

Slobodan Marković

GLOBAL ADMINISTRATIVE CRISIS OF THE PATENT SYSTEM

Taking the global patent system into consideration from the aspect of administrative bodies deciding to grant patents for inventions, the author points out the constant tension between a very complicated granting procedure and constantly increasing number of patent applications, on one hand, and limited administrative capacities of patent administrations, on the other hand.

After an overview of main international arrangements for simplification of obtaining a patent for the same invention in several countries, the author explains the mechanisms that brought to spontaneous establishment of three patent administrations – European Patent Office (EPO), US Patent and Trademark Office (USPTO) and Japan Patent Office (JPO) – the so called Patent Trilateral – as informal pillars of the global patent system. Risks of current trends in these patent administrations, reflected in backlog of unexamined applications, the extension of the duration of pendency time and lowering quality of decisions, are explained. The conclusion suggests that the solution to the problems lies in operational collaboration between Trilateral members, but that full cooperation is currently not possible due to important differences in the procedural and substantive patent laws applied by these administrations. After the comparative analysis of main differences in the US, European and Japanese laws, the author expresses doubt that some serious harmonization of the comparative patent law will be achieved through mechanisms of World Intellectual Property Organization (WIPO). Instead, the author predicts unilateral but coordinated legal initiatives in this direction in the USA, Japan and Europe.

Key words: *Patent. – Patent Cooperation Treaty. – European Patent Convention. – US Patents and Trademarks Office. – Japan Patent Office. – Trilateral Cooperation. – International harmonisation of patent laws. – European Patent Network.*

1. INTRODUCTORY NOTES

In almost every country an inventor or his/her legal successor can, upon personal request, obtain from the competent state authority the

exclusive, territorially limited temporary right (patent) to exploit an invention fulfilling certain statutory conditions. The overall national and international regulations in this area, together with the social relations arranged by these regulations, are referred to as „patent system“.

By granting legal protection to the inventor, the essence of the patent system is to provide economic incentive for technical development, as an important factor of social progress.

Ever since its inception and up to now, the patent system has been subject to debate. The social justification of commercial monopoly, making patent as subjective right¹, has been disputed or defended. However, in this essay we will not debate on patent content, but we will

1 The first patent law was adopted in the US in 1790. During the 19th century there was a severe debate in Europe regarding the justification of the patent system. On three occasions in the period 1851 – 1872 the UK Parliament organized special commissions whose task was to examine the justification of the then existing system of patent protection. In Holland there was even a complete abolition of the patent system from 1869 to 1910, whereas it was introduced in Switzerland only after several previously failed proposals in the Confederation Parliament and referendums in the period 1849 – 1887. (Verona, A. *Pravo industrijskog vlasništva*, Zagreb, 1978, page 69.). Today's debate on the patent system is in the context of relations between developed countries (including the countries that are not developed but have political reasons to support developed countries) and developing countries. International forums where different arguments relating to this topic are presented are World Intellectual Property Organization and, especially, World Trade Organization. Current doctrine, inducted by developed countries, can boil down to the following: “Patent rights arise because inventing is an expensive process and costs must be recouped to provide incentives to invest. If others can cheaply appropriate an inventor's innovation, calling it their own without having invested time and energy in it, investments in innovation will not be made. Free market tends to underproduce innovation because of this appropriability problem, thus government intervenes into the market to provide a period of exclusive distribution rights as an incentive to invest in innovation.” (Ryan, M. P. *Knowledge Diplomacy – Global Competition and the Politics of Intellectual Property*. Washington D.C. 1998, pages 21, 22). The doctrinary answer of developing countries is mostly the following: “The need to maintain incentives to encourage creative activity is limited, in many respects, to western market democracies. These democracies revolve, in large part, around individual autonomy and liberty, notwithstanding the greater social loss of nonmaterial value that individualism tends to breed. The successful commodification of intellectual goods can only be achieved in a society which embraces this sort of rugged individualism... For many of these societies (in the developing countries – observation by S.M) the difficulty in introducing western copyright principles is that these principles attempt to overturn social values that are centuries old. The laws protecting nonmaterial goods in these societies simply reflect fundamental notions on what the society considers the appropriate subject of exclusive ownership ... The internationalization of intellectual property threatens to undermine, if not totally destroy, values that indigenous systems ascribe to intellectual property and the manner in which they allocate rights to intellectual goods” (Gana, R.L. *Has Creativity Died in the Third World? – Some Implications of the Internationalization of Intellectual Property*, Dinwoodie, Hennessey, Perlmutter: International Intellectual Property Law and Policy, Newark, 2001, pages 18, 19).

look at main problems of the procedure for its obtaining and administration. The reason for our interest in administrative side of modern patent system stems from the difficulties gradually accumulated in the past few years in the patent granting procedure, which threaten to endanger the overall system, i.e. to deprive it of capacity to achieve its social function.

The problem is a world issue because technology is universal and the commercial usage of patented inventions in the era of global economy knows no state borders.

In order to understand better the following essay, it is useful to clarify several important premises in the beginning:

Firstly, in the comparative law it is the state administration that is authorized for granting patents. The national body in charge of granting patents and maintaining the patent registry is administrative (office, bureau, institute, agency or alike). The patenting procedure is, according to this, an administrative procedure and the patent is granted by administrative decision. A patent as exclusive right represents a form of intellectual property considered today in the large part of the world to be an equal compound of the corpus of property rights for which there are special guarantees contained in national constitutions and international conventions². This way we come to the main specialty of the patent granting procedure: the administrative body in the administrative procedure decides upon the constitution of property right, i.e. creates, abolishes and changes property right relations. In other words, the statutory competence of the administrative body in charge of granting patents (but also other industrial property rights) comprises the task which, according to its legal nature, belongs to the court³. Therefore, although the state has the

2 Article 1, Protocol 1, European Convention on Human Rights says: "Every natural or legal person is entitled to the peaceful enjoyment of his possessions..." European Court for Human Rights in its practice considers indisputable that intellectual property (copyright, patent, trademark and other) represent a form of property: "...Stable Court practice is that the concept of "property" should have autonomous meaning not limited to property over physical goods and that is independent from classification in the national law...the Court...bears in mind that intellectual property as such is indisputably entitled to protection based on Article 1, Protocol 1" (from the decision of the European Court for Human Rights in case *Anheuser-Bush Inc v. Portugal*, no. 73049/02 of November 10, 2005).

3 Krabel, A: *Kommt das Patent durch staatlichen Verleihungsakt zustande?* (GRUR 1977, page 205, 206). One of the possible explanations of this situation is connected with the history of the patent system in Anglo-American Law. The precursor of modern patent law in England was the Statute of Monopolies (adopted in 1623) forbidding all commercial monopolies, except the time limited monopoly on invention. This allowed monopoly to be characterized as a privilege rather than property right, and the decision on its recognition was some kind of permission the state ruler granted to the

commitment to enable judicial control over legality of patent administration decisions⁴, the patent administration, as the most skilled state body regarding patent area, bears great social responsibility.

Secondly, as with all other intellectual property rights, patent has its limitations. As a rule, it extends only to the territory of the country whose administration granted it by applying the law of that country⁵. This means that when one person wants a patent for a certain invention in several countries, this person must obtain individual patent for every country. This principle of territorial limitation of subjective right is called the principle of territoriality.

