STATE AGENCY ON INTELLECTUAL PROPERTY OF THE REPUBLIC OF MOLDOVA

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MECHANISM
FOR MONITORING THE INTELLECTUAL PROPERTY MARKET IN THE REPUBLIC OF MOLDOVA

developed on the basis of the results of the IP Market Monitoring Mechanism Development Study, conducted by the Institute of Economic Research of the ASM and the Ministry of Economy

Chisinau 2014

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GLOSSARY OF ABBREVIATIONS:

ACTA – Anti-Counterfeiting Trade Agreement
AGEPI – State Agency on Intellectual Property
ANCO – National Association “Copyright”
ANPCI – National Association for the Protection of Intellectual Creation
AsDAC – Association “Copyright and Related Rights”
ASM – Academy of Sciences of Moldova
ATIC – National Association of Private ICT Companies
DB – database
PI – patents for invention
STPI – short-term patents for invention
NBS – National Bureau of Statistics
BOPI – Official Bulletin of Industrial Property
PA – patent application
STPA – short-term patent application
CD – compact disc
CISAC – International Confederation of Societies of Authors and Composers
CIS – Commonwealth of Independent States
CR – copyright
RR – related rights
ID – industrial designs
AO – appellations of origin
DVD – Digital Video Disc
IFPI – International Federation of the Phonographic Industry
SME – small and medium-sized enterprises
EAPO – Eurasian Patent Organization
OECD – Organization for Economic Cooperation and Development
CMO – Collective management organizations
WIPO – World Intellectual Property Organization
IPO – intellectual property objects
ORDA – Republican Office of Copyright
IP – intellectual property
GDP – Gross Domestic Product
ReproMold – PA “ReproMold”
RM – Republic of Moldova
LTD – Limited Liability Company

PRELIMINARY PROVISIONS

The age of the knowledge society requires a huge expansion of intellectual creations, the extensive use of which becomes the only chance of overcoming the limited character of natural resources and transition to innovative way of economic growth. Given the dominance of the principles of market economy in the sphere of production, distribution and consumption of materials and services, fitting of intellectual creations into the economic circuit cannot rely on other means than the market ones.

It is precisely the market mechanisms that create optimal conditions for the efficient consumption of resources, including those of intellectual provenance, for the development of which, of course, are also used material factors. In this sense we can say that the more efficient use of society's intellectual potential and material resources for its creation and maintenance is the strong argument in the favor of creation and expansion of the market of intellectual creations.

Another argument in the application of commercial principles in the functioning of the field of intellectual property is rapid expansion of the weight of intangible assets into the total long-term corporate assets. In the West it has exceeded the cumulative weight of all the other three traditional economic factors. We cannot overlook the fact that the very legal protection of intellectual property objects is intended to transform them into commodities and in this way create favorable conditions for their marketing.

Soviet period resulted in drastic limitations of market relations and also had an impact upon the area of intellectual property and primarily upon industrial property objects.

With respect to intellectual creations pertaining to the field of copyright and related rights, we should mention that they, especially their material carriers, are traditionally quite frequently incorporated into the commercial circuit. Indeed, markets of literary works, musical performances, film production, information products, etc., have already formed and matured, becoming a reality. The main problem of the operation of those segments of the market is high degree of piracy and lack of transparency in their use.

A different situation is seen in the chapter of industrial property. Industrial property objects (patents for invention, product and service trademarks, industrial design, etc.) are much less employed in commercial exchanges by the specific licensing and assignment modalities of the intellectual property market. Said tendency relates especially to developing countries, including RM, in which virtually are absent the traditions of commercial use of industrial property objects, especially patents, industrial design and know-how, etc., which in Soviet period were the exclusive property of the state being totally excluded from the commercial circuit.

Extremely difficult is the situation on reflection of transactions with intellectual property objects in official statistics, and primarily operations on the

domestic market. In this sense, it was created an absolutely paradoxical situation when statistics reflects the indicators for commercialization of a very detailed classified list of material products and services including socks, margarine, mayonnaise, umbrellas, canes, etc., and trade in intellectual products and services, which currently is the core of innovative development and the main resource of information society remains practically anonymous. This state of affairs regarding the lack of available reliable information on the parameters of commercialization of intellectual creations prevents the development and promotion of an appropriate innovation policy.

Statistical data on IPO market parameters are present only on some segments, which indirectly reflect the general trends of functioning of the IP market, their sources being highly dispersed. Among them: Statistical Yearbook of RM, statistical investigations of NBS, registers kept by AGEPI on licensing, assignment and pledge objects industrial property objects, Registry of IOP evaluators, annual reports of ASM divisions, of some ministries and departments, particularly the Ministry of Information Technologies, of Culture, etc., Customs Service and of the National Bank, organizations for collective management of works of CR and RR, nongovernmental and international organizations.

In order to overcome the situation mentioned, in the Action Plan 2012-2015 to the National Intellectual Property Strategy 2012-2020, approved by Government Decision No. 880 of 22.11.2012, was provided a study dedicated to the development of an IP market monitoring mechanism. It was developed under the aegis of the Institute of Economic Research of the ASM and the Ministry of Economy, being conducted by the group of authors composed of: Dr. Iu. Badar (AGEPI), A. Mihai (AGEPI), Dr. A. Novac (INCE), Dr. N. Percinschi (INCE), O. Percinschi (AESM). The results obtained form the basis of this mechanism.

I. MAIN SEGMENTS OF INTELLECTUAL PROPERTY MARKET AND EVOLUTION TRENDS THEREOF

The principle of free access for all economic players to production factors as immanent condition of making more efficient the economic activity is also fully valid in the case of intellectual resources. The specific character of intellectual property objects as commodities has created a special treatment of that segment of the market, which is known in the economic theory and practice through such close notions as market of intellectual property, market of knowledge, market of information, technology transfer, market of licenses, etc. This terminological diversity is due to a real specific character of the notions mentioned, and also the fact that the market of intellectual property is relatively new, much less researched in the theoretical aspect vis-a-vis its traditional components related to tangible goods, services, manpower.

Segmentation of the market of intellectual property objects, in the most general, is the identification of certain categories of consumer of IP with the same

or similar needs, also, of some types of IPO intended for them. It includes the following elements: market of literary works; of audiovisual works, of plastic art creations; market of computer programs and of information, including databases; market of means of individualization; market of patents for invention; that of industrial design, know-how; of R & D results, etc. The last four elements present a market of innovations and are largely associated with the so-called technology transfer. As a generic notion to designate all market segments mentioned, it is often applied the term *market of knowledge*. Of course, it does not meet all market segments of intellectual property. Thus, the market of works of art, of audiovisual works, of distinctive signs, etc., is by no means within the market of knowledge.

The body of applicative knowledge, systematized in patent descriptions, search reports, know-how, technological developments, technical regulations and instructions, etc., used in the production and service provision activity, is in its essence the core of technology. It represents the modalities, the skill of producing and processing raw materials, incorporating also the tools, techniques and related operations, which provide a transformation of the production process[1]. UNCTAD defines technology as a totality of knowledge used in the production or service provision process[2].

Transmission of new technologies from holders (authors, inventors) to users is performed in the technology transfer. More broadly, technology transfer incorporates various ways of disseminating knowledge nationally and internationally and is not limited to commercial forms of their transmission, but also covers non-commercial ones. Commercial form of technology transfer extends primarily to the domain of industrial property and includes activities for the acquisition of new technologies, often together with the respective tools and equipment, those that take place in the course of exhibitions, exchanges of experience, franchising, leasing transactions, provision of engineering services, various forms of cooperation and assistance in science and technology, including in the creation of joint ventures, scientific and production cooperation. Copyright objects are included in the technology transfer only within the limits of activities and areas relating to the transfer of information technologies and the results achieved in scientific research.

Among the most important segments of intellectual property market, as weight, are: market of innovations, of franchises, of computer programs, music market, market of literary works, that of software. Each is a huge area with a strong specific character and deserves a separate approach. This statement is also fully applicable to the territorial aspects of segmentation of the market of intellectual property, and also to the branch ones.

[1] See more detailed the variety of definitions of the technology: Hutu C-A. Organizational culture and technology transfer, Bucharest: ECONOMICA, 1999, P. 43-64.

[2] UNCTAD Doc. TD/CODE TOT/4/1983 P. 2.

Concomitantly, we should note that much of the results of research and innovation activities are commercialized without being patented. The reasons for surrender of patenting are always different, predominating over the opportunity of preserving technical secrets. Protection of intellectual products mentioned is provided under the provisions of the legislation on trade secrets, and to define the object under protection it is usually used the notion of know-how. In the West, the weight in technology transfer of transactions with unpatented technology is comparable to that of patented inventions. In developing countries, the marketing of know-how has not yet turned into a shaped segment of the market of innovations.

IPO market segmentation is usually made in accordance with the typology of intellectual property, which is divided into two main sections: industrial property and the field of copyright and related rights. In this context and proceeding from the actual IP market state in RM as the most important market segments we should mention the following:

A. Market of industrial property objects (patented inventions, trademarks and brands, industrial designs)[3];
B. Market of objects of copyright and related rights:
   1. Music and cinematographic creations (audio-video products);
   2. Literary works and printing industry;
   3. Software;
C. Market of counterfeit and pirated goods;
D. Market of services provided by intellectual property market infrastructure.

A. Market of Industrial Property Objects

Given the lack of statistical information on IPO transactions the main tool for monitoring their market, in the case of industrial property objects for RM is the register of contracts on the commercial use thereof, kept by AGEPI. Entry in it in RM is optional, referring only to transactions in industrial property, and is performed for payment.

Registration of contracts for marketing of industrial property objects by national offices in the field is an obvious specificity of functioning of this market and typically includes assignment, licensing, franchise and pledge contracts. Registration of assignment contracts has a mandatory meaning as it derives from the total transfer of rights in the transferred objects and the need for further modification of the titles of protection by their preparation to the name of the new owner. Regarding the registration of license and franchise contracts, we should

[3] Keeping by AGEPI of a single Register of Industrial Property Objects requires a complex approach thereof and the tiny amount of marketed, assigned, licensed, pledged inventions and ID obviates their division.

mention that in the world practice is applied both mandatory and optional registration thereof.

The correlation between the various ways of commercial use of industrial property objects in the Republic of Moldova, according to data from the Register kept by AGEPI is reflected in Table 1. The information presented shows the total dominance of assignment, the cumulative weight of which for the past 13 years is 86.4%.

This condition is a consequence of the specific character of the assignment, which involves issuing a new title of protection. However, assignment dominance is the result of insufficient transparency in entrepreneurial activities and the increased share of the shadow economy. In such circumstances, the indicators that serve as the basis for calculating the amount of royalties (earned profits, turnover, natural volume of manufactured products, etc.) cannot be reliably determined, and right holders often waive licensing, preferring assignment as an easier way to obtain effects from the marketing of their creations.

Table 1

The dynamics of registration with AGEPI of contracts for commercial use of IPO in the years 2001-2013 (contracts)

Years	License	Assignment	Franchise	Pledge	Total
2001-2005	66	560	6	11	643
2006-2010	82	625	10	3	720
2011	20	219	2	1	242
2012	27	153	3	8	191
2013	23	181	2	10	216
Total	218	1738	23	33	2012
%	10.8	86.4	1.1	1.6	100

Source: AGEPI Annual Reports 2001-2013.

Examination of the information contained in the registers of transfer of rights on industrial property objects only reveals the continuous presence of transactions on the segment of trademarks (Table 2). The weight of inventions and ID is insignificant, and in some periods transactions in these segments are even missing from the records.

