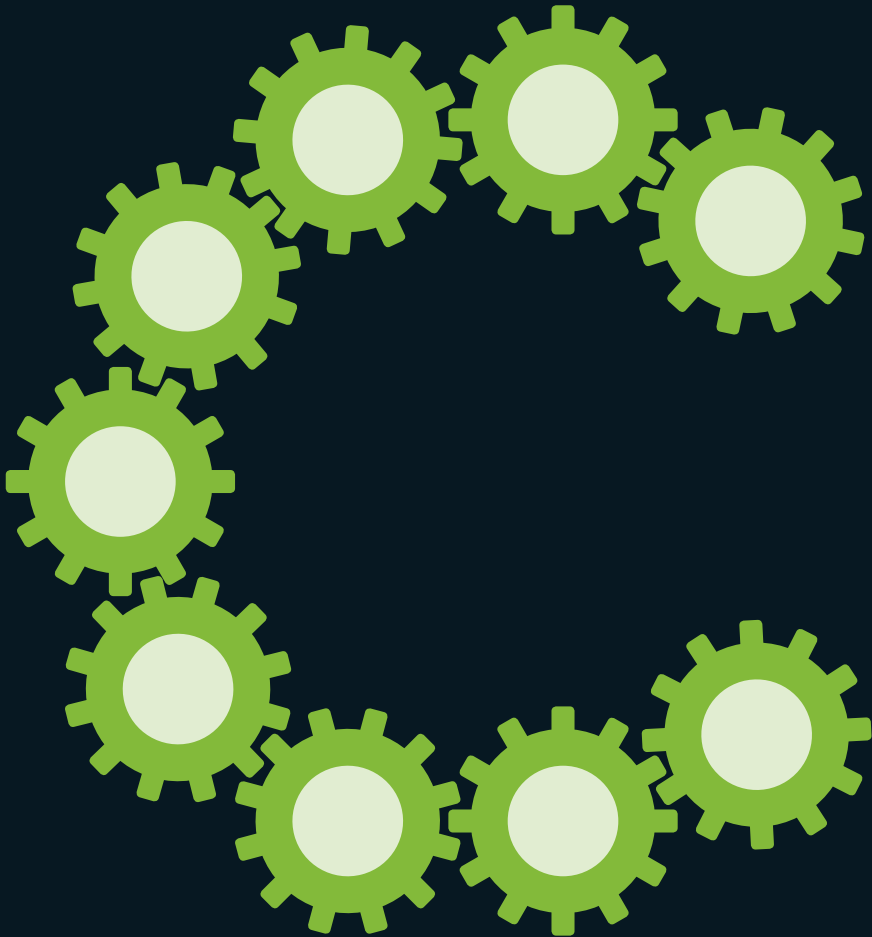


# **ECONOMIC CONTRIBUTION OF COPYRIGHT-BASED INDUSTRIES IN FINLAND 2009 – 2012**



FINNISH COPYRIGHT SOCIETY



Finnish Copyright Institute

Publications No 32 (2014)

**ECONOMIC CONTRIBUTION OF COPYRIGHT-BASED  
INDUSTRIES IN FINLAND 2009 – 2012**

The study was commissioned by the Finnish Ministry of Education and Culture and the Finnish Copyright Society, and was carried out by Brahea Centre, at University of Turku. Mr. Mikko Grönlund, Research Manager, Mr. Veijo Pönni and Mr. Timo E. Toivonen, Researchers, and Mr Petteri Sinervo, Head of Development, were responsible for the practical implementation of the study.

FINNISH COPYRIGHT SOCIETY  Finnish Copyright Institute

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Upphovsrättsliga Föreningen i Finland rf  
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The Finnish Copyright Institute was founded in 1993 as a library,  
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## Executive summary

Copyrighted works have important social and cultural functions in contemporary societies. Works protected by copyright and industries that exploit copyrighted material are also important factors from an economic perspective. Copyrighted works contribute to their surrounding economy during the process in which they are created, reproduced, distributed and used. Hence, it can be stated that the creation of a work is merely the starting point in its exploitation as it can also act as an input for other activities. Previous studies in Finland have shown that the economic contribution of the so-called copyright-based industries can exceed that of traditional industries like production of food and beverages and manufacture of electronics and equipment.

The purpose of the present study was three-fold:

- To measure the economic contribution of copyright-based industries to the Finnish economy in 2009, 2010, 2011 and 2012.
- To provide insight into the World Intellectual Property Organization (WIPO) methodology employed in this measurement
- To compare the Finnish findings to the results of similar studies completed in other countries.

The key findings and conclusions of the study include the following:

- The combined value added of copyright-based industries represented 4.73 percent of Finnish GDP in 2012 and amounted to €9.10 billion.
- The combined number of employees in the copyright-based industries amounted to 124 052 and represented 5.14 percent of the total employment in Finland in 2012.
- From the year 2000 to the year 2012 the economic contribution of core copyright industries has shown a moderate growth.
- The combined value added of core copyright industries represented 3.77 percent of the Finnish GDP in 2012 (3.28 percent in 2000) amounting to €7.25 billion.
- Compared to the Finnish GDP growth of 11.7 percent between 2009 and 2012, the value added of core copyright industries in absolute terms grew by 10.6 percent.
- In 2012, the two largest core copyright industries, software and databases and press and literature, accounted for approximately 84 percent of the cumulative value added of the core copyright industries in Finland.
- From 2009 to 2012, the most prominent growth in core copyright industries took place in the software

industry and in advertising whereas the relative contribution of the press and literature and radio and television industry decreased.

- The relative proportion of workforce in the core copyright industries increased only slightly during the same period. The total number of employees in the core copyright industries increased by 2.1 percent, while the employed labour force in Finland grew by 1.1 percent.
- In 2012, the interdependent copyright industries (activities related to copyright protected materials) had a combined value added of €971 million (0.50% of GDP) and employed 8 635 employees (0.47 % of the total labour force).
- Production and sales in the paper industry amounted to approximately 74 percent of the total value added of the interdependent copyright industries in 2012.
- Exports of copyrighted works relating to core copyright industries amounted to €7 545 million in 2012, representing 13.3 percent of Finland's

total exports. The respective value of the imports was €5 195 million, which amounted to 8.7 percent of total imports. This produced a trade surplus of €2 350 million.

- Exports relating to interdependent copyright industries totalled €1 893 million in 2012. Approximately 78 percent of the total value of exports was attributable to the paper industry.
- The WIPO Guide on Surveying the Economic Contribution of the Copyright-Based Industries has enabled a very useful increase in the comparability of studies made in different countries. Further development of the methodology through international cooperation and national research will allow even more accurately capturing the economic contribution of copyright-based industries and harmonising research methods. Finland ranks high when it comes to the contribution of the core copyright industries but lower in terms of overall copyright contribution.

# I. Introduction

During recent decades intellectual property has received increasing attention in post-industrial economies and is gradually receiving more recognition in developing economies. Intangible factors are regarded as key value-drivers in economies and intangible assets or intellectual capital are estimated to form the essence of many companies' competitive advantage. Materials protected by copyright<sup>1</sup> therefore form an integral part of a company's intellectual assets. As a source of economic activity and income the importance of copyright has increased and, due to the increase in digital technology the scope of the subject matter for copyright protection has expanded. Those factors, together with rapid increase in the amount of digitized products and services, have boosted the industries and businesses relying on subject matter protected by copyright. Economists now broadly share the opinion that the industrialised economies have transformed into knowledge-based economies and that intangible goods and services form the basis of growth and development.

Copyright is a legal concept that enables the creators of copyright protected material to exploit economic

values related to their creative work. The legislation defines the requirements for an outcome of creative work to be covered by copyright. The legislation also determines the exclusive rights of the creator and specifies the protective instruments that can be used to enforce the copyright holder's rights. The concept of copyright as well as the protective elements has been a subject for international treaties for a relatively long time now. The most well-established and important international treaties governing copyrights are the Berne Convention (1886), the Rome Convention (1961) and the TRIPS Agreement (Trade-Related Aspects of Intellectual Property Rights, initially agreed in 1994) of the World Trade Organization. The more recent ones, the WIPO Copyright Treaty (WCT) of 1996 and the WIPO Performances and Phonograms Treaty (WPPT), additionally adjusted the international dimensions of copyright. The international treaties have harmonised the legislation in different countries. Especially, when it comes to the core substance, the concept of copyright is considered nearly similarly in different countries and legislations.

Traditionally copyright has been mainly considered and studied from

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<sup>1</sup> In this study the term copyright is used to cover both the actual copyright and the related or neighbouring rights.

its legal perspective. Legal research has covered areas like the nature of copyright, the scope of its protection, enforcement and infringement. From the business point of view copyright transfers, licensing, international trade with copyright products and copyright investments have received attention from researchers. Research addressing the economic importance or impact of copyright first emerged in the 1970s. The first studies were published in the USA (1977), Canada (1977), Australia (1981), Sweden (1982), the Netherlands (1982) and the UK (1982). Several other studies followed thereafter and research on the economic contribution of copyright has been extended in the 1990s. Currently, over 40 countries around the world have engaged the WIPO methodology in surveying of the economic performance of their copyright sector.

Research addressing the economic contribution of copyright has broadly adopted a similar kind of methodology. Namely, identifying industries that are related to or dependent on copyright, and then calculating the contribution of those industries to the value added and employment aspects of the economy. However, there were clear differences in the applied methodologies, especially as the industries included varied, which made the comparison of the findings difficult. The Finnish Ministry

of Education acted as an initiator when, in 2002, the World Intellectual Property Organization (WIPO) launched an initiative to “develop a practical instrument in the form of guidelines, recommendations and survey methods to be considered and applied when undertaking surveys with regard to the size and economic contribution of a nation’s creative and information sector; and to establish a basis for comparison of future surveys built on reliable data and common methodologies”. The WIPO Guide on Surveying the Economic Contribution of the Copyright-Based Industries was published in 2003. Since then the methodology defined in the WIPO Guide has been widely adopted. (WIPO Guide 2003<sup>2</sup>)

The scope of the WIPO Guide is confined to surveying the economic contribution of copyright-based industries and to providing quantifiable characteristics for this contribution. The WIPO Guide addresses the three main indicators of the size of these industries – the value added generated by them, their share in employment and their contribution to foreign trade. It outlines the methodology of the survey, justifies the choice of indicators, describes their characteristics and elaborates on existing approaches to their measurement. The methodology in the WIPO Guide does not address all economic aspects related to the functioning of

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<sup>2</sup> The World Intellectual Property Organization (WIPO) has started with a group of experts to rewrite The WIPO Guide on Surveying the Economic Contribution of the Copyright-Based Industries. The new improved edition of the guide should be available later in 2014.

copyright. For instance, the economic impact of copyright law itself, measuring the social effects of copyright, the valuation of the copyright assets of enterprises and the assessment of the effects of copyright piracy are left for additional research and methodological development. (WIPO Guide 2003)

The economic contribution of copyright industries has been previously addressed in five studies in Finland: 1984, 1991 (using data from 1988), 2000 (1997 data), 2008 (using data from 2000, 2003, 2004 and 2005) and 2010 (using data from 2005, 2006, 2007 and 2008). The first three were published before the WIPO Guide and thus could not exploit its guidelines, but used a similar approach. The study that was published in 2008 used partially the WIPO guidelines but, in parallel, applied the methodology of the 2000 study and presented two sets of results. The study published in 2010 and current study will apply solely and fully the WIPO methodology.

The report is structured as follows. Chapter 3 presents the most important findings on the economic volume of copyright industries in terms of value added and employment. The trade balance of copyrighted goods and services is presented in Chapter 4. Chapter 5 presents the findings on Finnish copyright collective management organisations' economic activities. In Chapter 6 the results of this study are compared with findings in other countries. In Appendix 1 is presented detailed information concerning the definition of copyright-based industries and the copyright factors used for this study.

This study was initiated and commissioned by the Ministry of Education and Culture in cooperation with the Finnish Copyright Society. The purpose of the study is to measure the economic contribution of copyright-based industries from 2009 to 2012 by applying the methodology defined in the WIPO Guide on Surveying the Economic Contribution of the Copyright-Based Industries.



## 2. The Copyright-based Industries and the Methodology of the Study

### 2.1. The Copyright-based Industries

The mental process or creative work needed to produce copyrighted subject matter is the initial act of creating economic value out of copyright protected material. In a legal sense copyright is a private property right. It contains the right to exclude others from using the property. In addition, the holding of a property right means that copyright protected material acquires a value which enables it to be measured. It also enables copyright protected material to be traded and ensures it can be used in all areas of economic life (WIPO Guide 2003).

