical appliances and vehicles.

2 What subject matter is to be protected?

According to Article 25.1 of the TRIPS Agreement, industrial design protection must be available for designs that are:

- new or original; and
- independently created.

Members may provide that designs are not new or original if they do not significantly differ from known designs or combinations of known design features (Article 25.1). The additional requirement of independent creation allows members to provide for a cumulative application of novelty and originality, as is the case under certain members' laws. Members may provide that design protection shall not extend to designs dictated essentially by technical or functional considerations. This means that members can exclude from design protection features that are necessary for the technical functioning of the product.

Many products to which designs are applied are not themselves novel and are produced by a large number of manufacturers, such as belts, shoes or screws. If a design for one such article, for example, screws, is dictated purely by the function which the screw is intended to perform, it would not generally be eligible to be protected as an industrial design.

This provision leaves considerable scope for members to tailor their system for the protection of industrial designs more towards a copyright-type system (based on protection against copying of original works) or more towards a patent-type system (creating an exclusive right over technological innovation), or by combining the elements identified in the provision in different ways.

(a) General formalities for the protection of industrial designs

(i) Formalities TRIPS Section 4, on industrial designs, does not prescribe any formalities to be fulfilled before protection can be accorded to the right owner. However, Article 62.1 explicitly recognizes that members may require compliance with reasonable procedures and formalities. Members are therefore free to prescribe formalities in their laws and regulations, e.g. with respect to the filing of applications, the fees to be paid, the examination and publication of such applications and their eventual registration. Members that choose to prescribe such formalities must, however, respect the provisions of Article 62 which provide that any such procedures must permit a reasonably speedy grant or registration so as to avoid unwarranted curtailment of the period of protection.

(ii) Priority As with patents and trademarks, the right of priority deriving from Article 4 of the Paris Convention, as incorporated into the TRIPS Agreement by Article 2.1, applies equally to the area of industrial designs. As already mentioned, this means that on the basis of a regular application for an industrial design filed by a given applicant in one member, the same applicant (or the successor in title) enjoys a right of priority for applications for protection filed in the territory of any other member during the following six months. Within this six-month period, such later applications will be regarded as if they had been filed on the same day as the earliest application and

therefore benefit from priority status with respect to all applications relating to the same design filed after the date of the first application.

(b) Provisions regarding formalities for industrial designs
in the textile sector

Textile designs typically have a short product cycle, are numerous and are particularly liable to copying. They are therefore given special attention under Article 25.2 of the TRIPS Agreement. According to this provision, requirements for obtaining protection of textile designs, in particular as regards their cost, examination or publication, must not unreasonably impair the opportunity to seek and obtain such protection.

The provision recognizes three areas in particular where problems could arise, namely costs, examination and publication. High fee levels could deter applicants in the textile sector where numerous applications may be necessary to secure effective protection; this would especially present difficulties for small enterprises and firms in developing countries. Examination of applications should not unreasonably delay the granting of protection or curtail its duration in such a way as to render the protection ineffective. Finally, publication, which is generally considered one of the basic principles of registration systems could, in the case of textile designs, produce the adverse effect of facilitating the counterfeiting of the published design before the original articles can be put on the market.

The provision explicitly recognizes that members are free to meet this obligation through industrial design law or through copyright law, where protection is accorded without formalities (see Module II).

'Textile designs' could cover two-dimensional designs (e.g. the pattern on a tie or on a clothing material or embroidery) as well as three-dimensional designs (e.g. the model for a dress).

3 *What rights are to be conferred?*

According to Article 26.1 of the TRIPS Agreement, the owner of a protected industrial design must have the right to prevent third parties not having the owner's consent from making, selling or importing articles bearing or embodying a design which is a copy, or substantially a copy, of the protected design, when such acts are undertaken for commercial purposes.

It is important to note the difference between the protection for industrial designs and that for trademarks. While TRIPS requires that trademark owners must also be able to prevent the use of similar signs where their use may cause confusion among consumers, owners of industrial designs only have to be protected against the making, selling or importing of goods that carry or include a design that is a copy, or substantially a copy, of the protected design. In other words, the test for infringement

essentially concerns the act of copying, rather than deception or confusion of consumers.

Article 5B of the Paris Convention provides that the protection of industrial designs may not, under any circumstances, be subject to any measure of forfeiture as a sanction in cases of failure to work or where articles corresponding to those protected are imported. 'Forfeiture' in this provision includes equivalent measures, such as cancellation, invalidation or revocation. This means that a member cannot provide for the revocation or cancellation of design protection where a design is not produced in, or is only imported into its territory.

4 What exceptions are permissible?

According to Article 26.2, exceptions to the rights conferred on the owner of industrial designs are allowed if these:

- are limited;
- do not unreasonably conflict with the normal exploitation of protected industrial designs; and
- do not unreasonably prejudice the legitimate interests of the owner of the protected design, taking account of the legitimate interests of third parties.

