

**2007 WIPO STUDY
OF THE ECONOMIC
CONTRIBUTION
OF THE COPYRIGHT-BASED
INDUSTRIES IN BULGARIA**

Based on the Year 2005

Sofia, June 2007

The authors are fully responsible about their authorship, the original nature of this work and any errors admitted by their fault.

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EXECUTIVE SUMMARY

This survey is the first comprehensive study of the contribution of copyright and related rights-based industries (copyright-based industries) to the Bulgarian economy. It was conducted in the period August 2006 – February 2007 on the initiative of the Bulgarian government and with the financial support of the World Intellectual Property Organization (WIPO).¹ The adoption of NACE international classification of economic activities by the National Statistical Institute (NSI) in 2003 (Bulgarian National Classification of Economic Activities NKID-2003) was important precondition for the study, allowing the application of WIPO methodology. The information about the years 2003 and 2005 allowed an evaluation of the real situation at the end of 2005 and the development of these industries for a three-year period.

Carrying out this study was an expression of the Bulgarian government's adherence to the principle that IP protected knowledge is of key importance for the wealth of the nations. This principle, widely accepted among the developed countries, places creative (or copyright) industries at the focus of public policy. Following this policy, the OECD countries developed relevant infrastructure and boosted the implementation of intellectual property legislation, which transformed copyright industries into one of the most rapidly developing economic sectors. After 1998 a number of Bulgarian governments have made significant efforts to limit the piracy of protected goods and services and to impose intellectual property rights legislation. In 2006 the present government launched a National campaign for protection of copyright aiming at raising public awareness and further strengthening the implementation of copyright law. The present study is part of these efforts, since it provides objective economic data for designing better policy in the filed and contributes to the general positive change in public attitudes towards copyright based industries.

¹ This Study has been accomplished by a research team lead by Ass. Prof. Ivan Tchalakov, PhD (Plovdiv University and Institute of Sociology, BAS). The members of the team were Dr. Vladya Borisova (Assist. Prof. at the Intellectual Property Department, University of National and World Economy - Sofia), Donka Keskinova (Assist. Prof. at Department of Sociology, the Plovdiv University), Assoc. Prof. Jordan Kalchev (National Statistical Institute) and experts of the Ministry of Culture – Georgi Damyanov (Director of the Copyrights Directorate), Dr. Rossitza Arkova (Chief expert at the Strategies and Programming Directorate) and Tsveta Andreeva (Chief expert at the EU Integration and International Cooperation Directorate). The work of the team was under the close supervision of the Deputy Minister of Culture, Mrs. Ina Kileva. Consultant on behalf of the WIPO was Prof. Robert Picard from the Jönköping International Business School, Sweden. Dr. Dimitar Ganchev, Acting Director, Creative Industries Division of WIPO, monitored the execution of the project at all stages. Of great importance was the close cooperation with the experts of the NSI, Mr. Todor Todorov, Director of the National Accounts Directorate, and Ms. Ljuba Yaneva, Head of Business Statistics Department.

The Center for Intellectual Property, University of National and World Economy in Sofia, and Department of Sociology, University of Plovdiv supported the team during the execution of the project.

The methodology of the study is based on a secondary analysis of main economic indicators such as *Value added, Gross output, share of imports and exports and employment*, which have been analyzed for each of the copyright related economic activities. These activities are classified in four groups – core, interdependent, and partial copyright industries, together with the group of non-dedicated support industries. The economic contribution of core and interdependent industries is considered as 100% copyright related, while for the other two groups a specific *copyright factor* is applied, following the methodology of WIPO and experience of research in Hungary, USA, Singapore, Latvia, and others.

Typology of copyright-based industries according to WIPO methodology

Core industries - those with highest contribution of copyright to the created value added: press and literature; visual and graphic arts; music theater and operas, photography, motion picture and video, radio and television, advertising, software and databases.

Interdependent industries - manufacturing and trade of equipment, instruments and products used entirely or mainly in core copyright industries: computers, photographic and cinematographic equipment, radio and television devices, paper, blank recording materials.