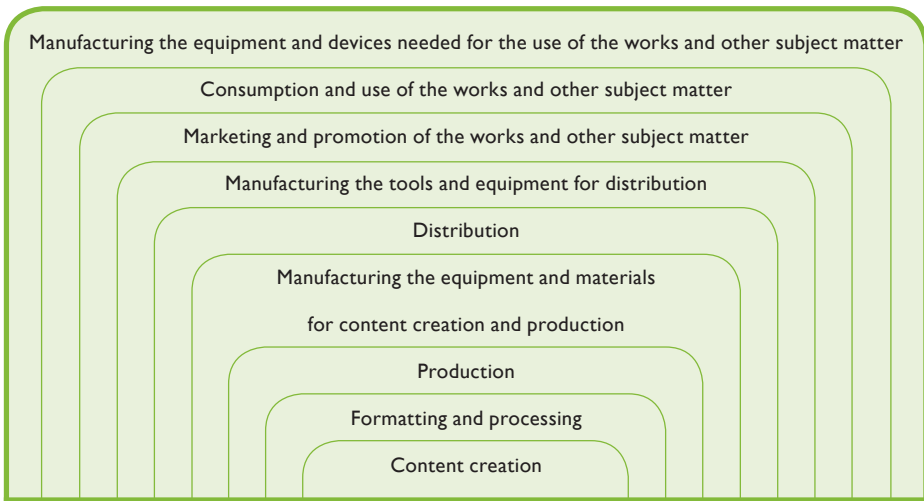
The creation process of copyright protected material forms the basic element relevant for the copyright's economic contribution. The works need to be modified, packaged, reproduced and distributed<sup>3</sup> in order to be used by consumers. When assessing the economic value of copyright one must distinguish between a work which is protected by copyright and the "means of delivery" by which the work appears on the market and is made available for consumption (WIPO Guide 2003). When measuring

the economic contribution of copyright protected material one should include all the activities resulting from the multiple effects of copyright on the economy, those of the creators, the right holders, the distributors, users, equipment manufacturers, advertisers, etc. (WIPO Guide 2003). Figure 1 describes the activities related to the production, distribution and use of copyright protected material. With respect to the copyright-based industries they can be viewed as layers of economic activities from which the effects of copyright radiate outwards as shown in Figure 1. Obviously the activities related to the production, distribution and use of copyrighted works are not the same for all works. The works are different in nature and different means are needed in both production and use. These layers reflect the flow of copyrighted material from the original creator to the consumer. They do not always represent the borderlines between different industries involved in copyright value creation, since there are activities overlapping several layers within single industries.

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<sup>3</sup> The term distribution is used in this study in a technologically neutral way to refer to all distribution, dissemination, diffusion, communication or making available the protected subject matter to the public.

Figure 1 Layers of economic activities related to the production, packaging and distribution of material protected by copyright and related rights (Sinervo & Picard 2000).



Defining the copyright-based industries is a primary task when measuring the economic contribution of copyright. This means that one has to decide which industries are going to be studied, and then to arrange them into appropriate categories according to the extent to which their activities are based on copyright. The WIPO Guide 2003 categorises the copyright-based industries into four main groups, namely the core copyright industries, the interdependent copyright industries, the partial copyright industries and the non-dedicated support industries.

The core copyright industries are industries that are wholly engaged in the creation, production and manufacturing, performance, broadcast,

communication and exhibition, or distribution and sales of works and other protected subject matter. These industries include, for example, press and literature, motion pictures, recorded music, music publishing, radio and television broadcasting, and software<sup>4</sup>.

Interdependent copyright industries are industries that are engaged in production and the manufacture and sale of equipment whose function is wholly or primarily to facilitate the creation, production or use of core copyright industry works and other protected subject matter. Examples of industries in this category include the manufacturing, wholesaling and retailing of TV sets and radios; CD and DVD players; com-

<sup>4</sup> Complete list of industries included to the four principal categories is in Appendix I.

puters; musical instruments; photographic instruments; photocopiers; recording material; and paper.

The partial copyright industries are industries in which a portion of the activities is related to works and other protected subject matter and may involve creation, production and manufacturing, performance, broadcast, communication and exhibition or distribution and sales. Industries like textiles and footwear, jewellery, furniture, wall coverings and carpets, toys and games, architecture, engineering, and museums represent some of the partial copyright industries.

The non-dedicated support industries are industries in which a portion of the activities is related to facilitating broadcast, communication, the distribution or sales of works and other protected subject matter whose activities have not been included in the core copyright industries. For

example transportation services, telecommunications and wholesale and retail trade fall into this category.

When measuring the economic contribution of copyright industries the core copyright industries are fully included in the calculations. This means that the total contribution of the core copyright industries to the value added and creation of employment are counted in when calculating the total effect of the copyright industries on a country. When it comes to the other three categories only part of their activities are related to copyright protected material. Therefore judgement must be applied when measuring their effect on the national economy. Thus, only the portion which is directly attributable to copyright protected material is included. This is worked out according to so called copyright factors, which are discussed below.

## **2.2. Establishing of Copyright Factors**

One challenge of the study was to calculate the contribution of the interdependent, partial and non-dedicated support industries because, unlike the core copyright industries, these industries cannot be fully ascribed to the copyright-based economy. Calculations regarding

interdependent copyright industries, partial copyright industries and non-dedicated support industries involve the use of so-called copyright factors, which implies the weighting of the portion of a specific industry that can be attributed to copyright or the level of its dependence on copyright.

Guidelines for shaping copyright factors may be sought from existing studies conducted in other countries<sup>5</sup>. By the year 2013 over 40 other countries (presented in Table 25) had conducted surveys in accordance with the WIPO Guide. Thus, these studies are most likely to be comparable with the results of the Finnish study. Table 25 demonstrates that the available studies are not only carried out in developed economies, but also in a number of emerging economies and economies in transition. A major difference is that most developing countries have a limited number of official statistics available and make use of their own surveys and proxies<sup>6</sup>. At the time of this study there were only seven studies in European Union countries that followed the WIPO

Guide, namely Bulgaria, Hungary, Latvia, Lithuania, the Netherlands, Romania and Slovenia. In this study copyright factors are based on reasoning used in and data gained from three national studies in Singapore<sup>7</sup>, Hungary<sup>8</sup> and the Netherlands<sup>9</sup>.

### *Core copyright industries*

It is generally recognised that certain industries are more closely connected to and dependent on copyright than others. Some industries fundamentally exist in order to produce copyright materials<sup>10</sup> for ultimate consumption in local, national and global economy. Therefore one can assume that all core copyright industries' activities are related to copyright-protected products.

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<sup>5</sup> New edition of the WIPO Guide on Surveying the Economic Contribution of the Copyright-Based Industries will probably not recommend researchers to use copyright factors of other countries. However, in this study the researchers have utilized same copyright factors as in two previous Finnish studies. One possible way to estimate copyright factors in the future might be following: The idea behind estimation is the assumption that copyrighted content creates higher value added for the firms that have copyrighted content as a part of their product offering. The copyright factor can therefore be estimated by taking a large sample of firms in the same industry and calculating the value added to turnover ratio for each firm. The median value and standard deviation are then calculated for the ratio and the share of the sample with a ratio exceeding the median value by one standard deviation or more is considered the copyright factor for that industry.

<sup>6</sup> Leenheer, Jorna, Bremer, Simon & Theeuwes, Jules (2008) The Economic Contribution of Copyright Industries to the Netherlands, SEO Economic Research., SEO Report no. 2008-60.A, pp 13.

<sup>7</sup> To determine its copyright factors researchers in Singapore conducted a survey among 104 companies

<sup>8</sup> In the Hungarian study researchers used the same copyright factors that were used in the United States in 1990 and adapted them slightly to their national circumstances. It is unclear if the same copyright factors are still used in the United States, because the USA does not make the copyright factors used publicly available.

<sup>9</sup> The Dutch study decided to follow Singaporean and Hungarian studies because conducting a national survey is time-consuming and achieving a good response rate is difficult (in Singapore the response rate was only 4 %). According to the Dutch study Singapore and Hungary do not differ much in their copyright factors for the partial and non-dedicated industries. Leenheer, Jorna, Bremer, Simon & Theeuwes, Jules (2008) The Economic Contribution of Copyright Industries to the Netherlands, SEO Economic Research., SEO Report no. 2008-60.A, pp 26-27.

<sup>10</sup> Towse, Ruth, "Cultural Economics, Copyright and the cultural industry", proceedings from the conference "The Long Run" at Erasmus University, Rotterdam, February 2000, p. 113.

Table 1 Copyright factors of the core copyright industries

	Copyright factors			
	Finland	Netherlands	Singapore	Hungary
Press and literature	100 %	100 %	100 %	100 %
Music, theatrical productions, operas	100 %	100 %	100 %	100 %
Motion picture and video	100 %	100 %	100 %	100 %
Radio and television	100 %	100 %	100 %	100 %
Photography	100 %	100 %	100 %	100 %
Visual and graphic arts	100 %	100 %	100 %	100 %
Software and databases	100 %	100 %	100 %	100 %
Advertising	100 %	100 %	100 %	100 %
Copyright relevant organisations	100 %	100 %	100 %	100 %

\* Detailed table of the core copyright industries is shown in Appendix I

### *Interdependent copyright industries*

The Hungarian study took all interdependent industries as 100 percent dependent on copyright based on expert assessments. The Singaporean study used copyright factors that varied between 20 and 35 percent. Including interdependent copyright industries up to 100 percent is less valid in terms of content because some industries in this category

clearly have a wider scope than focusing on solely copyright-based activities. The study conducted in the Netherlands used the same copyright factors as the Singaporean study<sup>11</sup>. In this study researchers used the same copyright factors that were used in the national studies of Singapore and the Netherlands as this presents a more conservative approach. The copyright factors used are presented in Table 2.

	Copyright factors			
	Finland	Netherlands	Singapore	Hungary
TV sets, radios, VCRs, CD and DVD players, electronic game equipment	35 %	35 %	35 %	100 %
Computers and equipment	35 %	35 %	35 %	100 %
Musical instruments	20 %	20 %	20 %	100 %
Photographic and cinematographic instruments	30 %	30 %	30 %	100 %
Photocopiers	30 %	30 %	30 %	100 %
Blank recording material	25 %	25 %	25 %	100 %
Paper	25 %	25 %	25 %	100 %

\* Detailed table of the interdependent copyright industries is shown in Appendix I

<sup>11</sup> The researchers have utilized same copyright factors than in two previous studies conducted in Finland. Recommendations of the edition of the WIPO Guide on Surveying the Economic Contribution of the Copyright-Based Industries will be followed after it's published.

### *Partial copyright industries*

Hungary's copyright factor per industry varied between 0.5 percent and 50 percent, and had an average of 8 percent. Singapore's copyright factor per industry varied between 0.4 percent and 42 percent, and had an average of 7 percent. The Dutch study used the average values of Hungary and Singapore as its copy-

right factors. Dutch copyright factors per industry varied between 0.5 percent and 50 percent, and had an average of 7 percent. As there are plenty of social and economic similarities between Finland and the Netherlands the copyright factors of the Dutch study were used in this study. An overview of the national copyright factors of the partial copyright industries can be found in Table 3.

*Table 3 Copyright factors of the partial copyright industries*

	Copyright factors			
	Finland	Netherlands	Singapore	Hungary
Apparel, textiles and footwear	0,5 % / 2,7 %	0,5% / 2,7 %	0,4 %	0,5 % / 5 %
Jewellery and coins	33,5 %	33,5 %	42 %	25 %
Other crafts	41 %	41 %	42 %	40 %
Furniture	6,7 %	6,7 %	8,3 %	5 %
Household goods, china and glass	0,55 %	0,55 %	0,6 %	0,5 %
Wall covering and carpets	1,9 %	1,9 %	1,7 %	2 %
Toys and games	46 %	46 %	42 %	50 %
Architecture, engineering, surveying	9 %	9 %	8,3 %	10 %
Museums	50 %	50 %	Not included	50 %

\* Detailed table of the copyright factors of the partial copyright industries of the Finnish study is shown in Appendix 1.

### *Non-dedicated support industries*

The Hungarian study used a copyright factor of 5.7 percent for all non-dedicated support industries. The Singaporean study used a copyright factor of 6.4 percent. The Dutch study used an average of the Hungarian and Singaporean studies (6.0 %) as

the copyright factor for all non-dedicated support industries. The copyright factors for the non-dedicated support activities of the Dutch study were used in this study. An overview of the national copyright factors of the non-dedicated support industries can be found in Table 4.

Table 4 Copyright factors of the non-dedicated support industries

	Copyright factors			
	Finland	Netherlands	Singapore	Hungary
All non-dedicated support industries	6,0 %	6,0 %	6,4 %	5,7 %

\* Detailed table of the copyright factors of the non-dedicated support industries of the Finnish study is shown in Appendix I

### 2.3. Collection of Data

The data was predominately collected from corporate annual statement statistics collected by Statistics Finland.

The turnover is the combined operating income of an industry and the value added is calculated by subtracting the intermediate goods and services from the turnover. The value added therefore represents the value created by the factors of the production of that industry. The number of employees is presented as full time equivalents showing the actual person years invested in the production in an industry.

The firms are classified under statistical categories according to their main activities. Therefore there are activities within the firms that may vary from the activity according to which they are categorised. There is no external reporting of the value of a firm's activities in different fields. Therefore both the share of the non-copyright related activities of

firms in copyright industries and the copyright-related activities of firms in non-copyright industries cannot be assessed.

This study is based on statistical data on copyright industries between 2009 and 2012. The statistical classification in Finland has changed (from TOL 2002 to TOL 2008) since the previous study (Economic contribution of copyright industries in Finland 2005 – 2008) and the data under statistical classifications used in the previous study is no longer available. While the new WIPO Guide on measuring the economic contribution is still in progress, this study is made using the TOL 2008 classifications closest to the 2002 classifications.

Complementary data sources have been used when statistical information has been missing or activities have not been captured in the statistical categories. The use of complementary sources has been conducted in accordance with the

WIPO Guide. The chosen complementary data come from sources that are published annually. This has been done for the benefit of the consistency of the time series. The main sources of complementary data have been the Finnish Cultural Statistics, recording industry statistics and collective rights management organisations' statistics. The values of the foreign trade of copyrighted goods and services come from Finnish Foreign Trade Statistics. In some cases, when turnover values have been available, but value added figures missing, the value added

estimations have been made using a sample survey of the industry from the Orbis database. The value added has been calculated using the median of turnover to value added ratio. However, there are some significant analytical challenges resulting from the current statistical categorisation, which makes it difficult to attribute the operations to the relevant copyright-related activity categories. The implementation of a new European statistical classification (NACE rev. 2 and the national classifications that have been reformed accordingly) will possibly solve some of these issues.