Table 2

Number of contracts for commercial use of IPO registered with AGEPI in the years 2007-2013, divided by objects

	2007	2008	2009	2010	2011	2012	2013	Total	%
Total, including:	111	134	131	134	219	153	181	1063	100
Trademarks	109	128	120	132	219	147	176	1031	97.0
Inventions	1	3	4	-	-	2	2	12	1.1
ID	1	3	7	2	-	4	3	20	1.9

Source: AGEPI Annual Reports 2007-2013.

Generalization of data on division of contracts for commercial use of industrial property objects during the years 1994-2013 shows the weight of 97% of trademarks, 1% of inventions and 2% of ID, in the total objects included in the register. The information displayed confirms the fragmented nature of the industrial property market in our country and especially the lack of a market of innovative products and developments. In the chapter of *patented inventions* we can only find the presence of occasional transactions. The information reflects the situation in recent years, as shown in Table 2, demonstrates that innovative market virtually makes no headway. The difficulties of innovational development are also manifested in the diminution of patent applications filed by enterprises, whose weight according to the information presented in Table 3 in recent years has declined very sharply.

Table 3

Division of patent applications filed by national applicants by categories of applicants (1993-2011)

Year	Universities	Academic research institutions	Branch research institutions	Enterprises and organizations	Natural persons	Total
1993-1995	147	55	120	68	200	590
1996-2000	262	218	166	161	574	1381
2001-2005	380	224	132	130	893	1759
2006-2010	388	412	160	42	660	1662
2011	53	84	22	7	109	275
2012	62	77	26	1	99	265
2013	56	81	11	10	120	278
Total	1348	1151	637	419	2655	6210
%	21.7	18.5	10.3	6.7	42.8	100

Source: AGEPI databases.

Analysis of the current stage of formation of the industrial property market denotes a level insufficient to ensure a functional interaction of supply and demand. Serious problems of formation of the industrial property market on its innovation segment are a direct result of insufficient responsiveness of the real sector of the national economy to innovative development, manifested in the lack of demand for technological developments, priority, when upgrading enterprises, being given to acquisition of more advanced equipment and implementation of new products only locally or corporately, often made by applying outdated technologies.

The materials relating to the subjects of industrial property objects trading transactions, exposed in Table 4, clearly demonstrate a total stagnation of the participation of state enterprises in transactions with the titles of industrial property protection both as a licensor or assignor and as a licensee or assignee. This situation is caused by factors related to managerial competence and responsibility and, of course, by the fact that private sector management has more freedom and

flexibility in making operational decisions on management of companies, including the application of trademarks, inventions, other IPO.

However, the more increased intensity with which foreign companies conduct commercial transactions in industrial property objects, given their relatively limited number, compared to other organizational and legal forms of entrepreneurship, demonstrates an attitude and a much more serious motivation thereof towards the problems of position in the market and promotion of a positive image, use of knowledge, transition to the innovative path of economic growth.

Another noteworthy trend is the comparative activity of joint stock companies and LLCs on the market of industrial property objects that is obviously in favor of the latter. This is of course due to the much larger number of LLCs in all functional enterprises, but in our opinion and the fact that many of the large joint stock companies are former state enterprises, which bear to date the imprint of an inadequate management of economic assets, particularly intellectual.

Table 4

Number of contracts concluded by the subjects of licensing and assignment of industrial property objects in the years 2007-2013

	LICENSOR	**LICENSEE**	**ASSIGNOR**	**ASSIGNEE**
NATURAL PERSONS	13	2	155	103
LEGAL PERSONS, including:	118	129	908	960
State enterprises	0	0	2	3
Joint stock companies	0	0	78	37
LLC	11	50	252	226
Foreign companies	103	64	576	694
TOTAL	131	131	1063	1063

Source: AGEPI Annual Reports 2007-2013.

Simultaneously, it should be mentioned an active presence on the industrial property market of foreign companies, against the background of their relatively small weight. Of course, this trend is the result of a management more concerned about the modernization of companies, innovative development and promotion of positive image.

Due to the fact that the market of industrial property objects in RM is just budding, being mainly presented by the segment of trademarks, it should be noted the commercialization of inventions only occasionally, the presence of enormous difficulties in the chapter of technology transfer and application of R&D results. Basically the same applies to the segment of industrial design.

The classical modality of development of the market of innovations is commercialization of patented inventions. However, innovation process is not limited to the application of patented inventions. In world practice innovations market has always been addressed as a totality of transactions exceeding the segment of patented inventions. Thus, if at the end of the twentieth century more

than 50% in licensing transactions were made with patented inventions, their weight on innovations market currently fell to 20%[4].

Of course, as mentioned above, registers of contracts for commercialization of industrial property objects do not reflect all transactions on the market of industrial property objects. Said condition is due to the optional nature of registration and the fact that the normative acts do not stipulate the registration of transactions with other objects of intellectual property such as know-how, scientific elaborations, information, etc.

Marketing of trademarks. Currently in the world are registered more than 30 million trademarks (in Moldova - 86 162). Prior to the embargo on wine imposed by Russia and the economic crisis in 2008-2012, the annual number of trademarks registered in Moldova was in constant ascent.

Most of trademarks, except those which on expiry of 10 years have not been renewed, are the possible offer, constituting the potential of this segment of IPO market. Of course, access to the commercial use of trademarks is more complex and difficult than the marketing of material goods through commercial networks. Trademark protection is not always accompanied by its proposal towards commercialization. However, in most cases applicants may obtain access to the use of trademarks on commercial terms, most of them being placed on the market as objects of licensing, assignment, pledge, franchise, etc.

It should also be mentioned that the analysis of trademark assignment contract registered with AGEPI denotes the lack of a commercial component in a majority of them. Assignment is often required by the procedures for reorganization, merger, liquidation, division of enterprises owners of those trademarks and the need for preparation of protection titles to the name of new owners.

The *market of industrial designs* is also just at the stage of formation, during the years 2007-2013 being registered only 20 licensing/assignment contracts, which constitute about 2% of their total number.

The main indicators of industrial property market that can be monitored on the relevant segment of the market and the information sources are exposed in section II.

B. Market of Objects of Copyright and Related Rights

Market of musical and audiovisual products of the Republic of Moldova. Official statistics so far gives us extremely limited and incomplete information on the activity of theatrical, musical institutions of the Republic of Moldovan and of enterprises operating in the so-called *music industry*. Information of this kind is reduced to the number of institutions traditionally involved in some of these activities, of performances/concerts organized and that of audience (Table 5).

[4] http//www.republique.pro/trends/intellectual_property

Table 5

Theatrical and musical activity in the Republic of Moldova in the years 2005-2012

	2005	2006	2007	2008	2009	2010	2011	2012
Theaters	15	14	14	14	14	14	14	14
Philharmonic orchestra	1	1	1	1	1	1	1	1
Professional artistic groups	5	5	5	5	5	5	5	5
Theatrical performances	2117	2327	2495	2505	2245	2668	2939	2819
Philharmonic concerts	70	105	100	80	115	113	117	118
Concerts of the professional artistic groups	189	187	215	212	224	239	216	250
Viewers of theatrical performances, (thousands)	368	382	402	409	336	349	379	402
Viewers of philharmonic concerts (thousands)	11	13	18	19	22	37	30	30
Viewers of performances of the professional artistic groups (thousands)	166	231	194	171	157	136	111	136

Source: Statistical Yearbook of the Republic of Moldova 2013, Chisinau: Statistics, 2013, p. 229

An important indicator of the audiovisual market is the number of licenses granted for these activities. According to the Broadcasting Coordinating Council (BCC) currently on broadcasting market of the Republic of Moldova operate (have license) 238 enterprises providing services at national, regional and local level. Their division by activity fields is exposed in Table 6.

Table 6

Number of subjects that have licenses to operate on the broadcasting market of RM on 31.12.2013

	Transmission		cable	MMDS	GSM	Total
	by air	by satellite				
Television	34	9	22	-	-	65
Radio broadcasting	56	4	1	-	-	61
Distributors	-	2	105	3	2	112
Total	**90**	**15**	**128**	**3**	**2**	**238**

Source: Report on the work of RM Broadcasting Coordinating Council in 2013

In the last 25 years the number of radio broadcasting stations expanded rapidly. Over the past two decades the number of subjects, operating on the audiovisual market of the Republic of Moldova increased by about 6 times.

The difficulties of efficient administration of the use of CR and RR objects individually, by right holders, imposes the need to create organizations for collective management (CMOs) of artistic works. Under the collective management system, right holders entrust CMOs with the tasks to manage and monitor the use of their works, to negotiate the terms, to grant licenses against

equitable remuneration under a tariff system, to collect the remuneration and distribute them to the right holders.

In RM CMOs conduct their activities in accordance with Law No. 139 of 02.07.2010 on CR and RR, under their own statutes and within the powers delegated by the right holders. The activity of organizations is endorsed by AGEPI. At present, in RM operate five collective management organizations:

- Association "Copyright and Related Rights" (AsDAC);
- National Association for the Protection of Intellectual Creation (ANPCI);
- National Association "Copyright" (ANCO);
- Republican Copyright Office (ORDA);
- JSC "ReproMold" (ReproMold).

Most experience in management of CR and RR has AsDAC, which was registered in 1999. AsDAC is a member of the International Confederation of Societies of Authors and Composers (CISAC) since December 2000 provisionally, and as of December 2005 permanently. In the following we will explain the trends of development of the market of musical creations in RM, relying mainly on statistical data provided by AsDAC.

In the last three years the number of license contracts maintained in force, according to the information presented in Table 7 recorded a steady increase.

Table 7

Number of license agreements in force concluded by AsDAC

Years	2010	2011	2012	2013
No. of contracts	1826	1379	1467	1748

Source: Annual reports on the work of AsDAC Directorate

Obviously, there was an increase in the number of AsDAC members, the situation, during the years 2010-2013, evolving as is clear from the data presented in Table 8:

Table 8

Number of AsDAC members by categories of rights/authors and performers

Number of members	Years			
	2010	2011	2012	2013
Total, of which:	2675	2838	2981	3080
- Authors	1386	1485	1566	1610
- Performers	1289	1353	1415	1470

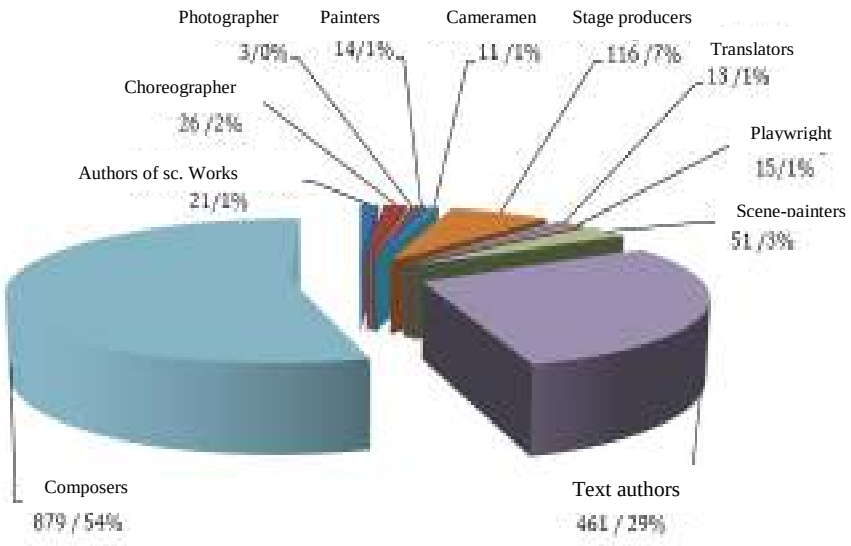
Source: Annual reports on the work of AsDAC Directorate

The distribution of AsDAC members according to different categories of holders of copyright is shown in Figure 1, from which results that the absolute

majority of authors is hold by composers, which is reflected in the level of royalties collected from users for the performance of musical works.

