

CWS/ATR/PI/2016/UA

Annual Technical Report on Patent Information Activities in 2016 submitted by the Ministry of Economic Development and Trade of Ukraine

I. GENERAL OVERVIEW OF RECENT DEVELOPMENTS IN PATENT INFORMATION ACTIVITIES CARRIED OUT BY THE OFFICE

Outline of main policies and plans aimed at development of patent information activities and expected time frames for their realization

The main documents that determined directions for the development of patent information activities in 2016 were the annual plans of activities of the State Intellectual Property Service of Ukraine^[1] (SIPS) and the State Enterprise "Ukrainian Intellectual Property Institute" (Ukrpatent) with taking into account the Priorities of the State Intellectual Property Service of Ukraine for 2015-2017. The plans contain strategic directions "Patent information support in the sphere of intellectual property and provision of wide public with access to the information related to intellectual property rights acquisition" and "Implementation of the modern information technology" which in particular include:

- comprehensive development of the main directions of information support in the sphere of intellectual property;
- improvement of information support of the examination procedure for industrial property rights (IPRs) applications in the part of forming of the electronic information resources of Ukrpatent for carrying out examination, providing access to the foreign commercial databases which contain PCT Minimum Documentation;
- implementation of new versions of the International Patent Classification in translation into Ukrainian, creating of information and reference systems that are in free access to the public via the Internet resources of SIPS^[2] and Ukrpatent;
- unification of the patent documentation international exchange procedure which is carried out with the purpose of acquisition of patent collections of the state system of intellectual property legal protection, taking into account the trends of transition of the intellectual property offices in many countries to the submission of patent information over the Internet only;
- implementation of series of actions aimed at ensuring the continued free of charge acquisition of patent information resources of Ukraine with the national patent documentation on electronic carriers;
- elaboration and implementation of series of actions aimed at development of the digital patent library;
- participation in the activities on unification and harmonization of the patent documentation of Ukraine with taking into account the world experience and in accordance with the international standards of the World Intellectual Property Organization (WIPO) and the current legislation of Ukraine.

The works planned for implementation within the 2016 were the following:

- development of the technological automated system (AS) for pending applications for inventions record keeping (Inventions AS) in the part of providing the integrated electronic information processing, including electronic exchange with external correspondents;
- development and implementation of public information resources including information concerning inventions and utility models;
- development of the IT infrastructure.

^[1] According to the Resolution of the Cabinet of Ministers of Ukraine of May 11, 2017 No. 320 the State Intellectual Property Service of Ukraine ceased to perform its functions to implement the state policy in the sphere of intellectual property as of May 19, 2017: activities related to their implementation are now performed by the Ministry of Economic Development and Trade of Ukraine

^[2] The web resource of SIPS was in operation throughout 2016, however, since May 19, 2017 its support has been discontinued and it continues functioning for some period of time for information purpose only.

New projects launched or resumed this year in the context of the policies and plans mentioned above, short description: aims, partners, tasks

In 2016, in the framework of the project on the Inventions AS modernization, a number of tasks were implemented, which resulted in the extension of the functionalities of the system.

Among the most important of them are the following:

- creation of a software modules in the Inventions AS environment for automation of the procedures and functional capabilities for maintenance of the state registers of patents of Ukraine for inventions and utility models and quality control of the examination;
- creation of the electronic interaction system of the state system of intellectual property legal protection institutions and its integration with the Inventions AS, which will ensure the electronic exchange of documents between the examination body and applicants. The expected deadline for commissioning of the system is October 2017.
- implementation of the electronic digital signature of documents in the Invention AS environment. New functions of the Inventions AS provide, if necessary, applying of electronic digital signatures on electronic documents, storage and sending of documents to the applicant.

Also, pursuant to the government initiatives, the software and hardware complex for formation, publication and regular updating of information on IPRs in the form of open data was developed and implemented in 2016. The service is created for carrying out search in the sets of open data of the state registers of IPRs and the State Register of Intellectual Property Representatives (Patent Attorneys). The complex operates in the automatic mode and is available at the web page: <http://opendata.uipv.org>.

Main areas of patent information activities and related information and communication technology (ICT) practices which were in the focus of attention last year

The main types of patent information activities in the field of inventions (utility models) include information support of examination of applications for patents (utility models), including formation of search databases for internal use in the examination body, publication of information about applications and registered patents (utility models) in the official bulletin, support of operation of the existing and creation of a new interactive databases and information and reference systems for information servicing of the wide range of users via the Internet. Publication of information on patents (utility models) is also performed on optical carriers.

Processing of applications for patents (utility models) is carried out by means of the Inventions AS which has full functionality of the text processing and record keeping at all stages, from filing of an application to completing examination and maintenance of the state registers of patents of Ukraine for inventions and utility models.

An automated workplace of the Editorial Department is used for formation of the information arrays, which are included to the Official Bulletin "Industrial Property".

In 2016, the focus was on improving the technological electronic document flow for general documents and the documents created in the technological automated systems in the course of examination of applications for inventions and utility models.

New functions which provided simplification of the state registers maintenance and elimination of a significant number of paper carriers were developed in the Inventions AS.