### 3. The Economic Contribution of Copyright-based Industries in Finland

This section presents the figures of turnover, value added, and number of employees for the copyright-based industries in Finland. Data from these industries was gathered for the years 2009, 2010, 2011 and 2012 based on the WIPO methodology (Appendix 1). Figure 2 illustrates the development of the value added of the copyright-based industries as a share of the annual GDP for these years.

As can be noted, the relative contribution of copyright-based industries to Finnish GDP has not changed notably during the years under examination; while in 2009 this contribution was 4.71 percent, the respective figure for 2012 was 4.73 percent. The combined value added for copyright-based industries in 2009 was €8.12 billion; the figure for 2012 was €9.10 billion.

Figure 2 Value added of the copyright-based industries as a share of GDP, %

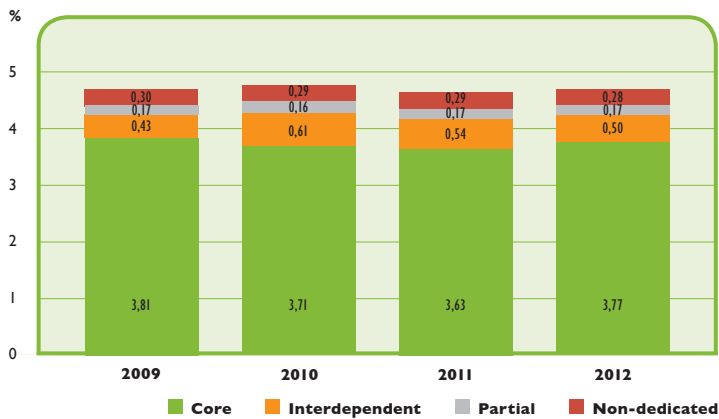
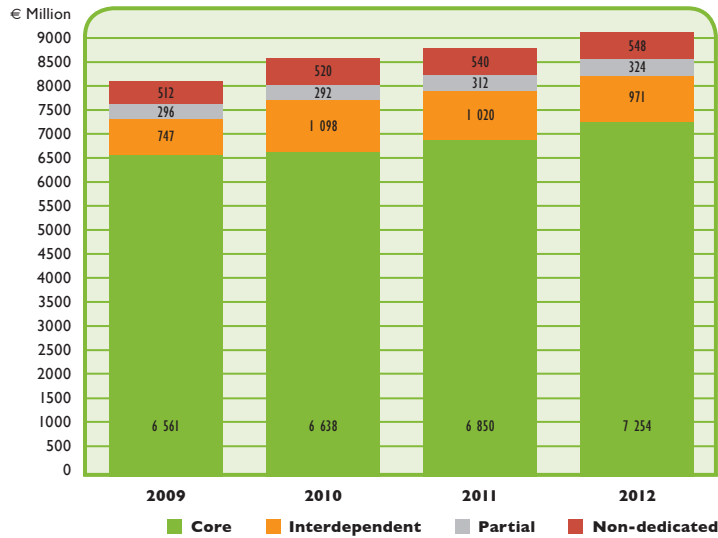


Figure 3 Value added of the copyright-based industries, € Million



The core copyright industries in Finland contribute more to GDP than food, metal or machinery industries in the time period between 2009 and 2012.

Figure 4 Contribution of the core copyright industries to GDP in comparison with selected other industries

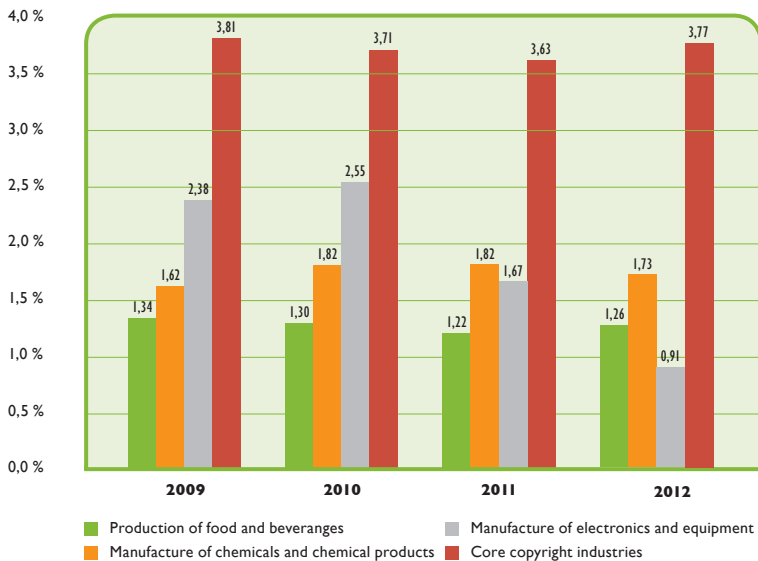


Table 5 Value added of the copyright-based industries in Finland

	2009			2010		
	Value added as % GDP	Total value added € Million	Change in total value added %	Value added as % GDP	Total value added € Million	Change in total value added %
Core	3,81	6 561	n/a	3,71	6 638	1,2
Interdependent	0,43	747	n/a	0,61	1 098	47,1
Partial	0,17	296	n/a	0,16	292	-1,5
Non-dedicated	0,30	512	n/a	0,29	520	1,6
<b>Total</b>	<b>4,71</b>	<b>8 115</b>	<b>n/a</b>	<b>4,78</b>	<b>8 547</b>	<b>5,3</b>

	2011			2012		
	Value added as % GDP	Total value added € Million	Change in total value added %	Value added as % GDP	Total value added € Million	Change in total value added %
Core	3,63	6 850	3,2	3,77	7 254	5,9
Interdependent	0,54	1 020	-7,1	0,50	971	-4,8
Partial	0,17	312	7,0	0,17	324	3,6
Non-dedicated	0,29	540	3,9	0,28	548	1,4
<b>Total</b>	<b>4,62</b>	<b>8 722</b>	<b>2,0</b>	<b>4,73</b>	<b>9 096</b>	<b>4,3</b>

The combined number of employees in the copyright-based industries amounted to 125 601 in 2009 (5.11 percent of the total employed workforce) and 124 052 in 2012 (5.14 percent of the total employed workforce). Figure 5 shows the development of employment in copyright-based industries as their share within the total workforce during the period under examination. The total number of employees in copyright-based

industries decreased but the relative proportion of this workforce slightly increased between 2009 and 2012. While the total number of employees in core copyright industries increased by 2.0 percent, the employed labour force in Finland grew by 1.1 percent (see Figure 6). The activities increasing the relative share of the total workforce of core copyright industries were software and databases and music.

Figure 5 Employees in the copyright-based industries as a share of total employment, %

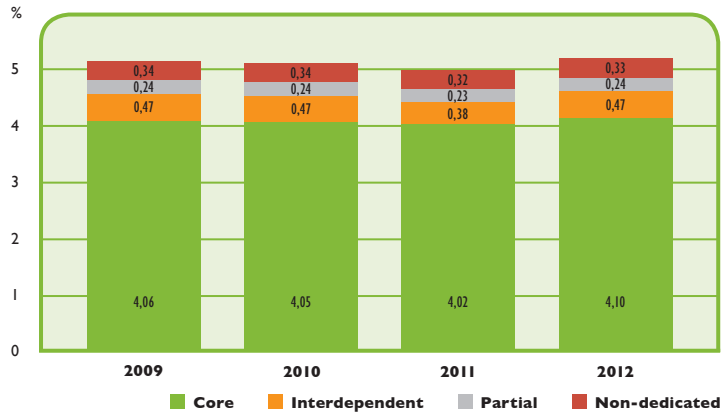


Figure 6 Number of employees in the copyright-based industries

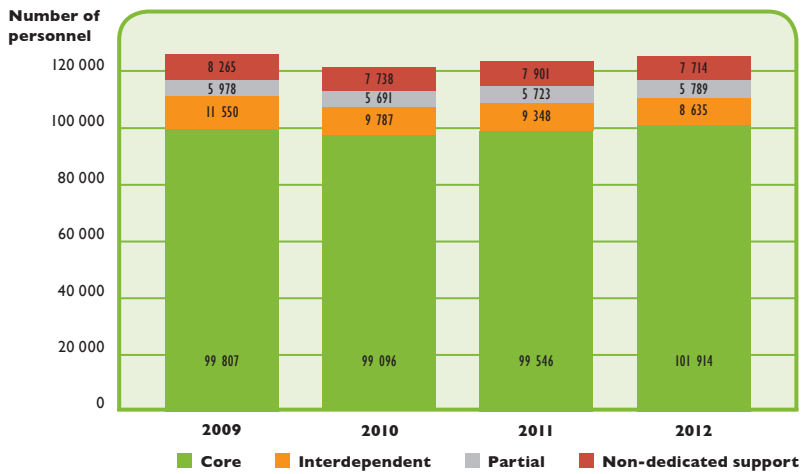


Table 6 Employees in the copyright-based industries in Finland

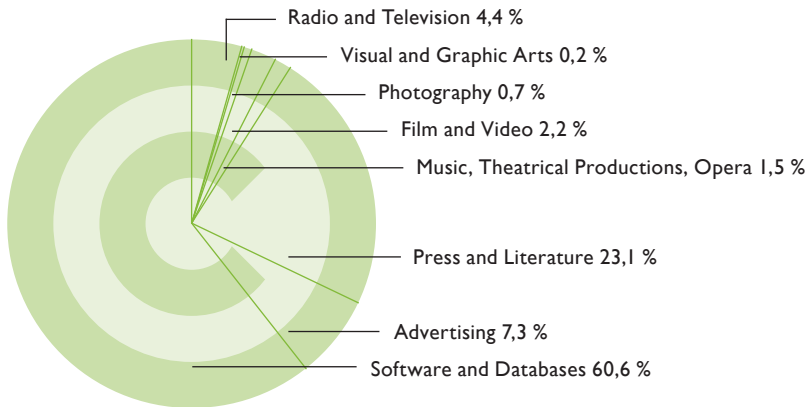
	2009			2010		
	Employees as % of total employment	Total number of employees	Change in total employment %	Employees as % of total employment	Total number of employees	Change in total employment %
Core	4,06	99 807	n/a	4,05	99 096	-0,7
Interdependent	0,47	11 550	n/a	0,47	9 787	-15,3
Partial	0,24	5 978	n/a	0,24	5 691	-4,8
Non-dedicated	0,34	8 265	n/a	0,34	7 738	-6,4
<b>Total</b>	<b>5,11</b>	<b>125 601</b>	<b>n/a</b>	<b>5,10</b>	<b>122 312</b>	<b>-2,6</b>

	2011			2012		
	Employees as % of total employment	Total number of employees	Change in total employment %	Employees as % of total employment	Total number of employees	Change in total employment %
Core	4,02	99 546	0,5	4,10	101 914	2,4
Interdependent	0,38	9 348	-4,5	0,47	8 635	-7,6
Partial	0,23	5 723	0,6	0,24	5 789	1,2
Non-dedicated	0,32	7 901	2,1	0,33	7 714	-2,4
<b>Total</b>	<b>4,95</b>	<b>122 518</b>	<b>0,2</b>	<b>5,14</b>	<b>124 052</b>	<b>1,3</b>

In 2012, the two largest core copyright industries, software and databases and press and literature, accounted for approximately 84 percent of the combined contribution of core copyright industries in terms of value added. The largest core copyright industry software and

databases contributed the highest value added with 60.6 percent of the core copyright sectors. In second place in terms of value added (23.1 %) was press and literature. These two sub-sectors were followed by advertising for which the value added was approximately 7 percent.

Figure 7 Breakdown of the value added of the core copyright industries into sub-sectors, 2012



In 2012 the sub-sector software and databases comprised 52.5 percent of the total employment of the core copyright sectors. Press and literature accounted for 25.5 percent,

advertising comprised approximately 9 percent and radio and television 5 percent of the total employment of the core copyright sectors.