Figure 1

Number and weight of different categories of holders of copyright – members of AsDAC (on 31.12.2013)



Source: Annual reports on the work of AsDAC Directorate

CMOs extend their activity not only to the national territory, but also abroad. The protection of national authors' rights abroad is achieved through collaboration with specialized associations in other countries, through the conclusion of contracts for reciprocal representation of rights. Thus, this mechanism provides payments to foreign authors and performers from the performance of their creations in RM and to national ones for the application of respective works abroad.

Table 9 presents data on receipts of royalties collected from RM and abroad. According to the information available there is a decrease in the total amount for the last years, due to disputes between CMOs.

Table 9

Amount of remunerations collected from RM and abroad in the years 2010-2013 (lei)

Years	2010	2011	2012	2013
Remuneration from MD	6,088,797.63	6,685,576.53	5,761,367.68	4,936,973.35
Remuneration from abroad	142,013.10	90,366.31	137,649.00	141,629.82
Total	6,230,810.73	6,775,942.84	5,899,016.68	5,078,603.17

Source: Annual reports on the work of AsDAC Directorate

The remuneration collected in 2013 on the domestic market of RM in the amount of 4, 936, 973.35 lei was composed of various categories (types) of deductions corresponding to the modalities of exploitation of artistic creations shown in Table 10.

Table 10

Remuneration collected from the Republic of Moldova (MDL)

Type of license	**Years**			
	2010	**2011**	**2012**	**2013**
Mechanical pp (public performance in cases other than concerts and shows)	2,899,265.12	3,669,427.69	3,591,514.22	3,807,375.19
Livepp-S (public performance in shows)	320,740.17	402,703.77	494,486.97	437,780.99
Livepp-C (public performance in concerts)	142,901.17	246,595.81	255,532.89	172,190.67
RTV-Pr (radio and television) public communication in proper broadcasts	1,248,649.97	996,431.65	448,544.32	244,818.00
RTV-Re (radio and television) satellite and cable retransmission	1,046,023.45	1,115,198.48	717,874.88	59,972.00
CR-AV (compensatory remuneration from audiovisual works)	185,647.35	169,668.62	147,039.69	134,387.44
CR-RR (compensatory remuneration from reprographic reproduction)	0.00	3,742.65	53,834.09	24,167.06
AVI (audiovisual works)	241,970.40	67,693.76	17,897.86	8,627.00
PP (periodicals)	1,350.00	1,745.00	3,105.00	655.00
ST (fixed telephony) license held only by Moldtelecom	2,250.00	1,000.00	0.00	0.00
FO (phonograms)	0.00	2,688.00	0.00	0.00
LW (literary works)	0.00	8,440.40	0.00	0.00
Unlicensed remuneration	0.00	240.70	31,537.76	47,000.00
Total	**6,088,797.63**	**6,685,576.53**	**5,761,367.68**	**4,936,973.35**

Source: AsDAC databases

Note: In the nomination of the types of remunerations is kept the terminology applied by CISAC.

The information presented in Table 10 indicates that the largest amount was collected for the type of license *Mechanical pp* (public performance in cases other than concerts and performances) - 3,807,375.19lei, followed by *Live pp-S* (public performance in shows) - 437,780.99 lei and *RTV-Pr* (radio and television) public communication in proper broadcasts - 244,818.00 lei.

In the context of information presented in Table 9 we should mention that as a result of the conflict unleashed from 2012 between CMOs, collection of remunerations was practically blocked. Amounts collected for the years 2013 and

partly 2012 present the debts of previous years. Therefore, the data presented in Table 10 do not reflect the real dynamics of remunerations, but only the correlation between different types of them.

An instrument for ensuring the protection of audiovisual works and phonograms, the regulation of the respective market and also for its monitoring, are the control marks. According to the Law No. 1459-XV of 14.11.2002 on the Distribution of Copies of Works and Phonograms, AGEPI issues control marks, maintains and administrates the State Register thereof. Over the last 11 years as shown in Table 11, there were issued about 11.7 million control marks.

Table 11

The dynamics of issuing control marks in the years 2003-2010 (pcs.)

Medium	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total
Compact discs (DA)	192104	577728	664690	801992	820838	662953	375022	384653	517987	252685	197193	5447845
Audio cassettes (AA)	565313	1777982	1285882	964070	561055	273731	223250	4000	2250	141815	1525	5800873
Video cassettes (VA)	82620	192405	110680	25815	6255	0	0	0	0	0	0	417775
Total:	**840037**	**2548115**	**2061252**	**1791877**	**1388148**	**936684**	**598272**	**388653**	**520237**	394500	198718	11666493

Source: Statistical reports of AGEPI departments

As a result of technological developments and ways of exploiting works through open networks, in recent years there has been a significant decrease in the number of control marks issued by AGEPI. This trend of mass refusal to use the physical media of musical works is characteristic of most countries, being the consequence of technical progress in the ICT sector.

Generalization of information on the development, current status and information available on the functioning of music and audio-video market in RM, allows us to identify a number of its indicators reflected together with their sources in section II.

Market of literary and printing products. The level of competition on the market of printing products is estimated on the basis of the number of enterprises operating on this segment. According to NBS data, in RM, as shown in Table 12, operate 593 enterprises with the main type of activity likes *publishing*, *printing and reproduction of informative materials* (year 2012), with a total number of 3724 employees. It is attested a downward trend in their number in 2012, decreasing by 7.5% compared to the year with the highest value (2009).

Table 12

Number of enterprises with the main type of activity like publishing, printing and reproduction of informative materials

Years	Large	Medium	Small	Micro	Total
2006	3	12	114	477	606
2007	3	9	120	498	630
2008	4	8	117	505	634
2009	2	10	98	531	641
2010	2	9	115	500	626
2011	4	9	107	480	600
2012	3	10	99	481	593

Source: NBS Bank of Statistical Data, available: http://statbank.statistica.md/pxweb/database/RO/24%20ANT/24%20ANT.asp

More than 80%, or 481 enterprises with the main type of activity like *publishing, printing etc.*, have from 1 to 9 employees (microenterprises), which represent 33.5% of the total number of employees in the sector, while 0.5% is large enterprises, which employ 11% of the number of employees.

In 2012, the turnover of enterprises with the main type of activity mentioned was distributed according to the size of enterprises, as follows: 15.8% pertained to large enterprises, 23.2% to medium-sized enterprises, 45.8% to small-sized enterprises and 15.2 % of sales respectively to microenterprises (calculated on the basis of the information in Table 13). It should be mentioned a slight extension of the turnover of medium-sized enterprises (22%) and micro (4%), and a decreased in 2012 compared to 2011 in the turnover of large enterprises (27%). Overall, the enterprises concerned have registered in recent years an increase interrupted by the global financial and economic crisis that started in 2008. In 2012, there was a decrease in sales return over the previous year by 5%.

Table 13

Sales return of enterprises with the main type of activity like publishing, printing and reproduction of informative materials (million lei)

Years	Large	Medium	Small	Micro	Total
2006	75.7	213.6	311.4	101.2	701.9
2007	85.8	193.9	397.7	122.4	799.8
2008	143	176.9	440.2	136.1	896.2
2009	72.1	187.2	349.6	126.7	735.6
2010	82.9	212	398.9	114.2	807.9
2011	180.9	157.6	412.4	121.1	872.2
2012	131.2	192.2	380	125.6	829

Source: NBS Bank of Statistical Data, available: http://statbank.statistica.md/pxweb/database/RO/24%20ANT/24%20ANT.asp

According to information of the National Book Chamber, in RM currently operate about 340 publishers. Of these, the majority (87%) have published in the last year only up to 10 book titles. Large publishers constitute about 5 percent of the total number. In 2013, each published over 30 titles each.

At the same time, higher education institutions also have editorial-printing centers, editing practically the most titles. On top of educational institutions are publishing centers of SUM with 143 titles in a total circulation of 15,700 copies in 2013, followed by TUM with 104 titles and a circulation of 6300 copies, and SUMPh, with 88 titles with the total circulation of 13,200 (150 copies per title). The information on circulations used by publishers of RM, in 2013, specified by five largest publishing houses, is presented in Table 14.

Table 14

The top of publishers with the largest circulations (year 2013)

Place in the top	Publisher name	Circulation, million copies	Weight, %
1	IEP Science	0.5387	17.7
2	Publisher Cartier	0.4934	16.2
3	Publisher Arc	0.1927	6.3
4	Publisher Cartdidact	0.1276	4.2
5	Publisher Epigraf	0.0977	3.2
	Other publishers	1.59	52.4
	Total	3.05	100

Source: http://agora.md/analize/6/anul-editorial-2013-din-republica-moldova-in-cifre-si-date

The top of publishers with the largest circulations includes: IEP “Science” (cca. 9300 copies per title), Publisher Cartier (cca. 8500 copies per title), Publisher Arc (cca. 2800 copies per title), Publisher Cartdidact (cca. 8000 copies per title), Publisher Epigraf (cca. 2700 copies per title).

Overall, the number of publishers and printers, the weight of large, small and medium enterprises in the volume of works permits to determine, according to formal criteria a satisfactory state of competition on the market of printed publications.

According to the National Chamber of Book, the total circulation of the editorial year 2013 is 3.05 million copies, of which almost half appertains to the top 5 publishers, with 1.45 million copies in total.

For the period 2007-2012, the absolute indicators and the dynamics of publishing titles of books, booklets, magazines, newspapers and other publications in the Republic of Moldova are reflected in the information in Table 15 and the following figures:

Table 15

Publishing of books, booklets, magazines, newspapers and other publications

Indicators	2007	2008	2009	2010	2011	2012
Number of books and booklets (printing units)	2760	2711	2246	2366	2470	2724
% compared to the previous year	*96.8*	*98.2*	*82.8*	*105.3*	*104.4*	*110.3*
Number of magazines and other periodicals	267	276	255	245	227	232
% compared to the previous year	*109.4*	*103.4*	*92.4*	*96.1*	*92.7*	*102.2*
Number of newspapers (publications)	219	242	237	207	184	166
% compared to the previous year	*109.5*	*110.5*	*97.9*	*87.3*	*88.9*	*90.2*

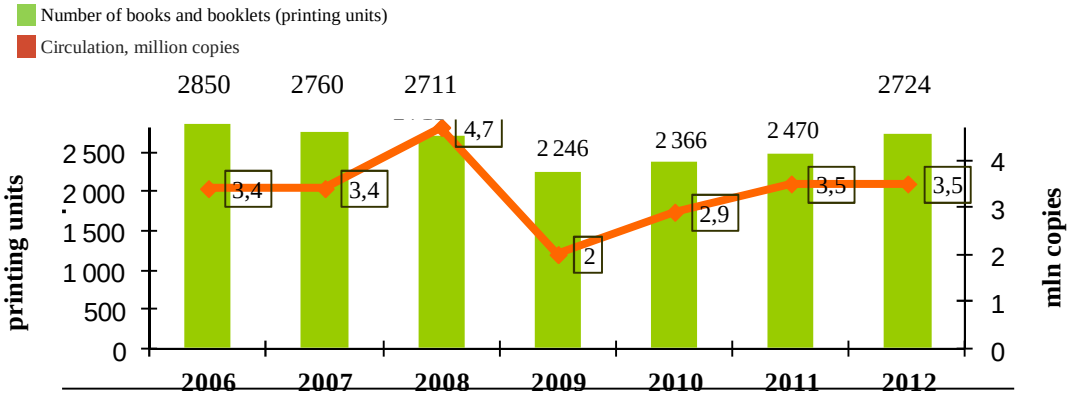
Developed on the basis of data from the NBS Bank of Statistical Data, available: http://statbank.statistica.md/pxweb/database/RO/24%20ANT/24%20ANT.asp

The number of titles of books/booklets published in 2012 is in an increase of 10% compared to 2011, while decreasing compared to 2007, year with most titles.