Statistics: changes in terms of application filings and grants with respect to previous year; trends or areas experiencing rapid changes

Inventions

Applications filed:

in 2015 – 4,497, in 2016 – 4,095, i.e. 8.94 % decrease with respect to the previous year.

Patents granted:

in 2015 – 3,014, in 2016 – 2,813, i.e. 6.67 % decrease with respect to the previous year.

From January 1 to December 31, 2016 within the framework of experimental tests of the electronic filing system for IPRs 233 applications for inventions were received (5.43 % more than in the previous year).

In 2016, the highest percentage of filed applications for inventions was in the following IPC Classes: Class A61 "Medical or veterinary science; hygiene" (14.3 %); Class C07 "Organic chemistry" (10.5 %); Class A01 "Agriculture: Forestry; Animal husbandry..." (6.0 %); Class G01 "Measuring; Testing" (4.3 %); Class A24 "Tobacco; Cigars; Cigarettes; Smokers Requisites (2.93%); Class C12 "Biochemistry; Beer; Spirits; Wine; Vinegar; Microbiology; Enzymology; Mutation of Genetic Engineering" (2.69%); Class H01 "Basic Electric Elements (2.17 %).

Utility models

Applications filed:

in 2015– 8,616, in 2016 – 9,557, i.e. 10.92 % increase with respect to the previous year.

Patents granted:

in 2015 – 8,153, in 2016 – 9,044, i.e. 10.93 % increase with respect to the previous year.

From January 1 to December 31, 2016 within the framework of experimental tests of electronic filing system for IPRs 205 applications for utility models were received (22.02 % increase with respect to the 2015 year).

In 2016, the highest percentage of the filed utility model applications was in the following IPC Classes: Class G01 "Measuring; Testing" (17.35 %); Class A61 "Medical or veterinary science; Hygiene" (14.18 %); Class A01 "Agriculture; Forestry; Animal husbandry..." (3.80 %); Class A23 "Foods or foodstuffs ..." (3.07 %).

Other matters and useful links (URLs): annual report of the Office, news page, statistics, etc.

Annual Reports, statistical information, the Annual Technical Reports of the Office:

http://sips.gov.ua/en/plans_reports.html

News of the Office on the issues related to patents:

<http://sips.gov.ua/en>

<http://www.uipv.org/en/index.html>

Information on the patent legislation

The web-site of the Ministry of Economic Development and Trade of Ukraine

http://sips.gov.ua/en/normative_acts.html

<http://uipv.org/en/legislation.html>

II. SERVICES AND ACTIVITIES RELATED TO PATENT INFORMATION CARRIED OUT BY THE OFFICE

Information and support provided by the Office to applicants regarding filing on paper and/or e-filing (instructions, seminars, etc.) - URLs

Information for the users on the procedures and sources of data on inventions and utility models, in particular information on the legislation in the sphere of inventions and utility models, services and activities of the Office related to information in this sphere, statistics, etc. is published at the SIPS web-portal (<http://sips.gov.ua/en/index.html>) and on the Ukrpatent web-site (<http://uipv.org/en/index.html>).

Information on information services, including paid services, provided by Ukrpatent in particular by its Innovations Department, is published on the web-sites of Ukrpatent and the department (<http://iii.ua>).

Information for applicants on filing applications for inventions and utility models is available on the web-site of Ukrpatent (<http://ukrpatent.org>).

Information and means for filing electronic applications are posted in a separate section of the "Electronic Filing" web-site (<http://base.ukrpatent.org/efiling/>).

A software product "Applicant Off-line Module" was developed and put into operation in Ukrpatent for drafting application materials on paper. It can be downloaded from the web-site of Ukrpatent (<http://base.ukrpatent.org/off-line/>).

Access to on-line publications containing information on inventions and utility models is provided through the web resources of SIPS (http://sips.gov.ua/en/info_resurses.html) and Ukrpatent (<http://uipv.org/en/bases.html>, <http://uipv.org/en/optic.html>).

Availability of the application dossier in electronic form

All application materials (both primary and secondary) for inventions and utility models, regardless of how they are filed to Ukrpatent (through the electronic filing system, on paper carriers, by email, Fax or other telecommunication networks), automatically and after scanning the paper carriers are entered and stored in the electronic archive of documents. In order to use the application materials during the processing of applications, the integration of technological automated systems with the electronic archive of documents has been implemented.

Classification¹, preclassification² (if applicable), reclassification³ activities; classification systems used (e.g., International Patent Classification (IPC)); matters concerning indexing of patent information

The Ukrainian version of the International Patent Classification (IPC-2016.01) was used for classifying patent documents of Ukraine in 2016 from January 1, 2016 and full text of IPC-2016.01 in Ukrainian translation – from April 1, 2016.

Within the Inventions AS the software system for checking the classification symbols is operative. It includes classification guides and specialized software for checking the allotted classification symbols and reclassifying.

In 2016 the whole retrospective file of national patent documents was reclassified according to the current Ukrainian version of IPC-2016.01 and then also according to the full text of IPC-2016.01.

Abstracting, reviewing, and translation of the information contained in patent documents

Abstracts and bibliographic data are formed routinely in Ukrainian language for publication in the National CD-ROM "Inventions in Ukraine" and on the Internet in the specialized database "Inventions (Utility Models) in Ukraine".