Figure 8 Breakdown of the employment of the core copyright industries into sub-sectors, 2012

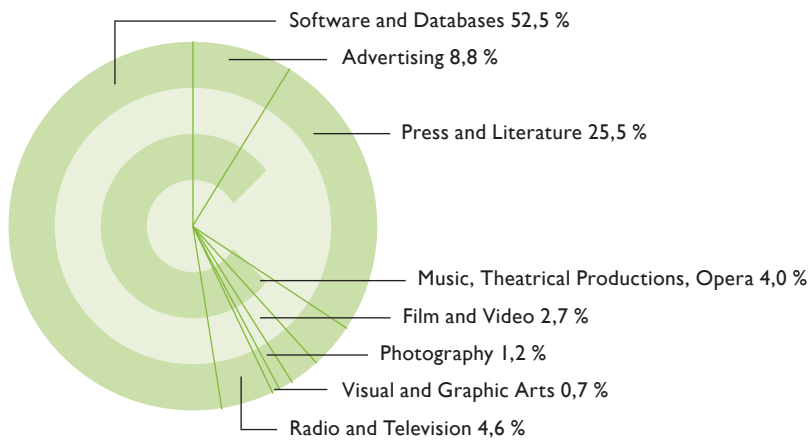


Table 7 Economic contribution of the copyright-based industries in Finland, 2009

	Turnover (€ million)	Value added (€ million)	% of GDP	Employees	% of employed labour force
<b>Core copyright industries</b>					
Press and Literature	4 697	1 742	1,01	28 319	1,15
Music, Theatrical Productions, Opera	390	94	0,05	3 186	0,13
Film and Video	408	139	0,08	2 719	0,11
Photography	139	48	0,03	1 310	0,05
Visual and Graphic Arts	54	13	0,01	680	0,03
Radio and Television	955	355	0,21	5 189	0,21
Software and Databases	7 217	3 665	2,13	48 823	1,99
Advertising	1 686	504	0,29	9 581	0,39
Copyright Collecting Societies	n/a	n/a	n/a	n/a	n/a
<b>Total core copyright industries</b>	<b>15 546</b>	<b>6 561</b>	<b>3,81</b>	<b>99 807</b>	<b>4,06</b>
<b>Interdependent copyright industries</b>					
TV sets, radios, VCRs, CD players, DVD players etc.	415	40	0,02	1 046	0,04
Computers and Equipment	1 162	162	0,09	2 375	0,10
Musical Instruments	21	4	0,00	103	0,00
Photographic and cinematographic instruments	237	28	0,02	394	0,02
Photocopiers	94	28	0,02	394	0,02
Blank recording material	30	2	0,00	48	0,00
Paper	2 904	482	0,28	7 190	0,29
<b>Total interdependent copyright industries</b>	<b>4 864</b>	<b>747</b>	<b>0,43</b>	<b>11 550</b>	<b>0,47</b>
<b>Partial copyright industries</b>					
Apparel textiles and footwear	85	19	0,01	534	0,02
Jewelry and coins	117	33	0,02	866	0,04
Other crafts	n/a	n/a	n/a	n/a	n/a
Furniture	88	18	0,01	533	0,02
Household goods, china and glass	62	36	0,02	598	0,02
Wall coverings and carpets	0	0	0,00	3	0,00
Toys and games	102	2	0,00	27	0,00
Architecture, engineering, surveying	375	188	0,11	3 417	0,14
<b>Total partial copyright industries</b>	<b>831</b>	<b>296</b>	<b>0,17</b>	<b>5 978</b>	<b>0,24</b>
<b>Non-dedicated support industries</b>					
General wholesale and retailing	767	28	0,02	266	0,01
General transportation	1 180	363	0,21	7 171	0,29
Telephony and internet	284	120	0,07	829	0,03
<b>Total non-dedicated support industries</b>	<b>2 231</b>	<b>512</b>	<b>0,30</b>	<b>8 265</b>	<b>0,34</b>
<b>Total copyright-based industries</b>	<b>23 472</b>	<b>8 115</b>	<b>4,71</b>	<b>125 601</b>	<b>5,11</b>

Table 8 Economic contribution of the copyright-based industries in Finland, 2010

	Turnover (€ million)	Value added (€ million)	% of GDP	Employees	% of employed labour force
<b>Core copyright industries</b>					
Press and Literature	4 588	1 757	0,98	27 271	1,11
Music, Theatrical Productions, Opera	338	97	0,05	3 532	0,14
Film and Video	422	129	0,07	2 740	0,11
Photography	148	49	0,03	1 296	0,05
Visual and Graphic Arts	56	12	0,01	681	0,03
Radio and Television	972	346	0,19	4 932	0,20
Software and Databases	7 411	3 726	2,09	49 394	2,02
Advertising	1 739	521	0,29	9 250	0,38
Copyright Collecting Societies	n/a	n/a	n/a	n/a	n/a
<b>Total core copyright industries</b>	<b>15 675</b>	<b>6 638</b>	<b>3,71</b>	<b>99 096</b>	<b>4,05</b>
<b>Interdependent copyright industries</b>					
TV sets, radios, VCRs, CD players, DVD players etc.	347	36	0,02	800	0,04
Computers and Equipment	1 207	177	0,10	2 203	0,10
Musical Instruments	20	4	0,00	102	0,00
Photographic and cinematographic instruments	165	29	0,02	387	0,02
Photocopiers	92	29	0,02	387	0,02
Blank recording material	25	2	0,00	47	0,00
Paper	3 502	821	0,46	5 863	0,29
<b>Total interdependent copyright industries</b>	<b>5 357</b>	<b>1 098</b>	<b>0,61</b>	<b>9 787</b>	<b>0,47</b>
<b>Partial copyright industries</b>					
Apparel textiles and footwear	88	19	0,01	518	0,02
Jewelry and coins	121	34	0,02	856	0,04
Other crafts	n/a	n/a	n/a	n/a	n/a
Furniture	89	19	0,01	462	0,02
Household goods, china and glass	68	35	0,02	545	0,02
Wall coverings and carpets	0	0	0,00	2	0,00
Toys and games	109	2	0,00	33	0,00
Architecture, engineering, surveying	364	183	0,10	3 275	0,14
<b>Total partial copyright industries</b>	<b>839</b>	<b>292</b>	<b>0,16</b>	<b>5 691</b>	<b>0,24</b>
<b>Non-dedicated support industries</b>					
General wholesale and retailing	828	29	0,02	295	0,01
General transportation	1 232	370	0,21	6 748	0,29
Telephony and internet	288	121	0,07	695	0,03
<b>Total non-dedicated support industries</b>	<b>2 347</b>	<b>520</b>	<b>0,29</b>	<b>7 738</b>	<b>0,34</b>
<b>Total copyright-based industries</b>	<b>24 218</b>	<b>8 547</b>	<b>4,78</b>	<b>122 312</b>	<b>5,10</b>



Table 9 Economic contribution of the copyright-based industries in Finland, 2011

	Turnover (€ million)	Value added (€ million)	% of GDP	Employees	% of employed labour force
<b>Core copyright industries</b>					
Press and Literature	4 636	1 721	0,91	26 385	1,07
Music, Theatrical Productions, Opera	426	106	0,06	3 855	0,16
Film and Video	435	155	0,08	2 852	0,12
Photography	157	50	0,03	1 331	0,05
Visual and Graphic Arts	60	14	0,01	719	0,03
Radio and Television	1 000	367	0,19	4 883	0,20
Software and Databases	7 835	3 905	2,07	50 231	2,03
Advertising	1 777	532	0,28	9 290	0,38
Copyright Collecting Societies	n/a	n/a	n/a	n/a	n/a
<b>Total core copyright industries</b>	<b>16 325</b>	<b>6 850</b>	<b>3,63</b>	<b>99 546</b>	<b>4,02</b>
<b>Interdependent copyright industries</b>					
TV sets, radios, VCRs, CD players, DVD players etc.	336	41	0,02	796	0,03
Computers and Equipment	1 243	177	0,09	1 914	0,08
Musical Instruments	19	3	0,00	98	0,00
Photographic and cinematographic instruments	147	30	0,02	382	0,02
Photocopiers	98	30	0,02	382	0,02
Blank recording material	24	4	0,00	51	0,00
Paper	3 606	734	0,39	5 725	0,23
<b>Total interdependent copyright industries</b>	<b>5 473</b>	<b>1 020</b>	<b>0,54</b>	<b>9 348</b>	<b>0,38</b>
<b>Partial copyright industries</b>					
Apparel textiles and footwear	94	21	0,01	525	0,02
Jewelry and coins	131	37	0,02	867	0,04
Other crafts	n/a	n/a	n/a	n/a	n/a
Furniture	91	20	0,01	418	0,02
Household goods, china and glass	69	35	0,02	545	0,02
Wall coverings and carpets	0	0	0,00	2	0,00
Toys and games	107	2	0,00	34	0,00
Architecture, engineering, surveying	391	197	0,10	3 332	0,13
<b>Total partial copyright industries</b>	<b>883</b>	<b>312</b>	<b>0,17</b>	<b>5 723</b>	<b>0,23</b>
<b>Non-dedicated support industries</b>					
General wholesale and retailing	927	33	0,02	312	0,01
General transportation	1 355	387	0,21	6 929	0,28
Telephony and internet	296	120	0,06	661	0,03
<b>Total non-dedicated support industries</b>	<b>2 579</b>	<b>540</b>	<b>0,29</b>	<b>7 901</b>	<b>0,32</b>
<b>Total copyright-based industries</b>	<b>25 260</b>	<b>8 722</b>	<b>4,62</b>	<b>122 518</b>	<b>4,95</b>

Table 10 Economic contribution of the copyright-based industries in Finland, 2012

	Turnover (€ million)	Value added (€ million)	% of GDP	Employees	% of employed labour force
<b>Core copyright industries</b>					
Press and Literature	4 626	1 674	0,87	26 038	1,05
Music, Theatrical Productions, Opera	470	109	0,06	4 034	0,16
Film and Video	467	157	0,08	2 734	0,11
Photography	169	50	0,03	1 208	0,05
Visual and Graphic Arts	58	15	0,01	714	0,03
Radio and Television	904	321	0,17	4 733	0,19
Software and Databases	8 594	4 395	2,28	53 501	2,15
Advertising	1 743	533	0,28	8 952	0,36
Copyright Collecting Societies	n/a	n/a	n/a	n/a	n/a
<b>Total core copyright industries</b>	<b>17 031</b>	<b>7 254</b>	<b>3,77</b>	<b>101 914</b>	<b>4,10</b>
<b>Interdependent copyright industries</b>					
TV sets, radios, VCRs, CD players, DVD players etc.	340	38	0,02	824	0,04
Computers and Equipment	1 151	150	0,08	2 098	0,10
Musical Instruments	19	3	0,00	90	0,00
Photographic and cinematographic instruments	145	31	0,02	388	0,02
Photocopiers	96	31	0,02	388	0,02
Blank recording material	24	3	0,00	50	0,00
Paper	3 537	714	0,37	4 796	0,29
<b>Total interdependent copyright industries</b>	<b>5 313</b>	<b>971</b>	<b>0,50</b>	<b>8 635</b>	<b>0,47</b>
<b>Partial copyright industries</b>					
Apparel textiles and footwear	94	21	0,01	516	0,02
Jewelry and coins	132	33	0,02	816	0,03
Other crafts	n/a	n/a	n/a	n/a	n/a
Furniture	96	19	0,01	463	0,02
Household goods, china and glass	69	35	0,02	501	0,02
Wall coverings and carpets	0	0	0,00	2	0,00
Toys and games	104	2	0,00	34	0,00
Architecture, engineering, surveying	425	214	0,11	3 457	0,14
<b>Total partial copyright industries</b>	<b>920</b>	<b>324</b>	<b>0,17</b>	<b>5 789</b>	<b>0,24</b>
<b>Non-dedicated support industries</b>					
General wholesale and retailing	979	34	0,02	296	0,01
General transportation	1 394	395	0,21	6 757	0,29
Telephony and internet	286	119	0,06	662	0,03
<b>Total non-dedicated support industries</b>	<b>2 659</b>	<b>548</b>	<b>0,28</b>	<b>7 714</b>	<b>0,33</b>
<b>Total copyright-based industries</b>	<b>25 923</b>	<b>9 096</b>	<b>4,73</b>	<b>124 052</b>	<b>5,14</b>

## 4. Collective Management Organisations

The main function of collective management organisations (CMOs)<sup>12</sup> is to collect copyright royalties and payments for the specific uses of copyrighted works, and to distribute these revenues as remunerations to the right-holders for the use of their works. Currently there are six collective management organisations operating in Finland: Gramex (representing performing artists whose performances have been recorded on phonograms, and producers of phonograms), Kopiosto (representing authors, photographers, performing artists and publishers), Kuvasto (representing visual artists), Teosto (representing composers, lyricists, arrangers and music publishers), Tuotos (representing audio-visual producers) and Sanasto (representing the authors and translators of literary works).

In 2008 Sanasto was approved by the Ministry of Education and Culture as an organisation to collect remunerations for lending from public libraries to be distributed to authors. The first payment of royalties was

received in 2008 and was distributed in March 2010. Teosto also collects private copying levies (fair compensation) for private copying via its Private Copying Unit (Hyvitysmaksuyksikkö). The Finnish Government decides the scope and amount of the levy and the Ministry of Education and Culture confirms the plan of distribution of the collected payments among various right holders.

For the purposes of this study, data on collective management societies was collected from Culture Statistics published by Statistics Finland and directly from the collecting societies and their annual reports. However, there are some differences in the form in which the figures are reported depending on the organisation and year in question. Thus, it is challenging to compile a comparable and complete time series of these royalty flows, which should be considered when referring to these figures. Table 11 shows the royalty flows of the Finnish collective management organisations in 2012.

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<sup>12</sup> Referred to in the WIPO Guide as copyright collective management societies or copyright collecting societies.