Partial industries - those in which only a part of activities are related with copyrights and related rights: apparel, textile and footwear, furniture, jewellery, artistic arts, toys and games, domestic and home appliances and goods, architecture, activities of museums.

Non-dedicated support industries - they facilitate distribution and sales of copyright protected goods and services: telecommunications including Internet, transportation, general wholesale and retail.

In its analysis of the manner of collection and calculation of the macroeconomic data applied by Bulgarian NSI, the survey team has reached the conclusion that, for now, *a more appropriate idea about the economic contribution of the copyright-based industries can be provided by their share of the gross value added (GVA) at basic prices rather than the gross domestic product (GDP) at market prices*. In addition to GVA as its basis, the latter includes also indirect taxation, excise duties and customs duties (all having greater impact on the goods for massive consumption non-related to creative industries), which changes the basis for comparison artificially reducing the share of copyright industries. In addition to that the NSI methodology does not take into account the own income of such large cultural institutions as the National Television, National Radio, state and municipal theatres, operas, dance groups, museums and galleries, etc. (which, according to the experts, exceeds 20% of their subsidies).

The WIPO methodology has been applied to the most detailed level in the Bulgarian survey – *to the primary data by each of the studied codes of economic activities in the classification of Bulgarian version of NACE (NKID-2003)*. This has made it possible to process information about the *intangible fixed assets of the companies* (including rights on products of intellectual property, software, R&D products), *net sales, profit from main activities, intermediate consumption* and others. The collected CI economic data for 2003 and 2005 allows for additional specialized analyses of different segments of the copyright-based industries, including in-depth analyses of the most successful and rapidly developing sectors of software, publishing and printing, and film industries. These data are also a good basis for future comparisons on a national and international scale.

The overall contribution of the copyright-based industries to the GDP in 2005

In 2005, gross output of BGN 4.155 billion and value added of BGN 1.204 billion were generated by economic activities related to copyright and related rights. The core copyright industries had the greatest economic contribution in the sector – they produced gross output of BGN 2.498 billion and value added of BGN 672 million.

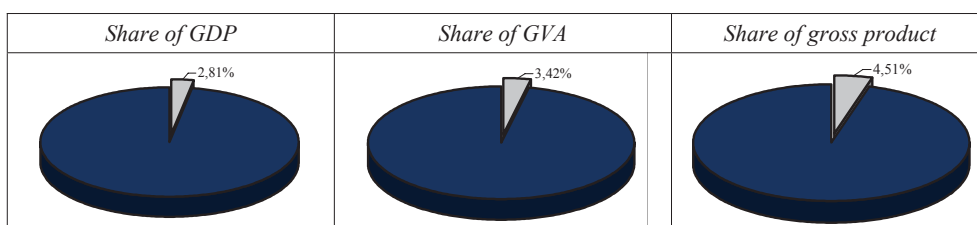
Core CI (Gross output)	Total BG Gross output	Core Share of BG Gross Output
2 498 559	92 132 091	2,71%
Total Copyright (Gross output)	Total BG Gross output	Total Share of BG Gross Output
4 155 101	92 132 091	4,51%

Core CI (value added)	Total BG Gross Value Added	Core Share of BG Gross Value Added
672 270	35 220 410	1,91%
Total Copyright (value added)	Total BG Gross Value Added	Total Share of BG Gross Value Added
1 204 229	35 220 410	3,42%

When calculated in comparison to the gross domestic product, the total contribution of the copyright industries is 2.81% and that of the core industries alone is 1.57%.