Other activities

III. SOURCES OF PATENT INFORMATION PROVIDED BY THE OFFICE

Main types of publications of the Office (patent applications, full text, first pages, abstracts, bibliographic data, granted patents, etc.), medium (on paper, on CDs, online - URLs)

Information of the Office concerning inventions (utility models) is provided in the following publications (official editions, patent information products on optical carriers, free electronic databases (DB) and information and reference systems (IRS)):

The Official Bulletin "Industrial Property" – a printed periodical edition;

The analogue of the printed edition – the Official Bulletin "Industrial Property" on CD-ROM with search system;

The National CD-ROM "Inventions in Ukraine";

DB "Electronic Version of the Cumulative Official Bulletin "Industrial Property";

Specialized DB "Inventions (Utility Models) in Ukraine";

Collective Access DB "Information about Invention Applications Accepted for Examination"

IRS "Invention and Utility Model Applications Prosecution State";

IRS "Information on Patents of Ukraine for Inventions (Utility Models) Deemed to be Invalid or Expired";

IRS "International Patent Classification. Ukrainian Version (2016.01)"

IRS "International Patent Classification. Full Text (2016.01)"

(<http://base.ukrpatent.org/mpk2009/index.html?level=c&version=2> – through this link the current and all previous versions of the IPC are available).

Information concerning inventions and utility models is published in Book 1 of the Official Bulletin "Industrial Property" in the following sections: "Information on Invention Applications Accepted for Examination", "Information on the Grant of Patents of Ukraine for Inventions", "Information on the Grant of Patents of Ukraine for Utility Models", in the Indexes to each section and in the Notices section.

Publications of the Official Bulletin "Industrial Property" contain:

- for section "Information on Invention Applications Accepted for Examination" – bibliographic data;

- for sections "Information on the Grant of Patents of Ukraine for Inventions", "Information on the Grant of Patents of Ukraine for Utility Models" – bibliographic data and claims.

The Official Bulletin "Industrial Property" was issued twice a month – 24 issues of the bulletin were issued during 2016. The Annual Index to the Official Bulletin for the previous, 2015, year was also published.

Ukrainian patent (utility model) specifications on electronic carrier were issued with the same frequency – the National CD-ROM "Invention in Ukraine".

Publications in electronic information resources contain:

- DB "Electronic Version of the Cumulative Official Bulletin "Industrial Property" – information concerning inventions and utility models in the same scope as in printed edition. Moreover, information concerning legal status of patents (as an extra operational element) is provided in the sections "Information on the Grant of Patents of Ukraine for Inventions", "Information on the Grant of Patents of Ukraine for Utility Models";

- Specialized DB "Inventions (Utility Models) in Ukraine" – bibliographic data, claims, abstracts, patent specifications and information concerning legal status of patents.

Official Gazettes: main types of announcements, frequency of publication, medium (on paper, on CDs, online - URL), etc.

In the section "Notices" of the Official Bulletin "Industrial Property" with the periodicity of its release announcements in respect of registered inventions (utility models) (to the extent provided by the respective applicable Law of Ukraine) are published including information:

- on renewal of patents of Ukraine for inventions, the object of which is drug, means of animals protection, means of plants protection, the use of which requires approval of the competent authority; changes in the information entered into the State register of patents of Ukraine for **inventions**, information on issue of the patents duplicates, information about correction of obvious errors in specifications to patents of Ukraine for inventions, modifications due to the correction of errors and other information relating to registration of patents of Ukraine for inventions;

- changes in the information entered into the State register of patents of Ukraine for **utility models**, information on issue of the patents duplicates, information about correction of obvious errors in the specifications to patents of Ukraine for utility models, modifications due to the correction of errors and other information relating to the registration of patents of Ukraine for utility models.

The said information is available at http://sips.gov.ua/en/industrial_ownership_bulletin.html and http://www.uipv.org/en/of_bulletin.html.

Information products and patent document collections (coverage, medium, etc.) available to examiners, including external collections and databases

The search collection (Patent Information Base – PIB) for carrying out patent information searches for the state of the art in the course of the substantive examination of patent applications has been in operation since July 1, 1997.

The PIB contains national and foreign patent collections on electronic carriers (CD-ROM and DVD-ROM), first of all of international and regional intellectual property organizations (WIPO, the EPO and the EAPO), patent documents issued by the leading Offices falling within the PCT Minimum Documentation. Documentation available in the electronic search collection has sufficiently deep retrospective and is constantly updated by current acquisitions of foreign patent documentation.

The search collection of the national patent documentation, which is used in the local mode, includes Inventions AS database (bibliographic data) and the Central Electronic Documents Archive (CEDA).

Updating of the PIB was implemented by current acquisitions of patent documentation, in particular:

- updating of the Inventions AS database and the CEDA was implemented routinely by scanning incoming documents, converting them into electronic format and loading to the appropriate databases which are available at the web-portal of SIPS and on the web-site of Ukrpatent;
- electronic documents filed through the electronic filing application system were loaded to the databases in the automation mode;
- foreign patent documents, which were received by Ukrpatent in the framework of international exchange (on optical carriers or through corresponding FTP-servers), were loaded into the electronic database of the Search Portal.