Thirdly, in comparative and international law, the most widely accepted conditions for patenting inventions are: novelty, inventive step and industrial applicability of the invention. Fulfilling these three conditions could be assessed from the aspect of objective and universal criteria regarding the concept of prior art (the overall sum of publicly known technical information relevant to novelty and inventive step of invention) and concept of industrial activity (relevant to applicability of the invention). When this is connected with the territoriality principle, it shows that every national patent administration (e.g. in Serbia, Germany, USA, South Korea) examining the patentability of the same invention (e.g. vaccine against aviary influenza), basically does the same job in order to determine whether it can grant a patent for the territory of its country. As such an exercise is unnecessarily wasteful in terms of the national administration resources, a significant number of countries to enter specific international arrangements enabling a more rational, cheaper and more efficient procedure for obtaining a patent for the same invention in several countries. Those are: Patent Cooperation Treaty from 1970, European Patent Convention from 1973, Agreement on the Creation of Industrial Property Organization for English-speaking Africa from 1976 (with Protocol on Patents and Industrial Designs from Harare,

individual. Therefore the modern administrative decision on granting patent as intellectual property right can be regarded as a relict from the history of patent system. (See more in Marković, S. *Patent Law*, Belgrade, 1997, pages 12 and 17). However, apart from its legal nature, the patent examination procedure is predominantly of a technical nature requiring narrowly specialized technical knowledge by state officers conducting the procedure. This circumstance can be regarded as one of the actual reasons to entrust granting of patents to the organ having technical expertise, and not to the court (whose knowledge and competence are limited to law only).

4 This commitment is stipulated in Article 41, point 4, Agreement on Trade Related Aspects of Intellectual Property Rights from 1994.

5 The exceptions to this rule are European patent, Euro-Asian patent and African patent that are granted in the procedure conducted by respective supranational (international) patent administrations formed by international conventions. Find more about this in further text.

1982), Agreement Relating to the Creation of African Intellectual Property Organization from 1977 and Euro-Asian Patent Convention from 1994⁶.

For those readers who are less widely acquainted with the details of the patent law, we will limit ourselves to a very simplified overview of the Patent Cooperation Treaty and European Patent Convention, as the most relevant for the European affairs.

Patent Cooperation Treaty (hereinafter PCT) is a universal legal instrument establishing the system of applying for patent in several countries by filing a single international patent application. That international application is filed to the national patent authority of the PCT member country in which the applicant has the citizenship or domicile. Afterwards the application is officially forwarded to the International Bureau of WIPO in Geneva. Filing of a correct international application activates the fiction that in every PCT member country, that is designated in the application as the country in which the applicant requests a patent, a national patenting procedure has been initiated. However, each designated national patent administration is obliged not to take any administrative action in the first 30 months, but to wait for the completion of the so called international patenting phase.

International patenting phase has one compulsory and one optional part.

Compulsory part comprises international search of prior art relevant for estimation of novelty and inventive step of the filed invention and the drafting of an international search report. International search is conducted by one of 12 current international searching authorities and those are the already existing national or supranational patent administrations fulfilling special conditions stipulated by PCT⁷. The result of international search is a report containing a list of documents with technical information according to which it is possible to examine the novelty and inventive step of the filed invention. This report is also sent to International Bureau which will publish it together with international application within 18 months after the application has been filed.

The optional part of the international patenting phase is comprised of international preliminary examination by the authority for international

6 Apart from reducing the workload for national patent administration, these arrangements make it easier for inventors and their legal successors to apply for patenting, i.e. to obtain patent in several countries; subsequently they contribute to harmonization of national patent laws and, finally, unify the quality of granted patents on the territories of different countries.

7 Those are patent administrations of Austria, Australia, Canada, China, Spain, Finland, Japan, South Korea, Russia, Sweden, USA, as well as the European Patent Office

preliminary examination (which is the same entity as the international searching authority). The task of this authority is to examine and pass an opinion on whether the filed invention is novel and has inventive step, taking into account the already drafted international search report.

After the end of the international phase, the national patenting phase begins in every designated/elected PCT member country, based on international application, international search report with translation into the official language of that country and, optionally, report on international preliminary examination with translation. The point of the national phase is that the national patent administration of every designated/elected country⁸, relying on non-binding but very reliable results of the international patenting phase, takes a decision to grant the patent or deny patent protection.

This system has made a very successful⁹ compromise between territoriality principle (the patent is recognized by the national administrative authority for the territory of that country) and the need for rationalization of the procedure for obtaining a patent for the same invention in several countries. Namely, as a rule, the national patent administration relies on the results of the international patenting phase, thus significantly reducing its time and work involvement.

European Patent Convention (hereinafter EPC) is a regional legal instrument but it does not represent a part of the EU legal system. EPC defines the core of the unified substantive patent law, it establishes European patent administration – European Patent Office and determines procedural rules for granting a European patent. The essence of the system is that the entire procedure of patenting a certain invention in several designated EPC member countries (filing the application, publication of the application, prior art search, examination and final decision on granting a patent) is dealt with by one supranational organ (European Patent Office), but the patent granted has an independent validity on the territory of every designated EPC¹⁰ member country.

⁸ In 2003 every international patent application designated the average of 13.9 countries in which patent protection was requested. The PCT success is also evident by data that the average number of designated countries in 1999 was only 6.5 (Trilateral Statistical Report 2004, Worldwide Patenting Activity, http://www.Trilateral.net/tsr/tsr_2004/ch3/).

⁹ Undoubted evidence of PCT success is a membership of 132 countries (on May, 17, 2006). Serbia is a PCT member since 1997. Since the beginning of the PCT the number of international patent applications has average annual growth of around 17%. In 2005, 134.504 international PCT applications were filed (WIPO-PCT Statistical Indicators Reports 1978-2005, http://www.wipo.int/ipstats/en/statistics/patents/pdf/pct_yearly_report.pdf).

¹⁰ In 2003 an average number of EPC member countries where patent protection was obtained on the basis of one European patent application was 7 (Document

In comparison with PCT, it is obvious that EPC represents a step forward towards rationalization of the procedure of obtaining patent for the same invention in several countries (the entire patenting procedure has an international character) but it also does not abandon the territoriality principle (validity of every European patent is territorially limited for each designated EPC member country). Since the European system of granting patents entails that the member countries renounce their sovereign power to decide on granting patent on their territory, it requires a relatively high degree of harmonization of national patent laws and regulations with substantive patent law contained in EPC, as well as political will by member countries to achieve a relatively high degree of unity regarding the patent system¹¹.

Finally, regarding PCT and EPC, perhaps two more annotations are important. Firstly, both systems exist parallel with national patent systems of member countries, so that, e.g. Serbian citizen who wants a patent in Austria (PCT and EPC member state), can submit national application to Austrian patent administration, take the procedure (through Austrian representative) in Austria and obtain Austrian patent. Therefore, PCT and EPC do not entail the abolishment of national patent systems. Secondly, PCT and EPC are mutually adjusted: European Patent Office works as international searching authority and international preliminary examination authority within the PCT system; it is possible, based on international PCT application in which European Patent Office is designated, to apply for and obtain a patent for certain EPC member countries; the applicant of European patent can refer to the international priority right of the previously filed international PCT application, as well as vice-versa.

2. ELEMENTS OF ADMINISTRATIVE CRISIS OF PATENT SYSTEM

2.1. Limited administrative capacity of patent authorities versus increasing workload

On a general level, the situation that administrative bodies find themselves in a gap between the workload and their limited capacities is

CA/115/06, Patents Landscape in Europe, Japan and the US, from June 9, 2006, presented at the 106th EPO Administration Council Session, page 35).