Core Copyright (value added)	Total BG GDP	Core share of BG GDP
672 270	42 797 407	1,57%
Total Copyright (value added)	Total BG GDP	Total share of BG GDP
1 204 229	42 797 407	2,81%

The economic contribution of the copyright industries in 2005 can be represented graphically in the following way:

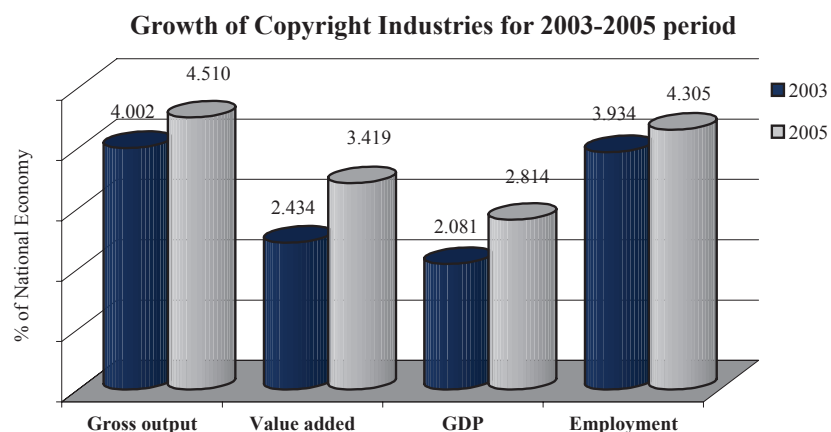


The 'static' outline of the share of CI industries economic contribution reveals a significant, though smaller in size, sector of Bulgarian economy. This outline, however, does not give a correct idea of the CI industries growth rates, in terms of which they are among the most rapidly developing sectors of the economy. According to the survey's findings, in the period 2003-2005 the gross value added derived from the current prices index grew by 50% over three years only, which exceeded the growth rates of the economy as a whole (11.5%). If favorable conditions continued and adequate public support is provided, the sector may become one of the engines of the Bulgarian economic development in near future.

Rates of change in value added for 2003-2005

Growth Core Copyright (value added)	Growth Total Copyright (value added)	Growth BG Gross Value Added	Growth BG GDP
52,8%	49,9%	10,8%	11,5%

The information about the copyright-based industries is obtained as a ratio of the values for 2005 and 2003 adjusted with an inflation index; the data about the national economy are taken from Table 1.2.22 in 2005 Main Economic Indicators, National Accounts Section (www.nsi.bg).



Employment in the sector of copyright-based industries

In 2005, 104,814 people in Bulgaria were employed in economic activities related to copyright and related rights, almost one in every 20 people employed. 55,861 people worked in the core copyright-based industries only, i.e. more than half of the people employed in the sector.

Core Copyright (number of employed)	Total BG employed	Core Share of BG employed
55 861	2 434 726	2,29%
Total Copyright (number of employed)	Total BG employed	Total Share of BG employed
104 814	2 434 726	4,31%

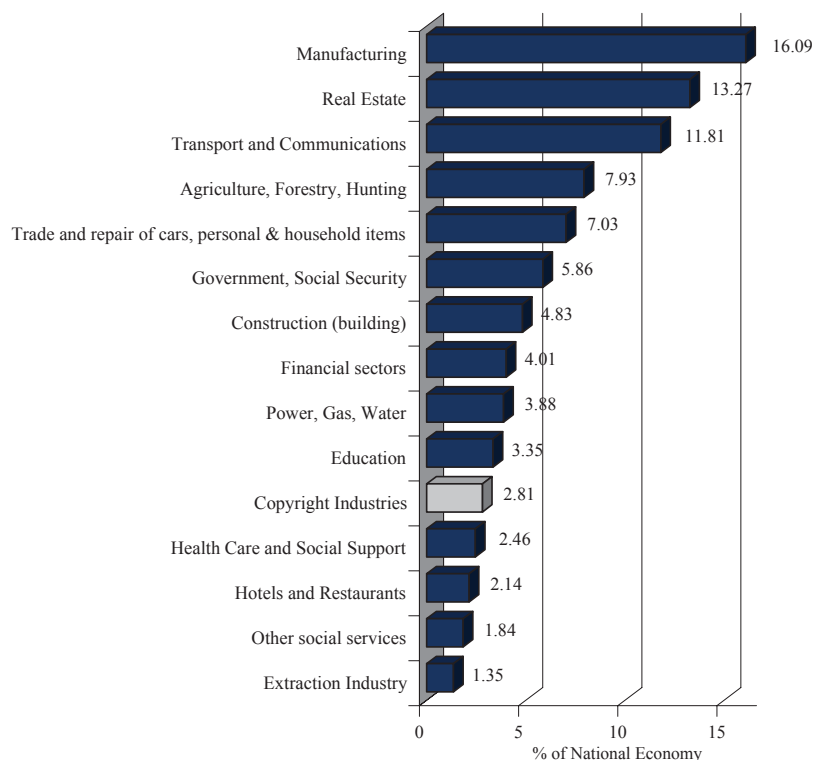
A fast increase in the number of people employed in copyright-based industries is registered for the period 2003-2005. The growth rate exceeds more than three times the growth of employment in the economy as a whole.