The circulation of books in recent years, from 2008, is decreasing. The largest decline was recorded in 2009 (57.4% compared to 2008). From 2010 it is recorded a slight revival.

Figure 2

The dynamics of publishing books and booklets in RM (years 2006-2012)



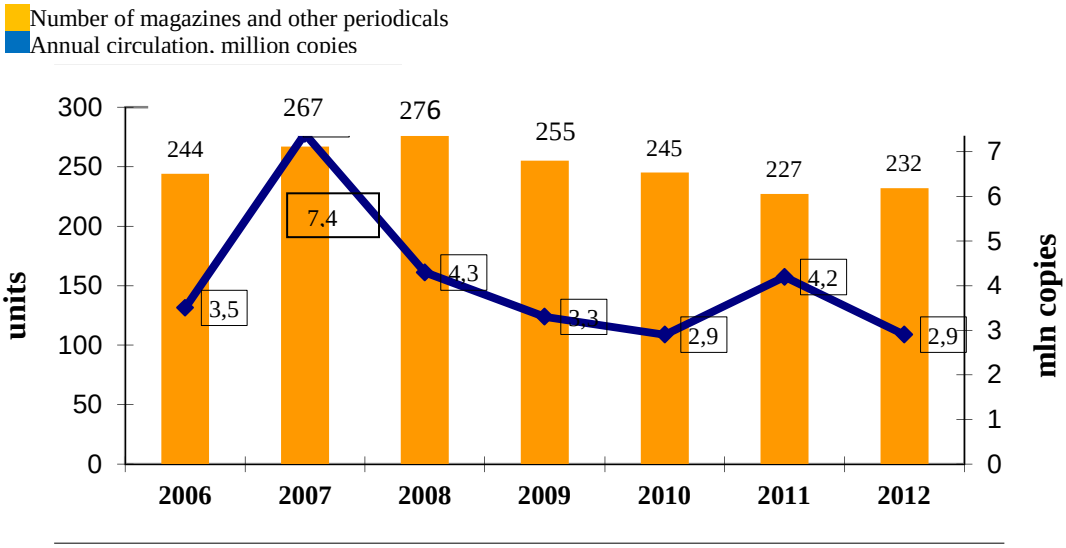
Developed on the basis of data from the NBS Bank of Statistical Data, available: http://statbank.statistica.md/pxweb/database/RO/24%20ANT/24%20ANT.asp

A valuable tool for increasing the competitiveness on the market of books is the auctions for the execution of state orders, primarily those for publication of textbooks. But, according to experts, they are not sufficiently transparent to achieve their objectives.

Periodicals are an extremely important segment of the market of printed products. Brief analysis of its evolution denotes the downward trend recorded by the circulations of magazines and other periodicals. These were reduced from 3.5 million copies in 2006 to 2,900,000 in 2012 (17%).

Figure 3

The dynamics of publishing magazines and other periodicals in RM in the years 2006-2012

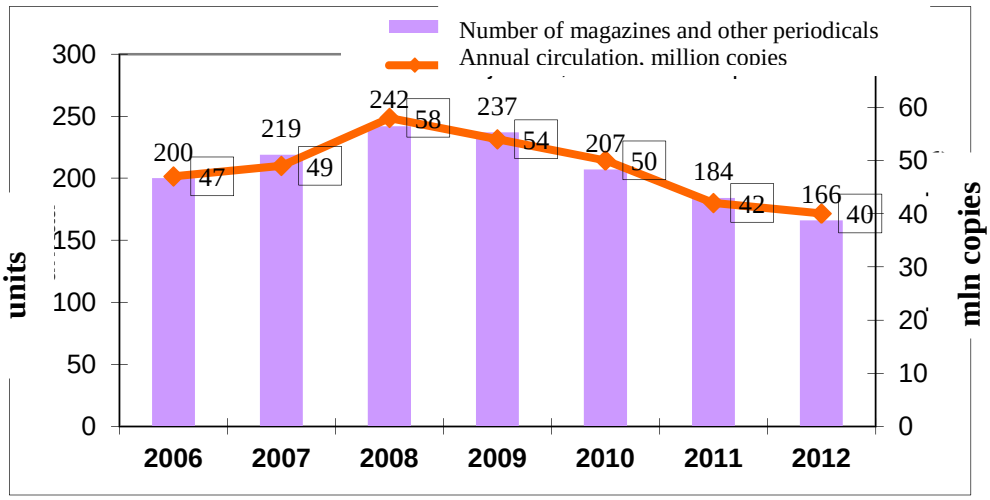


Developed on the basis of data from the NBS Bank of Statistical Data

For the period 2008-2012 the number of newspapers published in RM is characterized by a slightly downward trend, reaching the maximum value of 242 newspapers with a circulation of 58 million copies in 2008. In 2012 is attested a decline of 31.4 percent in the number of newspapers compared to 2008, the year with the largest number of titles (Figure 4).

Figure 4

Number of newspapers published in the cumulative number thereof in RM in the years 2006-2012



Developed on the basis of data from the NBS Bank of Statistical Data

Book sales are reflected in the Statistical Yearbook in section "Retail" by a common indicator of newspapers, magazines and office supplies. These are listed in Table 16, which shows an ascent during the last years of the absolute values, with a diminishing weight of total retail sales.

Table 16

Dynamics of retail sales of books, newspapers, magazines and office supplies (2006-2012)

	2006	2007	2008	2009	2010	2011	2012
Retail sales of goods (mil. lei)	13620,7	16866,6	21387,2	19960,6	25096,5	32132,7	33707,1
Retail sale of books, newspapers, magazines and office supplies (mil. lei)	177,6	236,13	256,64	279,65	276,6	289,19	303,36
Weight of sales of books, newspapers etc. in total retail sales (%)	1,3	1,4	1,2	1,4	1,1	0,9	0,9

Source: Statistical Yearbook of the Republic of Moldova 2013, Chisinau: NBS, 2013, pp. 464, 467

Referring to receipts from the export of books, newspapers and other products of the printing industry, it should be noted an uneven trend of their export activity, influenced by the economic crisis unleashed in 2008. Thus, as is apparent from the information presented in Table 17, in the period 2006-2008 is attested an increasing trend of export receipts, they reaching in 2008 the maximum value of 3,045,700 USD. Since 2009, there has been a significant drop in the export of

books and other products of the printing industry, receipts decreasing in 2010 2 times compared to 2008, with an impressive revival in 2011-2012.

Table 17

Export and import of books, newspapers, printed picture postcards and other products of the printing industry in RM (thousand USD)

Years	2006	2007	2008	2009	2010	2011	2012
Export	2355,0	2521,4	3045,7	1953,4	1429,3	2898,4	2875,2
Import	11690,5	15009,9	19389,2	18253,7	16659,2	20322,4	19034,3
Trade balance	-9335,5	-12488,5	-16343,5	-16300,3	-15229,9	-17424,0	-16159,1

Source: Statistical Yearbook of RM 2013, Chisinau: NBS, 2013, pp. 434-443

The aforementioned permits the identification of 14 indicators of the market of printed publications that can be used for its monitoring, which are exposed with their sources in Chapter II.

Software market. The sector in question is one of the most dynamic economic sectors in the country and one of the fewest that is not affected by the crisis. It increases annually with increased rates, which in a reasonable prospect can put RM in a position analogous to that traveled by Singapore, Ireland and other countries[5].

The authors of a study by German Economic Team Moldova, consultant of the Government of the Republic of Moldova, also believe that our country could become a major player in the field of ICT in the region[6].

Moldova insistently penetrates the global market of information and communication technologies. Thus, in the country operate dozens of foreign outsourcing companies integrated into international systems of development and distribution of software products. The newest elaborations are also implemented on domestic market in public and private sectors, ensuring efficiency and promptness in activity.

At present, RM already in positions of equality competes on the market of ICT services with countries in the region. Operation of domestic ICT sector meets global development trends. Thus, according to most of the ICT sector development indicators RM occupies advanced positions in the world rankings. RM indices exceed the average values of the CIS countries, and according to the ICT Development Index and that of *e-government* development they also exceeded the global average values.

According to the international ranking of the ICT Development Index, our country ranked 65 of 157 countries managing to keep its position by constantly

[5] *Фомин И. В Молдове может случиться IT-взрыв Экономическое обозрение №10 (842), 19 марта 2010г.*

[6] http://www.get-moldau.de/dowload/policypapers/2013/pp-04-2013-ro.pdf?PHPSESSID=86fbc94435ed5bf5191d1039a80b49a3

increasing the index value from 3.11 in 2007 to 4.74 points in 2012 (Table 18). Upward development of public access to information and communication technologies ranked Moldova on position 58, registering a jump of 27 positions[7].

Table 18

Dynamics of the ICT Development Index (IDI)

	2007 (154 countries)		2008 (159 countries)		2009 (159 countries)		2010 (152 countries)		2011 (155 countries)		2012 (157 countries)	
	IDI	rank	IDI	rank	IDI	rank	IDI	rank	IDI	rank	IDI	rank
Moldova	**3.11**	**73**	**3.37**	**73**	**3.57**	**64**	**4.47**	**57**	**4.55**	**62**	**4.74**	**65**
Top country in the world	7.50	1	7.85	1	8.40	1	8.45	1	8.56	1	8.57	1
World average	3.40	-	3.58	-	3.62	-	4.08	-	4.15	-	4.35	-
CIS average	3.05	-	3.18	-	3.18	-	3.85	-	4.43	-	4.95	-
Europe average	5.97	-	5.99	-	5.8	-	6.42	-	6.49	-	6.73	-
Romania	4.11	48	4.73	44	5.20	48	4.89	50	5.13	52	5.35	55
Ukraine	3.56	58	3.87	58	4.34	62	4.20	65	4.40	67	4.64	68

Source: ITU Report "Measuring the Information Society 2012"

The efforts made of Moldova in recent years to boost infrastructure development of the ICT sector have contributed to the increase in the country's positioning in the rankings of international organizations (International Telecommunication Union, World Economic Forum, Department of Economic and Social Affairs of the United Nations, World Bank, etc.).

- According to NetIndex 2013 studies Republic of Moldova remains one of the countries with the highest speed of Internet access. In terms of upload speed, our country is situated among countries with an advanced service development level, positioning itself in the 14th place, with the speed of 13.40 Mbps. As for the download speed, our country is placed on position 19 of 180 countries with an average speed of 21.96 Mbps, while being at the lead of the regional ranking of CIS countries[8].
- In terms of cost for 1 Mbps, Moldova ranks fifth, with a price of $ 1.15 for 1 Mbps[9].
- In the period 2008-2010 has decreased considerably the cost of telecommunications services, Moldova coming out on top of the first 10 countries

[7] *Measuring the Information Society 2012 – ITU; http://www.itu.int/ITU-D/ict/publications/idi/*
[8] *http://www.netindex.com*
[9] *Source: Household Download Index–OOKLA; http://www.netindex.com*

with advanced dynamics of price reduction for these services. Thus, Moldova ranks 8 of 142 countries in terms of accessibility of ICT services[10].

- After the impact of ICT on the development and competitiveness of the country, Moldova has recorded a jump of 24 positions in the world rankings and ranked 65 of 144 countries[11].
- The value of aggregate indices for the Republic of Moldova has a tendency to increase in several areas, which means the country's advancement in the field of ICT. Thus, we can conclude that international rankings position Moldova in the category of countries with medium level of development of the ICT sector.

Operation of ICT in terms of the needs of entrepreneurship, society and state confirms a positive sustainable trend: business, institutions and citizens have high quality access to Internet; on the market is available any software and a wide range of equipment. The country has a well developed ICT infrastructure (high-speed broadband networks), which creates favorable conditions for providing different types of ICT services.