Over the course of 2016, the examination Reference and Information Collection was increased with encyclopedias, reference books, legal and instructional and methodological literature, periodicals (including on electronic carriers). The formation of electronic reference and search tool was provided.

As a search collection of non-patent literature, in addition to foreign commercial databases (the list is given in below), the following resources were also used in 2016:

- collection of the Russian National Public Library for Science and Technology (under the Agreement on receiving electronic copies of the necessary sources of information from its collection);
- free national and foreign Internet resources, in particular, electronic digital libraries, as well as accessible collections of 77 largest national and specialized libraries of Ukraine.

Moreover, to provide effective and qualitative search in the course of patent applications examination, 9 foreign commercial information resources were used in 2016 as a search collection which, under agreements, provided access to the PCT Minimum Documentation (patent documentation and non-patent literature). These include the following databases: the EPO EPOQUE Net system; STN Files, Features and Services; Reaxys; Derwent World Patent Index; ScienceDirect® ArticleChoice™; web-portal of the WIPO ARDI Program; products of the American Chemical Society; IEEE Xplore digital library; Wiley Online Library.

The EPO EPOQUE Net system proved to be the main search tool among foreign commercial Internet resources as it provided access of examiners to the patent documentation of the PCT Minimum Documentation to the full extent. In 2016, the necessary activities were taken to conclude an agreement between the EPO and Ukrpatent concerning the access of examiners to the EPOQUE Net for the next four years starting from 2017.

In 2016 activities on providing access of Ukrpatent examiners to foreign commercial databases that contain the PCT Minimum Documentation (patent documentation and non-patent literature) were given particular emphasis in the context of providing patent information support of Ukrpatent functions as ISA/IPEA.

Information products and patent document collections (coverage, medium, etc.) available to external users, conditions of access (e.g., free of charge, subscription, etc.)

For information support of the wide range of public free access to the information concerning patents is provided through the web-portal of SIPS and the web-site of Ukrpatent – see the List of DBs and IRSs above.

Information on registered patents for inventions and utility models is available in the form of open data at the web page: <http://opendata.uipv.org>.

Annual reports of the Office (in Ukrainian and English), Annual Technical Reports of the Office in Ukrainian, quarterly review "Industrial Property in Figures" which includes basic indicators of the activities of SIPS and Ukrpatent are also accessible for free at the web-portal of SIPS and on the web-site of Ukrpatent.

External users could also purchase the Official Bulletin "Industrial Property" on CD-ROM with a search system and the National CD-ROM "Inventions in Ukraine".

The Official Bulletin "Industrial Property" on CD-ROM and the National CD-ROM "Inventions in Ukraine" were distributed for free in the framework of updating patent collections of certain organizations of Ukraine by national patent documentation according to the Registries of free-of-charge distribution approved by SIPS.

See also Part 1 of Section 5 concerning the PPDC.

Legal status information (kind of information, coverage, medium, etc.)

Information concerning legal status of the registered patents of Ukraine for inventions (utility models) to the extent prescribed by the applicable law of Ukraine is published in the Official Bulletin "Industrial Property" in section "Notices" both on paper and in electronic form (the CD-ROM "Official Bulletin "Industrial Property" and the DB "Electronic Version of the Cumulative Official Bulletin "Industrial Property").

In addition, such information is provided in the IRS "Information on Patents of Ukraine for Inventions (Utility Models) Deemed to be Invalid or Expired" and (as an extra operational component) in the relevant sections of the DB "Electronic Version of the Cumulative Official Bulletin "Industrial Property" and in the specialized DB "Inventions (Utility Models) in Ukraine".

Other sources

IV. ICT SUPPORT TO SERVICES AND ACTIVITIES RELATED TO PATENT INFORMATION CARRIED OUT BY THE OFFICE

Specific software tools supporting business procedures within the Office: general description, characteristics, advantages, possible improvements

Business procedures for processing of applications for inventions and maintenance of the state registers of patents of Ukraine for inventions and utility models are supported by the Inventions AS.

The Inventions AS software is designed on the Client-Server technology. The Inventions AS implements the functions for processing of patent applications for inventions, ensures storage of all documents and bibliographic data and provides wide opportunities for search purposes.

The Inventions AS is integrated with other automated systems, in particular, with the CEDA, the general Electronic Document Management System (EDMS), etc.

In 2016, the activities to further enhance the functional capabilities of the Inventions AS were taken, namely:

- new functions of the Inventions AS were developed; existing functions and modules, which provide applying the electronic digital signature (EDS) on the electronic documents, their storage and sending to the applicant were updated. The necessary changes to the databases were also made;
- new software modules which implement more than 40 new functions for ensuring the maintenance of the state registers of patents of Ukraine for inventions and utility models in electronic form were developed.

Also, in 2016, works were carried out on updating the software of the Fees Division, an opportunity to import payment data sent through the Client-Bank system and their transportation to the Inventions AS was provided.

Hardware used to supporting business processes of the Office

The general network infrastructure consists of the security system on the Checkpoint 5600 NGFW device, which contains the VPN and Firewall modules for connection with the Internet and the internal router (designed on the Unix server) to support the internal network. Having two firewalls enhance overall security.