Core Copyright (growth of employed 2003-2005)	Total Copyright (growth of employed 2003-2005)	Total BG Employment Growth
12,3%	13,3%	3,5%

Comparison with other sectors of the economy

The copyright-based industries are not monitored separately in the Bulgarian National Statistics. Hence they have been relatively undervalued in this comparison, since the respective economic activities have already been included in some of the monitored sectors. In terms of their gross value added share for 2005, the copyright-based industries rank 11th – before “Health care,” “Hotels and restaurants,” and “Extraction industries”. The value added generated by the copyright-based industries (3.42%) is about 3/4 of the value added in such an important sector as “Generation and distribution of electric power, gas and water” and has a significantly larger contribution than the “Hotels and restaurants” sector! As for the contribution to the gross domestic product (GDP), the share of the copyright-based industries is 2.81% – a value that exceeds twice the share of “Extraction industries” and is higher than the one of “Hotels and restaurants”. With respect to employment, the copyright-based industries occupy the 10th place, higher than “Hotels and restaurants” and “Agriculture, forestry, hunting and fishing.”

Copyright Industries Share in GDP compared with other sectors in BG Economy

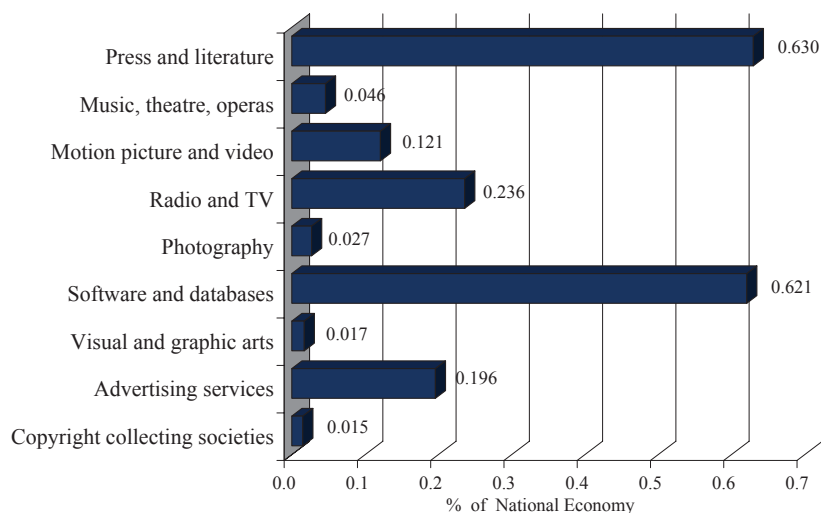


Leading sectors in the copyright-based industries

Book publishing and print and *Software and databases* are the two largest core copyright-based industries – they both contributed 0.51% each to the gross value added in the country in 2005. The value added per person employed was the highest in the *Radio and television industry* – BGN 25 287. It is followed by *Production and distribution of motion picture and video* with BGN 19 503 and *Software and databases* – BGN 18 522 per employed.

In 2005 the inflation index-adjusted value added, generated by the core industries, grew by 52.8% compared to 2003. The greatest growth is registered in *Production and distribution of motion picture and video* – 166%, i.e. it almost tripled! The main activity in this industry exhibits the greatest growth among all copyright-based economic activities of 225%! In 2003, this sector fell under to the same economic level with other, such as *Theatre and music*, *Visual and graphic arts*, *Photography*. It detached from the group in three years only and became an industry in the proper sense of the word.

