

# CWS/ATR/PI/2017/UA

## Annual Technical Report on Patent Information Activities in 2017 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 document determining the directions for the development of patent information activities in 2017 was the Plan of activities of the State Enterprise "Ukrainian Intellectual Property Institute" (Ukrpatent) which contained strategic directions "Patent information support in the intellectual property sphere 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 envisage:

- comprehensive development of the main directions of information support in the intellectual property sphere;
- implementation of the new version of the International Patent Classification in translation into Ukrainian, creating an information and reference system freely accessible to the public via the web-site of Ukrpatent;
- improvement of information support of the procedure of examination for industrial property rights (IPRs) applications with regard to forming the electronic information resources of Ukrpatent for examination purposes, providing access to the foreign commercial databases which contain PCT Minimum Documentation;
- unification of the patent documentation international exchange procedure carried out with the purpose of acquisition of patent collections of the state system of intellectual property legal protection, with due account of the trends of transition of the intellectual property offices in many countries to the presentation 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;
- participation in the activities on unification and harmonization of the patent documentation of Ukraine with due account of the world experience and in accordance with the international standards of the World Intellectual Property Organization (WIPO) and the current legislation of Ukraine.
- development of the technological automated systems (AS) for record keeping on pending applications and titles of protection for inventions and utility models;
- automation of the document workflow and provision of a comprehensive electronic information processing;
- development and implementation of freely accessible information resources for a wide range of public;
- development of IT infrastructure.

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

In 2017 works continued aimed at creating a system of electronic interaction of the examination body with the respective parties in the processes of acquisition and keeping in force of intellectual property rights (further – SEI EBS).

The purposes of SEI EBS creation are:

- decreasing the costs and amount of time necessary for interaction between the examination body and respective parties;
- improving the quality of preparation of respective documents;
- simplifying the procedures connected with system administration and maintenance;
- simplifying and acceleration of the processes of intellectual property rights acquisition;

SEI EBS provides for the automation of the whole range of works with electronic documents being exchanged by the parties to the relationships arising in connection with the procedures of acquisition and keeping in force of intellectual property rights. This range of works encompasses: entering the electronic documents into the system, their registration, allocation and distribution, editing, random access storage, search and browsing, reproduction, execution control, access control etc.

As of the end of 2017, the works on creating the mentioned system were fully completed. The system is installed on hardware and put into pilot testing

#### 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 inventions (utility models), including creation of search databases for internal use in the examination body, publication of information about applications and granted patents in the official bulletin, operation support of the existing interactive databases and information and reference systems and creation of new ones for information servicing of a wide range of users via the Internet. Information on inventions (utility models) is also published on optical carriers.

Applications for inventions (utility models) are processed by means of the Inventions AS which has full functionality of text processing and record keeping at all stages, from application filing to completing examination and maintenance of the State Register of Patents of Ukraine for Inventions and the State Register of Patents of Ukraine for Utility Models.

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

The practical application of information and communication technologies ensured the improvement of patent information activities efficiency, in particular, in the following areas:

- carrying out scientific and technical examination of applications;
- technical administration of the State Register of Patents for Inventions and Utility Models;
- carrying out patent information searches;
- providing a range of patent information services to the wide public.

In 2017, to support the record management process and improve the conditions of labor organization on the examination body specialists' workplaces, measures were taken to update the computer and telecommunication equipment and software; as well as steps were taken to upgrade security hardware and software. Outdated equipment was taken out of service.

Also, licenses for Microsoft SQL Server Standard Core 2016 2 License CoreLic software for two servers were purchased in 2017. RHINO server for storing Internet databases equipped with Microsoft SQL Server Standard 2016 DBMS was put into operation in place of Inbase server with Microsoft SQL Server Standard 2005 DBMA. This increased the functionality and security of Internet databases.

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

##### Inventions

###### Applications filed:

in 2016 – 4,094, in 2017 – 4,047, i.e. 1,1 % decrease with respect to the previous year.

###### Patents granted:

in 2016 – 2,813, in 2017 – 2,590, i.e. 7,9 % decrease with respect to the previous year.

From January 1, 2017 to December 31, 2017 within the framework of experimental tests of the electronic filing system for IPRs, 337 applications for inventions were received (38,68 % more than in the previous year).

In 2017, in comparison with the previous year, the following areas experienced rapid changes: "Computer technology" (increase in the number of applications by 35,6 %); "Mechanical elements" (32,1 %); "Other special machines" (29,7 %); "Handling" (20,1 %); "Biotechnology" (19,2 %); "Materials, metallurgy" (13 %).

##### Utility models

###### Applications filed:

in 2016 – 9,558, in 2017 – 9,108, i.e. 4.7 % decrease with respect to the previous year.

###### Patents granted:

in 2016 – 9,044, in 2017 – 9,442, i.e. 4.4 % increase with respect to the previous year.

From January 1, 2017 to December 31, 2017 within the framework of experimental tests of electronic filing system for IPRs, 337 applications for utility models were received (56.02 % increase with respect to the 2016 year).

In 2017, in comparison with the previous year, the following areas experienced rapid changes: "Basic communication processes" (increase in the number of applications by 28,6 %); "Computer technology" (28,6 %); "Telecommunications" (22,4 %); "Handling" (19,5 %); "Materials, metallurgy" (19,2 %); "Transport" (16,1 %); "Food chemistry" (12,2 %); "Civil engineering" (9,4 %).