¹¹ Similar to PCT, the EPC was enormous success: today it has 31 member states. Five more countries should be added to this (including Serbia). Based on special Agreement on Cooperation and Extension, these extension-countries accept European patent system including the validity of European patent on their territory, although they are not EPC members. Serbia has this status as of November 1, 2004.

not typical only of patent administration. The intention to reduce or remove damaging consequences of such situations (time delays, lowering quality of decisions) is usually manifested in certain procedural improvements, on one hand, and reinforcement of institutional capacity of administrative bodies (increase and improvement of human resources, automation of work, etc), on the other hand.

What makes the patent administration so specific is the following:

Firstly, the actual informational era is marked by so-called global economy where results of human creativity (e.g. technical inventions, author's works, design) become the main commercial resource and the competitiveness factor of commercial subjects and national economies. This leads to unstoppable growth of the significance of the patent system as an instrument of legal appropriation of new technologies. Given that human creativity is an indefinite resource for inventions that become property of their creators and their investors through legal protection (patenting), it is logical that the number of demands for patent protection worldwide is constantly increasing, causing swelling pressure on patent administration¹².

Secondly, according to Paris Convention for the Protection of Industrial Property from 1883 (which today has 169 member countries), every member country is obliged to provide foreign person or legal entity protected by the Convention, with the same rights accorded to the nationals of that country¹³. This means that in Paris Convention member countries, both nationals and foreigners are equally present as patent applicants and patent owners.

Thirdly, the globalization of economic life, in combination with principles of territoriality and national treatment of foreigners in patent law, leads to more demand to obtain patents abroad¹⁴. Succinctly, an

12 In 2003, 17.052.023 patent applications were filed. In relation to 1999 when 7.451.674 patent applications were filed, an average annual growth of 23% is noticed (Trilateral Statistical Report 2004, Worldwide Patenting Activity, http://www.Trilateral.net/tsr/tsr_2004/ch3/).

13 It is about the principle of national treatment of foreigners, stipulated in Article 4 of the Paris Convention. Protected are persons who are nationals of another Paris Convention member state, or persons who have domicile or real and effective industrial or commercial establishment in such a state (Articles 2 and 3 of the Paris Convention). All international agreements regarding industrial property protection, concluded among Paris Convention member states, represent so called special agreements, in accordance with Article 19 of the Paris Convention, which means that these agreements cannot contravene the provisions of the Paris Convention. This also applies for agreements that are in focus of this essay: PCT and EPC.

14 In developing countries as well as in smaller developed countries that are not leaders in technological development, foreigners constitute the majority of patent

inventor or his/her legal successor today, in average, demands patent protection for the same invention in approximately 20 foreign countries¹⁵.

Fourthly, the procedure to examine the fulfillment of conditions for granting patent protection is extremely complex. Patent application, regarding its prescribed form, is the most complex legal submission, and the examination of its formal aspect (including the conditions of „unity of invention“ and „enabling disclosure“ of the invention) requires time and expertise. However, more complex and more time demanding is the examination of novelty and inventive step of the invention (so called substantive examination of the application). Bearing in mind that the fulfillment of these two conditions is assessed in reference to the prior art, it is necessary that the patent administration first determines the state of prior art relevant for the patentability of every submitted invention. The prior art, essentially, comprises the overall technical information made available to the public anywhere in the world, in any way, and whenever until the day of filing i.e. the day of the priority of the application. Search of prior art is the most voluminous job of the patent administration since it comprises technology and knowledge to manage tens of millions of documents¹⁶ world wide in various languages. Examination of novelty and, especially, inventive step of invention requires very professional team of experts with years of training.

Fifthly, the rapid technological advancement leads to more frequent patent applications for inventions in entirely new technical areas, for which patent administration must develop new and adequate examination methodologies („*learning by doing*“), which inevitably slows down the procedure and bears risk of destabilizing the decision quality level¹⁷.

applicants and patent owners. (See WIPO Statistics on Patents, http://www.wipo.int/ipstats/en/statistics/patents/source/summary_filed_table.csv .

15 In 1999 patent protection for the same invention was demanded in averagely 12.3 foreign countries, whereas those figures in 2002 were 19.4 (Trilateral Statistical Report, http://www.Trilateral.net/tsr/tsr_2004/ch3/). This speaks about rapid internationalization of patent activity.

16 The main source of information on the state of art is the so called patent documentation comprising all published patent applications and all patents in the world. We believe it possible to make a substantiated assumption that available world patent documentation today has over 50 million documents. This figure was achieved by „combining“ two sources: one from 2004, mentioning around 45 million documents (Patlib Network, http://patlib.european-patent-office.org/welcome/pat_info/index.en.php), and one from 2005 saying that main electronic data base used by European Patent Office provides access to 53 million patent documents (EPO Annual Report 2005, <http://annual-report.european-patent-office.org/2005/review/index.en.php>). The second important information source on the state of art is the so called non-patent documentation such as scientific and professional magazines and books, text-books, encyclopaedia and similar.

17 For example, those are applications for inventions related to genetic engineering (gene sequences), nanotechnology and similar.

Bearing all this in mind, we return to the question: What makes the institutional capacity of patent administration chronically problematic in relation with other administrative bodies? The answer is: Rapid technological advancement in the last few decades has two consequences: a) constant increase in the number of applications for patent protection and b) exponential enlargement of prior art, which complicates and aggravates the procedure of substantive examination of patent applications. Working in synergy, these two consequences place the patent administration in the position to cope with bigger, more complicated and more responsible work without being able to see the end of that phenomenon¹⁸.

We could use the following quotation to sum up the illustration of consequences of this situation. „Patent application filings have increased dramatically throughout the world. There are an estimated seven million pending applications in the world examination pipeline, and the annual workload growth rate in the previous decade was in the range of 20–30%. Technology has become increasingly complex, and demands from customers for higher quality product and services have escalated¹⁹.“

18 This is not the first administrative crisis of the patent system. Previously, its peak was in the beginning of the seventies last century. In comparative laws it was solved by reforming the patenting procedure, more concretely, by making national patent administrations switch from the so called preliminary examination system to the so called deferred examination system. Preliminary examination system consisted of *ex officio* substantive examination of every patent application, and publication of only those inventions for which patent was granted. The drawbacks of that system were: (a) inability of patent administrations to grant patents in reasonable amount of time (7 to 10 years on average) due to workload, as well as (b) reduced informational effect of the patent system due to the fact that only patented (not all filed) inventions were published with delay causing their technological obsolescence at the moment of their publication. Deferred examination system brought two enormous advantages: (a) all filed inventions are published within 18 months after the application was filed (therefore, patent system represents the biggest generator of new technical information on the state of art) and (b) the phase of substantive examination is only entered by those applications for which the applicant specifically requested this examination within 6 months from the publication of invention (failure of applicants to put such a request significantly cuts down the number of applications to be substantively examined). Having reduced the workload in this way, patent administrations in the beginning of the seventies and eighties of the 20th century managed to cope with the incoming applications. In SFRY the system of deferred examination of patent applications was introduced in 1981 by the Law on Protection of Inventions, Technical Improvements and Distinctive Signs (Official Gazette, SFRY, 34/81). It is an interesting fact that the US was the only country in the world that was persistent on the traditional system of preliminary examination until the reform of patent law in 1999. See more on the today's patent system in the US in further text.

19 USPTO – 21st Century Strategic Plan, http://www.uspto.gov/web/offices/com/strat21/stratplan_03feb2003.pdf.

2.2. Paradox of territoriality principle: Global patent system as dependent on three patent administrations (so-called Patent Trilateral)

As already pointed out, the intention to overcome the irrationalities of strict application of territoriality principle in the procedure to obtain patent protection, paved the way for international and supranational systems for filing patent applications and obtaining patents, such as PCT and EPC.