The Cisco and Hewlett Packard (HP) equipment is used as network switches.

The internal network is divided into ten virtual networks (Vlan).

The network uses the following technical means:

- HP (DL380Gen8), DL380G7, DL380G5, Intel (SE7520JR2, SE7501WV2) servers;
- HP (3Par StoreServ 7200, MSA2040, P2000, MSA2324fc, MSA1000), IBM (ProFibre Storage Array) and Infortrend (EonStor A16F-G2430, EonStor S12F-R1420, EonStor S16F-R1430) information storages;
- equipment for the SAN network (HP SN3000B, HP SAN Switch 8/24, Qlogic SANbox 5600);
- equipment for the HP LAN (Procurve 2910al-24G, Procurve 2510-48, Procurve 2530-48).

Operating systems and software:

- Windows Server 2012R2, Windows Server 2012, Windows Server 2008R2, Windows Server 2008, Windows Server 2003, Unix operating systems are applied on servers;
- servers virtualization is built on Hyper-V Server 2012 R2 (Microsoft) and VMware ESXi;
- MS SQL 2016, MS SQL 2014, MS SQL 2008R2, MS SQL 2005 are used as database management systems.

Domain structure of the Active Directory (AD) was designed which allows for central managing of all the information resources, including users, computers, files, peripherals, access to the services, network resources, web-sites, databases, etc.

Multiple domain controllers are used to organize the fault-tolerant domain structure.

The WSUS server provides updating of the servers and client computers operational systems.

The anti-virus server "Eset Endpoint Antivirus" provides the centralized control of all anti-viruse programs on the user computers, anti-virus databases updates, report generation on database updates and existing threats.

The Microsoft software product – System Center Data Protection Manager (DPM) –which provides continuous data protection for reliable recovery of Windows servers is used for data backup. The plan of all servers and services upgrading after a failure was adjusted.

Measures for the IT infrastructure improvement were aimed at building a fault-tolerant core of the computer network, increase of its capacity, security and manageability, replacement of obsolete hardware infrastructure components, consolidation and virtualization of servers. Virtualization servers are combined into clusters providing high availability of all systems.

Series of actions were introduced to ensure compliance of the IT infrastructure with requirements of the complex information security system. Security feature is enabled at the network switch ports, making it impossible to connect unauthorized devices to the corporate network. Changes are introduced to the password policy that meets safety requirements. Two-factor user authentication system was implemented and is based on hardware-software device for generation and verification of digital signatures. To manage network equipment, information storages and SAN switches a secure HTTPS protocol and the SSH application layer network protocol were introduced.

In general, the corporate network consists of 600 PCs, 28 physical and 42 virtual servers, 10 information storages and commutation equipment.

Connection to the Internet for search and browsing of information was implemented for information systems users.

Internal databases: coverage, updates, interlinks with external sources

To ensure business processes, the following databases are used in the Office:

- database of the CEDA which provides storage of documents and their attributes in electronic form;
- technological database which ensures execution of the examination procedures record-keeping and maintenance of the state registers of patents for inventions and utility models;
- special database for ensuring the functions of electronic filing of applications for inventions and utility models;
- the Search Portal database which provides possibility for experts to carry out search in many collections of patent and non-patent literature.

Establishment and maintenance of electronic search file: file building, updating, storage, documents from other offices included in the search file

The Search Portal was created to access and search the patent documentation sources and non-patent information in the process of examination of patent applications.

In 2016, in the framework of international exchange of patent documentation, Ukrpatent continued to receive optical discs with patent documents from foreign patent offices. Loading of data from 381 optical carriers to the active information storage and its accessibility for search through the Search Portal was provided.

Administrative management electronic systems (register, legal status, statistics, and administrative support)

Functions of the administrative management were implemented in the environment of the Inventions AS by separate software subsystems and software modules.

The technological automated system which ensures execution of procedures on the examination of applications for inventions and utility models, as well as record-keeping procedures of the state registers of patents, operates in Ukrpatent.

Other matters

V. PROMOTION ACTIVITIES AIMED TO SUPPORT USERS IN ACCESS AND EFFICIENT USE OF PATENT INFORMATION

Patent library: equipment, collection management, network of patent libraries in the country, cooperation with foreign patent libraries

In order to satisfy public needs for patent information in Ukraine the Public Patent Documentation Collection (PPDC) functions within the structure of the Innovations Department of Ukrpatent (Innovations Department). The PPDC is the most comprehensive patent library in Ukraine available to the public (intellectual property office library).

International exchange with foreign patent offices has been the main source of foreign patent documentation over extended periods. Such international cooperation allowed accumulating a considerable amount of current and retrospective foreign patent documentation, in particular, official bulletins of 65 countries, first of all on optical carriers, in the state system of intellectual property rights protection.

Current updating of the PPDC by national and foreign documentation in the sphere of industrial property continued during 2016 first of all on optical discs, in particular, by official bulletins. In 2016 the PPDC was updated by 487 optical discs with current patent documentation. As of December 31, 2016, in general, the PPDC collection of optical discs constitutes over 33 thousand items.

