The Economic Contribution of Copyright-Based Industries in the Netherlands

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SEO Economic Research carries out independent applied economic research on behalf of the Government and the private sector. SEO's research makes an important contribution to the decision-making processes of its clients. SEO Economic Research works in conjunction with the Universiteit van Amsterdam, which provides the organization with invaluable insight into the newest scientific methods. Operating on a not-for-profit basis, SEO invests in the intellectual capital of its staff by encouraging active career planning, publication of scientific work and participation in scientific networks and international conferences.

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Summary

This report quantifies the economic contribution of the copyright-based industries in the Netherlands. It provides insight into the extent to which economic activities are grounded in copyright-protected products, including goods and services protected by the law on copyright and related rights. The report updates a series of comparable studies which have been conducted approximately every four years since 1986. The present study makes use of data from 2005 and is the first to be conducted in accordance with the guidelines of the World Intellectual Property Organization (WIPO). The WIPO Guide is a recently developed methodology to determine the economic contribution of the copyright-based industries and aims to make national studies in this area as internationally comparable as possible.

The WIPO Guide provides guidelines on how to measure added value, employment and the position in the balance of trade of the copyright-based industries. In 2005 the added value of the Dutch copyright-based industries was 30.5 billion euros, equal to 5.9 per cent of Gross Domestic Product (GDP). Employment in the Dutch copyright-based industries totaled 567,214 full-time equivalents (FTEs), equal to 8.8 per cent of total employment in the Netherlands. The balance of trade surplus in these industries was 2.4 billion euros, equal to 6.9 per cent of the total for the Netherlands.

The Guide identifies the copyright-based industries in core sectors, partial industries, interdependent industries and non-dedicated industries. The most important sub-sectors in the core industries are software and databases and press and literature, followed by advertising. The other sub-sectors are music, theatrical productions and opera, motion pictures and video, radio and television, photography, visual and graphic arts and copyright organizations. Software and databases represents 8.1 billion euros added value and 142,000 FTEs. Press and literature has an added value of 6.9 billion euros and 129,000 FTEs. Advertising has an added value of 1.8 billion euros and 49,000 FTEs.

This is the first study to distinguish between core industries — where copyright plays a primary role — and partial, interdependent and non-dedicated industries. Partial industries are those in which only a portion of their products are copyright-protected (e.g. furniture, jewelry). Interdependent industries create products that facilitate copyright-protected products (e.g. television and paper). The non-dedicated industries play a facilitating role in broadcasting and distribution (e.g. telecommunications, transport). These industries are included only partially because not all their economic activities can be attributed to copyright-protected products. The core industries comprise approximately two-thirds of the total and the other industries account for the remaining one-third.

The economic contribution of the copyright-based industries has now been measured in 17 countries in accordance with the WIPO Guide, including both developed and developing countries. On average the copyright-based industries comprise 5.4 per cent of GDP and 5.8 per cent of total employment. The Dutch score above average on both aspects; in terms of added value the Netherlands comes in fifth, relative to the other 16 countries, and in terms of employment it takes third place.

Because this study is the first to follow the WIPO Guide, quantative comparison with previous research is possible only to a certain extent. The SEO study conducted in 2000 (using data from 1998) mainly investigated the core industries. Between 1998 and 2005, these core industries grew annually by 4.4 per cent on average while employment grew by 7.4 per cent. The SEO study from 2003 and research based on the *Brief Cultuur en Economie* (White Paper Culture and Economy) are quantitatively incomparable because they study different subjects; the multimedia and creative sectors respectively.

Introduction

Background

The economic characteristics of copyright are gaining increased attention, both nationally and internationally. There is growing insight into the fact that copyright plays a substantial role in the economy in terms of the production, distribution and consumption of copyright-protected products. These products are goods and services protected by copyright or related rights law. The expanding potential of electronic distribution has only further broadened the scope of copyright. The present study aims to quantify the contribution of the copyright-based industries in the Netherlands; that is, we provide insight into the extent to which economic activities are grounded in copyright-protected products. This survey of the economic contribution of the copyright-based industries enhances the likelihood of focusing more attention on the provision of adequate copyright protection.

The Netherlands has a long tradition of quantifying the economic contribution of the copyright-based industries; the first Dutch study on this subject appeared in 1986, commissioned by *Stichting Auteursrechtbelangen* (the Foundation for Copyright Interests), with the involvement of the Ministry of Economic Affairs, since then, the research has been repeated about every four years. The last SEO report dates from 2003, using data from 2000; it was the first to be commissioned by the Ministry of Economic Affairs. However, this particular study focused differently from the previous studies, namely on the multimedia cluster. It consisted of a brief quantitative analysis and case studies that described the market structure and innovativeness of the cluster.

The present study is an update in a series of previous studies on the copyright-based industries and provides insight into the current situation and developments over time using data from 2005. The challenge has been to conduct the study in accordance with the WIPO Guide.

In 2003, WIPO developed a methodology to determine the economic contribution of the copyright-based industries,[1] a main goal of the Guide being to make national studies in this area as internationally comparable as possible. The present research is the first Dutch study to follow the WIPO Guide and at present 16 other countries have carried out similar research on the economic contribution of the copyright-based industries in accordance with the Guide, including the United States, Canada, Hungary, and Singapore.

Following the WIPO Guide has meant that this study is not easily comparable with those of previous years. As the 2003 study was focused differently (on the multimedia cluster), this rules out the possibility of making a quantitative comparison with this particular study; this also holds for the research conducted in the *Brief Cultuur en Economie* (White Paper on Culture and Economy) that focused on the cultural and creative sector as its main objective.[2] However, with a few minor adaptations, the study from 2000 is comparable with several portions of the current research, thus enabling an analysis of the development of copyright-based industries over time.

[1] A first meeting to update the Guide took place in Singapore in October 2008.
[2] Based on a report by Marlet, G. and Poort, J., 2005: *Omvang en belang van de creatieve productie in Nederland* (Scope and Value of Creative Productions in the Netherlands), in: *Cultuur en creativiteit naar waarde geschat* (Evaluating Culture and Creativity), *Atlas voor Gemeenten* (Guide for Municipal Authorities)/SEO Economic Research.

1.2 Research according to the WIPO Guide

A valid assessment of the economic contribution of copyright entails measuring the following three variables for each of the industries that are dependent on or influenced by copyright:

(1) added value; (2) employment; (3) position of trade balance.

Subsequently, the magnitude of the contribution by the copyright-based industries can be related to the total Dutch economy. More specifically, this concerns the added value of copyright-based industries as a percentage of Gross Domestic Product and employment in the copyright-based industries as a percentage of total Dutch employment. The trade balance position indicates whether more copyright-protected goods are imported than exported. This required data on both exports and imports, the position of the trade balance being the actual difference between the two.

The WIPO Guide recommends taking the following four steps:

1. identification and classification of industries;
2. data collection;
3. data analysis;
4. analysis and presentation of results.

Identification and Classification of Industries

The first step was to determine which industries formed part of the copyright-based industries, and details can be found in the Guide; i.e. with reference to the codes assigned by the International Standard Industrial Classification (ISIC) it identifies the industries belonging to the copyright-based sector.

The WIPO Guide sets out four categories of industries:

• *core copyright industries:* industries wholly engaged in the creation, production and manufacturing, performance, broadcasting, communication and exhibition of copyright-protected products (e.g. music and movies);

• *partial copyright industries:* industries in which certain activities are related to the creation, production, manufacturing, performance, broadcast, communication and exhibition of copyright-protected products.(e.g. jewelry and furniture);

• *interdependent copyright industries:* industries engaged in production, manufacturing and sales of equipment and utilities that facilitate the creation, production, manufacturing, performance, broadcast, communication
and exhibition of copyright-protected products (e.g. television and paper);

• *non-dedicated copyright industries:* industries in which certain activities are related to facilitating the broadcast, communication, distribution or sales of copyright-protected products which do not belong to the core industries (e.g. telecommunications and transport).