Analysis of the development of the ICT sector in the Republic of Moldova denotes the existence of evident positive trends in all branches of the ICT sector. A high potential exists in the development of infrastructure, electronic communications, etc. Positive progress trends in the ICT sector are manifested in the following:

- Digitization of fixed telephony networks reached the level of 94.5%.
- 98, 3% of RM settlements have fixed telephony, including CDMA.
- 99% of the country's territory (97.3% of the settlements) has 2G mobile telephony networks.
- 99.1% of settlements have 3G mobile telephony networks.
- The weight of investments in ICT is 11.1% of their volume.
- The volume of exports of ICT services has increased more than 3 times in the past seven years: from 63 million USD in 2005 to 182.8 million in 2011 with a decisive contribution to increasing the competitiveness of the sector.
- Companies in the ICT sector provide more than 5% of contributions to the budget of social and health assurances.
- 58% of households have at least one computer.
- 53% of households have a computer connected to the Internet, of which: 73.7% use the fixed broadband Internet[12].

[10] Source: *Measuring the Information Society 2012 – ITU; http://www.itu.int/ITUD/ict/publications/idi/*

[11] Source: *The Global Competitiveness Report 2012-2013 WEF*
http://www.weforum.org/issues/global-competitiveness

[12] Source: Data of the Ministry of Information and Communication Technology for 2012

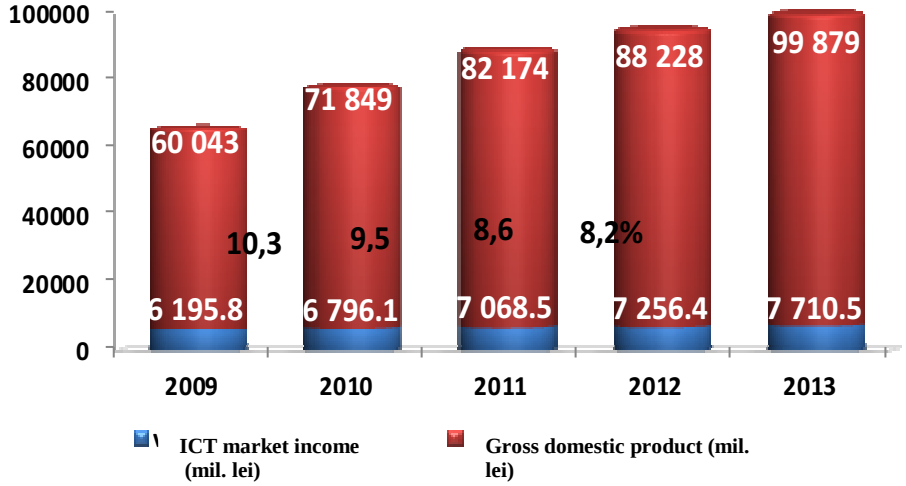
In the period 2007-2013, the values of ICT development indicators have improved significantly, indicating a sufficient potential for rapid development of the information society.

An important ICT development indicator is its weight in the creation of Gross Domestic Product (GDP).

The share of ICT contribution to GDP in 2013 was 7.7%, with a market value of about 7.7 billion lei per year (Figure 5). In the sector are employed about 16,000 people, the weight of employees with higher education is the highest, compared to other fields in the real sector of the national economy.

Figure 5

The weight of ICT sector in GDP volume in dynamics (billion lei, %)

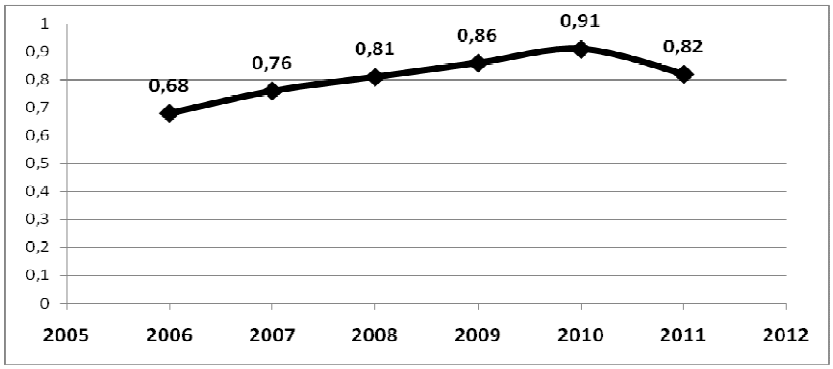


Source: National Bank of Moldova and NARECIT, according to data reported by operators in 2014

The weight of software industry in GDP in recent years has been in continuous growth except for 2011 (Figure 6).

Figure 6

Weight of software services in GDP (%)



Source: ATIC Report: ICT sector in Moldova, Policy White Paper
http://www.ict.md/files/White%20Book%202012%20Romanian%20Version%20FIN.pdf

Software market growth potential results from the dynamics of the number of computers owned by natural persons and legal entities. In the case of legal entities it is reflected in Table 19.

Table 19

Number of computers of the legal entities by types of economic activity (at the end of the year, units)

	2005	2006	2007	2008	2009	2010	2011	2012
Total:	**71159**	**85102**	**103185**	**116761**	**124822**	**138567**	**161095**	**171900**
Agriculture, hunting, forestry, fishing	702	791	970	1015	1101	1403	1675	1889
Industry	10332	11179	12665	13298	13691	14169	15909	17507
Building	594	845	1044	1173	1373	1556	2355	2528
Trade and repairs	4868	6926	8583	10266	11029	12571	16942	18780
Hotel and restaurant services	339	369	406	395	424	526	978	980
Transport and communications	6150	6991	8363	9419	10665	11371	12272	13044
Financial activities	7378	7916	8851	10063	9360	10752	12522	12511
Real estate, renting	6580	8396	9438	10421	11793	12928	18054	19857
Public administration	17803	17962	21379	24765	25408	28377	31559	33899
Education	13073	18403	25413	28917	31328	33832	35679	36254
Health and social assistance	1717	2689	3162	3966	5110	6582	8157	9238
Other activities	1623	2635	2911	3063	3540	4500	4993	5413

Source: 2013 Statistical Yearbook of the Republic of Moldova, Chisinau: Statistics, 2013, p.405

The information in Table 19 is to be related to the expenditure of enterprises and institutions for the purchase of information technology, especially software, presented in Table 20.

Table 20

Expenditure of legal entities for information technology by types of purchases (thousand lei)

	2005	2006	2007	2008	2009	2010	2011	2012
Total expenses, including:	407591	608026	715655	832882,6	980483	858633	825585	957269
Purchase of computer equipment	267421	281144	348244	387799,2	447235	327649	285847	379025
Purchase of software	76856	164452	158519	195651,2	255821	262896	199975	245044

Design and development of computer systems	3671	12782	28542	51665,0	57638	53045	67309	48681
Other expenses	59643	149648	170350	197767,2	219790	215043	276454	284519

Source: Statistical Yearbook of the Republic of Moldova 2005-2012, Chisinau: Statistics, 2005-2012, Section – Information Technology

Analysis of data presented in Tables 19 and 20 shows a steady ascent in recent years of the corporate fleet of computers and a less obvious one, interrupted in some years of the costs of information technology. The relation of corporate expenditure for software to the number of computers denotes the software costs for each computer in the equipment of enterprises, which according to calculations in 2012 was 1443 lei (24844300/171900).

The indicator mentioned has developed in recent years as follows from the information presented in Table 21.

Table 21

Evolution of expenses for the purchase of software per computer in the equipment of legal entities in the Republic of Moldova during 2005-2013

	2005	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Expenses for acquisition of software (thousand lei)	76856	164452	158519		255821	262896	199975	248044
The number of computers at the disposal of legal entities (pieces)	71159	85102	103185	116761	124822	138567	161095	171900
The average cost of software per computer, lei	1080	1932	1536		2049	1897	1241	1443

Source: Statistical Yearbook of the Republic of Moldova 2013, Chisinau: NBS 2013, Section: Information Technologies

This information of the NBS reflects the dynamics of costs of the software at the disposal of legal entities undermines the claim, according to which, RM is the greatest pirate of IT in the world[13].

Extremely important to reflect the role of ICT sector in economic development in the conditions of transition to the information society is its weight in the export-import operations. In this context we should mention that the export

[13] *http://www.allmoldova.com/ro/article/moldova-cel-mai-mare-pilot-it-din-lume/*

of ICT services in the last 8 years increased more than 3 times, **from 63.01 million USD in 2005 to 200.33 million USD in 2013**. The trend is supported by the investments in ICT sector. It should be noted that ICT is one of the few sectors of the national economy with a clear and lasting positive trade balance. In this context we should emphasize that the growth rates of exports during the years 2007-2013 exceed, on the whole, those of imports. The information on the development of operations on export-import of ICT products is shown in Table 22.

According to calculations by the German Economic Team Moldova based on World Bank data, in recent years Moldovan ICT sector contributes more to the total export than the ICT industry from other countries. Of course this advanced contribution is partially diminished by the modest absolute values of export and GDP of the Republic of Moldova.

Table 22

The dynamics of foreign trade in ICT services of RM

Indicator	**Unit of measure**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
Total Export	mil. USD	2001,75	2489,81	2000,03	2290,75	3158,53	3164,38	3498,86
Export of ICT services, *including*	**mil. USD**	**99.94**	**140.83**	**134.96**	**159.47**	**182.8**	**195.88**	**200.33**
Communication services	mil. USD	85.67	114.56	105.21	126.05	134.96	140.04	137.81
Computer and information services	mil. USD	14.27	26.27	29.75	33.42	47.84	55.84	62.52
% of ICT sector	%	4.99	5.65	6.74	6.96	5.78	6.19	5.73
Total Import	mil. USD	4321,54	5706,21	3988,6	4573,78	6030,56	6109,44	6479,99
Import of ICT services, *including*	mil. USD	53.2	63.36	63.13	61.76	65.45	77.3	91.68
Communication services	mil. USD	37.55	47.37	39.15	38.13	42.46	40.16	51.61
Computer and information services	mil. USD	15.65	15.99	23.98	23.63	22.99	37.14	40.07
% of ICT sector	%	1.23	1.11	1.58	1.35	1.08	1.26	1.41

Source: National Bank of Moldova, https: /www.bnm.md/md/balance-of-payments

Against the background of continuous and significant growth of the software sector and the respective market we should mention that, according to experts, the most part of exports of software products (up to 1/3 of official volume), due to online transfer, is not reflected in the balance of payments, payments being done,

in these cases often, by less legal ways, making it difficult to evaluate the real transactions and proceeds from the export of IT services.

According to UNCTAD sources, the export of computer and information services has evolved in the past 10 years, as follows from the data in Table 23.

Table 23

Export of computer and information services (million USD)

Years	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Computer and information services	***1***	***3***	***4***	***8***	***14***	***26***	***30***	***33***	***48***	***56***
computer services	1	1	1	3	8	20	22	22	35	42
information services	0	2	3	5	6	6	8	11	13	14

Source: UNCTAD, http://unctad.org/en/Pages/Statistics.aspx

Despite said discrepancy we can state that both sources confirm a quite dynamic trend in recent years, preservation of which can quickly change the structure of the national economy by placing ICT sector in the first positions.

At present, the state supports the development of software sector of the Republic of Moldova through tax benefits and partial transfer of orders to private companies. In 2005, employees of software companies were exempted from income tax and contribution to the social fund. In the software industry 90-95% of expenditures are used for payment of salaries. Said tax benefits are granted for a period of 5 years from the application filing date.