Free access to the PPDC materials for users to work in the reading room was provided. The work of the customers with the collections of patent documentation available in the PPDC on optical carriers in foreign languages was carried out jointly with the consultants of the Innovations Department.

In 2016 the PPDC was attended by 200 users, 11% of which were legal entities and 89% – individuals.

Promotion of the PPDC was carried out during the year through its presentations at the relevant public events, informative meetings with students.

Information concerning the contents of the PPDC and its quarterly updates was published in the "Information resources" section at the web-portal of SIPS (http://sips.gov.ua/en/document_fund.html), on the web-sites of Ukrpatent (http://www.uipv.org/en/fond_fkg.html) and its Innovations Department (<http://iii.ua/uk/fond-patentnoyi-dokumentaciyi-gromadskogo-koristuvannya>).

Proper storage of the PPDC documents meeting specified requirements and guaranteeing their safety was ensured during 2016.

The PPDC is located in the premises of the Innovations Department in the three specially adapted and equipped areas (two depositaries with the total area of 81 sq. m. and a reading room of 40 sq. m.). The PPDC is equipped with 12 up-to-date computers with appropriate licensed software, as well as scanners, printers and xerographic copying machines.

To enable users to make online access to the electronic patent information resources, such as the Digital Patent Library, the Internet access based on Wi-Fi technology was provided in addition to the traditional Internet access for users' convenience.

Consultations were provided on a free-of-charge basis concerning better ways to carry out information search, qualified making retrieval schedule, search on CD-ROMs and in the remote free databases of patent documentation via the Internet and consultations on the most common issues: concerning the finding out of the object of invention or utility model in the materials presented by the applicant (in total for the year – about 61 consultations), detection and cessation of unlawful use of IPRs.

The total of 213 consultations was provided in 2016 concerning verification of correctness of compilation of application materials, including 43 for patents for invention/utility models.

Services on drawing up responses to the requests of the expert body on the applications for inventions and utility models were provided.

Consultations on the most common issues were provided on a day-to-day basis:

- concerning the procedure for obtaining legal protection for an invention (utility model) (up to 25 such consultations per day);
- concerning the finding out of the object of invention or utility model in the materials presented by the applicant (in total for the year – over 60 consultations);

Within the fulfillment of users requests the employees of the Innovations Department provided appropriate services, including carrying out different types of search of patent information and documentation.

In particular, 1054 information searches were carried out during the 2016: 201 title searches were made by all IPRs on the requests of arbitration managers and liquidators of bankrupt enterprises; 19 title searches by all IPRs ordered under the contracts; 69 information searches regarding inventions and 578 searches regarding utility models to conduct a preliminary evaluation of compliance of the declared object with conditions of legal protection; 155 searches within the specialized database "Inventions (Utility Models) in Ukraine" in sections A and C; 7 thematic information searches regarding inventions (utility models); 25 requests for monitoring of owners or customers were satisfied. In addition, upon the request of users 7 sets of application materials for inventions, 25 sets of application materials for utility models were composed.

Publications related to different business procedures and patent information sources available to users, for example, books, brochures, Internet publications, etc.

Information on inventions (utility models) is published in Annual Reports and Annual Technical Reports of the Office available at the SIPS web-portal. Statistics on inventions (utility models) is also published in quarterly issues of the Internet review "Industrial Property in Figures" which includes basic indicators of the activities of SIPS and Ukrpatent and is accessible for free at the SIPS web-portal and on the Ukrpatent web-site.

Methodological recommendations on certain matters relating to inventions (utility models) applications examination are available on the Ukrpatent web-site.

Periodicals, e.g. scientific and practical magazine "Intellectual Property in Ukraine", which is distributed as paper and electronic edition over the territory of Ukraine (by subscription), publish articles (including by the SIPS and Ukrpatent specialists) on various matters and in particular relating to legal protection of inventions (utility models). Printed edition of the magazine is accessible free of charge at the PPDC of the Innovations Department.

Office's initiatives on providing foreign patent information in the local language(s) (e.g., machine translation tools, translation of abstracts)

Cooperation with universities, research centers, technology and innovation support centers, etc.

Over the reporting year with the purpose of updating patent collections of certain state and national libraries, bodies of national system of scientific and technical information and universities, departments of which are entrusted with the appropriate information functions, the Official Bulletin "Industrial Property" on CD-ROM and the National CD-ROM "Inventions in Ukraine" which contains specifications to the patents of Ukraine for inventions and utility models was sent free of charge to the specified and some other organizations of Ukraine.

Education and training: training courses, e-learning modules (URLs), seminars, exhibitions, etc.

Significant attention was paid to the skills upgrading of experts of the state system of intellectual property legal protection.

During the past year, as the part of experience sharing, training and skills upgrading, officials of the state IP rights protection system participated in numerous events arranged by international organizations, governments and foreign IP offices, studied at the higher educational institution – the Intellectual Property Institute of the National University "Odessa Law Academy" in Kyiv, and examiners also improved knowledge of English.