The WIPO Guide indicates which industries come under the various sector headings. Previous Dutch studies included the interdependent and partial industries but to only a limited extent.

Data Collection

In the Netherlands we have access to very good official statistics and we have based our research on these.

For added value, we used the production statistics gathered by the Central Dutch Institute of Statistics (CBS). Their statistics on the added value of companies are based on survey material and broken down into industry levels. For employment we used the data on jobs and self-employed occupations derived from the Social Statistics File (SSB) made available by the CBS. Data for the SSB were collected by the tax authorities and local governmental administration and cover the entire Dutch population. For the balance of trade figures, we used external trade data from Eurostat, which contain information on import and export values of more than 7,000 product categories. (For an explanation of the data sources and certain necessary data operations, see Appendix A.)

The most recent production statistics available were from 2005 and given the necessity of these data for the research, we chose to use the statistics for the entire study (even if other more recent data were available). The Guide considers a time-lag of two to three years to be fairly reasonable.

Data Analysis and Presentation

Data analysis deals with the following challenges:

Ascribing percentages to industries in the partial, interdependent and non-dedicated sectors

Industries that form part of the core sector may be considered as belonging fully to the copyright-based industries. For the partial, interdependent and non-dedicated industries, however, not all of their activities are either copyright protected or should be considered as part of the copyright-related economy. Therefore, the various industries were accorded a percentage (between 0 and 100 per cent). The determination of these percentages, also known as copyright factors, is described in the Appendices.

Breakdown of Core Industries into Sub-Sectors

The core industries can be broken down into eight sub-sectors (press and literature, motion pictures and video, software and databases, etc.), the WIPO Guide indicating which ISIC code should be ascribed to which sub-sector. However, a complication arose because the WIPO Guide does not ascribe all codes only to one sub-sector. For example, ISIC code 2222 (service activities related to printing) was ascribed to press and literature and photography. Consequently, we have had to decide how such industries should be distributed among the different sub-sectors and an explanation of the procedure we followed is set out in the Appendices.

This report presents the results of the analysis based on the collected data and compares them with the results of previous national and international studies. Our findings have been summarized in illustrative tables and figures to provide a clear overview.

1.3 Report Structure

The report is structured as follows: Chapter 2 presents the most important findings on the economic magnitude of copyright in terms of value added, employment and balance of trade. We analyzed the core, partial, interdependent and non-dedicated industries and broke the core industries down into sub-sectors. In Chapter 3 we compare our results with findings in other countries and with Dutch studies from previous years. The Appendices present an overview of the methodology as we have opted to keep methodological discussion to a minimum in the main text.

2. Economic Contribution of the Copyright-Based Industries in 2005

This Chapter presents and discusses the research findings. Section 2.1 provides an overview of the results. The core industries were fully included in our calculations and the partial, interdependent and non-dedicated industries were included insofar as their economic activities could be attributed to copyright-protected products. Explanation of the accounted fraction is contained in the Appendices.

Sections 2.2 and 2.3 investigate certain issues in more detail; in Section 2.2 the core industries have been broken down into sub-sectors and Section 2.3 discusses the partial, interdependent and non-dedicated industries in detail.

2.1 Overview

2.1.1 Value Added

In 2005 the value added of the copyright-based industries was 30.5 billion euros (Table 2.1[3]). This is equal to 5.9 per cent of GDP, which in 2005 was 513,407 million euros.

The core industries together had a total value added of 20.6 billion euros; the other industries 9.9 billion euros. The former comprised the largest part of the copyright-based economy (approximately two thirds), the partial, interdependent and non-dedicated industries approximately one third. The core industries also comprised 4.0 per cent of GDP.

Table 2.1 The Added Value of the Copyright-Based Industries

	Added value (in 1,000 euros)	Added value (% of GDP)
Core industries	20,605,451	4.0
Partial industries	1,929,665	0.4
Interdependent industries	4,634,920	0.9
Non-dedicated industries	3,329,507	0.6
Total	30,499,542	5.9

2.1.2 Employment

In 2005 employment in the copyright-based industries was 567,214 FTEs (see Table 2.23), equivalent to 8.8 per cent of total employment in the Netherlands, which in 2005 was 6,478,000 FTEs. Both employees and the self-employed have been included in these calculations; the same being true for part-time workers.

Employment in the core industries was 398,828 FTEs; in the other industries 168,386 FTEs. The former also comprised the greater part of the copyright-based economy in terms of employment (approximately 70 per cent), the partial, interdependent and non-dedicated industries making up about 30 per cent. Employment in the core industries was equal to 6.2 per cent of the total employment in the Netherlands.

[3] When calculating totals a large number of digits has been included; because of this the total number can deviate from the sum of the numbers shown in the Table.

Country comparison (latest available years)

	Number of employed (in FTEs)	Number of employed as % of total employment
Core industries	398,828	6.2
Partial industries	37,000	0.6
Interdependent industries	69,746	1.1
Non-dedicated industries	61,640	1.0
Total	567,214	8.8

Source: Own calculation by SEO Economic Research, based on data on Jobs and Self-Employed in 2005 made available by CBS and held in the Social Statistics File (SSB).

2.1.3 Foreign Trade

In 2005, the balance of trade surplus for the copyright-based industries was 2.4 billion euros (see Table 2.3). This was equivalent to 6.9 per cent of the total trade surplus in the Netherlands.

Imports and exports were measured on the basis of products rather than industries. As articles progress from raw material to final product, they go through the entire production chain. The role of distribution channels such as transport, wholesale and retailing is unknown and irretrievable when registering final products. Therefore, the trade balance cannot accurately be broken down and the non-dedicated industries are not included.

If we look at products closely related to the core industries, it appears that the following achieved a significantly high surplus on the balance of trade:

- recorded CDs and DVDs, surplus of 504 million euros;
- advertising material, surplus of 130 million euros.

The balance of trade deficit was relatively high for:

- console games, with a deficit of 609 million euros.

A major part of the surplus was created in the interdependent industries, particularly the petrochemical industry (see Table 2.3). This industry supplies input for the production of audio players, household appliances, copiers, etc. Paper and pulp products also sustained a deficit.

Table 2.3 Balance of Trade for Copyright-Based Products (in 1,000 euros)

	Surplus balance of trade (in 1,000 euros)	As percentage of total surplus (%)
Core industries	1,210	3.5
Interdependent and partial industries	1,145	3.4
Total	2,355	6.9

2.2 Core Copyright Industries broken down into Sub-Sectors

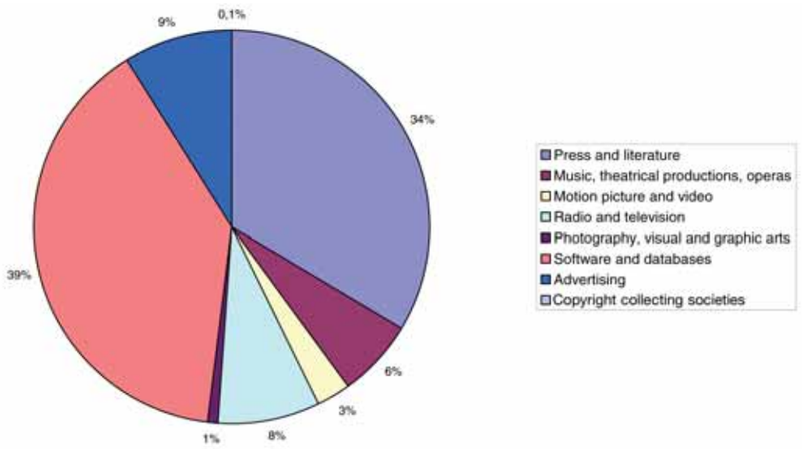
2.2.1 Overview

The core industries can be broken down into the following eight sub-sectors:

- press and literature
- music, theatrical productions, opera
- motion pictures and video
- radio and television
- photography, visual and graphic arts
- software and databases
- advertising
- copyright collecting societies

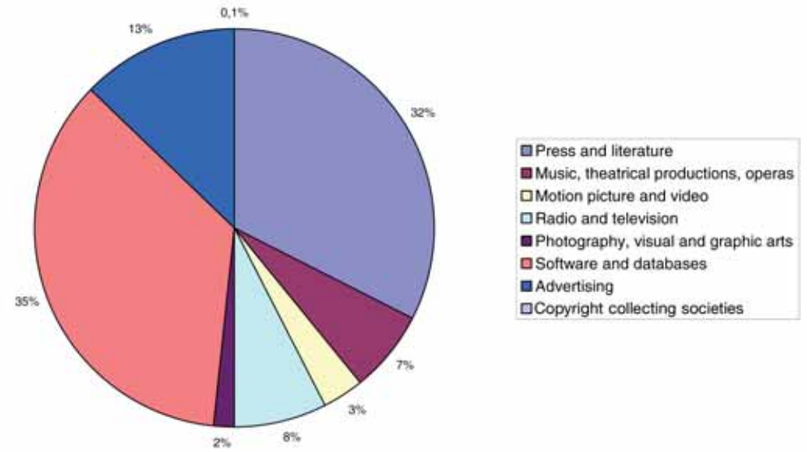
The pie charts below break down the total value added (Figure 2.1) and employment (Figure 2.2) of the core sectors into the various sub-sectors. The software and databases sub-sector realized the highest value added (39 per cent of the core sector) and employment (35 per cent). The value added in the latter has mainly been realized by development and production of tailor-made software and by software consultancy. In second place, in terms of both value added (34 per cent) and employment (32 per cent), was press and literature. These two sub-sectors were followed by advertising, for which the value added was nine per cent and employment which represented 13 per cent of the core industries. Radio and television, music, theatrical productions and opera, motion pictures and video, and photography, visual and graphic arts followed.

Figure 2.1 Breakdown of thex Value Added of Core Sectors into Sub-Sectors



Source: Own calculation SEO Economic Research based on data made available by CBS, consisting of production statistics for 2005.

Figure 2.2 Breakdown of Employment in Core Sectors into Sub-Sectors



Source: Own calculation SEO Economic Research based on data made available by CBS, consisting of data relating to employees and self-employed workers for 2005 from the Social Statistics File (SSB).

2.2.2 Press and Literature

This sub-sector consists of writing, translation, publishing, distribution (also via libraries) and sales of:

- books, puzzle books, brochures, leaflets, etc.;
- dictionaries and encyclopedias;
- cards and maps;
- newspapers and magazines.

In 2005, the sub-sector had a value added of 6.9 billion euros, which is equal to 1.4 per cent of GDP. Employment consisted of 129,000 FTEs, equal to 2.0 per cent of the total employment. Press and literature comprised 34 per cent of the value added and 32 per cent of the employment in the core industries. In economic terms it was the second most important sub-sector within the core industries, after software and databases.

2.2.3 Music, Theatrical Productions, Opera

This sub-sector consists of industries involved in:

- the creation, production and performance of music, theatrical productions and opera as well as the facilitation thereof (such as musical instruments, theater requisites, booking agencies, ticket offices);
- recording, production, distribution and sales of recorded music;
- printing and publishing of music.

In 2005, the sub-sector had a value added of 1.3 billion euros, equivalent to 0.3 per cent of GDP. Employment consisted of 27,000 FTEs, equivalent to 0.4 per cent of the total. Music, theatrical productions and opera comprised six per cent of the added value and seven per cent of employment in the core industries.

2.2.4 Motion Pictures and Video

This sub-sector consists of industries involved in:

- the creation, production, distribution and screening of movies (taking account of the complete production chain from scenario writers to screening);
- video rentals and sales (including video-on-demand);
- allied services (such as translation and dubbing).

In 2005, this sub-sector had a value added of 567 million euros, equivalent to 0.1 per cent of GDP. Employment consisted of 13,000 FTEs, equivalent to 0.2 per cent of the total. Motion pictures and video comprised three per cent of the value added and three per cent of employment in the core industries.

2.2.5 Radio and Television

This sub-sector consists of:

- national public and commercial broadcasting companies;
- independent radio and television producers;
- cable and satellite television (systems and channels) companies.

In 2005, the sub-sector had a value added of 1.7 billion euros, equivalent to 0.3 per cent of GDP. Employment consisted of 30,000 FTEs, equivalent to 0.5 per cent of the total. Radio and television comprised eight per cent of the value added and eight per cent of employment in the core industries.

2.2.6 Photography, Visual and Graphic Arts

This sub-sector consists of:

- commercial photography and studios;
- photo agencies and libraries;
- graphic design;
- creation, exhibition (mainly galleries), distribution and sales of the visual arts;
- picture framing and other allied services.

In 2005, the sub-sector had a value added of 169 million euros, equivalent to 0.03 per cent of GDP. Employment consisted of 6,000 FTEs, equivalent to 0.10 per cent of the total. Photography, visual and graphic arts comprised one per cent of the value added and two per cent of employment in the core industries.

2.2.7 Software and Databases

This sub-sector consists of:

- programming, development and design of software;
- manufacturing, wholesale and retail of pre-packaged software (business applications, video games, educational programs, etc.);
- database processing and publishing.

In 2005, the sub-sector produced a value added of 8.1 billion euros, equivalent to 1.57 per cent of GDP. Employment consisted of 142,000 FTEs, equivalent to 2.20 per cent of the total. Software and databases comprised 39 per cent of the value added and 35 per cent of employment in the core industries. This means that within the core industries, this is by far the most important sub-sector for the Dutch economy.

2.2.8 Advertising

This sub-sector consists of:

- advertising agencies;
- buying and selling advertising services.

In 2005, the sub-sector produced a value added of 1.8 billion euros, equivalent to 0.35 per cent of GDP. Employment consisted of 49,000 FTEs, equal to 0.77 per cent of the total. Advertising comprised nine per cent of the value added and 13 per cent of employment in the core industries.

2.2.9 Copyright Collecting Societies

This sub-sector covers copyright collecting societies that accumulate and distribute copyright-related payments and trade organizations closely related to copyright. For the collective management societies, it should be emphasized that the relevant measure was their total value added in terms of salaries and not turnover (not the total of payments collected). The copyright organizations had an value added of 27 million euros in 2005, equivalent to 0.01 per cent of GDP. Employment consisted of 476 FTEs, equivalent to 0.01 per cent of total employment.4 These organizations comprised 0.1 per cent of the value added and 0.1 per cent of employment in the core industries.

2.3 Partial, Interdependent and Non-Dedicated Copyright Industries

2.3.1 Copyright Factors

For the core industries we assumed that all their economic activities were related to copyright-protected products. However, for the partial, interdependent and non-dedicated industries this was not the case. Therefore only a fraction of the value added, employment and balance of trade in these industries could be ascribed to the copyright-based economy. This was achieved by attributing to each industry a copyright factor: for example, a copyright factor of 25 per cent meant that one quarter of the industry was considered a part of the copyright-based economy.

To determine the copyright factors, we based ourselves primarily on those used by other countries, mainly Singapore and Hungary (and indirectly the US). The Appendices provide a fuller explanation.