Table 11 Royalties collected and distributed by the collective management organisations in 2012 (€ 1 000) (Source: the annual reports of the copyright collecting societies)

	<b>Gramex*</b>	<b>Kopiosto</b>	<b>Kuvasto**</b>	<b>Teosto***</b>	<b>Tuotos</b>	<b>Sanasto</b>	<b>Total</b>
<b>Royalties collected</b>	<b>19 600</b>	<b>27 129</b>	<b>590</b>	<b>55 638</b>	<b>1 386</b>	<b>3 335</b>	<b>107 678</b>
from Finland	19 095	26 631	-	52 427	1 366	3 315	102 834
from abroad	505	498	-	2 876	20	20	3 919
<b>Royalties distributed</b>	<b>13 700</b>	<b>21 158</b>	<b>361</b>	<b>46 800</b>	<b>977</b>	<b>3 187</b>	<b>86 183</b>
from Finland	10 600	18 458	-	22 500	523	3 169	55 250
from abroad	3 100	2 700	-	24 300	454	18	30 572

\* Gramex figures of royalties distributed include also national and international remunerations from earlier years

\*\* Kuvasto figures of collected royalties include also private copying levy and reprography

\*\*\* Teosto figures of collected royalties include also royalties from Nordic Copyright Bureaus' recording rights

Collective rights management organisations distribute the major portion of the collected royalties and payments to the respective right-holders. Remunerations are normally distributed at least 6 months after royalties are collected, but in some cases in the following year, or even several years later. Teosto for example distributes remunerations five times in a year. This may lead to a situation where the annual distributed amount of remunerations is bigger than the collected amount of royalties. Gramex is also a good example of this, since the annual distribution has been higher than collected remunerations during years 2005 – 2007, simply because distribution includes also remunerations from earlier years. The ratio between remunerations distributed and royalties collected differs between different organisations varying from 61

percent to 96 percent in 2012 (Table 12). Both the relatively low ratio of Kuvasto and the high ratio of Sanasto are explained by the previously mentioned time shift between collecting and distribution of remunerations.

Part of the royalties collected by the societies are distributed as grants through the Finnish Music Foundation (MES), which was founded in 2012 for promoting and supporting Finnish music, both performing and creative. MES continues the funding activities of ESEK (The Finnish Performing Music Promotion Centre) and LUSES (The Foundation for the Promotion of Finnish Music), which have closed their activities at the end of year 2012. ESEK was earlier part of Gramex and LUSES has been closely related to Teosto. Both supported creative activities of their own field of expertise. A similar organisation is

AVEK (The Promotion Centre for Audiovisual Culture) which is a part of Kopiosto. AVEK is mostly funded by the copyright levy of blank recordable media.

Table 12 presents the ratios between remunerations distributed and royalties collected by copyright societies. The share of distributed remunerations has decreased in certain societies and increased in others between 2005 and 2008, which also occurred between 2008 and 2012.

Although entirely comparable figures of royalty flows over time are hard to come by, on a general level it can be stated that the amounts of royalties both collected and distributed increased between 2008 and 2012 due to the increased usage of music. The large variations in ratios are explained by nature of collecting royalties and distributing remunerations i.e. those are not executed during the same calendar year.

*Table 12 Ratio between remunerations distributed and royalties collected by copyright societies as a percentage 2005, 2008 and 2012 (Sources: Gramex, Kopiosto, Kuvasto, Sanasto, Teosto and Tuotos)*

	<b>2005</b>	<b>2008</b>	<b>2012</b>
<b>Gramex</b>	109,1	82,6	69,9
<b>Kopiosto</b>	88,7	85,3	85,2
<b>Kuvasto</b>	71,0	97,5	61,2
<b>Teosto</b>	88,1	82,7	84,1
<b>Sanasto</b>	-	-	95,6
<b>Tuotos</b>	82,7	45,7	70,5

## 5. Cross-border Flow of Copyright Remunerations

This section presents the foreign trade of certain goods and services as well as the trade in rights, which are sources of flows of copyright remunerations, royalties and license fees. The figures presented are based on data gathered from Finnish Customs and International Trade Statistics published by Statistics Finland. Imports and exports are measured on the basis of products rather than industries. Due to the fact that manufactured articles progress from being raw materials to being a final product they go through an entire production chain in which the role of distribution channels, such as transport, wholesale and retailing, is unknown and irretrievable when registering final products<sup>13</sup>. Therefore, the trade balance cannot be broken down into industry categories with the same level of accuracy as financial statement statistics, and thus presenting the results in accordance with the WIPO template is rather problematic. Moreover, while trade statistics for more traditional copyrighted goods, such as books and newspapers, are readily available, data on related services and royalty flows include major

shortcomings. Industry associations and company information can be used to alleviate these problems. However, surveys produced on a regular basis are required in order to produce reliable results at the desired level.

Exports of copyrighted works relating to core copyright industries amounted to €7 545 million in 2012, representing 13.3 percent of Finland's total exports. The respective value of the imports was €5 195 million, which amounted to 8.7 percent of total imports. This produced a trade surplus of €2 350 million. In 2009, the trade surplus of the core copyright industries was €1 251 million. The most significant categories of copyrighted material in terms of total export value were computer services<sup>14</sup> and the royalties and licence fees of all industries. The same categories were also important in terms of imports. In addition, the import value of advertising and related services was much greater than their export value in 2012. In computer services and press and literature, Finnish exports exceeded slightly the value of respective imports in 2012.

<sup>13</sup> Leenheer, Jorna, Bremer, Simon & Theeuwes, Jules (2008) *The Economic Contribution of Copyright Industries to the Netherlands*, SEO Economic Research., SEO Report no. 2008-60.A, pp 6.

<sup>14</sup> The foreign trade in services statistics are based on the survey on foreign trade in services carried out by Statistics Finland. In exports the changes are visible especially in the exports of computer services and in royalties and licence fees.

Table 13 Core copyright industry related exports 2009 – 2012

	2009		2010		2011		2012	
	M €	%	M €	%	M €	%	M €	%
Press and literature	176	2,6 %	178	2,5 %	187	2,5 %	183	2,4 %
Recorded media*	11	0,2 %	19	0,3 %	19	0,3 %	13	0,2 %
Visual and graphic art works	3	0,0 %	2	0,0 %	4	0,1 %	2	0,0 %
Computer services	5 067	75,8 %	4 873	69,8 %	4 882	64,2 %	4 495	59,6 %
Information services	9	0,1 %	12	0,2 %	12	0,2 %	49	0,6 %
Advertising and related services	165	2,5 %	133	1,9 %	116	1,5 %	173	2,3 %
Audiovisual and related services	3	0,0 %	3	0,0 %	54	0,7 %	25	0,3 %
Other personal, cultural and recreational services	2	0,0 %	4	0,1 %	13	0,2 %	18	0,2 %
Royalties and licence fees	1 252	18,7 %	1 755	25,1 %	2 316	30,5 %	2 587	34,3 %
<b>Total</b>	<b>6 688</b>	<b>100 %</b>	<b>6 980</b>	<b>100 %</b>	<b>7 602</b>	<b>100 %</b>	<b>7 545</b>	<b>100 %</b>

Source: Finnish Board of Customs Foreign Trade Statistics

\* Recorded media includes CPA (Statistical Classification of Products by Activity in the European Community) 2008 J 59.11.23 Films and other video content on disk, tape or other physical media and 59.20.33 Musical audio disks, tapes or other physical media

Table 14 Core copyright industry related imports 2009 – 2012

	2009		2010		2011		2012	
	M €	%	M €	%	M €	%	M €	%
Press and literature	189	3,5 %	204	4,3 %	196	4,6 %	181	3,5 %
Recorded media*	105	1,9 %	95	2,0 %	94	2,2 %	52	1,0 %
Visual and graphic art works	6	0,1 %	11	0,2 %	9	0,2 %	8	0,2 %
Computer services	2 366	43,5 %	1 576	33,5 %	1 577	36,6 %	1 794	34,5 %
Information services	55	1,0 %	34	0,7 %	32	0,7 %	46	0,9 %
Advertising and related services	1 762	32,4 %	1 806	38,4 %	1 383	32,1 %	1 585	30,5 %
Audiovisual and related services	30	0,6 %	18	0,4 %	57	1,3 %	109	2,1 %
Other personal, cultural and recreational services	12	0,2 %	14	0,3 %	25	0,6 %	34	0,7 %
Royalties and licence fees	912	16,8 %	944	20,1 %	934	21,7 %	1 385	26,7 %
<b>Total</b>	<b>5 437</b>	<b>100 %</b>	<b>4 702</b>	<b>100 %</b>	<b>4 307</b>	<b>100 %</b>	<b>5 195</b>	<b>100 %</b>

Source: Finnish Board of Customs Foreign Trade Statistics

\* Recorded media includes CPA (Statistical Classification of Products by Activity in the European Community) 2008 J 59.11.23 Films and other video content on disk, tape or other physical media and 59.20.33 Musical audio disks, tapes or other physical media

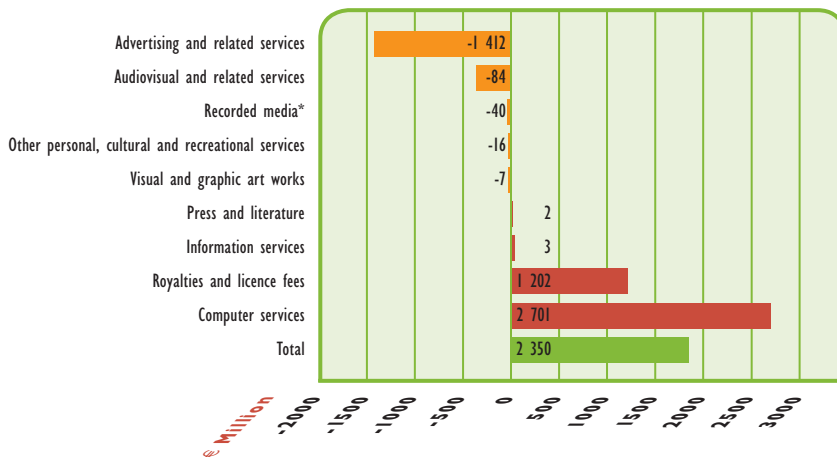
Table 15 Core copyright industry related trade balance in 2012

	Export	Import	Trade balance
Press and literature	183	181	2
Recorded media*	13	52	-40
Visual and graphic art works	2	8	-7
Computer services	4 495	1 794	2 701
Information services	49	46	3
Advertising and related services	173	1 585	-1 412
Audiovisual and related services	25	109	-84
Other personal, cultural and recreational services	18	34	-16
Royalties and licence fees	2 587	1 385	1 202
<b>Total</b>	<b>7 545</b>	<b>5 195</b>	<b>2 350</b>

Source: Finnish Board of Customs Foreign Trade Statistics

\* Recorded media includes CPA (Statistical Classification of Products by Activity in the European Community) 2008 J 59.11.23 Films and other video content on disk, tape or other physical media and 59.20.33 Musical audio disks, tapes or other physical media

Figure 9 Core copyright industry related trade balance in 2012





The trade structure of interdependent copyright industries shows that Finland produces a trade deficit in all categories except paper, which produces a vast surplus. Of the other products of the interdependent industries only computers constitute

any significant exports. Even in this category the imports are considerably higher than exports. The international significance of Finland in interdependent copyright industries is clearly centred on paper production.

Table 16 Interdependent copyright industry related trade balance in 2012 (Total figures)

	Export	Import	Trade balance
TV sets, radios, VCRs, CD and DVD players etc.	89	369	-279
Computers and equipment	276	1 022	-745
Musical instruments	1	26	-24
Photographic and cinematographic instruments	29	148	-119
Photo-copiers	2	37	-35
Blank recording material	8	35	-27
Paper	1 487	80	1 407
<b>Total</b>	<b>1 893</b>	<b>1 715</b>	<b>178</b>

Source: Finnish Board of Customs Foreign Trade Statistics

## 6. International Comparison

In essence, the WIPO methodology offers a means to standardise national studies by examining the contribution of copyright-based industries, and thus improving cross-national comparability. Since the WIPO Guide was published in 2003 over 40 studies have been published that both apply the WIPO methodology and include comparable results on the years included in this study.

Furthermore, practices in using the WIPO Guide are still evolving. Differences prevail in the level of detail of the reports, and the methods used and data sources are not always fully transparent. Certain differences

are due, for example, to variations in the availability of statistics or industry categorisations. Moreover, practices vary in terms of dealing with missing data, using copyright factors, and reporting results on foreign trade, for instance. Thus, although cross-national comparisons are the least sensitive to such issues at an aggregate level, the results should nevertheless be interpreted with caution.

Table 17 compares the economic contributions of copyright-based industries in countries that have conducted studies in accordance with the WIPO Guide.

Table 17 Economic contribution of the copyright-based industries using WIPO methodology

	Reference year	Value added as % of GDP	Employment as % of total employment
Argentina	2008	4,70	3,00
Australia	2007	6,60	8,00
Bhutan	2008	5,46	10,13
Brunei	2006	1,58	6,60
Bulgaria	2005	2,81	4,30
Canada	2004	4,70	5,40
China	2006	6,40	6,51
Colombia	2005	3,30	5,80
Croatia	2004	4,27	4,64
Dominica	2010	3,30	3,70
Finland	2012	4,73	5,14
Grenada	2010	4,70	3,60
Hungary	2002	6,66	7,10
Jamaica	2005	4,81	3,03
Jordan	2006	2,96	3,39
Kenya	2007	5,32	3,26
Latvia	2000	4,55	5,59
Lebanon	2005	4,75	4,49
Lithuania	2008	5,40	4,92
Malawi	2009	3,46	3,35
Malaysia	2005	5,70	7,50
Mexico	2003	4,77	11,01
Netherlands	2005	5,90	8,80
Pakistan	2000	4,45	3,71
Panama	2006	6,35	3,17
Peru	2005	2,67	4,50
Philippines	1999	4,82	11,10
Republic of Korea	2009	9,89	6,24
Romania	2005	5,55	4,19
Russia	2004	6,06	7,30
Singapore	2001	5,67	5,80
Slovenia	2007	5,10	6,80
South Africa	2008	4,11	4,08
St. Kitts-Nevis	2010	6,50	3,10
St. Lucia	2010	8,00	4,40
St. Vincent and the Grenadines	2010	5,60	4,90
Tanzania	2010	4,28	5,63
Thailand	2006	4,48	2,85
Trinidad & Tobago	2011	4,80	4,99
Ukraine	2005	2,85	1,90
USA	2012	11,25	8,35

Source: Based on data from World Intellectual Property Organization

\* The table above illustrates that a number of studies have been carried out in countries that have only a limited number of official statistics available and make use of their own surveys and proxies. One must take into account these limitations while making international comparisons and conclusions.