This provision uses language similar to that found in Articles 13, 17 and 30 of the TRIPS Agreement. Article 26.2 itself has not been considered in a WTO dispute settlement ruling, and so there is no direct guidance as to how this provision would be interpreted. However, dispute settlement rulings have addressed each of these three similar provisions, considering these concepts in ways which may have a bearing on the interpretation of Article 26.2, even though disputes are decided independently based on the facts of each case, and the legal and policy context of exceptions to design rights is distinct from these other areas of IP law. See the explanations of Article 30 in Module V, of Article 13 in Module II and of Article 17 in Module III for more details. Some members' laws provide for exceptions such as private use, use for experimental or teaching purposes or prior use of a protected design.

5 What is the minimum term of protection?

According to Article 26.3, the duration of protection available shall amount to at least ten years.

The wording 'amount to' allows members to maintain systems where the term is divided into, for example, shorter successive periods of protection that can be renewed upon request of the right holder. As the TRIPS regime on industrial designs does not oblige members to require registration of designs, the provision is not specific on the starting point of the period of protection. This could therefore be the date of creation,

as is the case under copyright law, or the date of application or the date of grant under specific industrial design laws.

C Layout-designs (topographies) of integrated circuits

The provisions on the protection of layout-designs of integrated circuits are found in Articles 35 to 38, which make up Section 6 of Part II of the TRIPS Agreement. According to Article 35, members are required to protect the layout-designs ('topographies') of integrated circuits in accordance with provisions of the Treaty on Intellectual Property in Respect of Integrated Circuits ('IPIC Treaty' or 'Washington Treaty') and the additional provisions of Articles 36 to 38 of the TRIPS Agreement. The latter provisions relate to the term of protection, the treatment of innocent infringers, the application of the protection to articles containing infringing integrated circuits, and compulsory licensing.

The IPIC Treaty was negotiated under the auspices of WIPO and signed in Washington in 1989 but has never entered into force as an insufficient number of countries have ratified it. It is therefore only through their incorporation into the TRIPS Agreement that a number of provisions from the IPIC Treaty have become binding on WTO members.

1 *What is a layout-design (topography) of an integrated circuit?*

An integrated circuit (or 'chip') is an electronic device that incorporates individual electronic components within a single 'integrated' platform of semi-conductor material, typically silicon, configured so as to perform a complex electronic function. Typically, an integrated circuit comprises active elements such as electronic switches and gates (like transistors or diodes) and passive electronic components (such as resistors and capacitors). Broadly, integrated circuits are classified into microprocessors and memories. A microprocessor typically performs information-processing functions because it has logic circuits capable of electronically performing information processing. Memories enable storing and retrieval of data.

An integrated circuit is thus formed when a miniaturized electrical circuit is embodied within a chip. All the active and passive components are created in the semi-conductor wafer during the fabrication process itself and are therefore inseparable once the chip has been produced.

A layout-design, also known as an integrated circuit topography, is defined in Article 2(ii) of the IPIC Treaty, as incorporated into the TRIPS Agreement, as the three-dimensional disposition, however expressed, of the elements at least one of which is an active element, and of some or all of the interconnections of an integrated circuit, or such a three-dimensional disposition prepared for an integrated circuit intended for manufacture. In other words, a layout-design is the three-dimensional layout of an integrated circuit, i.e. the arrangement in a chip (usually made of semi-conductor crystal) of active and passive electronic components.

Such layout-designs do not fall easily under the pre-existing categories of IP law. They may be too functional for copyright or design protection but not inventive enough to merit patent protection. Thus the TRIPS Agreement contains rules specifically addressing their protection. However, these rules are flexible enough to allow countries to use more patent-like approaches with formalities or more copyright-like approaches without formalities as they see fit.

Article 4 of the IPIC Treaty, as incorporated in the TRIPS Agreement, offers flexibility in implementing this protection of layout-designs in national law. It explicitly mentions the possibility to achieve such protection through copyright, patent, utility model, industrial design or unfair competition law, or any other law or combinations thereof. Members, therefore, are free to create a separate law for layout-designs of integrated circuits, but can alternatively meet their obligation to protect layout-designs by providing for it in existing categories of IP or in other laws.

2 *What subject matter is to be protected?*

According to Article 3(2) of the IPIC Treaty, as incorporated into the TRIPS Agreement, protection extends to such layout-designs that are:

- original in the sense that they are the result of their creators' own intellectual effort; and
- not commonplace among creators of layout-designs and manufacturers of integrated circuits at the time of their creation.

While the originality requirement is similar to the concept of originality in copyright, the requirement of the layout-design not being commonplace is closer to the more objective test of novelty in industrial property law. It is explicitly recognized in Article 3(2)(b) of the IPIC Treaty that a layout-design using elements that are commonplace can still meet these criteria if the combination of these elements is original and not commonplace.