2.3.2 Partial Copyright Industries

Partial industries are those in which some of the activities relate to the creation, production, manufacturing, performance, broadcast, communication and exhibition of copyright-protected products. In practice this means that only some of the products made and sold by these industries are protected by copyright. The following groups in this sub-sector are:

- apparel, textiles, and footwear;
- jewelry and coins;
- other crafts;
- furniture;
- household goods, china and glass;
- wall coverings and carpets;
- toys and games;

[4] For determining employment we used data provided by the *Stichting Auteursrechtbelangen*, the Foundation for Copyright Interests, covering employment in the member organizations of the Foundation.

- architecture, engineering, surveying;
- museums.

The copyright factors for the various industries ranged from one to 50 per cent; on average a partial industry was taken into account with a copyright factor of 10.9 per cent. Using this measurement, we arrived at a value added of 1.9 billion euros for these industries (see Table 2.1). A major segment (26 per cent) consisted of architecture, engineering and surveying. Employment accounted for 37,000 FTEs (see Table 2.2), of which 9,000 FTEs could be ascribed to architecture, engineering and surveying.

2.3.3 Interdependent Copyright Industries

Interdependent industries are those engaged in the production, manufacturing or sale of equipment and utilities that facilitate the creation, production and manufacturing, performance, broadcasting, communication or exhibition of copyright-protected products. They include, inter alia: television sets, CD and DVD players, computers, musical instruments, paper, photographic instruments and blank recording material.

These industries do not produce copyright-protected products themselves, but without copyright-protected products they would not produce anything or substantially less; therefore they have been partially considered. The copyright factors ranged from 19 per cent to 35 per cent; on average a copyright factor of 24 per cent was taken into account in an interdependent industry.

These industries contributed 4.6 billion euros to the copyright-based economy (see Table 2.1). A major part (48 per cent) came from the manufacture of video and audio recorders and receivers and computers; wholesale of computers, computer peripheral equipment and software and wholesale in other machines, equipment and supplies. Employment related to copyright consisted of 69,746 FTEs (Table 2.2).

2.32 Non-Dedicated Copyright Industries

Non-dedicated industries are those in which some of the activities are related to facilitating the broadcast, communication, distribution and sales of copyright-protected products which do not belong to the core industries. These include telecommunications and Internet, general wholesale and retailing and also industries not dedicated to specific trade sectors but which facilitate numerous sectors. The non-dedicated industries have been included with a copyright factor of six per cent.

These industries contributed 3.3 billion euros to the copyright-based economy (see Table 2.1); their employment figure amounted to 61,640 FTEs (Table 2.2).

3 Comparison with Previous Research

In Section 3.1 we compare the present study with studies from other countries also carried out in accordance with the WIPO Guide and in Section 3.2 we discuss earlier Dutch studies, including them in a quantitative comparative analysis as far as possible.

3.1 International Comparison

This section compares the findings of our research after consideration of studies in 16 other countries, which were conducted in accordance with the WIPO Guide. We therefore assumed them to be comparable with our study.

The Table below shows that the available studies were not only carried out in developed countries, but in a number of developing countries such as Mexico, Peru and the Philippines. A major difference from studies in the developed world is that most developing countries have access to a limited number of official statistics and make use of their own surveys and proxies.

The only studies from the European Union (EU) came from Bulgaria, Hungary, Latvia and Romania. Other EU countries (such as Belgium) are currently undertaking a national survey while several others have conducted surveys in the past, such as Finland, Norway, Spain and the United Kingdom.

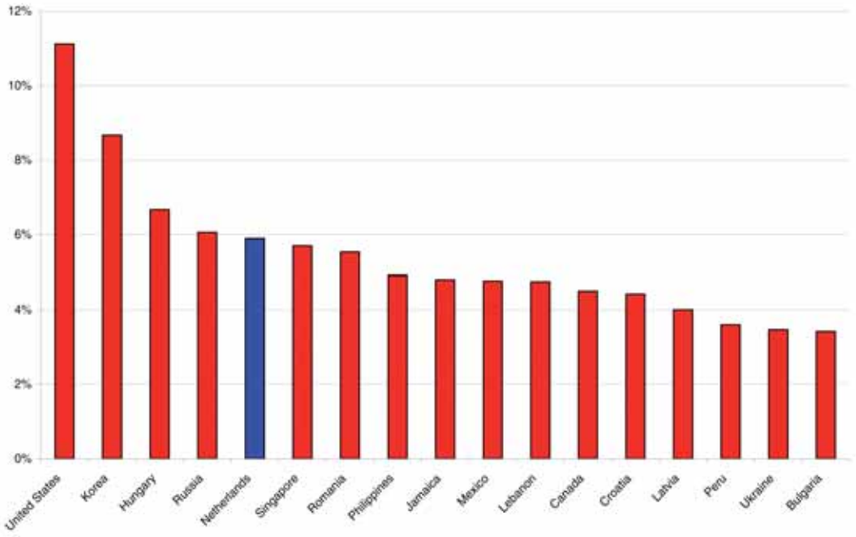
Table 3.1 An International Comparison of Copyright-Based Economies

Country	Value added as % of GDP	Employment as % of total employment
Bulgaria	3.4	4.3
Canada	4.5	5.6
Croatia	4.4	4.7
Hungary	6.7	7.1
Jamaica	4.8	3.0
Latvia	4.0	4.5
Lebanon	4.8	4.5
Mexico	4.8	11.0
Netherlands	**5.9**	**8.8**
Peru	3.6	2.5
Philippines	4.9	11.1
Republic of Korea	8.7	4.3
Russia	6.1	7.3
Romania	5.5	4.2
Singapore	5.7	5.8
Ukraine	3.5	1.9
United States of America	11.1	8.5

Source: WIPO, SEO Economic Research (only concerns studies conducted in accordance with the WIPO Guide).

Table 3.1 compares the economic contribution of the copyright-based industries in various countries. Figures 3.1 and 3.2 show the position held by the Netherlands. On average, copyright-based industries comprised 5.4 per cent of GDP, therefore, with 5.9 per cent, the Netherlands scored above average, coming in fifth in the group of 17 countries; only the United States of America and the Republic of Korea, with scores above eight per cent, realized substantially higher percentages. Remarkably, there were no systematic differences between developed and developing countries; for example, Canada scored lower than average, but its neighbor the United States of America scored highly. Hungary also scored well,

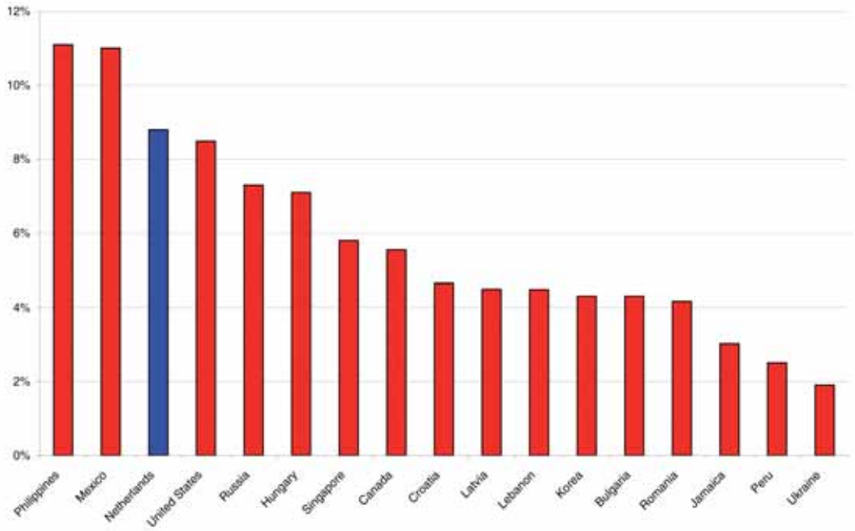
Figure 3.1 The Value Added of Copyright-Based Industries as a Percentage of GDP



Source: WIPO, SEO Economic Research.

whereas Croatia and Bulgaria did not.
In terms of employment, the copyright-based industries comprised on average 5.8 per cent, and with 8.8 per cent, the Netherlands scored above average, taking third place in the group of 17 countries; only the Philippines and Mexico reported higher percentages (both above 10 per cent). The fact that the Netherlands showed a higher percentage of employment than value added implied that the productivity of copyright-based industries was lower than the Dutch average. The same was true for 10 out of the 17 countries; for the remaining seven, productivity of the copyright-based industries was higher than the national average; again no systematic differences appeared between developed and developing countries.