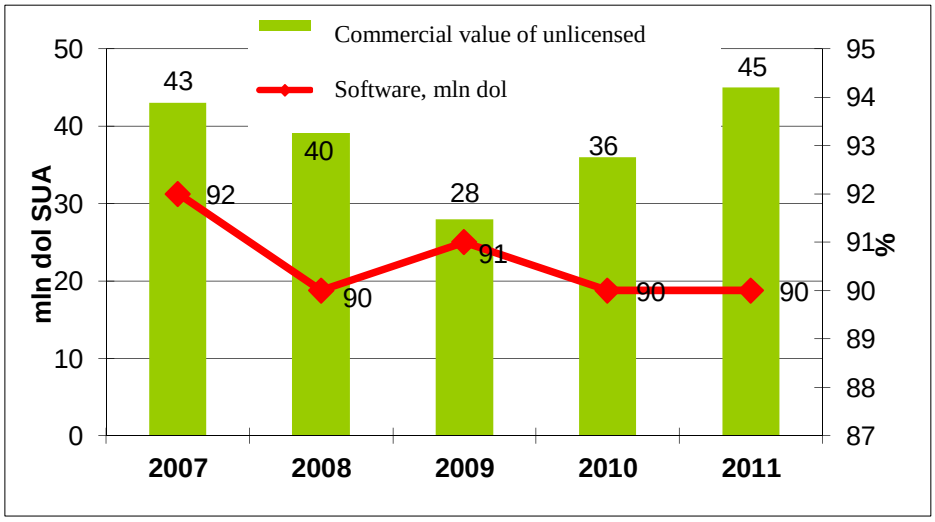
The main software market indicators in the Republic of Moldova are reflected along with their sources in Section II.

C. Market of Counterfeit and Pirated Goods

The evolution of piracy rate and the value of licensed software in the Republic of Moldova, according to findings of the Business Software Alliance, is shown in Figure 7.

Figure 7

Software piracy rate and commercial value of unlicensed software in the Republic of Moldova, 2007-2011



Source: Shadow market. 2011 Business Software Alliance global software piracy study, accessible on http://www.bsa.org/~/media/Files/Research%20Papers/GlobalStudy/2014/2013GlobalSurvey_Study_en.pdf

The accuracy of these calculations is contrary to NBS statistical information. Thus, according to already mentioned estimates of the Business Software Alliance, software piracy rate in the Republic of Moldova in 2011 constituted 90%, and in monetary terms - 45 million USD[14]. Thus, the value of legal software is estimated at US $5 million. But only on the segment of legal entities, according to information of the Statistical Yearbook of Moldova, expenditures for the purchase of software, in 2011, were 195,974.9 million lei (about 16.3 million USD)[15]. In this case, even if we admit that the software used by natural persons is pirated to 100%, then the average rate of software piracy in RM, in 2011, is to be re-estimated at about 74%.

The need for additional check of piracy rate in Moldova requires a detailed analysis of the calculation modalities applied by BSA. If the piracy rate of 90% is correct, the value of unlicensed software would amount to a minimum of 147 million dollars which also undermines the veracity of the estimates by BSA. The modalities of calculating the amount of pirated software also deserve further checks.

On the whole, the market of counterfeit and pirated goods in RM is less studied and remains, for the time being, insufficiently reflected in open sources.

[14] Shadow market. 2011 Business Software Alliance global software piracy study, accessible on http://www.bsa.org/~/media/Files/Research%20Papers/GlobalStudy/2014/2013GlobalSurvey_Study_en.pdf

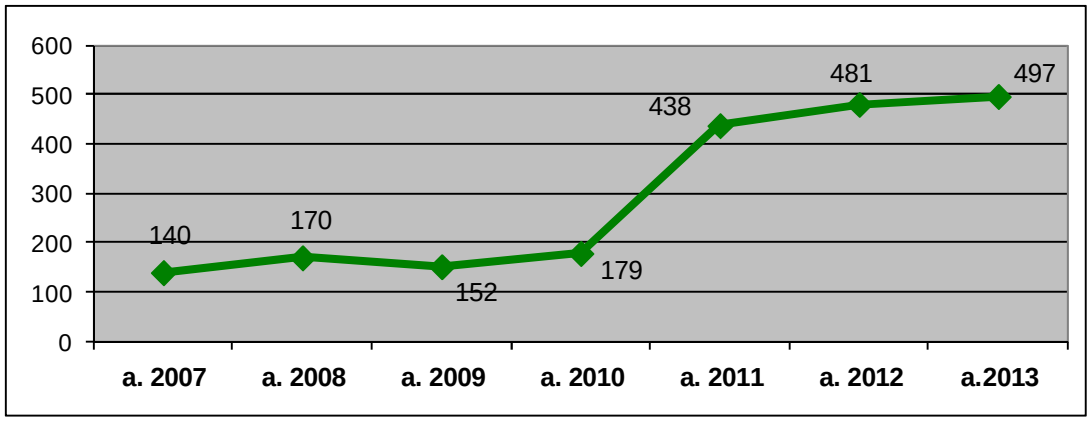
[15] Statistical Yearbook of the Republic of Moldova, Chisinau, Statistics, 2012, p.407

Some parameters thereof and the actions undertaken to counter these phenomena can be traced according to activity and information of the Customs Service that ensures the protection of IP rights at the border and those of the AGEPI. In this context noteworthy are first of all the 2012 and 2013 editions of the National Report on the Enforcement of Intellectual Property Rights in RM, in which for the first time was generalized the information on counterfeiting and piracy in our country.

According to data of the Customs Service, the number of registered intellectual property objects, to which customs authorities of the Republic of Moldova grant border protection, is constantly growing. In 2013, it increased to 497 objects almost 3.5 times compared to 2007 (Figure 8).

Figure 8

Number of OPI that have benefited from border protection, (units)



Source: Countering international trafficking in counterfeit goods – a priority objective of the Customs Service.
http://www.customs.gov.md/index.php?id=3459

During 2013, customs authorities have registered 81 detentions of goods suspected of being counterfeit, such as: purses “Chanel”, “Salvadore Ferragamo”, mobile phones “Apple”, “Nokia”, “Samsung”, clothing and accessories “Chanel”, “Prada”, “Gucci”, “Adidas”, “Nike”, “Puma”, razor blades “Gillette”, badges for cars brand “Mercedes-Benz”, “BMW”, etc.

According to data of the Customs Service, most commonly counterfeited and pirated goods detained at the border are: cosmetics, clothing, phones and accessories. The amount and country of origin thereof is listed in Table 24.

Table 24

Counterfeit goods detained at the border in 2013

Product category	Quantity (pcs.)	Weight, %	Country of dispatch
Mobile phones and accessories	1348	38,5	UA, CN

Car signs	1081	30,9	TR, CN
Perfumery, cosmetics	334	9,5	PL, UA
Footwear	219	6,3	TR, UA
Toys	144	4,1	CN
Electrical appliances (vibomassagers, razors)	140	4	UA
Clothing	120	3,4	UA, TR
Sunglasses and cases for sunglasses	52	1,5	CN
Mugs	48	1,4	EAU
Bags, backpacks	15	0,4	TR, UA
Total	**3501**	**100**	

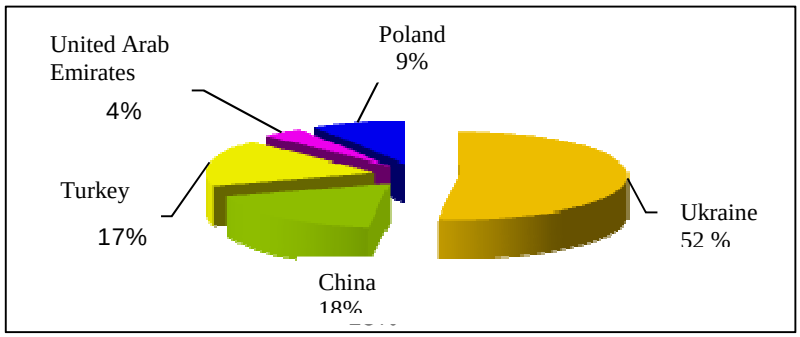
Source: National Report on the Enforcement of Intellectual Property Rights in the Republic of Moldova, Chisinau: 2013, AGEPI, p.30

All counterfeit products detained in 2013 crossed the border by land. Customs Service information confirms that most counterfeit goods come from Ukraine, China and Turkey (Figure 9).

A European Commission report[16] on customs actions placed RM in the top 10 countries of origin of most counterfeit goods arriving in Europe, with a weight of 2% in the volume of goods seized at the border.

Figure 9

Distribution of counterfeit goods detained in customs by the country of origin (2013)



Source: National Report on the Enforcement of Intellectual Property Rights in the Republic of Moldova, Chisinau: 2013, AGEPI, p.30

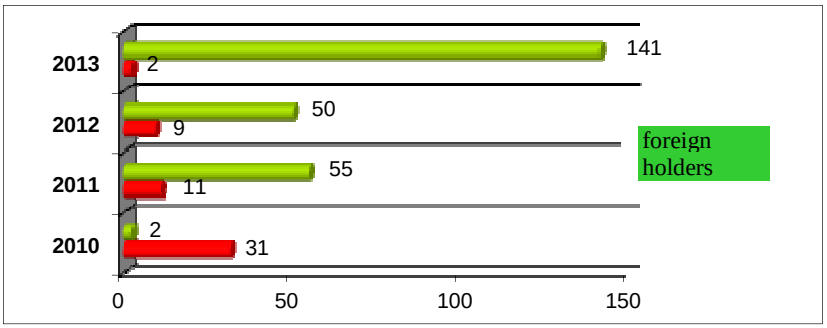
[16] Report on EU customs enforcement of intellectual property rights. Results at the EU border 2012. European Commission, pp.18

According to data of the Economic Fraud Investigation Division of the General Police Inspectorate, during 2013, 143 controls were conducted, including 12 – under the ex-officio procedure and 131 – on the basis of complaints lodged by copyright holders.

In 2013, there is a widening gap between the number of complaints lodged by foreign holders (141 complaints) and those lodged by national holders (2) the situation reversing practically as compared to 2010 (Figure 10).

Figure 10

Distribution of complaints by holders (units)



Source: National Report on the Enforcement of Intellectual Property Rights in the Republic of Moldova, Chisinau: 2013, AGEPI, p.30

Following the controls carried out, in 2013, there were drawn up 143 acts of finding, resulting in 142 acts of seizure of counterfeit/pirated goods with a total value of 3,675,935 lei. The amount of fines imposed on the basis of contravention proceedings instituted was the value of 357,500 lei.

A special role in the application of legislation on the enforcement of IP rights in the Republic of Moldova pertains to Prosecutor General's Office. In 2013, the Prosecutor General's Office conducted the prosecution in 10 cases of infringement of intellectual property rights, of which: according to Art. 185^1(violation of copyright) – 6 criminal cases; Art. 185^2 (violation of industrial property rights) – 3 cases; Art. 246^2 (falsification and counterfeiting of goods) – 1 case (attached to a criminal case from those indicated under Art. 185^2 of the Criminal Code)[17].

According to experts in the field, the legislation contains mechanisms with an advanced potential to prevent illegal use of intellectual property, but not always, these are implemented in practice. Success in the fight against piracy and counterfeiting phenomena is possible only subject to the application of an effective state policy in the field of intellectual property as well as increase in the level of institutional and individual motivation to combat these phenomena.

[17] National Report on the Enforcement of Intellectual Property Rights in the Republic of Moldova, 2013, Chisinau: AGEPI, 2013, p.40

The tiny parameters of goods detained at the border, the instituted criminal proceedings, confirm the insufficient intensity of the activity of combating counterfeiting and piracy in RM.

Mostly, the development of piracy and counterfeiting phenomena in our country is due to the lack of a systematic control on the part of competent authorities on the settlement of the matter in question.