\* One must also take into account the fact that data for different studies was collected from different time periods.

Figures 10, 11, 12 and 13 and tables 18 and 19 help to illustrate the position of the Finnish copyright-based industries. On average the copyright-based

industries comprise 5.2 percent of the GDP of a country. In Finland the copyright-based industries comprise approximately 4.7 percent of GDP;

Figure 10 Value added of the total copyright-based industries as percentage of GDP per country

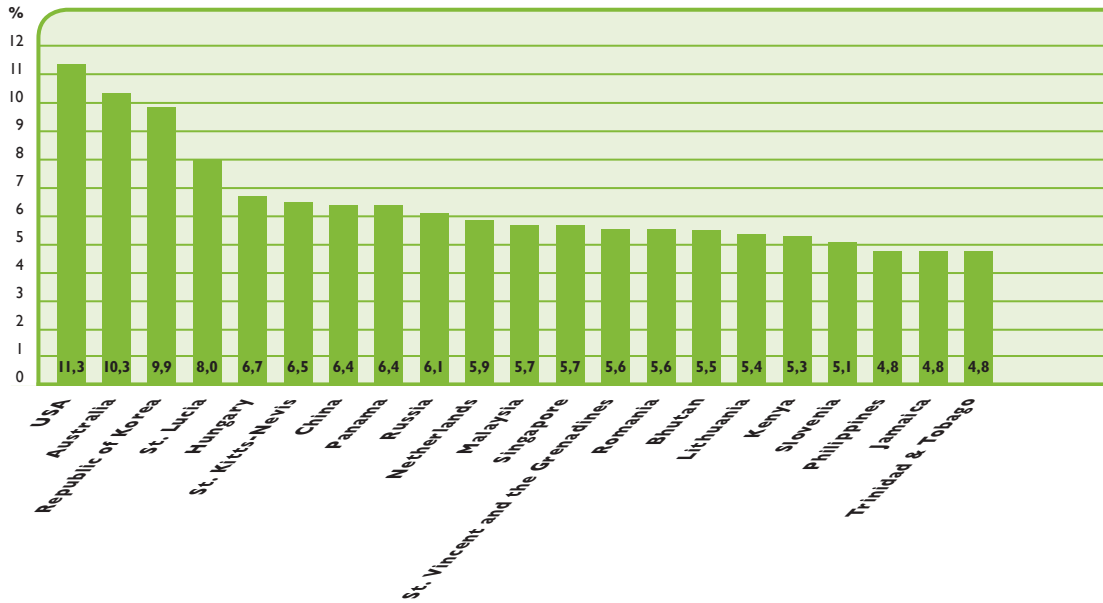
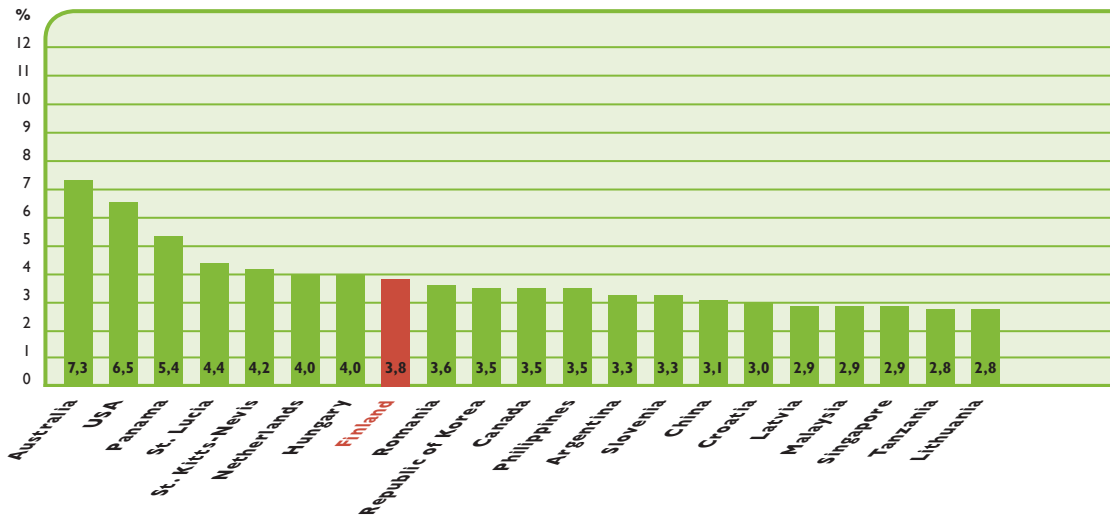


Figure 11 Value added of the core copyright industries as percentage of GDP per country



therefore Finland is somewhat below average and takes twenty-fourth position in the group of 41 countries. However, in terms of the contribu-

tion of the core copyright industries, Finland with 3.8 percent contribution ranks eighth.

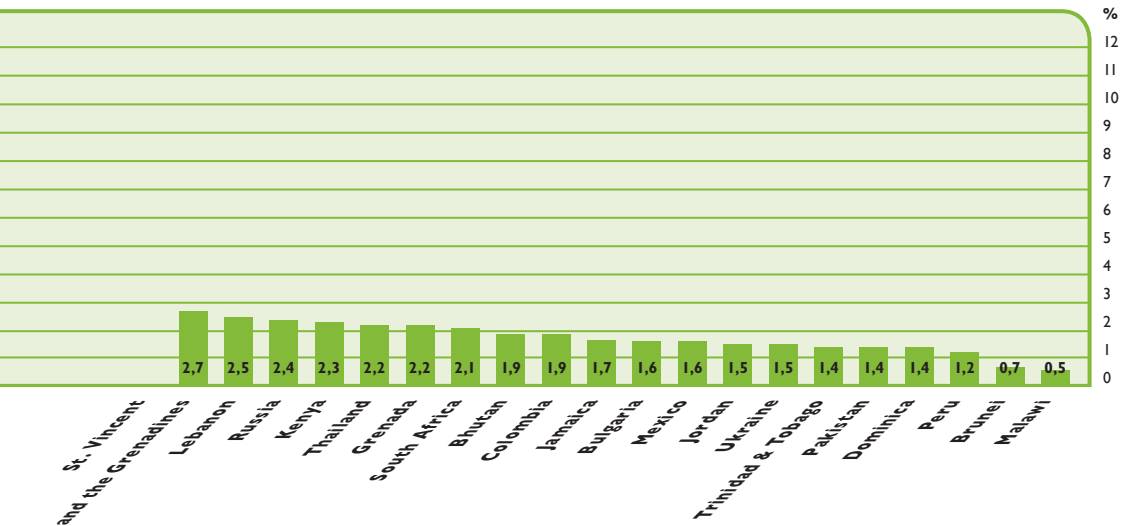
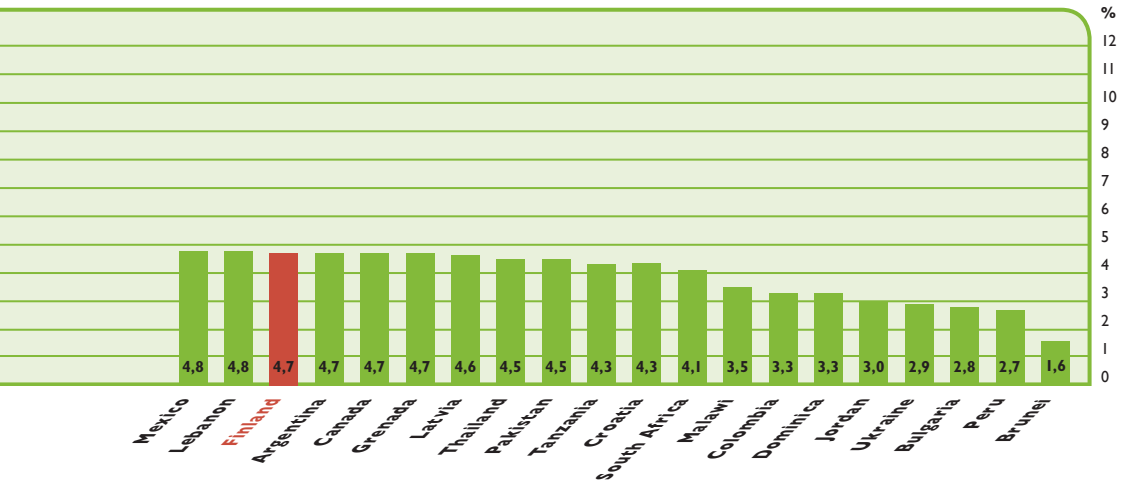


Table 18 Value added of the copyright-based industries by sub-categories as a percentage of GDP per country

	Reference year	Core	Inter-dependent	Partial	Non-dedicated	Total
<b>Argentina</b>	2008	3,30	0,60	0,60	0,20	4,70
<b>Australia</b>	2007	4,80	1,00	0,30	0,50	6,60
<b>Bhutan</b>	2008	1,90	0,60	2,20	0,70	5,46
<b>Brunei</b>	2006	0,70	0,10	0,70	0,08	1,58
<b>Bulgaria</b>	2005	1,57	0,62	0,09	0,52	2,81
<b>Canada</b>	2004	3,50	0,81	0,08	0,31	4,70
<b>China</b>	2006	3,07	1,93	0,48	0,92	6,40
<b>Colombia</b>	2005	1,90	0,80	0,30	0,40	3,30
<b>Croatia</b>	2004	2,99	0,88	0,32	0,07	4,27
<b>Dominica</b>	2010	1,36	0,04	0,36	1,54	3,30
<b>Finland</b>	2012	3,77	0,50	0,17	0,28	4,73
<b>Grenada</b>	2010	2,17	0,31	0,98	1,25	4,70
<b>Hungary</b>	2002	3,96	1,24	0,45	1,00	6,66
<b>Jamaica</b>	2005	1,70	0,74	0,47	1,90	4,81
<b>Jordan</b>	2006	1,54	0,47	0,38	0,56	2,96
<b>Kenya</b>	2007	2,30	2,17	0,41	0,43	5,32
<b>Latvia</b>	2000	2,90	1,10	0,27	0,28	4,55
<b>Lebanon</b>	2005	2,53	0,71	0,62	0,89	4,75
<b>Lithuania</b>	2008	2,79	1,27	0,26	1,07	5,40
<b>Malawi</b>	2009	0,50	2,63	0,07	0,25	3,46
<b>Malaysia</b>	2005	2,90	2,10	0,60	0,10	5,70
<b>Mexico</b>	2003	1,55	1,69	0,85	0,68	4,77
<b>Netherlands</b>	2005	4,00	0,40	0,90	0,60	5,90
<b>Pakistan</b>	2000	1,37	0,11	0,98	1,99	4,45
<b>Panama</b>	2006	5,40	0,06	0,05	0,84	6,35
<b>Peru</b>	2005	1,23	0,28	0,02	1,14	2,67
<b>Philippines</b>	1999	3,50	0,96	0,04	0,29	4,82
<b>Republic of Korea</b>	2009	3,51	4,75	0,66	0,97	9,89
<b>Romania</b>	2005	3,55	1,08	0,53	0,39	5,55
<b>Russia</b>	2004	2,39	0,76	0,27	2,64	6,06
<b>Singapore</b>	2001	2,85	1,76	0,09	0,97	5,67
<b>Slovenia</b>	2007	3,30	0,60	0,50	0,60	5,10
<b>South Africa</b>	2008	2,05	0,56	0,21	1,29	4,11
<b>St. Kitts-Nevis</b>	2010	4,23	0,55	0,92	0,81	6,50
<b>St. Lucia</b>	2010	4,37	0,26	2,13	1,23	8,00
<b>St. Vincent and the Grenadines</b>	2010	2,72	0,13	1,09	1,66	5,60
<b>Tanzania</b>	2010	2,80	1,37	0,00	0,10	4,28
<b>Thailand</b>	2006	2,21	1,02	0,71	0,54	4,48
<b>Trinidad &amp; Tobago</b>	2011	1,41	0,13	0,97	2,28	4,80
<b>Ukraine</b>	2005	1,54	0,68	0,10	0,54	2,85
<b>USA</b>	2012	6,48	n/a	n/a	n/a	11,25

In terms of employment, the copyright-based industries contributed, on average, 5.4 percent to the total amount of people employed in a country. In Finland the copyright-based industries contributed a total of 5.1 percent to Finland's employment figure which is below the

average in the group of 41 countries. When it comes to the contribution of the core copyright industries, Finland with 4.1 percent contribution clearly exceeds the average and ranks eighth among the 41 countries. This is slightly higher proportion than for example in the United States.