Figure 3.2 Employment in Copyright-Based Industries as Percentage of Total by Country



Source: WIPO, SEO Economic Research.

3.2 Comparison with Previous Dutch Studies

This section compares the present study with the SEO studies of 2000 and 2003, as well as with the study presented in the Brief Cultuur en Economie (White Paper on Culture and Economy). Since these studies differ in their choice of subject, the comparison was not without problems (see Table 3.2). We will discuss this in more detail in the following sub-sections, which will show that a quantitative comparison was only possible with the SEO study of 2000.

Table 3.2 Comparison with Previous Studies

Study	Subject	Value added as % of GDP	Employment as % of total employment	Surplus trade balance
SEO 2000	Copyright (core industries)	5.5	5.5	€384 million
SEO 2003	Multimedia cluster	6.8	6.2	Not measured
Brief Cultuur en Economie	Cultural sector	Not measured	3.2	Not measured
SEO 2008	Copyright (WIPO definition)	5.9	8.8	€2,355 million

It should be noted that making direct comparisons will no longer be an issue if future studies are also conducted in accordance with the methodology set out in the WIPO Guide.

3.2.1 SEO Study 2000

In 2000 SEO Economic Research conducted a study on the economic contribution of copyright-based industries for the Stichting Auteursrechtbelangen (the Foundation for Copyright Interests), using data from 1998: the study made no distinction between core and non-core industries. Some partial industries, such as architecture, surveying and scientific research were taken into account in part or entirely, implicitly or explicitly. The researchers found that the added value of the Dutch copyright-based industries was 17,385 million euros in 1998, equivalent to 5.5 per cent of GDP. Employment consisted of 338,481 FTEs, equivalent to 5.5 per cent of the Dutch total.

The 2000 study took no partial, interdependent and non-dedicated industries into account but defined the core industries somewhat more broadly than did the WIPO Guide. Therefore, quantitative comparison was only feasible in the core industry sub-sectors (press and literature, motion pictures and video, etc.). Care was nevertheless required in carrying out a comparative analysis. First, CBS data for 1998 were not available for all industries, in which case the researchers relied on other data sources, such as trade organizations or copyright collection agencies (such as Buma/Stemra). Further, the definition of sub-sectors was also slightly different. For example, in the current study music, theatrical productions and opera also includes amusement parks, whereas this was not the case in 2000. For software and databases we opted to draw a comparison with the total Internet and multimedia.

Table 3.3 shows added value in 1998 and annual growth between 1998 and 2005 for each sub-sector. Advertising and software and databases showed strong growth, in both cases by more than 10 per cent a year, while motion pictures and video grew by just under 10 per cent a year. The other sub-sectors showed moderate growth; photography and visual and graphic arts shrank slightly but overall the economic contribution of the copyright-based industries grew by 4.4 per cent per annum.

Table 3.3 Developments in Added Value 1998-2005

Sub-sector	Value added in 1998 (in million euros)	Annual growth 1998-2005
Press and literature	6,053	+2.0
Photography, visual and graphic arts	160	+0.8
Music, theatrical productions, opera	788	+7.6
Motion pictures and video	302	+9.4
Radio and television	1,533	+1.4
Software and databases	3,689	+11.9
Advertising	818	+15.7
Copyright collecting societies	35	-3.5

Source: WIPO
Note: Canadian and Singaporean estimates are understated

Table 3.4 shows employment in 1998 and annual growth between 1998 and 2005 for each sub-sector: it also shows that advertising and software and databases have grown substantially. Employment in photography, visual and graphic arts decreased strongly (-3.9 per cent). The fact that added value did not decrease (+0.8 per cent) in this sub-sector implies an increase in productivity. Advertising showed a decrease in productivity. Overall, employment increased by 7.4 per cent per annum.

Table 3.4 Developments in Employment: 1998-2005

Sub-sector	Employment in 1998	Annual growth 1998-2005
Press and literature	102,763	+3.3
Photography, visual and graphic arts	18,016	-13.9
Music, theatrical productions, opera	21,922	+3.0
Motion pictures and video	7,325	+8.3
Radio and television	14,193	+11.5
Software and databases	65,125	+11.8
Advertising	11,919	+22.6
Copyright collecting societies	523	-1.3

The surplus on the balance of trade was 384 million euros for copyright-protected products in 1998. which is almost four times lower than the present surplus of the core industries (1,210 million euros). However, it is not clear whether the same measurement methodology has been used.

3.2.2 SEO Study 2003

The subject of the SEO study from 2003 was not copyright as such but the multimedia cluster, which consists of the following four activities:

1. multimedia-enabling activities: production of software, consumer electronics, design and business consultancy;
2. content distribution: distribution via different electronic infrastructures;
3. content provision: broadcasting, entertainment, publishing and related business such as audiovisual production and publishing;
4. e-marketing: advertising, direct marketing.

The study showed that the value added of the multimedia cluster was 25,105 million euros in 2000, equivalent to 6.8 per cent of the Dutch economy. Employment consisted of 338,481 FTEs, which equaled 6.2 per cent of the Dutch total.

Analysis of the methodologies used in 2003 and the present study make it clear that they cannot actually be compared. The most important differences were:

- telecommunications was included at 50 per cent in 2003; in the present study at approximately 10 per cent;
- more of the ICT sector was included in the multimedia study than in the current study, the reason being that many ICT activities are unrelated to copyright;
- retail of copyright-protected products was not included in 2003, but is included in the present study (such as bookstores, stores for electrical household appliances, goods, radios, televisions and telecommunications equipment);
- the partial industries were not included in 2003 except for architecture, engineering and surveying (100 per cent); the figure in the present study is nine per cent;
- most interdependent and non-dedicated industries were not included in 2003, but if they were, they invariably had a higher copyright factor than in the present study.

Telecommunications and ICT both made a large contribution, accounting for almost 30 per cent of the entire multimedia cluster in 2003, with a value added of approximately 7.5 billion euros (acknowledging that these industries were not included for 100 per cent). Also, architecture, engineering and surveying made a big contribution (in 2000 four billion euros added value or 16 per cent of the multimedia cluster); this sub-sector was not fully included in the present study, only accounting for nine per cent. Overall, it is not surprising that the 2003 study found a higher share for the multimedia cluster in Dutch value added and employment than is currently found for the copyright-based industries. But, as further quantitative comparison would be non-productive, we have limited ourselves to a comparison with the 2000 report.

3.2.3 White Paper on Culture and Economy

The study discussed in this White Paper[5] gave an overview of the employment, turnover and export of the Dutch cultural and creative sector in 2004. The business chain of creative industries consists of three stages:

- initial creation;
- material production;
- distribution and retail.

The study applied both a limited definition (creation) and a broad definition (creation, production, distribution). The White Paper estimated that the creative industries accounted for 150,000 jobs according to the limited definition and 240,000 jobs according to the broad definition (3.2 per cent of the Dutch total).