The main indicators of the market of counterfeit and pirated goods are reflected with their sources in Section II.

D. Intellectual Property Market Infrastructure of RM

IP market infrastructure meets the mechanisms and institutions that are designed to ensure its functioning in accordance with its fundamental principles. The main elements of the intellectual property market infrastructure include: evaluation of IP, consultancy in providing legal protection to spiritual creations and efficient use thereof, structures to promote innovation and technology transfer, institutions for collective management of CR and RR objects.

Evaluation of intellectual property. Due to extremely limited commercial use of IPO in RM, of the 22 evaluators of IPO so far, only 7 persons are currently working frequently in the evaluation of intellectual property.

The main indicators of IPO evaluators' activity are reflected in Table 25. The information presented denotes, as in the case of commercialization, the total domination of trademarks in IPO subjected to evaluation. Among the evaluations carried out to determine the damage caused by the unlawful use of intellectual property also prevail trademarks. Relatively modest weight of computer programs, against the background of the huge amount thereof, is due to the fact that their evaluation is usually done by relatively simplistic methods without resorting to the services of some evaluators.

Table 25

Indicators of IPO evaluators' activity during the years 2004-2011 (number of objects evaluated)

EVALUATED IPO	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total	%
INVENTIONS	7	8	2	2	2	3	2	5	4	-	35	8.8
TRADEMARKS	5	22	3	6	7	9	11	28	36	40	127	31.8
CALCULATION OF DAMAGE	3	-	-	3	-	5	7	34	26	16	78	19.5
SOFTWARE	-	-	-	-	-	6	6	26	40	65	78	19.5
DATABASES	-	-	-	-	4	2	-	1	7	26	14	3.5
OTHER IPO	-	-	3	-	4	14	22	19	6	82	68	17.0
TOTAL	15	30	8	11	17	39	48	113	119	229	400	100

Source: Reports submitted to the AGEPI by independent evaluators.

The intermediation and consultancy activity in obtaining of legal protection and effective use of intellectual activity results is carried out by specialized institutions and companies, but also by patent attorneys. The latter combine the consulting activity with the intermediation services in relationships of the authors/owners of intellectual creations with the AGEPI and IP offices from abroad. Currently, in the Republic of Moldova operate 129 (including 18 suspended) patent attorneys with the support of which are registered most of intellectual property objects received by the national route. Activity of patent attorneys on filing of IPO protection applications is reflected in Table 26.

Table 26

Amount and weight of intellectual property protection applications, filed though patent attorneys of RM

Indicators	**2010**	**2011**	**2012**	**2013**
Number of PA filed by patent attorneys	91	59	62	76
Weight of PA filed by patent attorneys in the total PA filed by national route, (%)	26.8	20.8	22.2	26.3
Number of trademark registration application filed though patent attorneys	1283	1544	1355	1454
Weight of trademark registration applications filed though patent attorneys in the total trademark registration applications filed by national route, (%)	62.9	67.9	64.7	67.2
Number of ID registration applications filed though patent attorneys	58	43	52	21
The weight of ID registration applications filed though patent attorneys in the total ID registration applications filed by national route DMI (%)	56.3	50.0	43.7	17.5
Weight of IPO registration applications in the total IPO registration applications filed by national route, (%)	57.7	62.3	58.9	60.3

Source: AGEPI databases

Activity of the organizations for collective management of creations protected by copyright and related rights was reflected above.

An important indicator of IP market in the context of innovation infrastructure is the work of *technology transfer agencies and centers, scientific and technological parks, innovation incubators*, in particular the turnover of their residents. Its evolution in the case of residents of the scientific and technological park “Academica” and the innovation incubator “Innovator”, the only structures of this kind in operation at the moment, is shown in Table 27.

Table 27

Turnovers of residents of the STP "Academica" and II "Innovator" (thousand lei)

	2008	2009	2010	2011	2012
STP "Academica"	29700	11600	14042	17330	29902
II "Innovator"	1700	507	435,7	19676	18800
TOTAL	31400	12107	14477,7	37006	48702

Source: Annual Reports of AITT

The main indicators of operation of the IP market infrastructure include 14 parameters. They will be exposed in the following section.

II. MAIN INDICATORS OF IPO MARKET AND IDENTIFICATION SOURCES THEREOF

Lack of official statistical data on the number and value of transactions on the market of intellectual products and services (goods) imposes the need to specify the sources of identification of all information and indicators, including indirect, reflecting the trends on each segment of the intellectual property market. Only some of these indicators can be extracted from the Statistical Yearbook of the Republic of Moldova. Most detected indicators were collected from various information sources of the ministries and departments, AGEPI, NBM, ASM, Broadcasting Coordinating Council, professional and public organizations, international organizations (results of sociological surveys, scientific research, databases, annual reports, development strategies, marketing research, etc.).

In the following are exposed the indicators of intellectual property market, divided on those segments of the market, specifying the sources from which can be extracted their quantitative parameters. Part of the indicators has value expression, others – natural (number of transactions and objects subjected to protection or sold, involved institutions, etc.).

Main indicators of the market of industrial property objects. The specific character of the indicators of the market of industrial property objects results from the peculiarities of their protection that is carried out by filing of applications, examination of files and grant of titles of protection (patents for invention, protection certificates). They confirm the legal rights of the holders in their creations. All valid titles of protection practically constitute the potential offer on the market of industrial property objects.

Indicators of this segment of IP market have, first of all, natural expressions expressed in the number of objects that can be exposed on the market (subjected to protection) and the number of performed trading operations (licensing, assignment), the transaction values being in most cases confidential.

Sources of the indicators in question consist of data embedded in the Statistical Yearbook of the Republic of Moldova (number of objects subjected to protection displayed simultaneously on the AGEPI website) and those of the State Registers on transfer of rights in industrial property objects kept by AGEPI. The generalized data thereof are also published in the Annual Report of AGEPI.

№	Indicator name	Information source
1.	Issued patents for invention	http://agepi.gov.md/md/inventions/statistics/; Statistical Yearbook of RM, section Science and Intellectual Property
2.	Valid patents for invention (offer)	AGEPI databases
3.	Licensed patents for invention	State Register held by AGEPI
4.	Assigned patents for invention	State Register held by AGEPI
5.	Protected ID	http://agepi.gov.md/md/design/statistics.php Statistical Yearbook of RM, section Science and Intellectual Property
6.	Valid ID (offer)	AGEPI databases, http://www.wipo.int/ipdl/en/search/hague/search-struct.jsp
7.	Licensed ID	State Register held by AGEPI
8.	Assigned ID	State Register held by AGEPI
9.	Protected trademarks	http://agepi.gov.md/md/trademarks/statistics.php Statistical Yearbook of RM, section Science and Intellectual Property
10.	Valid trademarks (offer)	AGEPI databases, http://www.wipo.int/romarin
11.	Licensed trademarks	State Register held by AGEPI
12.	Assigned trademarks	State Register held by AGEPI
13.	Issued variety patents	http://agepi.gov.md/md/plants/statistics.php Statistical Yearbook of RM, section Science and Intellectual Property
14.	Valid variety patents (offer)	AGEPI databases

Thus, of the 14 indicators specified, four represent the number of objects subjected to protection in a given period, four are of real offer, and six are indicators related to performed transactions directly characterizing the functioning of the market.

Indicators of the market of musical and audio-video products. indicators of this market segment were specified primarily on the basis of information collected from the associations for collective management of objects of copyright and related rights largely from AsDAC, the other associations being less functional, because, for the time being, are less involved in the collection of remuneration. Most principal of them are the following:

№	Indicator name	Information source
1.	Number of theatrical performances, philharmonic concerts and of professional artistic groups	Statistical Yearbook of RM, section Culture
2.	Number of audience of theatrical performances, philharmonic concerts and of professional artistic groups	Statistical Yearbook of RM, section Culture
3.	Number of subjects who hold licenses for activity on the broadcasting market	http://www.cca.md/reports/16
4.	Number of CMOs approved by AGEPI	http://agepi.gov.md/md/collective-management/ogc.php
5.	Number of members of the collective management associations	Acts of verification/control of the CMO activity http://agepi.gov.md/md/collective-management/ogc.php
6.	Number of license contracts concluded by CMO	Acts of verification/control of the CMO activity http://agepi.gov.md/md/collective-management/ogc.php
7.	Issuance of control marks	http://agepi.gov.md/md/copyright/statistics.php
8.	Remunerations for receipts from public performances in cases other than concerts and shows	Acts of verification/control of the CMO activity http://agepi.gov.md/md/collective-management/ogc.php
9.	Remunerations for receipts from performances	Acts of verification/control of the CMO activity http://agepi.gov.md/md/collective-management/ogc.php
10.	Remunerations for receipts from concerts	Acts of verification/control of the CMO activity http://agepi.gov.md/md/collective-management/ogc.php
11.	Remunerations for the performance over the radio/television	Acts of verification/control of the CMO activity http://agepi.gov.md/md/collective-management/ogc.php
12.	Compensatory remunerations audiovisual works	Acts of verification/control of the CMO activity http://agepi.gov.md/md/collective-management/ogc.php
13.	Compensatory remunerations reprographic reproduction	Acts of verification/control of the CMO activity http://agepi.gov.md/md/collective-management/ogc.php
14.	Remunerations transferred abroad	Acts of verification/control of the CMO activity http://agepi.gov.md/md/collective-management/ogc.php
15.	Remunerations obtained from abroad	Acts of verification/control of the CMO activity http://agepi.gov.md/md/collective-management/ogc.php

Of the 15 indicators specified, eight have value expression and seven natural one.

Indicators of the market of literary and printing products. The official information available, which deals with the indicators of this segment of the market, is provided by the NBS. The Bank of Statistical Data, which can be accessed on the website of the National Bureau of Statistics and the Statistical Yearbook of RM includes data with reference to publishing of books, booklets, magazines, newspapers and other publications, also on the main indicators of

enterprises with the main type of activity like *publishing, printing and reproduction of informative materials*. We will also mention the data on foreign trade in printed publications, which can be selected from the Yearbook of Foreign Trade of RM or the Statistical Yearbook of the Republic of Moldova.

Indicators from this segment meet the value parameters (4 indicators) and the natural ones (10). They will be supplemented with the sources used by libraries to purchase books, which can be obtained from the Ministry of Culture, Ministry of Education, and other institutions that have library networks.

The main indicators of the market of printed publications indicating the sources from which they can be selected are shown below:

№	Indicators	Data source
1.	Number of published books and booklets (printing units)	http://www.statistica.md /pageview.php?l=ro&idc=263&id=2193 NBS Bank of Statistical Data (Section on Culture); Statistical Yearbook of Moldova, Section on Culture
2.	Annual circulation of published books and booklets	NBS Bank of Statistical Data (Section on Culture); Statistical Yearbook of Moldova, Section on Culture
3.	Number of magazines and other periodicals	NBS Bank of Statistical Data (Section on Culture); Statistical Yearbook of Moldova, Section on Culture
4.	Annual circulation of published magazines	Statistical Yearbook of Moldova, Section on Culture
5.	Annual circulation of published books and booklets	NBS Bank of Statistical Data (Section on Culture); Statistical Yearbook of Moldova, Section on Culture
6.	Number of newspapers (publications)	NBS Bank of Statistical Data (Section on Culture); Statistical Yearbook of Moldova, Section on Culture
7.	Annual circulation of published newspapers	Statistical Yearbook of the Republic of Moldova (Section on Culture)
8.	Number of enterprises with the main type of activity *Publishing, printing and reproduction of informative materials*	NBS Bank of Statistical Data (Section on Entrepreneurship)
9.	Revenue from retail sales of books, newspapers, magazines and office supplies	Statistical Yearbook of RM (Section on Retail Sales)
10.	Import of books, newspapers and other printed products (according to the list of goods)	Statistical Yearbook of the Republic of Moldova (Section on Foreign Trade. Imports by sections and chapters, according to the list of goods)
11.	Export of books, newspapers and other printed products (according to the list of goods)	Statistical Yearbook of the Republic of Moldova (Section on Foreign Trade. Imports by sections and chapters, according to the list of goods)
12.	Total number of libraries in RM	Statistical Yearbook of the Republic of Moldova (Section on Culture)
13.	Book collection of libraries in RM	Statistical Yearbook of the Republic of Moldova (Section on Culture)
14.	Sources allocated from the state budget to libraries for book acquisitions	Information of the Ministries of Culture and Education, ASM

RM software market indicators. Data on the indicators of this market segment are highly controversial due to the availability of several sources of their quantitative parameters (NBS, NBM, UNCTAD, Business Software Alliance, etc.). Despite contrapositions to information on software market indicators, data on prevailing trends broadly correspond, confirming advanced rhythms of its evolution. The most important software market indicators are exposed below. Among these are 4 natural indicators and 4 having value expression.