Figure 12 Employment in the copyright-based industries as a percentage of the total employment per country

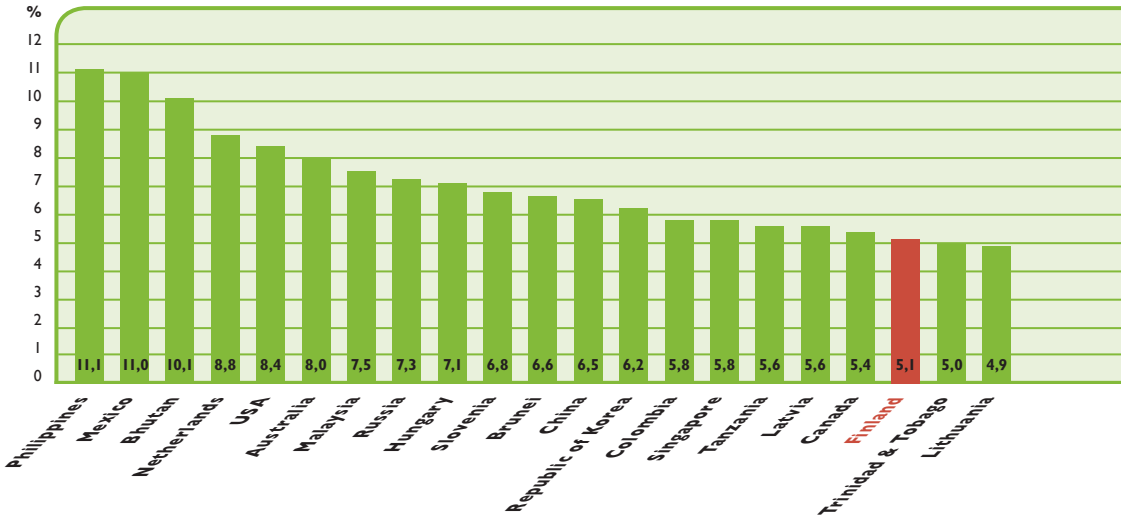
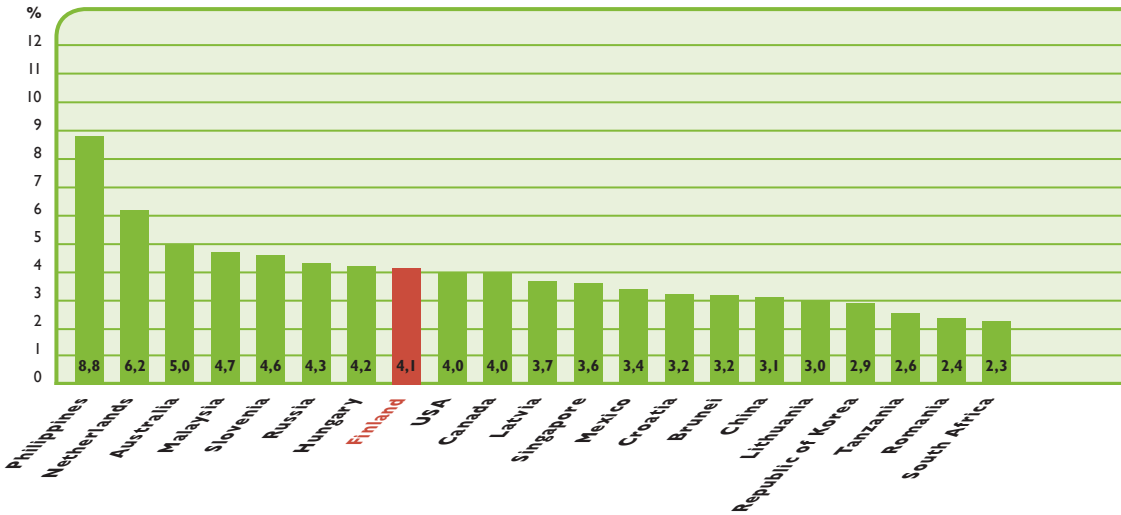


Figure 13 Employment in the core copyright industries as a percentage of the total employment per country





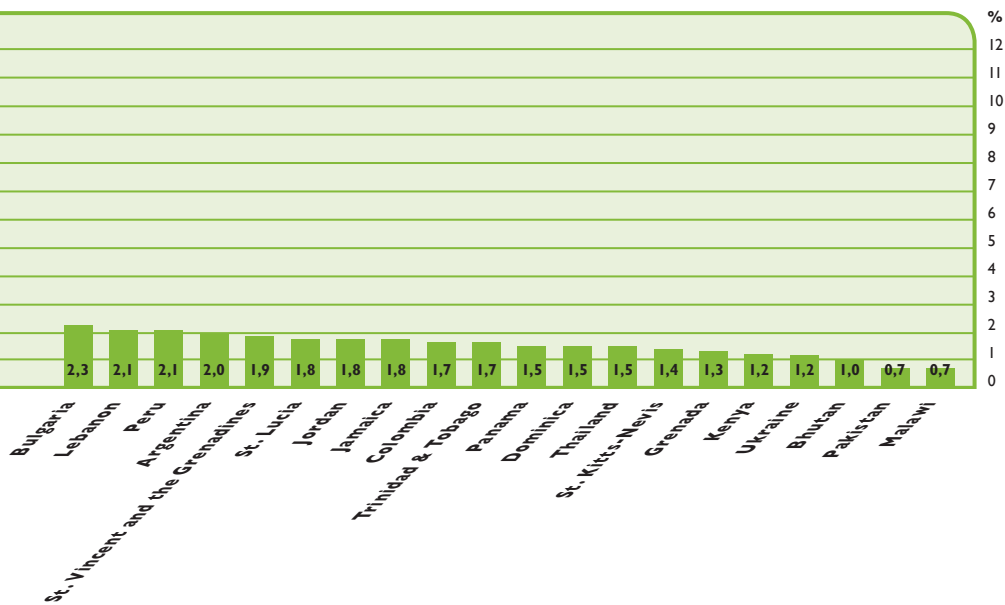
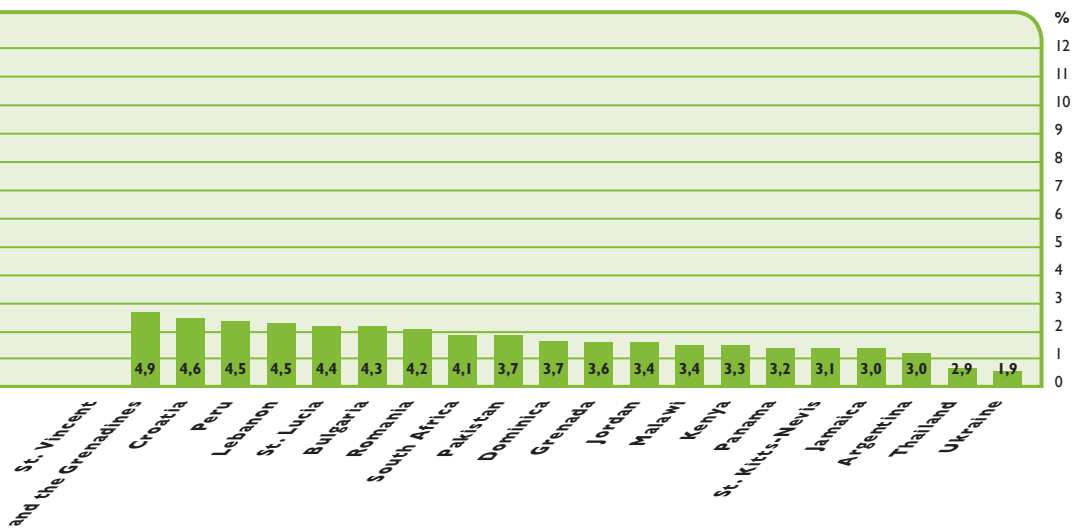


Table 19 Employment in the copyright-based industries as a percentage of the total employment per country

	Reference year	Core	Inter-dependent	Partial	Non-dedicated	Total
<b>Argentina</b>	2008	2,00	0,30	0,50	0,20	3,00
<b>Australia</b>	2007	4,97	1,81	0,57	0,65	8,00
<b>Bhutan</b>	2008	1,03	0,29	7,19	1,61	10,13
<b>Brunei</b>	2006	3,20	1,00	1,50	0,90	6,60
<b>Bulgaria</b>	2005	2,29	0,73	0,27	1,00	4,30
<b>Canada</b>	2004	4,00	0,91	0,16	0,33	5,40
<b>China</b>	2006	3,14	1,90	0,85	0,63	6,51
<b>Colombia</b>	2005	1,70	0,70	1,90	1,50	5,80
<b>Croatia</b>	2004	3,22	0,93	0,41	0,08	4,64
<b>Dominica</b>	2010	1,52	0,04	0,21	1,98	3,70
<b>Finland</b>	2012	4,10	0,47	0,24	0,33	5,14
<b>Grenada</b>	2010	1,34	0,38	0,82	1,05	3,60
<b>Hungary</b>	2002	4,15	1,25	0,61	1,07	7,10
<b>Jamaica</b>	2005	1,79	0,31	0,23	0,68	3,03
<b>Jordan</b>	2006	1,83	0,66	0,55	0,36	3,39
<b>Kenya</b>	2007	1,20	0,75	1,04	0,27	3,26
<b>Latvia</b>	2000	3,70	0,70	0,44	0,75	5,59
<b>Lebanon</b>	2005	2,11	0,73	0,70	0,95	4,49
<b>Lithuania</b>	2008	3,03	0,80	0,26	0,82	4,92
<b>Malawi</b>	2009	0,65	2,43	0,11	0,17	3,35
<b>Malaysia</b>	2005	4,70	1,60	0,90	0,20	7,50
<b>Mexico</b>	2003	3,41	3,65	2,53	1,41	11,01
<b>Netherlands</b>	2005	6,20	0,60	1,10	1,00	8,80
<b>Pakistan</b>	2000	0,70	0,04	1,37	1,60	3,71
<b>Panama</b>	2006	1,52	1,20	0,31	0,13	3,17
<b>Peru</b>	2005	2,09	0,14	0,07	2,20	4,50
<b>Philippines</b>	1999	8,81	1,40	0,20	0,60	11,10
<b>Republic of Korea</b>	2009	2,85	1,59	0,67	1,12	6,24
<b>Romania</b>	2005	2,36	0,58	0,82	0,43	4,19
<b>Russia</b>	2004	4,29	0,75	0,56	1,69	7,30
<b>Singapore</b>	2001	3,64	1,24	0,18	0,74	5,80
<b>Slovenia</b>	2007	4,60	0,80	0,70	0,70	6,80
<b>South Africa</b>	2008	2,31	0,51	0,23	1,03	4,08
<b>St. Kitts-Nevis</b>	2010	1,44	0,45	0,81	0,41	3,10
<b>St. Lucia</b>	2010	1,85	0,33	1,09	1,14	4,40
<b>St. Vincent and the Grenadines</b>	2010	1,91	0,17	1,01	1,81	4,90
<b>Tanzania</b>	2010	2,56	2,14	0,29	0,64	5,63
<b>Thailand</b>	2006	1,50	0,29	0,68	0,39	2,85
<b>Trinidad &amp; Tobago</b>	2011	1,66	0,19	0,39	2,56	4,99
<b>Ukraine</b>	2005	1,16	0,46	0,08	0,20	1,90
<b>USA</b>	2012	4,04	n/a	n/a	n/a	8,35

## 7. Conclusions

This study covered the economic contribution of copyright-based industries during the years 2009, 2010, 2011 and 2012. The relative contribution of all copyright-based industries remained rather steady during the years under examination; while in 2009 this contribution was 5.11 percent, the respective figure for 2012 was 5.14 percent. The combined value added for the copyright-based industries was €8.12 billion in 2009 and €9.10 billion in 2012. The contribution of the core copyright industries decreased from 3.81 percent in 2009 to 3.77 percent in 2012. The share of non-dedicated support industries decreased slightly from 2009 to 2012 while the contribution of the interdependent industries increased from 0.43 percent in 2009 to 0.50 percent in 2012. Major reason for the improvement is the increase in the value of paper production. The paper industry is one of the major industries in the Finnish economy, and therefore, although only a portion of the paper industry's value-added is calculated as being copyright-based, an increase in pulp and paper production heavily affects the numbers of the interdependent copyright industries.

The copyright-based industries employed a total of 125 601 people in 2009 and 124 052 people in 2012. In 2009 this represented 5.11 percent of

the total employed workforce while the respective number for 2012 was 5.14 percent. Both the total number of employees in the copyright-based industries and the relative proportion of this workforce slightly decreased from 2009 to 2012. This decrease is almost totally due to the decline of the workforce in the subcategories of paper and press and literature, which have decreased their number of employees significantly.

When comparing this to previous studies made in Finland one has to be cautious. The earlier reports (except previous report published in 2010) do not fully apply the methodology of the WIPO Guide and therefore the results are not fully comparable. However, the differences between the used methodologies are not major. That is particularly apparent when it comes to the core copyright industries, in which the differences are insignificant. The economic contribution of core copyright industries was 3.28 percent of GDP in the year 2000 and had reached 3.77 percent by 2012. One can conclude that the economic contribution of the core copyright industries has shown a moderate growth over the past twelve years. During the same period the copyright-based industries' share in relation to total employment has also increased, although slightly

less than the value added share has. Specifically, in the year 2000 the core copyright industries represented 3.96 percent of the total employed workforce while the respective share in 2012 was 4.10 percent.

This report applied the WIPO Guide on Surveying the Economic Contribution of the Copyright-Based Industries. The high-grade statistical system of Finland enables the report to capture accurately copyright-based activities according to the WIPO Guide. However, the WIPO Guide requires assessment and judgement in certain aspects, for example, when measuring the copyright factors of independent and partial copyright industries. In this report the researchers were cautious and used moderate assumptions when calculating the copyright factors. Therefore one can say that the economic contribution figures of this research paper are more likely to underestimate than overestimate the importance of the copyright industries' contribution to the economy.