The broad definition coincided mostly with the core industries as defined by the Guide, an important exception being the sub-sector for databases and software, which was barely included (despite its importance). Further, architecture, apparel, interior design, jewelry, design of games and toys and technical design were included, although they are not core industries according to the Guide. Moreover, the research used another data source (LISA) that did not include part-time jobs and gave no information on part-time factors. On correcting for these differences, we observed that the findings were in the same order as in our current study.

Furthermore, the study discussed turnover and exports: exports from creative industries equaled 0.14 per cent of the total. Creative sector exports were still limited, but growing. There was little information available on turnover and added value. Creativity in the Netherlands is geographically concentrated in the northern part of the Dutch conurbation (Randstad), in the Gooi region and along the A2 motorway. The researchers estimated that every euro spent on production in the creative industries created 55 to 90 cents more production elsewhere in the economy. In stating this, they were underwriting the methodology followed by WIPO, thus leveling out the core industries with parts of the partial, interdependent and non-dedicated industries.

[5] The results are based mainly on a report by Marlet, G. and Poort, J., 2005: *Omvang en belang van de creatieve productie in Nederland* (Scope and Value of Creative Productions in the Netherlands), in: *Cultuur en creativiteit naar waarde geschat* (Evaluating the Value of Culture and Creativity), Atlas voor Gemeenten (Guide for Municipal Authorities)/SEO Economic Research.

List of Abbreviations

- GDP: Gross Domestic Product
- CBS: Central Dutch Institute of Statistics, Centraal Bureau voor de Statistiek
- CPC: Central Product Classification (used by the United Nations)
- HS: Harmonized System (used by the European Union)
- ISIC: International Standard Industrial Classification
- SBI: Standard Business Categorization, Standaard Bedrijfsindeling
- SSB: Social Statistics Data File, Sociaal Statistisch Bestand
- WIPO: World Intellectual Property Organization

Commission of Accompaniment

The Commission of Accompaniment consisted of:

Piet Donselaar – Ministry of Economic Affairs
Margreet Groenenboom – Ministry of Economic Affairs (client)
Nicole Hagemans – Ministry of Justice
Lex Levisson – Ministry of Economic Affairs
Roel van de Ven – Ministry of Education, Culture and Science
Willem Wanrooij – *Stichting Auteursrechtbelangen,* the Foundation for Copyright Issues

Appendix A Explanation of the Methodology

Data Sources and Industry Codes

Table A.1 summarizes the data available from each source and the following sub-sections discuss these data in more detail.

Table A.1 Available Data and Data Sources

Variable	Source	Comment
Value added	CBS Production statistics (2005)	Coverage complete, but the information over-aggregated in some industries; disaggregation was done on the basis of employment information.
Number of employed persons	CBS Employees file and CBS Self-employed file (2005) derived from the Social Statistics files (SSB) (2005)	Coverage complete; the data file contains information on both employees and the self-employed.
Position on trade balance	Eurostat: external trade dataset (2005)	Since imports and exports are registered on the basis of production codes, products must be ascribed to industries. To do this we used the corresponding United Nations' table.[6]

All data are available for 2005.

The WIPO Guide sets out which industries can be considered copyright-based industries and provides four-digit codes.[7] The Guide used ISIC codes, which deviate somewhat from the Dutch SBI codes and Appendix B provides an overview. In most cases the industry codes could be replaced by an individual digit (the code number is different but the content is the same), but sometimes SBI codes go further in disaggregation. One example is ISIC code 2230: reproduction of recorded media. In the SBI system this is broken down into three codes, namely: 2231: reproduction of sound recording; 2232: reproduction of video recording; 2233: reproduction of computer media. This degree of refinement is actually an advantage when determining the sub-sectors of core industries.

Available Data and Data Operations

Number of Employees

For employment, we used data files on jobs and on self-employed persons from the Social Statistics File (SSB) made available by CBS. This File obtains data from several sources, including the tax authorities and local government administration: It is not a sample but covers the entire population including both employees and the self-employed.

[6] *www.unstats.org.*

[7] The number of digits determined the degree of aggregation. For example, code 5 stands for trade and reparation of consumer products, code 52 for consumer retailing (not cars and motorcycles) and code 5247 for stores carrying books, magazines and school supplies. In reverse, adding codes 50-59 together formed code 5.

The industry in which every Dutch employee and self-employed person is active is documented, as well as the factor for every part-time job. By summing up the part-time factors we can calculate the full-time equivalents (FTEs) of employees per industry. For the self-employed we assumed the part-time factor to be 0.79, which is equivalent to the average part-time factor in the Netherlands (Source: CBS Statline). By adding the figures for employees and the self-employed we arrived at a total employment figure for FTEs.

Value Added

For the value added we used GDP against market prices. For most industries data on value added were available to the four-digit level, except for industry codes starting with a nine. Relevant to this research were codes 91 (employers, employees and trade organizations; religious and political organizations, other idealistic organizations, etc.) and 92 (culture, sports and recreation).

The question was which part of the aggregate in 91 and 92 should be ascribed to the copyright-based industries. Our answer was based on the ratio of employment as employment numbers were fully available. This served as a suitable proxy, given that it concerned labor intensive (and capital extensive) industries and meant that employment was a good approximation of economic contribution.

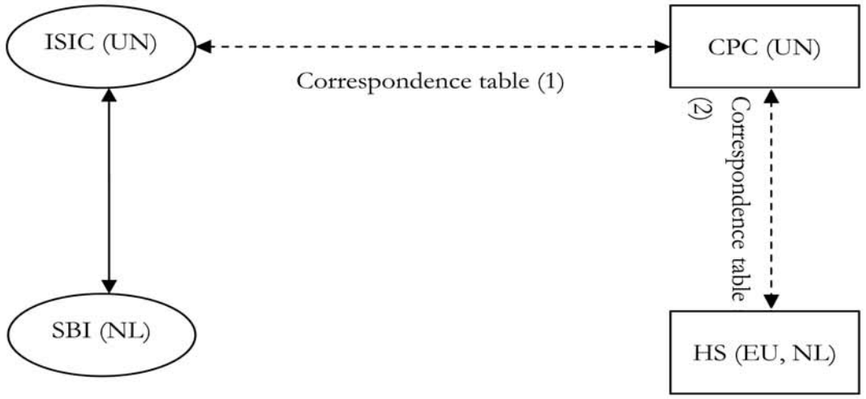
Balance of Trade

The aim was to calculate the position of every copyright-based industry. A problem arose in that international trade data are registered per product rather than at industry level.

The most detailed information for measuring the balance of trade came from Eurostat which collects import and export figures for European countries, although these data are gathered on product level, which means that they do not register the trading company (belonging to a certain industry), but only the product crossing the border. Since this report concentrates on industries rather than products, it was important to link the two and this we did with the help of a correspondence table (see the process on Figure A.1) that ascribes products to industries and was compiled by the UN. However, since the UN table utilizes its own product codings (CPC codes), it was necessary to use a second correspondence table to link the CPC codes to the harmonized system (HS) coding used in Europe. Fortunately the UN was able to provide the necessary table and we could therefore ascribe every product group listed in the Eurostat trade data to its corresponding industry.

However, when ascribing products to industries (i.e. in the correspondence tables) it was not possible to distinguish between, for example, a manufacturer and a wholesaler. If a wholesale company exported a chair, this was only registered as "chair" and not as "chair exported by a wholesale company". This chair must be ascribed to the wholesale industry, but because chairs cannot be distinguished from chairs exported directly by the manufacturer, a problem arose, and to deal with this we chose to ascribe products to the industries in which they are finished (in the case of the chair: furniture manufacture).

Figure A.1 Production and Sector Codes Relevant to Determining the Balance of Trade



Occasionally a product cannot be ascribed easily to one industry, in which case the product group (if the industry including this product formed part of a copyright-based industry) was ascribed partially to the copyright-based industries. We considered problem cases individually, taking care to avoid double-counting.