The birth of these two systems institutionalized a certain number of high quality national patent administrations as international centers for prior art search and substantive examination. In PCT system, those are international searching authorities and international preliminary examination authorities²⁰. In the EPC system, it is the European Patent Office (hereinafter EPO), which is the administration conducting the entire procedure for granting a European patent. It is natural that these patent administrations, in taking on an enormous workload, have in turn reduced the workload of national patent administrations of other countries.

Subsequently, a certain number of countries that do not have the administrative capacity to establish and support „serious“ patent administration conducting substantive examination of applications, established a national patent system that does not comprise the substantive examination of novelty and inventive step but is reduced only to formal examination of patent applications, their publication and maintenance of patent register. Such system can be referred to as „patent registration system“ in which the rebuttable presumption exists that the invention meets the patentability criteria, and the patent is valid. The substantive examination is initiated only afterwards, within the time limit prescribed by the law or in case the validity had been disputed by a third party, or in case of a litigation due to patent infringement (in which the validity of the mentioned presumption is placed as preliminary question). The substantive examination is not conducted by the patent administration of that country but either (a) that job is given to one of the previously mentioned patent centers or (b) patent (foreign or European) that was granted in the meantime by one of these centers for the same invention, is considered as the proof of validity of the disputed patent as well²¹.

Apart from these two ways that *de iure* lead to partial or complete transfer of the main part of the patent granting procedure from national patent administrations to previously mentioned international authorities, there is a process with the same effect, done *de facto*. It is a practice of certain number of national patent administrations to „save up“ the job of prior art search and assessment of novelty and inventive step of the

20 See footnote 8.

21 See e.g. the Law on Industrial Property in Bosnia and Herzegovina from 2002, articles 42, 43.

invention that was applied for patent protection in other countries or with certain international patent administrations, by informally deferring the national procedure and waiting for the examination results from other national or international patent administrations, in order to use these results. In order to have reliable results, it is natural that the most frequently used results are those of EPO and those of national administrations acting as international authorities within the PCT system.

The selection of patent administrations that, through described ways, take over the burden of the increasing internationalization of patent activity depends on several factors, among which the most important ones are: the status of the international authority within the PCT system, the size of the geographical region gravitating to this administration and the official language of the administration. This way, three patents administrations have emerged in global terms, forming the so-called Patent Trilateral: European Patent Office²², US Patent and Trademark Office and Japan Patent Office²³.

The power and significance of the Trilateral are visible on the basis of two statistical facts: First, out of all patents (5.625.000) valid in the world in 2003, 86% were granted by Trilateral patent administrations²⁴. Second, according to the number of first application for the same invention, for decades the patent administrations of the Trilateral have been at the top. In 2003, of the total number of the first applications for the same invention in the world (826.191), around 81% was filed with the patent administrations of the Trilateral²⁵.

22 European Patent Office is an international searching authority and international preliminary examination authority in the PCT system; the supranational organ conducting the entire formal and substantive examination procedure and granting the European patent with validity in 36 European countries; the organ representing a “link” between PCT system of international patent application and the European patent granting system. This institution has three working languages: English, German and French, which means that its services are available to the majority of world population, without language barriers.

23 US Patent and Trademark Office and Japan Patent Office have the status of international searching authority and international preliminary examination authority in the PCT system. Both offices only use the official language of their countries. What makes them part of “Trilateral” is the fact that they are national patent administrations of two leading technological development powers that annually receive the biggest number of patent applications and grant the biggest number of patents in the world. Their decisions have direct or indirect technological and economic consequences for the entire world.

24 Out of this, 37% (2.089.000) were granted by EPO, 30% (1.670.000) by US Patent and Trademark Office, 19% (1.101.000) by Japan Patent Office, while the remaining 14% (792.000) were granted by all other national and international patent administrations in the world. (Trilateral Statistical Report 2004, The Trilateral Offices, http://www.Trilateral.net/tsr/tsr_2004/ch2/)

25 Out of this, 43% (358.184) of first applications for the same inventions were filed to Japan Patent Office, 22% (184.758) to the US Patent and Trademark Office, 16%

The second mentioned data are of special significance and deserves a comment which, for a start, should clarify the notion of „first application for the same invention“. Namely, it is understandable that one person wishing a patent for a specific invention in a large number of states, by definition is not able to submit the application to a large number of national and/or international patent administrations simultaneously, but is doing it successively. With this, the first submitted application (to the national patent administration of own or foreign state, or a specific international patent administration) bears a specific significance, because with this application, s/he constitutes the international priority right in accordance with the Article 4 of the Paris Convention. Based on that right, s/he can within 12 months submit the application for the same invention to a national patent administration of any other state or to any international patent administration, claiming the filing date of the first application as the priority date of any later application²⁶. The first application is referred to as „priority application“, and all others are referred to as „secondary“ applications. All applications for the same invention (irrespective of the patent administration they have been submitted to), carrying the same date of international priority, make the so-called family of patent applications, and the patents granted on the basis of those applications make the so-called patent family.

So, where does the responsibility of the Trilateral lie for the global patent system? It lies in the fact that, based on the priority application for a certain invention submitted to any patent administration of the Trilateral, a patent protection for the same invention is requested for at least 20 countries in the world through secondary applications within 12 months (a time limit for requesting the international priority right)²⁷. In

(126.761) to the European Patent Office, whereas the remaining 19% (156.488) was filed to all other national and international patent administrations in the world. (Trilateral Statistical Report 2004, Worldwide Patenting Activity, http://www.Trilateral.net/tsr/tsr_2004/ch3/)

26 The idea behind the recognition of the international priority right is that during the substantive examination of any subsequent application for the same invention, the fulfillment of the conditions of novelty and the inventive step are assessed according to the state of art on the filing day of the first application. With this, of course, the chances to get a patent on the basis of subsequent applications are higher than if there were no international priority right.

27 It is the data for 2002, demanding more precision. The statistics says that one priority application for a certain invention, submitted anywhere in the world, produces on average 0,48 secondary applications. However, since these secondary applications are by definition international applications in the PCT system and/or European applications in the EPC system (the applications of the Euro-Asian or African patent are also not excluded) demanding patent protection for the territory of a number of states, it means that one priority application for a certain invention could result in seeking for patent protection for the same invention in 19,4 countries of the world. As around 81% of

this way, every patent administration of the Trilateral, acting as an international searching authority and an international preliminary examination authority within the system of Patent Cooperation Treaty (the European Patent Office also acting as a supranational patent administration of Europe), and as a national patent administration of the state, *de iure* and *de facto* becomes responsible (indirectly or directly) for the destiny of a whole family of patent applications in the world. In other words, the quality of work of the Trilateral patent administrations, expressed through reliability of the search report on the state of prior art and the assessment on whether the submitted invention fulfills the condition of novelty and inventive step, has impact on the patentability of the invention in the world. Apart from that, the speed of processing applications in the patent administrations of the Trilateral influences the speed of processing all applications from the same family, i.e. the time for obtaining patents for the same invention in the entire world.