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In 2016, for the purpose of professional development and improvement, and to disseminate intellectual property knowledge, experts of SIPS and Ukrpatent took part in many specialized events in Ukraine. Those included, in several, the WIPO Regional Workshop on Intellectual Property for Small and Medium-Sized Enterprises and Building Respect for Intellectual Property; the research-to-practice conference "Place and role of informational and intellectual property law in the current context"; the meeting regarding the matters of analysis of the judicial practice from the All-Ukrainian Public Organization "Ukrainian Bar Association", from the Committee on telecommunications, information technology and Internet, and from the Committee on intellectual property; the round-table meeting "Intellectual property in IT"; the International conference "Technology and innovation: from scratch to end product", held in Lviv; III Intellectual Property Forum IPF-2016, set up by the "Legal Practice" newspaper; the round-table meeting "Countering patent trolling in Ukraine in the context of intellectual property rights enforcement"; IX International business forum "Problems and prospects of innovation activities in Ukraine"; seminar "Peculiarities of examination of applications for inventions, utility models and topographies of integrated circuits", etc.

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As part of the events dedicated to the All Ukrainian Law Week, experts of SIPS and Ukrpatent took part in the Second Scientific and Educational Conference "Intellectual property and pharmaceutical industry", held by PJSC "Farmak", and in the round-table meeting on the topical issues of intellectual property legal protection, arranged by the State Enterprise "Antonov". Also, following the activities program of the All-Ukrainian Law Week, Ukrpatent arranged the Open House Day for future legal specialists, where the students could learn the practicalities of examination process by visiting examination departments of the enterprise.

On July 25-30, the Taras Shevchenko National University of Kyiv (KNU) welcomed the Summer School on Intellectual Property (WIPO general course). The work of this year's Summer School was supported by the Scientific and Research Institute of Intellectual Property of the National Academy of Sciences of Ukraine jointly with the Department of Intellectual Property of the KNU, along with SIPS.

During the course, the participants, among them the final-year students, teachers and young intellectual property specialists, mastered a theoretical course on intellectual property and had the opportunity to participate in thematic practical trainings under the program of the WIPO Summer School on Intellectual Property.

In order to promote knowledge on intellectual property development milestones in Ukraine, a number of excursions to the Museum of Intellectual Property Legal Protection were arranged for pupils and students of educational institutions of Ukraine.

The full list of events of the state system of intellectual property legal protection dedicated to intellectual property issues, held in 2016, is contained in the Annual Report.

In the reporting year, SIPS received 25 applications for certification of potential patent attorneys, the consideration of which resulted in 24 candidates admitted to pass qualifying examinations and certification by the Certification Commission.

Qualifying exams for potential patent attorneys were held in the higher educational institution, specified by SIPS – the Intellectual Property Institute of the National University "Odesa Law Academy" in Kyiv. This institution is licensed to conduct educational activities related to the preparation and training of specialists with a degree in "Intellectual Property", and has the relevant material and technical resources for such qualifying exams.

As a result of qualifying exams 20 persons were certified as professional intellectual property representatives (patent attorneys).

As of December 31, 2016 there were 514 registered patent attorneys in Ukraine, who render services in the field of intellectual property rights protection.

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Other activities

In order to promote the inventive activity among the wide range of the scientific and technical community of Ukraine, encouraging employers to introduce the results of intellectual activity in the production, as well as revealing the most talented and promising developments and drawing of attention to them of the domestic and foreign entrepreneurs and investors, the All-Ukrainian Contest "Invention of the Year" was arranged by Ukrpatent under the auspices of the SIPS. The contest is open to enterprises, institutions, organizations, research groups, regardless of their departmental subordination, ownership and location, as well as for individual inventors.

In 2016, 348 works, including 122 inventions and 226 utility models, were submitted to the contest, representing 35% and 65% respectively. This year's contest was attended by nineteen women authoring teams. The website of the "Invention of the Year" contest: <http://iii.ua/uk/vinahid-roku>.

In 2016 the Innovations Department ensured the functioning of the Industrial Property Internet Exchange (<http://iii.ua/uk/birzha-promislovoyi-vlasnosti>) the aim of which is to promote domestic inventions to the market, to encourage the development of inventive and innovative activities, to increase the level of public awareness on the intellectual property importance, to inform the wide range of interested public.

Contractual services provided to the customers of the Industrial Property Internet Exchange include:

- compilation, coordination, translation, posting on the web-site and follow-up of the information about their IPRs;
- work with individuals that have expressed an interest in the IPRs, represented on the Internet Exchange (over 600 consultations on the matters of functional activity of the Industrial Property Internet Exchange and the Innovations Department);
- 28 contracts on placing the information about IPRs on the Internet Exchange were concluded.

In 2016, 21 projects relating to inventions and utility models were placed in the Internet Exchange.

To promote development of the talented and creative youth of Ukraine, the Innovations Department created a useful resource – the Factory of Ideas (<http://fabrikaidei.kiev.ua>) – that unites young people not indifferent to the science seeking to develop the scientific potential of our state, to promote inventive activity and to implement their own ideas and developments in life.

The purpose of its functioning is to identify, support and promote the development of the gifted pupils and students, young scientists, inventors, researchers and innovators.

The users of the resource placed their best practices and ideas on the pages of the Factory of Ideas free of charge. In 2016 the Factory of Ideas had about 200 projects.