Breakdown of Core Copyright Industries

The core industries can be broken down into eight sub-sectors: press and literature; music, theatrical productions and opera; motion pictures and video; radio and television; photography, visual and graphic arts; software and databases; advertising and copyright collecting societies.

The Guide states which ISIC codes should be ascribed to each sub-sector but unfortunately it does not ascribe all ISIC codes uniquely to sub-sectors. For example, code 2222 (service activities relating to printing) has been ascribed to press and literature as well as photography. Appendix B lists which codes were not ascribed uniquely to sub-sectors. To break them down we proceeded as follows:

- first we calculated the values of sub-sectors based on the uniquely ascribed codes.
- second, we ascribed those codes with the assistance of SBI codes for information on content. For example ISIC code 2230 is divided into separate codes for music, video, and other.
- on the basis of the values, we found the remaining codes to be ascribed pro rata. For example, if the value of press and literature were five times higher than photography and design, the value of code 2222 would be attributed in a ratio of 5:1 to these sub-sectors.

Determination of Copyright Factors

Choice of Methodology

One challenge of the current study was to quantify the interdependent, partial and non-dedicated industries. It was a challenge because the core industries could not be fully ascribed to the copyright-based economy. In all available country studies the core industries conformed to the WIPO Guide. To determine the relevant size of the remaining three categories (the so-called non-core industries) two methods were available:

- leveling up the core industries by a given multiplier;
- attributing a copyright factor (between 0 and 100 per cent) to each sector code belonging to the relevant non-core industries.

At the moment there are four studies that follow the Guide available from developed countries, namely Canada, Hungary, Singapore and the United States of America (see Table A.2).[8]

Table A.2 Relevant Reports from Other Countries, Conducted According to the Guide

Countries	Year of publication	Year of data used	Organization conducting the study
United States of America	2006	2004 (2005, estimated)	Economists Incorporated
Canada	2006	2004	Connectus Consulting Inc.
Singapore	2004	2001	NUS Consulting
Hungary	2005	2002	Hungarian Patent Office

The first method (leveling-up) was used by Canada; total values for the core industries were increased by 35 per cent. Also, Watt (2004)[9] argued that leveling up was useful, but mainly as an initial step in the research process. The other studies used the second method. On the basis of these results we calculated which multiplication was actually used. Table A.3 shows that this figure was on average about 80 per cent: it seems that Canada chose a relatively low multiplication.

Table A.3 Ratio of Non-Core/Core Industries (Multiplication)

Countries	Non-core/core industries	
	GDP	Employment
United States of America	71%	110%
Canada	35%	35%
Singapore	97%	61%
Hungary	68%	71%
Average (incl. Canada)	**68%**	**69%**
Average (excl. Canada)	**79%**	**81%**

Determining the Copyright Factor by Industry

A good guideline when determining copyright factors is to consider existing studies from other countries and we therefore based our study on data and information from Singapore and Hungary. To determine its copyright factors Singapore conducted a survey among 104 companies; Hungary used the same copyright factors as the United States of America in 1990 and adapted them slightly to its national circumstances. It is unclear whether the United States of America still uses these copyright factors, because it does not make this information publicly available.

We decided to use the methodology from Singapore and Hungary. Conducting a national survey is time-consuming and getting a decent response rate difficult (in Singapore this was only four per cent), in part because it may be difficult for companies to determine which part of their industries are copyright protected. Singapore and Hungary did not differ much in their copyright factors for the partial and non-dedicated industries.

[8] There are also reports available from developing countries, but we considered these too different to use as a benchmark. Moreover, official statistics are scarce in these countries, making it difficult to compare the research methodology.
[9] Watt, R., (2004). A Comment: The Copyright Factors. *Review of Economic Research on Copyright Issues,* Vol. 1(1), pp.71–78.

Copyright factors were first used in the SEO study of 2003. However, they only offered limited guidelines for the current research, because they were mainly used for industries that according to the Guide should not be included; this is related to the fact that the study had another focus (the multimedia cluster).

We set out below the copyright factors used:

Partial Industries

Hungary's copyright factor per industry was between 0.5 and 50 per cent with an average of eight per cent; Singapore's copyright factor per industry was between 0.4 and 42 per cent with an average of seven per cent. (An overview is given in Table A.4.) It is striking that the copyright factors used by Hungary and Singapore were so similar, i.e. in most cases where Singapore determined a high copyright factor, Hungary did the same; we therefore chose to take the average values of Singapore and Hungary as the copyright factors for our study.

Table A.4 Copyright Factors of Partial Industries

	Copyright factors		
	Netherlands	Singapore	Hungary
Apparel, textiles and footwear	0.5%/2.7%	0.4%	0.5%/5%
Jewelry and coins	33.5%	42%	25%
Other crafts	41%	42%	40%
Furniture	6.7%	8.3%	5%
Household goods, china and glass	0.55%	0.6%	0.5%
Wall covering and carpets	1.9%	1.7%	2%
Toys and games	46%	42%	50%
Architecture, engineering, surveying	9%	8.3%	10%
Museums	50%	Not included	50%
Total	10.9%[10]		

Interdependent Industries:

Hungary took the interdependent industries fully into account; Singapore gave a copyright factor per industry code of between 20 and 35 per cent with an average of 28 per cent. Including these industries fully, the value of 100 per cent is incorrect in terms of content. Some industries in this category such as the manufacturing of paper, pulp, and paperboard (SBI code 2111) or wholesale in waste and scrap (SBI code 5149) clearly had a broader scope. Therefore, Singapore provides the best guideline at present. In our report we followed the copyright factors as used by Singapore and the factors used are listed in Appendix B.

Non-Dedicated Industries

Hungary used a copyright factor of 5.7 per cent for all industries; Singapore used a copyright factor of 6.4 per cent. Again, Hungary and Singapore were almost identical and we therefore used the average of both (six per cent) as the copyright factor for all non-dedicated industries.

[10] Weighted average over all partial industries.

Appendix B Copyright Industries

Core Industries

WIPO Description	ISIC code	SBI code	Sub-sector
Publishing of books, brochures and other publications	2211	2211	press and literature
Publishing of newspapers, journals and periodicals	2212	2212	press and literature
Publishing of newspapers, journals and periodicals	2212	2213	press and literature
Publishing of music	2213	2214	music, theatrical productions, opera
Other publishing	2219	2215	press and literature
Printing	2221	2221	press and literature
Printing	2221	2222	press and literature
Service activities related to printing	2222	2223	more than one
Reproduction of recorded media	2230	2231	music, theatrical productions, opera
Reproduction of recorded media	2230	2232	motion pictures and video
Reproduction of recorded media	2230	2233	software and databases
Wholesale of other household goods (50%, 50% partial industries)	5139	5143	more than one
Wholesale of computers, computer peripheral equipment and software (20%, 80% interdependent industries)	5151	5184	software and databases
Retail sale of electrical household appliances and radio and television goods (50%, 50% partial industries)	5233	5245	radio and television
Other retail sale in specialized stores (80%, 20% partial industries)	5239	5247	press and literature
Telecommunications (5%, 95% non-dedicated industries)	6420	6420	radio and television
Software publishing	7221	7221	software and databases
Other software consultancy and supply	7229	7222	software and databases
Database activities and on-line distribution of electronic content	7230	7230	software and databases
Data processing (50%, 50% non-dedicated industries)	7240	7240	software and databases
Advertising	7430	7440	advertising
Photographic activities	7494	7481	photography, visual and graphic arts
Other business activities n.e.c. (5%, 95% interdependent industries)	7499	7485	more than one
Other business activities n.e.c. (5%, 95% interdependent industries)	7499	7486	more than one
Other business activities n.e.c. (5%, 95% interdependent industries)	7499	7487	more than one
Activities of professional organizations	9112	9112	copyright organizations
Motion picture and video production	9211	9211	motion pictures and video
Motion picture and video distribution	9211	9212	motion pictures and video
Motion picture projection	9212	9213	motion pictures and video
Radio and television activities	9213	9220	radio and television
Dramatic arts, music and other arts activities	9214	9231	more than one
Dramatic arts, music and other arts activities	9214	9232	more than one
Fair and amusement park activities	9219	9233	music, theatrical productions, opera
Other recreational activities n.e.c.	9249	9272	music, theatrical productions, opera