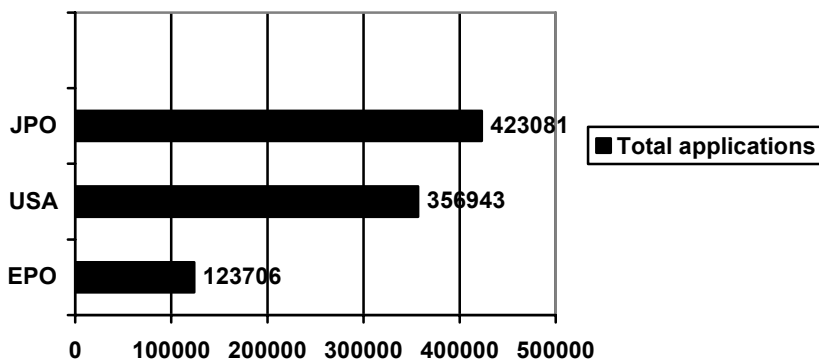
The idea that the global patent system has become dependant on the Trilateral implies a certain negative connotation. However, this idea has no stronghold in the abstract anti-globalism, but is based on the fact that each patent administration of the Trilateral is primarily loyal to its own mission as a national i.e. regional patent administration, and only secondarily loyal to its global mission. More specifically, the US Patent and Trademark Office and Japan Patent Office are an integral part of their countries' administration, and each one has its own intellectual property protection policy and its strategic technological and economic goals. The European Patent Office, though not a formal organ of the EU, is increasingly more involved in the EU policies and strategic goals. Thus all three patent administrations, each in its part of the planet, are torn between, on one hand, a national (regional) task to maintain full sovereignty in granting patents and, on the other hand, growing problems in satisfactory implementation of that task, that might have global consequences.

2.3. The situation in the patent administrations of the „Trilateral“

The source indicator for the workload of every patent administration is the annual number of patent applications. The chart shows a total number of applications (including the share of PCT international applications with the designation of the respective patent administration

priority applications in 2003 were submitted to the patent offices of the Trilateral, we can conclude that each priority application submitted to the Trilateral results in at least around 20 demands for patent protection for the same invention in the world. (Trilateral Statistical Report 2004, Worldwide Patenting Activity, http://www.Trilateral.net/tsr/tsr_2004/ch3/)

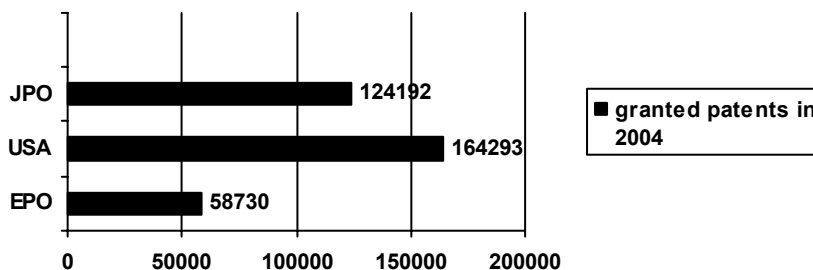
of the Trilateral) that was submitted to the patent administrations of the Trilateral in 2004²⁸.



Basically, for each patent administration's performance criteria, two are quantitative (number of final actions in regard to applications which are substantively examined, and the duration of procedure, that is total pendency time) and one qualitative (legal accuracy of decisions). Due to mutual differences in the patent procedure and inability to compare the data, the chart shows in a comparative way the indirect quantitative indicator of the performance – the number of granted patents in 2004²⁹.

28 See the official annual reports for 2004 of the European Patent Office (http://annual-report.european-patent-office.org/2004/statistics/_pdf/tab_7_1.pdf) and Japan Patent Office (<http://www.deux.jpo.go.jp/cgi/search.cgi?query=annual+report+2005&lang=en&root=short>). For the US Patent and Trademark Office the statistical data from the World Intellectual Property Organization are used (http://www.wipo.int/ipstats/en/statistics/patents/source/summary_filed_table.csv). In order to get the picture about the ratio, let us mention also that in 2004 the German Patent and Trademark Office received a total of 59.234 applications, and the Intellectual Property Office of Serbia (then Serbia and Montenegro) 1.307 applications. See also the report on the work of the Office for Patent and Trademark of FR Germany (http://www.dpma.de/veroeffentlichungen/jahresbericht04/dpma_jb_2004.pdf) and the Report on the work of the Intellectual Property Office of Serbia and Montenegro in 2004, *The Intellectual Property Gazette Belgrade*, 2005/2, p. 417.

29 See http://www.Trilateral.net/tsr/tsr_2004/ch2/ and http://annual-report.european-patent-office.org/2004/statistics/_pdf/tab_7_4.pdf. For the sake of comparison, the German Patent and Trademark Office in 2004 granted 16.661 patents, and the Intellectual Property Office of Serbia (then Serbia and Montenegro) 175 patents (disregarding 83 petty patents for which no substantive examination is being carried out). See WIPO – Patents Granted by Office 1982-2004, http://www.wipo.int/ipstats/en/statistics/patents/source/granted_national_table.csv.



The second quantitative criterion is the pendency time. As relevant and somewhat comparable time frames the following ones are taken: (a) the time flow from filing the request for the substantive examination of the application to the first administrative action related to such examination and (b) the time flow from filing the request for the substantive examination of the application until the final action related to examination. The table shows both time limits in months in patent administrations of the Trilateral in 2003 and 2004³⁰.

		2003	2004	2005
EPO	time limit (a)	24,9	21,7	
	time limit (b)	37,7	41,4	
JPO	time limit (a)	25,0	26,6	
	time limit (b)	31,1	31,6	
USA	time limit (a)	18,4	20,2	21,1
	time limit (b)	26,7	27,6	29,1

Generally speaking, the tendency to extend the time limit for the procedure (total pendency time) is visible. With this, the mentioned time limits not even closely reflect the total time that passes from filing the patent application till the final substantive decision of the administration. Namely, due to differences in patent procedure laws applied by the administrations of the Trilateral, a patent can be waited for from around 4 (European Patent Office) to almost 7 years (Japan Patent Office).

³⁰ The document CA/115/06, Patents Landscape in Europe, Japan and the USA, од 9.6.2006, submitted on the 106th meeting of the Administrative Council EPO, p. 31. The data for the US Patent and Trademark Office for 2005 taken from «USPTO 2005 Performance and Accountability Report – Patent Performance» http://www.uspto.gov/web/offices/com/annual/2005/040201_patentperform.html.

Resources necessary for the functioning of the patent administrations of the Trilateral are enormous³¹. All of them are at a very high level of automation. In their work they use digital data bases and stimulate the electronic filing of applications³².

Due to the lack of human resources and premises, the US Patent and Trademark Office and Japan Patent Office have for years outsourced specialized firms and institutes to carry out the search of prior art. Despite the planned growth of the number of employees³³, increased outsourcing is planned.

The predicted growth of the workload of the patent administrations of the Trilateral³⁴ raises the question of their ability to meet their tasks in the future. The tasks are primarily:

- Acceleration of the patent procedure,
- Reduction of patent costs, so that the advantages of the patent protection are widely available (especially to the individuals and small and medium sized enterprises),
- Improvement of the work quality in terms of the increase in reliability of the decisions.

31 European Patent Office in 2005 had 6118 employees, of which around 3500 examiners and the budget of around € 1.213.400.000, i.e. \$ 1,56 bill (http://annual-report.european-patent-office.org/2005/financial_report/_images/income.gif); The US Patent and Trademark Office in 2005 had 7363 employees, of which 4258 examiners. (http://www.uspto.gov/web/offices/com/annual/2005/0401_mission_org.html) and the budget of around \$ 1,5 bill (http://www.uspto.gov/web/offices/com/annual/2005/040601_budget_resreq.html); Japan Patent Office in 2005 has 2651 employees, of which 1358 examiners and the budget of 117.554.116.000 ¥, i.e. around \$ 1,016 bill (http://www.jpo.go.jp/shiryou_e/toushin_e/kenkyukai_e/pdf/ar2005/ar2005_part05.pdf).

32 Japan Patent Office has come furthest in this regard, because in 2005 around 97% of patent applications were submitted electronically.