№	Indicator name	Information source
1.	Procurement of software products by legal entities	Statistical Yearbook of the Republic of Moldova (Section on Information Technology)
2.	Export of computer and information services	National Bank of Moldova https://www.bnm.md/md/balance_of_payments
3.	Import of computer and information services	National Bank of Moldova https://www.bnm.md/md/balance_of_payments
4.	Number of enterprises operating in the ICT sector	http://www.ict.md/membership2
5.	Weight of computer and information services in GDP	National Bank of Moldova and ANRCETI http://www.ict.md/files/White%20Book%202012%20Romanian%20Version%20FIN.pdf
6.	Expenditures for the purchase of software pertaining to a computer in the equipment of legal entities	Statistical Yearbook of RM (Section on Information Technology)
7.	Number of computers in the equipment of legal entities	Statistical Yearbook of RM (Section on Information Technology)
8.	Weight of ICT sector (including software) in GDP	Statistical Yearbook of RM (Section on Information Technology)

These indicators could be supplemented by the number of computers in the equipment of natural persons, other specific indicators.

Indicators of the market of counterfeit and pirated goods. Based on controversial information on the costs of legally used software of the NBS of the Republic of Moldova and those of the pirated software of the Business Software Alliance mentioned above, we consider it appropriate to specify prior to a deeper verification only one source.

In this context the main available indicators of the market of counterfeit and pirated products in the Republic of Moldova are as follows:

№	Indicator name	Data source
1.	Commercial value of pirated software	BSA reports, http://www.bsa.org/~/media/Files/Research%20Papers/GlobalStudy/2014/2013GlobalSurvey_Study_en.pdf
2.	Software piracy rate	BSA reports, http://www.bsa.org/~/media/Files/Research

		%20Papers/GlobalStudy/2014/2013GlobalSurvey_Study_en.pdf
3.	Number of IPO benefiting from border protection	Customs Service of RM, http://www.customs.gov.md/files/Registre/Registru/Registru%20OPI%2003.11.2014.pdf
4.	Value of counterfeit products detained at the border	Data of the Customs Service of the Republic of Moldova
5.	Number of complaints filed by domestic and foreign holders with the General Police Inspectorate	Data of the Ministry of Internal Affairs
6.	Number of cases instituted by MIA related to IPR infringement	Data of the Ministry of Internal Affairs
7.	Value of counterfeit and pirated products seized by the employees of MIA	Data of the Ministry of Internal Affairs

Among said indicators of counterfeiting and piracy three are of value origin, the others – of natural.

It is also opportune the identification of piracy rate for other IPO market segments.

Indicators of the intellectual property market infrastructure. They do not reflect directly the IPO market, being related and characterizing only the general conditions for commercialization of intellectual creations. The most important of these indicators are exposed below:

№	Indicator name	Information source
1.	Number of certified IPO evaluators	National Register of IP Evaluators kept by AGEPI http://agepi.gov.md/md/evaluators/evaluators.php
2.	Number of evaluators involved in the evaluation activity	Monitoring results of evaluation activity, carried out by AGEPI
3.	Number of evaluated IPO	Monitoring results of evaluation activity, carried out by AGEPI
4.	Number of patent attorneys	National Register of Patent Attorneys kept by AGEPI http://agepi.gov.md/md/patentattorneys/list.php
5.	Number of functional patent attorneys	AGEPI databases
6.	N number of applications filed through patent attorneys	AGEPI databases
7.	Weight of IPO protection applications filed through patent attorneys in the total applications filed by national route.	AGEPI databases
8.	Indicators of CMO activity reflected above	CMO activity verification/control acts http://agepi.gov.md/md/collective-management/ogc.php

9.	Number of technology transfer agencies and centers	Annual Report of the ASM CSSDT, section on Innovation Activity
10.	Number of scientific-technological parks	Annual Report of AITT
11.	Turnover of residents of the scientific-technological parks	Annual Report of AITT
12.	Number of innovation incubators	Annual Report of AITT
13.	Turnover of innovation incubators	Annual Report of AITT

Only two indicators of those reflecting the activity of the IP market infrastructure are valuable.

In the case of creation of venture investment funds it shall be specified the operation indicators thereof.

III. APPLICATION OF THE INTELLECTUAL PROPERTY MARKET MONITORING MECHANISM

Market monitoring involves the estimation of the current periods and possibly the earlier ones of the main indicators of supply, demand, prices, competition environment (level) assessment, the turnover in different market segments, sales trends and market capacity. Monitoring is carried out on the basis of generalization of statistical information on sales in sectoral aspect and mostly at the national level, marketing research of intellectual property market, other materials available that reflect its trends and developments.

Monitoring of intellectual property market can be made in full on all objects of intellectual property or certain segments thereof depending on the tasks set forth and its final destination. For market segmentation, it is broadly applied the traditional typology of intellectual property and the classification of IPO exposed in the national and international normative acts, WIPO editions, publications dedicated to the field: *industrial property objects* (inventions, trademarks, ID, plant varieties, etc.); *objects of copyright and related rights* (literary, dramatic, musical works, of plastic art, cinematography, choreography, photography, software, databases, performances of artistic creations, radio and TV broadcasts, etc.).

At the same time, IP market segmentation is performed in accordance with the specific character in which intellectual creations are manifested and their commercialization. Thus, commercialization of material carriers of literary works (publications/books, magazines, in which they are printed), musical works (CD, DVD) practically is not an act of sale-purchase of the respective works, but of their application, a commercialization of copies, the possibility of which results from the intangible (specific) character of intellectual products.

For the Republic of Moldova, in the current conditions of the IP market, the most relevant market segmentation, according to the opinion presented in the Study on Development of the IP Market Monitoring Mechanism, is as follows:

1. Market of industrial property objects (patented inventions, trademarks, ID, plant varieties);
2. Market of musical and audio-visual products;
3. Market of printed publications;
4. Software market;
5. Market of counterfeit and pirated goods;
6. Market of IP infrastructure services.

This segmentation which is proposed for implementation and under this monitoring mechanism, results from the lack of information on commercialization or tiny character of commercial transactions with some IP objects such as inventions, know-how, ID, plant varieties, works of plastic art, databases, etc.

The main players in the IP market are right holders as primary owners and sellers on the one hand, natural/legal persons as users/buyers on the other hand and intermediaries. As holders of intellectual property rights may manifest both legal entities in which and with the consent of which were elaborated the spiritual creations and natural persons who directly created them.

On different IP market segments activate different players thereof, especially in the state of providers of IP market infrastructure services (technology transfer and consulting agencies, organizations for collective management of copyright and related rights, evaluators of IPO and patent attorneys). An important player in the IP market as the body regulating this area and the owner of IPO elaborated from the public budget is the state.

IP market monitoring procedures include the following activities:

1. Selection of relevant indicators for each market segment proposed for monitoring. Throughout, they can be modified due to the appearance of new available information lots, modification of statistical reports, etc.;
2. Checking the presence of information sources of the indicators proposed and their values for the year subjected to monitoring;
3. Finding new sources of information with the appreciation of their veracity and determination of obtaining modalities (accessibility of electronic addresses, etc.);
4. Requesting from the institutions that have information that is not present in open sources relevant data to supplement the values of these indicators;
5. Completion of tables and figures reflecting the trend of IPO market indicators with information of the respective period;
6. Detecting the deviations of the IPO market indicators from the previous trend and the causes that led to these trends;
7. Formulation of comments on IPO market trends in the respective period arising from changes in the IPO market indicators.

The monitoring of intellectual property market results in a monitoring report on the selected segments. The monitoring report includes the following main components:

1. The natural (number of commercialized IPOs, those offered for commercialization, number of subjects of the IPO market, etc.) and value expressions (turnover of transactions on those segments of the market) of the main indicators of the market;
2. The trend expressed in tables or figures which reflect the IPO market indicators relative to the analogous ones for the previous periods;
3. The characteristics of the IPO market supply which in this case is associated with the number of objects subjected to legal protection. In the framework of monitoring one can operate with the concepts of potential supply (objects subjected to protection) and direct/real supply (objects available for commercialization including patents, trademarks, valid ID and copies of CR and RR objects offered for sale including in commercial networks);
4. The estimative values of investment in innovation, procurement of software, technology transfer, etc.
5. For some segments of the IP market (market of printed publications, audio-video products, evaluation services, consulting, etc.) in the monitoring report are supposed to be included estimates of the competitive environment. Providing a competitive environment on the IPO market aims at optimizing the costs and prices/tariffs. It is done by creating favorable conditions for the operation of a sufficient number of players/subjects (buyers, sellers and intermediaries) and combating the establishment of domination of monopolistic tendencies.
6. The conclusions on general trends of IPO market/selected segments thereof.

The information from the monitoring reports on intellectual property market as well as the respective conclusions may be used for the following purposes:

1. Assessment of the degree of integration of intellectual property, knowledge and artistic creations into the economic and commercial circuit of the society;
2. Determination of innovation and information perspectives of the society, including in the branch aspect;
3. Argumentation of different priorities of technological, scientific and commercial development;
4. Detection and assessment of the competitive potential of enterprises, industries, innovative projects;
5. Assessment of the level of counterfeiting and piracy.

FINAL PROVISIONS

The intellectual property market monitoring mechanism practically presents the totality of indicators dispersed on market segments and their sources, the ways of their assessment with the related estimates and comments. Due to the lack of concrete values of the transactions performed, some indicators are exposed in

natural expression (number of commercialized objects or those offered for commercialization in the case of offer).

Lack of value indicators on several segments of the IP market makes it impossible to apply a synthetic indicator of the national IP market that would include the value amount of all IP objects subjected to commercialization. In such circumstances market monitoring under this mechanism requires only the estimation of its trends in various segments with the determination of the trends of increase or decrease. The need for such an approach results from the highly heterogeneous, incompatible character of different IPO.

This mechanism is a first complex attempt to identify and estimate the quantitative parameters of indicators of the main intellectual property market segments in Moldova and to anchor them to the appropriate information sources. It can be supplemented and extended, as some sources used are fragmentary and incomplete, and the collection of commercial information under the conditions of double accounting, advanced level of piracy and lack of transparency is an extremely arduous, difficult and uncertain process

The market monitoring process is to be carried out by collecting information on the value of indicators from the said sources with a possible extension of market segments subjected to monitoring.

Throughout, the mechanism in question can be updated and supplemented with new indicators and more accessible sources to elucidate a wider picture of the IP market in the Republic of Moldova.

Applying the mechanism and sources exposed any institution or company, natural person or legal entity can estimate the IP market trends in different segments thereof on the basis of information available on the websites of public institutions or in some cases by requesting additional information.