Interdependent Industries

WIPO Description	ISIC code	SBI code	Copyright factor
TV sets, radio, VCR, CDs, DVDs, electronic games equipment and others			
Manufacture of television and radio receivers, audio or visual recording or reproducing apparatus	3230	3230	30%
Wholesale of other household goods	5139	5143	19%
Wholesale of other household goods	5139	5144	19%
Wholesale of other household goods	5139	5145	19%
Wholesale of other household goods	5139	5146	19%
Wholesale of other household goods	5139	5147	19%
Retail sale of household appliances, articles and equipment	5233	5244	33.3%
Retail sale of household appliances, articles and equipment	5233	5245	33.3%
Rental of personal and household goods	7130	7140	20%
Computer and office machinery/equipment			
Wholesale of computers, computer peripherals and software	5151	5184	30%
Manufacture of office, accounting and computing machinery	3000	3001	30%
Manufacture of office, accounting and computing machinery	3000	3002	30%
Renting of office machinery and equipment n.e.c.	7123	7133	35%
Wholesale of other machinery, equipment and supplies	5159	5181	30%
Wholesale of other machinery, equipment and supplies	5159	5182	30%
Wholesale of other machinery, equipment and supplies	5159	5183	30%
Wholesale of other machinery, equipment and supplies	5159	5185	30%
Wholesale of other machinery, equipment and supplies	5159	5187	30%
Wholesale of other machinery, equipment and supplies	5159	5188	30%
Musical instruments			
Manufacture of musical instruments	3692	3630	35%
Photographic and cinematographic instruments			
Manufacture of television and radio receivers, sound or video recording or reproducing apparatus	3320	3340	30%
Renting of other machinery and equipment	7129	7134	20%
Paper			
Manufacture of pulp, paper and paperboard	2101	2111	25%
Manufacture of pulp, paper and paperboard	2101	2112	25%
Wholesale of other intermediate products, waste and scrap	5149	5157	25%
Wholesale of other intermediate products, waste and scrap	5149	5155	25%
Wholesale of other intermediate products, waste and scrap	5149	5156	25%
Other retail sales in specialized stores	5239	5248	33.3%
Blank recording material			
Manufacture of other chemical products n.e.c.	2429	2461	25%
Manufacture of other chemical products n.e.c.	2429	2462	25%
Manufacture of other chemical products n.e.c.	2429	2463	25%
Manufacture of other chemical products n.e.c.	2429	2464	25%
Manufacture of other chemical products n.e.c.	2429	2465	25%
Manufacture of other chemical products n.e.c.	2429	2466	25%
Wholesale of electronic and telecommunications parts and equipment	5152	5186	25%
Miscellaneous			
Other business activities n.e.c.	7485	7485	8%
Other business activities n.e.c.	7486	7480	8%
Other business activities n.e.c.	7487	7487	8%

Partial Industries

WIPO Description	ISIC code	SBI code	Copyright factor
Apparel, textiles and footwear			
Manufacture of wearing apparel	1810	1810	2.7%
Manufacture of wearing apparel	1810	1821	2.7%
Manufacture of wearing apparel	1810	1822	2.7%
Manufacture of wearing apparel	1810	1823	2.7%
Manufacture of wearing apparel	1810	1824	2.7%
Manufacture of made-up textile articles	1721	1740	2.7%
Manufacture of footwear	1920	1930	2.7%
Wholesale of textiles, clothing and footwear	5131	5141	2.7%
Wholesale of textiles, clothing and footwear	5131	5142	2.7%
Retail sale of textiles, clothing, footwear and leather goods	5232	5241	2.7%
Retail sale of textiles, clothing, footwear and leather goods	5232	5242	2.7%
Retail sale of textiles, clothing, footwear and leather goods	5232	5243	2.7%

WIPO Description	ISIC code	SBI code	Copyright factor
Jewelry and coins			
Manufacture of jewelry and related articles	3691	3621	33.5%
Manufacture of jewelry and related articles	3691	3622	33.5%
Other crafts:			
Activities of other organizations n.e.c.	9199	9133	41%
Furniture:			
Manufacture of furniture	3610	3611	6.7%
Manufacture of furniture	3610	3612	6.7%
Manufacture of furniture	3610	3613	6.7%
Manufacture of furniture	3610	3614	6.7%
Manufacture of furniture	3610	3615	6.7%
Household goods, china and glass:			
Manufacture of glass and glass products	2610	2611	0.55%
Manufacture of glass and glass products	2610	2612	0.55%
Manufacture of glass and glass products	2610	2613	0.55%
Manufacture of glass and glass products	2610	2614	0.55%
Manufacture of glass and glass products	2610	2615	0.55%
Manufacture of knitted and crocheted fabrics	173	177	0.55%
Manufacture of other products of wood	2029	2051	0.55%
Manufacture of other fabricated metal products n.e.c.	2899	2871	0.55%
Manufacture of other fabricated metal products n.e.c.	2899	2872	0.55%
Manufacture of other fabricated metal products n.e.c.	2899	2873	0.55%
Manufacture of other fabricated metal products n.e.c.	2899	2874	0.55%
Manufacture of other fabricated metal products n.e.c.	2899	2875	0.55%
Retail sale of household appliances, articles and equipment	5233	5244	0.55%
Retail sale of household appliances, articles and equipment	5233	5245	0.55%
Wall coverings and carpets:			
Manufacture of carpets and rugs	1722	1751	1.9%
Manufacture of other articles of paper and paper board	2109	2122	1.9%
Manufacture of other articles of paper and paper board	2109	2123	1.9%
Manufacture of other articles of paper and paper board	2109	2124	1.9%
Manufacture of other articles of paper and paper board	2109	2125	1.9%
Toys and games:			
Manufacture of games and toys	3694	3650	46%

WIPO Description	ISIC code	SBI code	Copyright factor
Architecture, engineering, surveying:			
Architectural and engineering activities and related technical consultancy	7421	7420	9%
Museums:			
Museum activities and preservation of historical sites and buildings	9232	9252	50%
Miscellaneous:			
Wholesale of other household goods	5139	5143	5%
Wholesale of other household goods	5139	5144	5%
Wholesale of other household goods	5139	5145	5%
Wholesale of other household goods	5139	5146	5%
Wholesale of other household goods	5139	5147	5%
Other retail sale in specialized stores	5239	5248	2.7%
Other retail sale in specialized stores	5239	5247	2.7%
General wholesale and retailing:			
Wholesale trade and commission trade, except for motor vehicles and motorcycles	51	51	6%
Retail trade, except for motor vehicles and motorcycles; repair of personal and household goods	52	52	6%
General transportation			
Land transport	60	60	6%
Water transport	61	61	6%
Air transport	62	62	6%
Supporting and auxiliary transport activities	630	631	6%
Supporting and auxiliary transport activities	630	632	6%
Supporting and auxiliary transport activities	630	633	6%
Supporting and auxiliary transport activities	630	634	6%
Post and courier activities	641	641	6%
Telephony and Internet:			
Telecommunications	6420	6420	6%
Database activities and online-distribution of electronic content	7240	7240	6%