In 2016, the "Innovation Promotion" section was additionally created on the Industrial Property Internet Exchange and the Factory of Ideas resource. Information on existing contests, grants, conferences is published at this section to stimulate the growth of inventive activities and provide more opportunities to the prospective scientists for receiving financing and to develop business opportunities.

The "Ukrainian Promising Inventions" database (<http://perspectiva.sips.gov.ua/en/index.php>) exists to assist commercial realization of the innovative potential of the Ukrainian inventors, engineers and technicians and scientists, promotion of domestic developments to the domestic and foreign markets. The specified specialized information resource is available to both professionals and the general public and will also contribute to the formation of a stable competitive environment for business.

In 2016, the "Ukrainian Promising Inventions" database contained 13 inventions.

Detailed information on other activities of the state system of intellectual property legal protection in 2016 is contained in the appropriate sections of the 2016 Annual Report (http://sips.gov.ua/en/year_reports.html).

VI. INTERNATIONAL COOPERATION ACTIVITIES IN THE FIELD OF PATENT INFORMATION

International exchange and sharing of patent information in machine-readable form, e.g., priority documents, bibliographic data, abstracts, search reports, full text information

The functions of patent documentation international exchange are performed by Ukrpatent, recognized in 2003 by the law as the Centre of International Exchange of Publications according to the Convention on International Exchange of Publications, adopted on December 3, 1958 by the UN General Conference on the matters of education, science and culture.

In 2016, in the framework of international exchange of patent documentation, Ukrpatent:

- received official bulletins from 8 foreign offices with information regarding inventions and from 6 foreign offices regarding utility models and nearly 500 optical discs with current foreign patent documentation;
- sent the Official Bulletin "Industrial Property" on CD-ROM to 14 foreign patent offices and organizations, the National CD-ROM "Inventions in Ukraine" – to 5 offices.

Moreover, the documentation exchange on material carriers with the Eurasian Patent Office (EAPO) ceased in 2016 and Ukrpatent started receiving Eurasian patent documentation via a non-public section of the EAPO web-site. During the year, the mutual exchange via FTP-servers with Rospatent and Japan Patent Office which had been started earlier, continued.

Participation in international or regional activities and projects related to patent information

Implementation of the Cooperation Program between SIPS and WIPO for 2014-2016 was carried out which included activities related to IPRs information activities, in particular, regarding the use of current editions/versions of the International Classifications in Ukraine, cooperation at the level of the Committee on WIPO Standards (CWS), organization and holding of conferences, seminars, etc.

In 2016, the SIPS and Ukrpatent representatives took part in sessions and meetings of the WIPO Committees and Working Groups, as well as joined the EPO events. In the framework of international cooperation Ukrpatent experts participated in the work of the CWS Task Forces on carrying out the following tasks:

- revision of WIPO Standards ST.10/C and ST.14;
- development of new WIPO Standards, in particular, for data exchange regarding legal status of patents, on the institutional dossier of published patent documents, on the presentation of nucleotide and amino acid sequence listings using XML and on the preparation of recommendations on the transition from WIPO Standard ST.25 to Standard ST.26;

- ensuring the necessary support and updating of researches which are published in Part 7 of the WIPO Industrial Property Information and Documentation Handbook.

In the framework of continuing cooperation with the EPO on data exchange aimed at providing representation of retrospective and current Ukrainian patent documentation in the EPO Internet resource sp@cenet and with the aim to fulfill the obligations of Ukrpatent under the relevant Agreements on access of Ukrpatent to the EPO EPOQUE Net search system, in the reporting year according to the defined procedure Ukrpatent loaded to the FTP-server the national patent documentation from the National CD-ROM "Inventions in Ukraine" Nos. 22-24 for 2015 and Nos. 1-21 for 2016 (from the second half of the year temporarily, by agreement with the EPO, – without translations of abstracts into English). Each loading is accompanied with sending an appropriate message to the specified address at the EPO.

Assistance to developing countries

Other activities

VII. OTHER RELATED MATTERS

One of the priority objectives of the examination body is to ensure effective functioning of the quality management system (QMS) of the examination procedure for industrial property rights applications introduced in 2012 at Ukrpatent (International Certificate No. 321012076 of October 17, 2012).

In September 2016, an independent certification organization carried out the supervisory audit of the QMS. Representatives of the audit company noted the high professional level of Ukrpatent employees and positively estimated the professional training measures taken at Ukrpatent. Progress has also been noted in the implementation of electronic document management.

Based on the results of the audit the QMS corresponds with the ISO 9001:2008 standard requirements (international certificate No. 321012076/1, valid from November 19, 2015 to September 14, 2018).

1. Classification is allotting one or more classification symbols (e.g., IPC symbols) to a patent application, either before or during search and examination, which symbols are then published with the patent application.

2. Preclassification is allotting an initial broad classification symbol (e.g., IPC class or subclass, or administrative unit) to a patent application, using human or automated means for internal administrative purposes (e.g., routing an application to the appropriate examiner). Usually preclassification is applied by the administration of an office.

3. Reclassification is the reconsideration and usually the replacement of one or more previously allotted classification symbols to a patent document, following a revision and the entry into force of a new version of the Classification system (e.g., the IPC). The new symbols are available on patent databases.