33 Japan Patent Office plans to employ 100 new examiners each year until 2008. (Trilateral Statistical Report 2004, The Trilateral Offices, http://www.Trilateral.net/tsr/tsr_2004/ch2/).

34 For example, the European Patent Office envisages the annual growth in the number of patent applications of around 5%, i.e. 10.000 to 11.000. This means that this Office in 2011 will receive around 256.000 applications. (Document CA/125/06, Future Workload, од 8.6.2006, submitted on the 106th meeting of the Administrative Council of EPO.) Japan Patent Office envisages that soon the number of unexamined applications will grow from approximately 606.000 to around 800.000 (http://www.jpo.go.jp/shiryou_e/toushin_e/kenkyukai_e/pdf/ar2005/ar2005_part01.pdf).

3. THE WAYS AND OBSTACLES TO OVERCOME THE CRISIS

3.1. Mutual operative collaboration of the patent administrations of the Trilateral

It is understood that each patent administration of the Trilateral has its own development plans, harmonized with the state government policy (USA, Japan), i.e. the Administrative Council of the European Patent Organization (steering the European Patent Office)³⁵. However, from these plans it is obvious that all three patent administrations are aware that they cannot endlessly count on the increase in the number of employees, improvement of the documentary basis for the substantive examination of the patent applications, improvement of the automation, formal enhancement of the procedure etc.

The Trilateral collaboration, stated already at the end of the 1980's, deals officially with these issues ever since the „Trilateral Meeting for Workload Reduction of Offices and Associated Costs“, held in Tokyo in 2001. Up until now and based on the thoughts on these issues, it has been implied that the key to the future of the global patent system is the operative collaboration within the Trilateral.

What especially encourages the Trilateral in the direction of mutual collaboration is a phenomenon of triad families of patent applications. Namely, according to the data for 2000, each patent administration of the Trilateral receives between 8,7% and 28,8% secondary applications filed on the basis of priority applications filed to every other patent administration of the Trilateral³⁶. If the patent protection for the same invention is applied for with all three patent administrations of the Trilateral, while the priority application is filed to any of the three administrations, then we talk about the triad application family. In case when each patent administration of the Trilateral grants the patent for that invention, then we talk about a triad patent family³⁷. The number of triad

35 In 2003, USA adopted “The 21st Century Strategic Plan” that begins with the sentence: “The US Patent and Trademark Office is under siege.” (USPTO – The 21st Century Strategic Plan, http://www.uspto.gov/web/offices/com/strat21/stratplan_03feb2003.pdf). Since 2005, the considerations of the Administrative Council of the European Patent Organization have been included under the name “The Strategic Debate”. All documents on that topic can be found on http://ac.european-patent-office.org/strategy_debate/documentation/index.en.php.

36 The data are from 2000. The biggest “flow” is between the European Patent Office – The US Patent and Trademark Office (28,8%), and the smallest between Japan Patent Office – European Patent Office (8,7%). (Trilateral Statistical Report 2004, Worldwide Patenting Activity, http://www.Trilateral.net/tsr/tsr_2004/ch3/)

37 Triad families of patent applications have recently been taken by the OECD as a statistical indicator marking, by definition, patents of bigger technological and economic

patent families marks a constant growth – around 30.000 in 1991 to around 51.500 in 2002³⁸. Since triad families of patent applications i.e. patents are the very core of a wider (global) family of patent applications, i.e. patents, it is evident that the speed and work quality of each patent administration of the Trilateral influences significantly not only the functioning of the global patent system, but also the wider technological and economic implications of the patent protection.

The above mentioned data determine the necessary contents of operative collaboration between patent administrations of the Trilateral. This involves **mutual usage of the results of substantive examination of priority applications submitted to one administration, for the needs of processing of secondary applications submitted to the other administrations of the Trilateral.** This usage can have several forms:

It would be ideal if the patent administration of the Trilateral, that receives a priority application for a certain invention, could be capable of completing the substantive examination within 12 months of international priority. The applicant could then, depending on the examination results, know whether s/he could count on the patent protection from secondary applications as well. The idea behind it is that there is no need for him/her to file secondary applications if it has been determined from the priority applications that the invention does not meet the patentability criteria. On the other hand, if it is determined from the priority application that the invention meets the patentability criteria, s/he would be motivated to file secondary applications too, believing that the patent administration in charge of any secondary applications will „take over“ the examination results of the priority application.

Less ideal but more realistic scenario would involve that the patent administrations examining secondary applications „take over“ the results of the patent administration processing the priority application, irrespective of the time consumed for examination of the priority application (the only thing important is that the substantive examination of the priority application must be completed before examination of the secondary applications begins).

Even less ideal but the most realistic form of operative collaboration of patent administrations of the Trilateral is that they mutually recognize only the reports on the search of prior of art (search reports)

value, and which enables relatively objective insight into many important processes and features, such as intensity of technical creation in individual states, relation between investment into research and development vs. number of patents etc. For further study see a very useful web site of OECD – Measuring Science and Technology, http://www.oecd.org/statisticsdata/0,2643,en_2649_34451_1_119656_1_1_1,00.html .

38 <http://www.oecd.org/dataoecd/60/24/8208325.pdf> .

created in the procedure referring to any application making the Trilateral application family. This is the direction of the suggestions formulated by each patent administration of the Trilateral regarding possible forms of collaboration³⁹. In a very limited and experimental form, this type of collaboration has already been started between Japan Patent Office and US Patent and Trademark Office.

3.2. Specific aspects of the European part of the Trilateral

The European Patent Office is a supranational regional patent administration serving 31 European countries. Irrespective of the European Patent Convention, all those countries continue to maintain their national patent legislation and national patent administration. Since obtaining a European patent is simpler and cheaper than obtaining a large number of national patents in Europe, the natural consequence of this parallelism is a decrease in number of applications filed in national patent administrations of European countries and the increase in number of European applications filed in the European Patent Office. In this way, the European Patent Office is in a situation to seek the relief from the increased workload not only within the Trilateral collaboration, but also within its coexistence with national patent administrations of the European countries. The so-called strategic debate, which has been lasting for few years in the Administrative Council of the European Patent Organization, has so far resulted in decision that, on experimental and limited basis, the patent administrations of Great Britain, Austria and Germany will be delegated to deliver to the EPO the search reports referring to national priority applications. When processing secondary European applications, the EPO would thus be able to use those search reports and in that way cut the pendency time for granting a European patent⁴⁰.

3.3. Basic obstacles for operative collaboration within the Trilateral

There are many obstacles to operative collaboration within the Trilateral, and we will look only at those of legal nature. Namely, the condition for each patent administration to recognize the examination results of any other patent administration of the Trilateral is to trust them. Ideally, if the EPO grants a patent based on a priority application, the

39 The European Patent Office drafting “New Route”, Japan Patent Office drafting “Patent Prosecution Highway”, US Patent and Trademark Office drafting “TRIWAY”. See more details in a document CA/44/06, Trilateral Strategic Issues, on 12.6.2006, submitted on the 106th meeting of the Administrative Council of EPO, p. 3, 4.

40 The project is framed by a document “Project Initiation Document – Utilization Pilot Project (UPP)”, CA/121/06, on 8.6.2006, submitted on the 106th meeting of the Administrative Council of EPO

Japan Patent Office and the US Patent and Trademark Office should, without additional substantive examination, grant patents based on secondary applications. In other words, each patent administration of the Trilateral should believe that it would reach the same examination results as those reached by and taken over from the other patent administration of the Trilateral. In order to achieve that, certain technical and legal presumptions need to be fulfilled.