Relative contributions of Core Copyright Industries to the Bulgarian GVA in 2005



The second fastest developing sector is *Software and databases* – it registers growth by 93%; its key activity of development of original software for customer needs and design of websites grew by 108%. The interviews, carried out with experts in the field confirmed the positive effects of the current efforts to increase the share of legal software used by the enterprises – it improves their efficiency, the quality of end products and their competitiveness.

The third fast developing sector is *Architecture* which falls into the category of partial copyright-based industries. During the surveyed period, it showed a growth in value added by 81% taking into account the inflation, a growth in gross product by 23% and 16% of growth in employment. Using real numbers, the contribution of the sector to the GVA is BGN 15.3 million and this is the number calculated after a 90% reduction (10% copyright-based factor). The importance of the sector must not be underestimated because there is a hidden potential here, which is not accounted for by NSI due to the peculiarities of the construction sector as a whole.

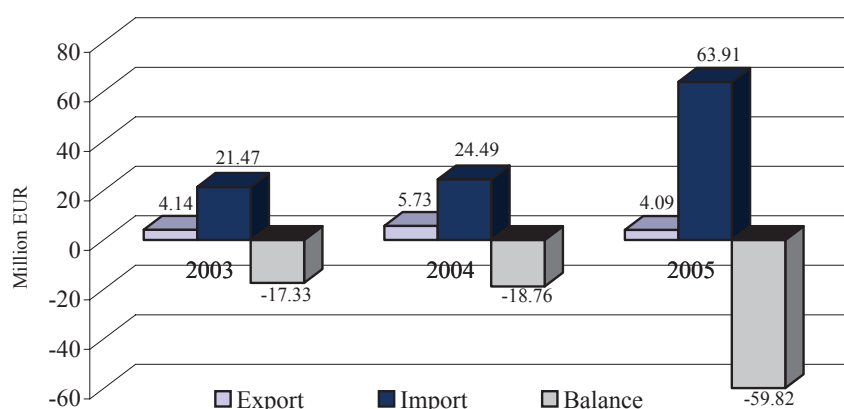
More comprehensive studies have to be conducted in CI leading sectors, so that sources of their growth and the problems artists and entrepreneurs face are identified, and brought to the focus of attention of public authorities and branch associations.

The core CI value added share is 2,12% of Bulgarian GDP for 2005, thus higher those of extraction industries and closer to the share of ‘hotels and restaurants’. The share of the seven culture-related core CI (without out *software and advertising*) in 2005 GDP equals to 1,27%, while to total government subsidies to culture related activities for 2005 is 0,72% of GDP – about one third of core CI economic contribution and slightly more the half of the seven ‘cultural’ CI economic contribution. . These results demand that public policy with regard to the structure and management of subsidized cultural activities should be changed.

Imports and exports of products of copyright-based industries for the period 2003-2005

Bulgaria is a *net importer of products protected by copyright and intellectual property rights in general* – for the past years, the compensation paid abroad for using products of intellectual property has increased from EUR 21.5 million to EUR 64 million while the income received from sale of domestic intellectual property abroad has reached a level of EUR 4-5 million a year. It is obvious that the first success stories in fighting intellectual piracy, and strengthening legislation in this field, have resulted in a triple increase in payments made abroad, whereas the income from rights and licenses in Bulgarian products of intellectual property remains at a constant level.

Royalties and taxes for copyrights and related rights, paid to and by the Bulgarian national economy 2003-2005



The exported goods and services of the *Publishing and printing* industry amounted to between Euro 5.45 million and Euro 6.84 million a year for the period 2003-2005 while the imports grew steadily and the increase for 2005 only was 68%. The negative trade balance of trading in this group of goods increased respectively and it was Euro 21.27 million in 2005. The exports of the software industry was much better reaching close to Euro 10 million in 2005 which was an increase of 45% in comparison to the previous year; yet, in the experts' opinion, a significant part of these exports is not accounted for in the national statistical information.