The WIPO Guide on Surveying the Economic Contribution of the Copyright-Based Industries was published in 2003 and the experience of its implementation reveals a level of variations. There are obviously differences in the availability of statistics or industry categorisations, but practices also vary in terms of dealing with missing data, using copyright factors, and reporting

results on foreign trade. In particular, the use of copyright factors is an issue that requires caution when making international comparisons. Some of the reports do not reveal what copyright factors have been used and what weight is given to interdependent, partial or non-dedicated support industries.

The international comparisons made in Chapter 6 indicate that Finland ranks high in terms of the contribution of its core copyright industries rather than the overall contribution of all its copyright-based industries. This means that the non-core copyright industries contribute less in Finland than in many other countries. Nevertheless, it should be kept in mind that certain national reports are not entirely transparent on the calculation of the contribution of the non-core copyright industries and therefore the comparison has to be interpreted with caution. Further alignment of the methodology implementation would be desirable. In this regard it would be helpful if WIPO could introduce standard copyright factors or, take the differences of various economies into consideration when developing the WIPO methodology. Researcher meetings and an organised researchers' network would be beneficial for the further development of the research methodology, as well as for the standardisation of the implementation of the methodology. WIPO's expertise and

resources are valuable in the coordination of these further development activities.

In 2009 a revised statistical standard industrial classification, TOL 2008, was introduced in Finland. The new classification has several differences compared to the old one. One of the important changes is that publishing activities have been moved from manufacturing to a new section called information and communication. The content of the classification has changed most and nearly 100 categories have been added at the most detailed level. For surveying the economic contribution of the copyright industries the new classification changes will probably mean the availability of more detailed statistical data. However, it also

means that increased consideration and analysis is needed when making comparisons with previous surveys.

TOL 2008 is based on the European Union's classification of economic activities, NACE Rev. 2. The revised standard industrial classification was introduced simultaneously in all EU countries. The standard industrial classification of the United Nations was also harmoniously revised at the same time. However, the introduction timetable is less synchronous outside the European Union. When the statistical classifications become internationally more uniform, more coherent international survey methods will obviously be facilitated and the making of international comparisons will become easier.

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## Appendices

Appendix 1: Copyright-based industries and related activities with corresponding industry classification codes and the used copyright factors.

CORE COPYRIGHT INDUSTRIES		
CATEGORY	ACTIVITIES	CORRESPONDING INDUSTRIES IN FINNISH TOL 2008 CLASSIFICATION
<b>Press and Literature</b>	Authors, writers, translators	Not available for annual bases
	Newspapers	58130 Publishing of newspapers
	News and feature agencies, etc.	6391 News agencies
	Magazines and periodicals	5814 Publishing of magazines and periodicals
	Books, maps	58110 Publishing of books
	Other publishing (cards, directories, etc.)	1811 Printing of newspapers
	Pre-press, printing, and post press of published materials	1812 Other printing 1814 Bookbinding 1813 Pre-press activities
	Wholesale and retail of press and literature	46492 Wholesale of books 47610 Retail of books 4762 Retail sale of newspapers and periodicals 47792 Retail sale in antiquariums 47911 Retail of books by mail and internet, this category includes also music and film sold through these channels
Libraries	Cultural statistics, public and scientific libraries	
<b>Music, Theatrical Productions, Opera</b>	Composers, lyricists, arrangers, choreographers, directors, performers, etc.	Not available for annual bases
	Printing and publishing of music	59200 Publishing of recorded music
	Reproduction of recorded music	1820 Production of sound, movie and data recordings
	Wholesale and retail of recorded music	46432 Wholesale of entertainment electronics. The values are derived from Finnish sound recording producers' estimations
	Artistic and literary creation and interpretation	9003 Artistic and literary creation. Includes contract or commission based or freelance activities of artists and firms that are also working on areas other than music. Not possible to attribute to all relevant fields of activity on an annual basis
	Performances and allied agencies (booking agencies, ticket agencies, etc)	90040 Activities of art institutions 9002 Support activities for culture and entertainment



<b>CORE COPYRIGHT INDUSTRIES</b>		
<b>CATEGORY</b>	<b>ACTIVITIES</b>	<b>CORRESPONDING INDUSTRIES IN FINNISH TOL 2008 CLASSIFICATION</b>
<b>Film and Video</b>	Writers, directors, actors, etc.	Not available for annual bases
	Motion picture and video production	5911 Motion picture and video production 5912 Post production activities of film, video and television programmes
	Motion picture and video distribution	5913 Motion picture, video and television content distribution
	Motion picture exhibition	5914 Motion picture and video projection
	Video rentals and sales	77220 Renting of video films The category supplemented by statistics on video and DVD sales and value added and employment calculated according to sample survey from Orbis database
<b>Photography</b>	Photographic services, studios, etc.	74201 Photographic studios
<b>Visual and Graphic Arts</b>	Artists	Not available for annual bases
	Art galleries and other wholesale and retail	47781 Art galleries
	Graphic design	74101 Graphic design
<b>Radio and Television</b>	Radio and television activities	60 Radio and television activities
<b>Software and Databases</b>	Programming, development, and design	5829 Software publishing 620 Other software consultancy and supply
	Wholesale and retail	4651 Wholesale of computers, computer peripheral equipment and software 47411 Retail sale of computers, computer peripheral equipment and software
	Databases, processing and database publishing	6311 Data processing services
	Advertising	Agencies, buying services
<b>Copyright Collecting Societies</b>	Copyright Collecting Societies	91110 Business and Employers' associations, Annual statements of Copyright Collecting Societies

All the subcategories of the core copyright industries are included in the calculations of the economic contribution of copyright. Thus their copyright factor is 100%.

<b>INTERDEPENDENT COPYRIGHT INDUSTRIES</b>			<b>Copyright factor</b>
<b>CATEGORY</b>	<b>ACTIVITIES</b>	<b>CORRESPONDING INDUSTRIES IN FINNISH TOL 2008 CLASSIFICATION</b>	<b>Finland</b>
<b>TV sets, Radios, VCRs, CD Players, DVD Players, Cassette Players, Electronic Game Equipment, and Other Similar Equipment</b>	Manufacture	2640 Manufacture of entertainment electronics	35%
	Wholesale and retail	46432 Wholesale of entertainment electronics 4743 Retail sale of entertainment electronics	
<b>Computers and Equipment</b>	Manufacture	262 Manufacture of computers and peripheral equipment	35%
	Wholesale and retail	4651 Wholesale of computers, computer peripheral equipment and software 4741 Retail sale of computers, peripheral equipment and software	
<b>Musical Instruments</b>	Manufacture	322 Manufacture of musical instruments	20%
	Wholesale and retail	46494 Wholesale of musical appliances 47595 Retail sale of musical instruments and appliances	
<b>Photographic and cinematographic instruments</b>	Manufacture	267 Manufacture of optical and photographic appliances	30%
	Wholesale and retail	46433 Wholesale of photographic appliances and supplies	
<b>Photocopiers</b>	Manufacture	2820 Manufacture office machinery and appliances	30%
	Wholesale and retail	4660 Wholesale of other office machinery and appliances 52493 Retail sale of office machinery and communication appliances	
<b>Blank recording material</b>	Manufacture	2680 Manufacture of blank recording material	25%
	Wholesale and retail	4652 Wholesale of electronic and communication components 4763 Retail sale of music and video recordings	
<b>Paper</b>	Manufacture	1712 Manufacture of paper and paperboard	25%
	Wholesale and retail	46181 Agenture of paper products	

<b>PARTIAL COPYRIGHT INDUSTRIES</b>			<b>Copyright factor</b>
<b>Economic activity</b>	<b>ISIC rev. 3.1 code</b>	<b>Finnish TOL 2008 code</b>	<b>Finland</b>
<b>Apparel textiles and footwear</b>	1810 Manufacture of wearing apparel	14 Manufacture of clothing	2,7 %
	1721 Manufacture of made-up textile articles		
	1920 Manufacture of footwear	152 Manufacture of footwear	2,7 %
	5131 Wholesale of textiles, clothing and footwear	4642 Wholesale of clothing and footwear	2,7 %
	5232 Retail sale of textiles clothing footwear and leather goods	4751 Retail sale of textiles 4771 Retail sale of clothing 4772 Retail sale of footwear and leather goods	2,7 %
<b>Jewelry and coins</b>	3691 Manufacture of jewelry and related articles	362 Manufacture of goldsmith's products and coins	33,5 %
	5139 Wholesale of other household goods	51489 Wholesale of other household goods	5 %
	5239 Other retail sale in specialised stores	52445 Retail sale of household goods n.e.c.	2,7%
<b>Other crafts</b>	9199 Activities of other membership organisations n.e.c.	91339 Activities of other membership organisations n.e.c.	41 %
	5239 Other retail sale in specialised stores	52499 Retail sale in specialised stores n.e.c.	2,7%
<b>Furniture</b>	3610 Manufacture of furniture	310 Manufacture of furniture	6,7 %
	5139 Wholesale of other household goods	46470 Wholesale of furniture, carpets and lightning	5 %
<b>Household goods, china and glass</b>	2610 Manufacture of glass and glass products	2313 Manufacture of hollow glass products 2341 Manufacture of ceramic household goods and apparel	0,55 %
	173 Manufacture of knitted and crocheted fabrics and articles	132 Manufacture of fabrics, 133 Finishing of fabrics	0,55 %
	2029 Manufacture of other products of wood	16290 Manufacture of other products of wood, cork, straw and twining	0,55 %
	2899 Manufacture of other fabricated metal products n.e.c.	2599 Manufacture of other fabricated metal products	0,55 %
	5139 Wholesale of other household goods	4649 Wholesale of other household goods	5 %
	5239 Retail sale of household appliances, articles and equipment	47599 Retail sale of household goods n.e.c.	2,7 %
		1393 Manufacture of carpets	1,9 %
<b>Wall coverings and carpets</b>	1722 Manufacture of carpets and rugs	1729 Manufacture of other articles of paper and paperboard	1,9 %
	2109 Manufacture of other articles of paper and paperboard	477 Other retail sale in specialised stores	2,7 %
	5239 Other retail sale in specialised stores		
<b>Toys and games</b>	3694 Manufacture of games and toys	324 Manufacture of games and toys	46 %
	5139 Wholesale of other household goods	4649 Wholesale of other household goods	5 %
	5239 Other retail sale in specialised stores	477 Other retail sale in specialised stores	2,7 %
<b>Architecture, engineering, surveying</b>	7421 Architectural and engineering activities and related technical consultancy	711 Architectural and engineering activities and related technical consultancy	9 %
<b>Interior design</b>	7499 Other business activities n.e.c.	74102 Interior design	
<b>Museums</b>	9232 Museums activities and preservation of historical sites and buildings	9102 Museums 9103 Activities and preservation of historical sites	50 %

<b>NON-DEDICATED SUPPORT INDUSTRIES</b>			<b>Copyright factor</b>
<b>Economic activity</b>	<b>ISIC rev. 3.1 code</b>	<b>Finnish TOL 2008 code</b>	<b>Finland</b>
<b>General wholesale and retailing</b>	513 Wholesale of household goods	46150 Agenture of furniture, household goods and hardware	6%
	515 Wholesale of machinery, equipment and supplies	4614 Agenture of machinery and equipment	
	519 Other wholesale	4619 General agenture activities	
	521 Non specialised retail trade in stores	52630 Non-specialised retail trade in stores	
	523 Other retail trade of new goods in specialised stores	52499 Retail trade n.e.c.	
	525 Retail trade not in stores	479 Retail trade not in stores	
<b>General transportation</b>	601Transport via railways	491 Passenger transport via railways, 492 Cargo transport via railways	6%
	602 Other land transport	493 Other land transport	
	61 Water transport	50 Water transport	
	62 Air transport	51 Air transport	
	6301 Cargo handling	5224 Cargo handling	
	6302 Storage and warehousing	5210 Storage and warehousing	
	6303 Other supporting transport activities	522 Other supporting transport activities	
	6304 Activities of travel agencies and tour operators; tourist assistance activities n.e.c.	791 Activities of travel agencies and other tourist assistance activities	
	6411 National post activities	6412 National post activities	
	6412 Courer activities other than national post activities	532 Courer activities other than national post activities	
<b>Telephony and internet</b>	6420 Telecommunications	61 Telecommunications	6%
	7240 Database activities and on-line distribution of electronic content	7241 Data processing, letting of server space, and associated services, web portals	



# **ECONOMIC CONTRIBUTION OF COPYRIGHT-BASED INDUSTRIES IN FINLAND 2009 – 2012**

The study was commissioned by the Finnish Ministry of Education and Culture and the Finnish Copyright Society, and was carried out by Brahea Centre, at University of Turku. Mr. Mikko Grönlund, Research Manager, Mr. Veijo Pönni and Mr. Timo E. Toivonen, Researchers, and Mr Petteri Sinervo, Head of Development, were responsible for the practical implementation of the study.

## **Publication Series of the Finnish Copyright Institute**

The Finnish Copyright Institute, established within the Finnish Copyright Society, publishes in its Publication Series studies, articles, research reports etc. Furthermore, the Institute publishes materials on legislation, preparatory legislative documents and case law.

FINNISH COPYRIGHT SOCIETY  Finnish Copyright Institute

### **Address of the Institute:**

Finnish Copyright Society  
Suomen Tekijänoikeudellinen Yhdistys r.y  
Urho Kekkosen katu 2 C • 00100 Helsinki

Phone +358-9-6810 1279 • e-mail [mair.wikholm@copyrightsociety.fi](mailto:mair.wikholm@copyrightsociety.fi)



Ministry of Education and Culture



Turun yliopisto  
University of Turku