At a technical level, this issue tackles the quality of documentary basis used to determine the state of prior art, examination methodology, quality of software tools used and expertise of the engineers-examiners. In that sphere, as already mentioned, certain forms of cooperation are already active. However, every higher form of collaboration encounters an obstacle difficult to overcome. This obstacle consists of discrepancies in patenting procedures and substantive patent laws practiced by patent administrations of the Trilateral.

In the further text, we will strive to provide a simplified comparative analysis of patenting procedure and substantive patent law, as provided for by EPC (hereinafter: European law)⁴¹, US Patent Law⁴² and Japan Patent Law⁴³, and point out the most significant differences.

3.3.1. Substantive Patent Law

Patents are granted for inventions in all three systems. However, there are significant differences in respect of the concept of „invention“. While the European law still holds on to tradition that an invention must be in the domain of technology, strictly regulating that computer programs (as such) and mental processes are not inventions⁴⁴, the US law has, on the other hand, made a decisive step towards including computer programs and the so-called business methods in the notion of invention⁴⁵.

41 European Patent Convention, 1973.

42 Patent Law, 1952, amended last time in 2002.

43 Patent Law, 1959, amended tens of times – last time in 2003.

44 Art. 52, Para.1,2,3, EPC.

45 It is a result of a rather extensive and evolutionist interpretation of the Article 101 of the Patent Law, determining that an invention can refer to a process, machine, manufacture or composition of matter. Traceable through the court practice ever since the case *Gottschalk v. Benson* in 1968 (US Supreme Court), enormous pressure of the American software industry to patent its products resulted in success in the case *Diamond v. Diehr* in 1981 (US Supreme Court). Then in the case *State Street Bank v. Signature Financial Group* in 1991 the Federal Appellate Court assumed the attitude that there is a legal basis to recognize patents for the business methods because they are just a subgroup of the processes mentioned by the Article 101 of the Patent Law. This attitude was later assumed by Board of Patent Appeals and Interferences of the US Patent and Trademark Office in the case *Ex Parte Lundgren* in 2005.

The Japan law is somewhere in the middle, recognizing computer programs as patentable inventions, but still excluding business methods⁴⁶.

All three systems stipulate novelty as the first condition for patenting an invention. With this, the novelty concept is the same in the European and Japanese law (invention is new if it was not encompassed by the state of prior art on the day of application priority, i.e. was not available to the public in any way anywhere in the world)⁴⁷. On the contrary, the US concept of novelty is extremely complicated. With regard to the European and Japanese system the main differences are, on one hand, the fact that the invention is regarded as new even though it has previously been publicly used abroad, while, on the other hand, the novelty is lost if the invention has been secretly used in the US⁴⁸. As a reference moment to determine the novelty in the above mentioned cases in the US law, the day when the invention was made is taken (not the day of application priority, as it is regarded in Europe and Japan). The application priority day is however regarded as relevant to determine the novelty of the invention in the US in case that the invention is patented or described in printed publication in the US or abroad, or put into public use or on the US market more than a year ago⁴⁹. So, in that latter case, the invention will not be new for the purpose of patenting procedure in the US. If less than one year has passed, the invention will be new, which implies a specific *grace period* when the mentioned activities (especially the description of the invention in printed publications and public usage of the invention) do not take away the novelty of the invention, although done before submitting the application.

After explaining the grace period in the US law, we notice that the European and Japanese law regulate the same institute differently. In the European law, the novelty will not be harmed if the invention is made public by unauthorized person or displayed by the applicant (or his/her legal predecessor) at an international exhibition in the period of 6 months before filing the European application⁵⁰. In Japan the grace period is relatively widely determined: the novelty will not be destroyed if the invention is made public by the applicant (or his/her legal predecessor) in any way except for the commercial use; if the invention is made public by unauthorized person; and if the applicant (or his/her legal predecessor) displayed the invention at an officially recognized exhibition, and all that

46 Patent Law, Art. 2, Para.3 (since the amendment in 2002).

47 Art. 54, Para.1, 2, EPC; Art. 29, Japan Patent Law.

48 Art. 102, Para. a), Patent Law.

49 Art. 102, Para. b), Patent Law.

50 Art. 55, EPC

under the condition that the application for that invention is filed in a 6-month period after that event⁵¹.

One of the most specific aspects of the US patent law refers to regulating the right to patent protection. This right, surely, belongs to the inventor, but unlike the rest of the world, in case of conflict between two *bona fide* inventors regarding the right to patent protection, the fact who was the first to file the application will not be decisive, but who first made the invention⁵². In other words, while in Europe, Japan and the rest of the world this conflict is solved by the *first-to-file principle*, the US applies the *first-to-invent principle*. This principle is deeply rooted into the US patent system and has its consequences in many issues, especially in regulating the patentability condition of novelty, and priority right.

Another interesting aspect of the US patent system refers to the principle regulating the priority right. In Europe, Japan and most of the world, the priority is gained by filing the application. However, if the priority and secondary applications for the same invention are filed in several member-countries of the Paris Convention for the Protection of Industrial Property, the priority will be counted in all countries starting from the filing day of the first (priority) application, provided that all the conditions for recognition of international priority right are met in accordance with the Paris Convention. The effect of the priority right is twofold: (a) the patentability of an invention is assessed with regard to the priority date, and (b) from the priority date, the invention disclosed in the application (if the application is published) prevents patenting the same invention contained in subsequently filed applications. In the US, this second effect of the priority right is consequently modified by the above explained first-to-invent principle. This means that the invention in the application, with the recognized priority right, prevents patenting the same invention that was later created by another person. With this, the effect is recognized only for priority applications submitted in the US. In case the priority application is submitted abroad, and the secondary one in the US, the mentioned effect is recognized for the secondary application from its filing date in the US, not the date of its international priority⁵³. International PCT applications, submitted abroad (with US

51 Art. 30, Para.1, 2, 3, Patent Law.

52 When submitting an application in the US, the applicant must file a written oath that s/he believes to be the first and true inventor of the invention disclosed in the application (Art.115, Patent Law). When the US Patent and Trademark Office determines that two persons (independently of each other) submitted the application for the same invention in the US, it opens the so-called *interference procedure* which aim is to determine, using complicated rules, which one of them is the first and true inventor, in order to determine who has the right to the patent protection (Art.135, Patent Law).

53 Art. 102, Para. e), Patent Law.

designation) in English, have the mentioned effect from the date of their filing abroad, and not from the date of the possible international priority. Finally, all other secondary applications submitted in the US have that effect, based on priority applications submitted abroad in a language other than English, only from the date of their official publication (in English) in the US⁵⁴.

Already these few differences in the substantive patent laws of Europe, Japan and the US, suggest that in a large number of cases the same invention would not be patentable in opinion of each administration, even under a hypothesis that the patent administrations of the Trilateral optimally agreed on all technical aspects of the operative collaboration. In this way it is clear why the ideal form of the Trilateral operative collaboration – mutual recognition of the patentability assessment for the same invention, that is the case of the triad application family – will not be possible for a long time.