Neither the TRIPS Agreement nor the incorporated provisions of the IPIC Treaty stipulate formality requirements for obtaining protection of a layout-design of integrated circuits. However, Article 7 of the IPIC Treaty explicitly states that members are free to require, as a condition of protection:

- that the layout-design has been ordinarily commercially exploited somewhere in the world (Article 7(1));
- an application for registration of the layout-design with the competent public authority, including the disclosure of information on its electronic function. Registration may be required within a certain time period from the date of the first commercial exploitation, and may involve paying a fee (Article 7(2)).

Members are therefore free to prescribe such formalities, or not, in their law. However, members that choose to prescribe such formalities must respect the provisions of Article 62 of the TRIPS Agreement, which provide that any such procedures must permit a reasonably speedy grant or registration so as to avoid unwarranted curtailment of the period of protection.

3 *What are the rights to be conferred?*

According to Article 36 of the TRIPS Agreement and Article 6(1)(a) of the IPIC Treaty, members are to consider unlawful:

- the reproduction; and
- the importation, sale or other distribution for commercial purposes

of a protected layout-design, if it was not authorized by the right holder. These prohibitions also extend to integrated circuits incorporating such a design, and to articles that contain such integrated circuits.

This means that the owner of the layout-design has the exclusive right to authorize the reproduction and the commercial distribution of the protected layout-design itself, as well as of products incorporating such a design (e.g. mobile phones or other consumer electronics).

4 *What limitations and exceptions are permissible?*

The TRIPS Agreement and the IPIC Treaty provide for a number of limitations to the owner's exclusive rights.

(a) *Reproduction for private or research purposes*

Article 6(2)(a) of the IPIC Treaty, as incorporated in the TRIPS Agreement, provides that it shall not be considered unlawful if a third party, without the authorization of the right holder, engages in the reproduction of a protected layout-design:

- for private purposes; or
- for the sole purpose of evaluation, analysis, research or teaching.

This means that private (i.e. non-commercial) reproduction and reproduction for the purposes indicated above cannot be prevented by the right holder.

(b) *Parallel creation*

Article 6(2)(c) of the IPIC Treaty, as incorporated in the TRIPS Agreement, provides that the right owner of a protected layout-design may not exercise his rights in respect of an identical layout-design that was independently created by a third party.

(c) *Innocent infringement*

The rights of the owner of a protected layout-design are also limited with regard to so-called 'innocent infringement'. According to Article 37.1 of the TRIPS Agreement, it shall not be considered unlawful to import, sell or otherwise commercially distribute an integrated circuit incorporating an unlawfully reproduced layout-design (or a product incorporating such a chip), where the person performing or ordering such acts did not know, or had no reasonable grounds to know, that that such was the case at the time of acquiring the integrated circuit or product. This means that the commercial distribution of an unlawfully copied layout-design (either in a chip or a product incorporating such a chip) cannot be prevented, if the person was legitimately unaware that the chip was unlawfully reproduced.

Even after such an 'innocent infringer' has been sufficiently notified of the offending chip, he must be allowed to continue distributing his existing or pre-ordered stock of such chips or products in return for compensation to the right holder equivalent to a reasonable commercial royalty rate. So even after the innocent infringer has learned about the infringing chip in the products he is distributing for commercial purposes, he must be allowed to sell off the remaining stock of the product or chip in question, as long as he pays royalties at the going commercial rate to the right owner. It is worth noting, however, that this privilege of the 'innocent infringer' exists only with respect to acts of commercial distribution of unlawfully reproduced layout-designs, and not with respect to the act of reproduction itself.

(d) Exhaustion

The issue of exhaustion and the fact that members are not obliged to adopt a particular exhaustion regime under the TRIPS Agreement has already been discussed in Module I. Article 6(5) of the IPIC Treaty, as incorporated in the TRIPS Agreement, specifically states that members may provide for the exhaustion of distribution rights with regard to layout-designs of integrated circuits that have been put on the market by, or with the consent of, the holder of the right.

(e) Compulsory licensing

With regard to compulsory licensing regarding layout-designs of integrated circuits, Article 37.2 of the TRIPS Agreement provides that the same conditions apply as in the patent area under Article 31(a) to (k) of the TRIPS Agreement. For more details on Article 31, see Module V. While the TRIPS Agreement does not specify the grounds on which compulsory licences can be granted by members, Article 31(c) of the TRIPS Agreement stipulates that, in the case of semi-conductor technology, compulsory licences may only be granted for non-commercial use or to remedy a practice that has been determined to be anti-competitive.

5 *What is the minimum term of protection?*

According to Article 38 of the TRIPS Agreement protection is to last for a minimum of ten years counted from either the date of filing an application for registration or from

the first commercial exploitation wherever it occurs in the world. As the TRIPS regime on the protection of layout-designs contains no obligation for members to require registration or commercial exploitation as a condition for protection, Article 38 provides that either may serve as a starting point for the required ten-year period of protection. As a further possibility, Article 38.3 suggests that members may provide for protection of a layout-design to lapse fifteen years after the creation of the layout-design.