The information about the imports and exports of radio and television sets, tape recorders, CD, DVD and other equipment for reproduction and recording of audio and visual carriers shows that the main part of the value added in this interdependent copyright-based industry is realized in imports. During the entire surveyed period, the ratio between imports and exports here was 1:4 to the benefit of imports; the negative trade balance exceeded Euro 400 million in 2005.

The leading partial copyright-based industry is *Apparel, textile and footwear* with a positive balance of Euro 1,13 billion. The survey has shown that there has been a

distinct trend in this sector for the enterprises to appoint professional designers or buy the services of such while the companies more and more often protect their original products and register trademarks.

The *Furniture industry* also exhibits growing volumes of imports and exports given a stable positive balance between EUR 70 million and 80 million. With a higher copyright weight, the industry is ahead of *Apparel, textile and footwear* according to the gross value added. With respect to the *Games and toys* industry, imports and exports are about EUR 20 million annually during the surveyed period with a slight rise in imports. There is a significant grey sector with serious infringements on copyright in computer games, as a result of which Bulgarian game producers are focused primarily on external market; this explains the relatively high levels of exports.

The export-import data on products and services provided by Bulgarian interdependent CI reveal a clear picture of de-industrialisation of the sector. Fifteen years ago most of these industries were among the country's leading, export-oriented industries. Putting aside the paper production there are few items of CI related equipment and apparatuses that are produced and exported. Only limited number of authentic entrepreneurs has managed to preserve and develop small-scale production in specific niches such as blank recording material (CD, DVD), optical and electronic components, etc. Hence the public policies have to stimulate foreign direct investment here, to identify the country specific competitive advantages (research and manufacturing traditions, access to specific markets, attractive factors of production, etc.) and to support the local entrepreneurs with potential to grow.

International comparisons

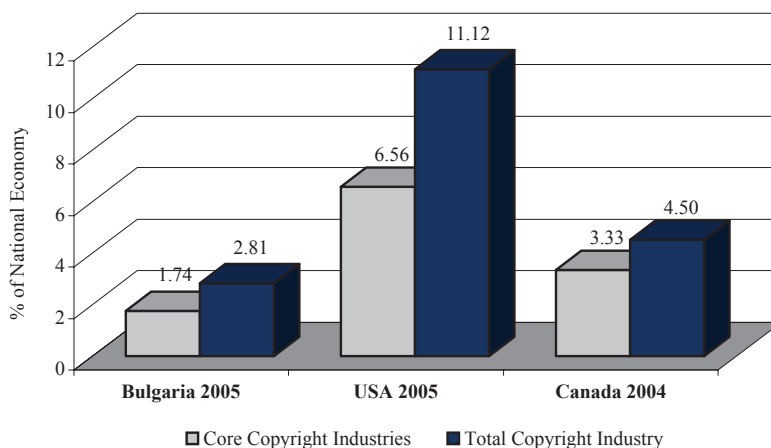
According to the employment figures, the core copyright industries represent a 2,5% share of total employment. This means that Bulgaria is above the average share of 2% for the 15 EU Member States.¹

By share of value added of the core copyright-based industries in 2003 equal to 1.3% of the GDP, Bulgaria does not feature as one of the leading European countries in the field. However the comparison does not take into account the enormous growth in copyright-based industries in Bulgaria over the past three years – 13,3%, four times above the average growth of the economy. The relatively low share can partially be explained by the inability of the national statistical system to register the exact contribution of all copyright-based activities.

The information about 2005 in the USA and about 2004 in Canada allows one to use the Bulgarian data about 2005 in the comparison. It shows that the share of the core copyright-based industries in the GDP of Bulgaria is more than three times lower than that in the USA and more than two times lower than that the Canadian.

¹ According to data from Robert G. Picard, Timo E. Toivonen, Mikko Grönlund (2003) – The Contribution of Copyright and Related Rights to the European Economy Based on Data from the Year 2000.

CI share GDP – Bulgaria, USA and Canada, 2004 - 2005



Employment in the core copyright-based industries in Bulgaria is about twice lower than that in the USA, and comparable to the Canadian. For the period 2003-2005, the growth rate of the core copyright-based industries in Bulgaria calculated as a ratio between the shares of value added in the GDP was 38% – significantly higher than that in the USA and Canada.