3.3.2. Law regulating patenting procedure

The key difference in the procedure for obtaining patent protection in the administrations of the Trilateral is that in the European Patent Office and Japan Patent Office, the patent is obtained in the procedure of the so-called deferred examination, whereas the system used in the US is a hybrid between the so-called preliminary examination and deferred examination. Also, there are significant differences between the European and Japanese system. More concretely, in the European Patent Office and Japan Patent Office, filing the patent application does not imply the request for substantive examination. Instead, the application is made public within 18 months from filing, and then the applicant is given a certain time limit in which s/he can make a request for substantive examination. Failure to file the request is considered to be the withdrawal of the application i.e. ending the procedure. While the European law gives the time limit of 6 months for filing the mentioned request⁵⁵, the Japanese law on the other hand leaves the 3-year time limit⁵⁶. This drastic difference in the time limits practically makes the European Patent Office and the US Patent and Trademark Office unable to use the substantive

54 Art. 102, Para. e) and Art. 363, Patent Law.

55 Art. 94, Para.2, EPC.

56 Art. 48 of the Patent Law. This time limit in Japan up until 2001 amounted to even 7 years. A concrete consequence of such a specific time limit is that in Japan in 2004 even 2.105.255 patent applications “waited” for their applicants to make a request for substantive examination. On the other hand, the figure for the same year in the European Patent Office was only 20.171 (Trilateral Statistical Report 2004, Patent Activity at Trilateral Offices, http://www.Trilateral.net/tsr/tsr_2004/ch4/).

examination results produced by the Japan Office, because when the applicant in Japan makes the request for substantive examination, the European Patent Office and the US Patent and Trademark Office are already about to take a decision on patent grant, that is to finish the patenting procedure upon the secondary application for the same invention.

In the US, however, filing the application implies the request for its substantive examination so that the US Patent and Trademark Office *ex officio* enters that phase of the procedure, without waiting for the special action by the applicant⁵⁷. By doing so, this patent administration is deprived of possibility to reduce the number of applications entering the phase of substantive examination due to abandonment by the applicant. Looking from that aspect, it could be said that the US apply the traditional system of preliminary examination. However, since 1999 this system has been modified by the institute of official publication of correctly filed applications within 18 months from filing⁵⁸, meaning that an important element of the system of deferred examination, applied worldwide, is adopted.

Regarding the institute of official publication, there is a specific aspect of the US Patent Law, which is completely incompatible with European and Japanese standards. If, based on priority application filed in the US, there was no secondary application filed abroad, the applicant can ask that his/her application in the US should not be published⁵⁹. This compromises the European and Japanese concept of the state of prior art whose logic is based on early official publication of all patent applications filed anywhere in the world, so that the novelty of the invention, as a condition for patent grant, could have its full purpose in patent law.

Finally, from many specific procedural aspects of the US Patent Law, we will outline the institute of provisional patent application⁶⁰. In the US there is a possibility of filing the application in which the invention was sufficiently disclosed but the application does not contain patent claims. Based on this application, it is possible to secure priority right but not to obtain patent. In order to request and possibly obtain patent, it is necessary to file a „normal“ application within 12 months. Such an application will be accorded the priority right from the filing date of the provisional application.

57 Art. 131, Patent Law.

58 Art. 122, Para. a), Patent Law.

59 Art. 122, Para. 6), point 2, Patent Law.

60 Art. 135, Para. 6), Patent Law.

This short selection of specific solutions in the patent procedure law applied by Trilateral patent administrations, already illustrates the seriousness of legal obstacles for substantive operational collaboration among those administrations.

3.4. Harmonization of patent laws

Despite a certain number of regional and universal conventions regulating the area of patent law, the fact is that the international harmonization in this area is still not on a satisfactory level. World Intellectual Property Organization in Geneva established in 1998 the Standing Committee on Patent Law that is still a world forum where a lively debate is taking place regarding those issues. As a relatively modest contribution of this expert body, the Patent Law Treaty was adopted in 2000 (came into force in 2005) regulating only certain formalities and details of the patenting procedure⁶¹. From 2001 the Standing Committee has been working on the Draft Treaty on Substantive Patent Law that should regulate the essential questions such as: the state of prior art, novelty, inventive step, sufficient disclosure of the invention in the application, application publication and other. This work is very difficult, not so much due to legal differences existing among Europe, Japan and the US, but also due to cultural and legal abyss dividing the developed from the developing world. Given the current state of the debate in World Intellectual Property Organization, the prognosis for the success of this process is rather pessimistic than optimistic.

It is more realistic that in Japan, and especially in the USA, under pressure from problems in the Trilateral, there will be coordinated unilateral interventions of the national legislator, in order to enable these patent systems to come closer regarding both material and procedure aspects⁶².

61 See the text of the Treaty and its Regulations, as well as the list of the member-states on the web site of the World Intellectual Property Organization <http://www.wipo.int/patent/law/en/scp.htm>. Serbia is still not a member of the Patent Law Treaty.

62 A draft Law on Patent Reform was submitted to the US Congress in 2005. According to its author, Congressman Lamar S. Smith, it represents the most comprehensive amendment of the US Patent Law ever since the Congress had passed the Patent Law in 1952. It is important that this draft is based on the results of the Report of Federal Trade Commission in 2003 and the Report of the National Science Academy in 2004. Among many things, the draft involves: adoption of the “first-to-file” principle i.e. abandoning of the “first-to-invent” principle and introduction of the obligation to formally publish all applications submitted in the US. See the text of the draft on the web site of the Congress library <http://thomas.loc.gov/cgi-bin/query/z?c109:H.R.2795/>.

CONCLUSION

A technical invention, as an element of the global knowledge economy, has become one of the dominant economic resources. Appropriation of this resource, as a monopoly over its economic exploitation, is possible only provided it is a subject of patent protection. Since the patent protection is limited to the territory of the state granting the patent, our age is characterized not only with increasingly bigger number of inventions being applied for patent, but also with larger internationalization of the patent activity i.e. a phenomenon that one person or its legal successor seeks protection for the same invention in the increasingly larger number of states.

The attempt to rationalize the patenting procedure for the same invention in several states has resulted in a certain number of international conventions, among which the most important are the Patent Cooperation Treaty and the European Patent Convention. As a consequence of the role they have in the implementation of the mentioned conventions, but also due to the significance for national and regional economy, the US Patent and Trademark Office, Japan Patent Office and the European Patent Office have become the pillars of the global patent system of which *de iure* or *de facto*, directly or indirectly, depends patenting of an invention in a large number of states in the world. These patent administrations form the so-called patent Trilateral which is today facing a growing workload and increasing backlogs.

At the same time, the crises of administrative capacity of the Trilateral results in the administrative crisis of the global patent system, and the need to address it overcomes political, economic and technologic interests of individual states.

For now, the mutual cooperation of the patent administrations of the Trilateral is limited to certain technical aspects of improving preconditions for more efficient work. The essential collaboration which must aim to **the mutual recognition of the results of substantive examination of the patent applications** faces one big obstacle in terms of significant differences in substantive and procedural patent law, practiced by these patent administrations. In the substantive patent law the biggest problems come from the discrepancy between the first-to-file principle vs. the first-to-invent principle, and the inconsistencies in the concepts of the state of prior art, novelty of the invention and the so-called grace period; in the procedural patent law the biggest problems are: the Japanese law gives too long a time limit for the applicant to submit the request for substantive examination of the patent application, and the US law with its specificities regarding publishing the application and the institute of provisional application.

Harmonization of the patent laws of the US Patent and Trademark Office, Japan Patent Office and the European Patent Office is a condition without which the Trilateral crisis, and thus also the global administrative crisis of the patent system, cannot be solved. The current efforts of the World Intellectual Property Organization to prepare the international Treaty on Substantive Patent Law do not have good prospects for complete success in near future because, among the representatives of the developing countries, the negotiations are under doubt about the basics of the current patent system, as such.

We envisage that the US, Japan and European Patent Offices will, through unilateral but coordinated legislative actions, take steps towards further harmonization of the patent law within the Trilateral, and thus strengthen the presumptions for the essential operative collaboration.