Growth rates of share core CI in GDP



Policy issues

Based on the project results the following conclusions and recommendations could be outlined:

1) *The public policy toward CI industries – from ‘public good’ management to correcting market failure in the filed and seed capital for new CI businesses.* The much higher share in value added of the core copyright-based industries in the GDP for 2005 compared with share of government subsidies to culture related activities for 2005 claims for revising of the public policy on management of subsidized cultural activities. These subsidies should be considered not just as ‘public good’ distributed according to society’s long-term social and cultural needs, but rather as partial compensation of he ‘cultural’

CI economic agents for their efforts in response of these needs, as correction of ‘market failures’ in private response of the cultural needs of society, and as ‘seed capital’ for developing new business in the cultural sphere. All this, however, presupposes enlarging the public-private partnership in the management of public subsidies for culture.

2) *The relative homogeneity of the main part of core and partial copyright industries in Bulgaria favors development of the common policy measures in their support, in addition to sector specific policies aiming at fast growing ‘champions’* (book publishing and printing, software, architecture, furniture). The positive trade balance in most of these industries is additional argument in this respect. Possible strategies include improving the general conditions for protection of copyrights, whose importance is already widely recognized among the entrepreneurs in these sectors. In more specific term, it is necessary

- Strengthening the implementation of IP law, especially in distribution of protected items and services via Internet. This should include tightening the control on LANs and cable TV networks in the cities and towns.
- Improving competences and knowledge in copyrights among the representatives of the legal system in Bulgaria, especially among the judges and prosecutors. Special training programs are needed, which have to popularize the best practices and facilitate exchange of information and experience.
- Continuation of the public campaign against intellectual piracy and rising public awareness on the economic losses and moral damages related to it.

3) *Support of the export of locally produced CI products and services.* Measures to improve qualification level among the employees and entrepreneurs in CI. The expert interviews carried out reveal that the transition from small entrepreneurial firms towards larger, corporate businesses leads to a number of problems, the most acute being the lack of managerial skills for running larger enterprises.

4) *Improving the national system of classification of economic activities and statistical data collection is an urgent necessity.* At present number of important CI related economic activities are classified under large mixed codes together with other, irrelevant activities. This requires a lot of additional efforts and recourses and same time make impossible the correct evaluation of CI economic contribution. We recommend that a special task force is set up, and its comprises representatives of various public authorities and institutions, such as the National Statistical Institute, Ministry of Culture, UWE Intellectual Property Department and members of Bulgarian WIPO research team to revise the Bulgarian version of NACE and propose the necessary changes. Such changes will match the dynamic growth of CI industries in the country and provide relevant information to practitioners and policy makers in the field. We especially recommend changes in the twelve codes, described in *Annex 4* of the present report, as well as number of CI related codes in Bulgarian Custom Tariff. The changes in the existing rules for classifying export-import data are also needed. In general, the proposed improvements in Bulgarian economic statistics will stimulate public policy in CI, contribute to the counteraction against intellectual piracy and provide adequate measurements of the effects of anti-piracy campaigns.

5) *The rudimentary status of certain creative occupations such as the design profession emerged as critical point of development, bearing on the development of number of CI sectors.* This profession has not yet assumed the dimensions of an autonomous business field. At present it encompasses a number of various professional activities, related to other CI businesses with a specific attribute, such as fashion design, media design, graphic design, interior design, etc. This impact of these activities on the sectors, no uniform profile, as well as of autonomous institutional and organizational status of design activities, limit the possibilities that their copyrights are protected, and they are safeguarded against misuse. The present situation creates obstacles in building long-term strategies for the sector's development and improving the artistic level of the design profession. Public policy in the field is urgently needed so that the efforts of practitioners are boosted, and a better legal, educational and organizational environment is created for the the sector's autonomous development.

The results obtained in this survey of the creative sector in Bulgaria revealed a new, rapidly growing sector of the economy. They are a solid ground for future studies to serve the needs of policy makers the various stakeholders in the field.