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

Annual Reports, statistical information of the Office:

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

News of the Office on the issues related to patents:

<http://www.me.gov.ua/> (Intellectual Property section)

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

Information on the patent legislation:

<http://www.me.gov.ua/> (Intellectual Property section)

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

In 2017, an integrated patent information resource under the Open Data project for searching in the data sets of the State Registers of IPRs and the State Register of Intellectual Property Representatives (Patent Attorneys) was implemented. This resource is accessible at <http://opendata.uipv.org>.

## 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 on the web-sites of the Ministry of Economic Development and Trade of Ukraine (<http://www.me.gov.ua/>) and Ukrpatent (<http://uipv.org/en/index.html>).

Data on information services, including the paid ones, provided by Ukrpatent, in particular by its Department of Patent Information Services, Consultations and Innovation Activity Promotion, is published on the web-sites of Ukrpatent and the mentioned Department (<http://iii.ua>).

Information for applicants on filing applications for inventions and utility models is available on the web-sites of the Ministry of Economic Development and Trade of Ukraine (<http://www.me.gov.ua/>) and Ukrpatent (<http://uipv.org/en/index.html>).

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

Information and tools for filing electronic applications are posted in a separate section of the "Electronic Filing" web-site (<http://base.ukrpatent.org/efiling/>). This web-site also contains reference materials and manuals on the use of the system, guidelines for drawing up applications and filing both primary and secondary application materials.

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 Ukrpatent's web-site (<http://base.uipv.org/off-line/>).

Access to on-line publications containing information on inventions and utility models is provided through the web-sites of the Ministry of Economic Development and Trade of Ukraine (<http://www.me.gov.ua/>) and Ukrpatent (<http://uipv.org/en/bases.html>).

### Availability of the application dossier in electronic form

All application materials (both primary and secondary) for inventions and utility models, irrespective of the way 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 document archive has been implemented.

### Classification<sup>1</sup>, preclassification<sup>2</sup> (if applicable), reclassification<sup>3</sup> activities; classification systems used (e.g., International Patent Classification (IPC)); matters concerning indexing of patent information

The full text of IPC-2017.01 translated into Ukrainian was used for classifying patent documents of Ukraine in 2017.

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

In 2017 the whole retrospective file of national patent documents was reclassified according to the full text of IPC-2017.01.

A Ukrainian-language version of the Guide to the IPC 2017 was formed and put in the IRS for IPC-2017.01.

In 2017, measures were taken to provide a bridge through a hyperlink to the text of IPC-2017.01 in Ukrainian in the WIPO's Internet-based IPC management system, the public was informed accordingly through Ukrpatent's web-site.

During the second part of 2017 a set of works was undertaken necessary to ensure the implementation of IPC-2018.01 translated into Ukrainian in the state system of intellectual legal protection as of January 1, 2018; in particular, a respective IRS was created.

### 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;
- electronic edition of the Official Bulletin "Industrial Property" (on CD-ROM with integrated search system) – the analogue of the printed edition;
- the National CD-ROM "Inventions in Ukraine" – electronic edition of specifications to patents of Ukraine for inventions (utility models);
- 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. Full Text. (2017.01)" (<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 2017. The Annual Index to the Official Bulletin for the previous, 2016, year was also published.

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

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" contains the following data for each patent: bibliographic data, claims, abstracts patent specification and legal status information.

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

In the Notices section of the Official Bulletin "Industrial Property" (printed and electronic edition) with the periodicity of its release, announcements in respect of registered patents for inventions (utility models) (to the extent provided by the respective applicable Law of Ukraine) are published which include the information:

- on renewal of patents of Ukraine for inventions, the object of which is a drug, animals protection agent, plant protection agent, the use of which requires approval of a competent authority; changes in the information entered into the State Register of Patents of Ukraine for Inventions, information on the issue of patent duplicates, information on 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 the issue of patent 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://www.me.gov.ua/> <http://uipv.org/en/index.html>.

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

Ukrpatent's search collection (Patent Information Base – PIB) is an electronic information resource composed in accordance with the approved PIB content and intended for carrying out patent information searches for determining the state of the art in the course of substantive examination of patent applications which has been in operation since July 1, 1997.

The PIB contains the national and foreign patent collections, primarily 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. The 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 used in the local mode includes Inventions AS database (bibliographic data) and the Central Electronic Document 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 available on the web-site of Ukrpatent;

- electronic documents filed through the electronic application filing system were loaded to the databases in automatic mode;

- foreign patent documents 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 2017, the Examination Reference and Information Collection was stocked with encyclopedias, reference books, legal and instructional and methodological literature, periodicals (including on electronic carriers). The formation of electronic reference and search tool and a full-text non-patent literature DB of the Search Portal was provided.

The following resources were also used in 2017 as a search collection of non-patent literature, in addition to foreign commercial databases (the list is provided below):

- collections (including electronic) of 78 largest national and specialized libraries of Ukraine;

- collections of foreign countries' libraries (in the electronic delivery of documents);
- free national and foreign Internet resources, in particular, electronic digital libraries.

Besides, to provide effective and high-quality search in the course of patent applications examination, 9 foreign commercial information resources were used in 2017 as a search collection which, under respective 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 database; Derwent World Patent Index database; ScienceDirect ArticleChoice™; web-portal of the WIPO ARDI Program; products of the American Chemical Society (ACS); IEEE *Xplore* digital library; electronic products of Wiley Online Library.

Also, with due account of the examination needs, a subscription to a new commercial information resource was executed at the end of 2017 – Reaxys Medicinal Chemistry database, which is the world's largest database of biologically active substances, qualitative and quantitative information on compound bioactivity; it enables to provide examiners with wider access to the PCT Minimum Documentation in the fields of chemistry, pharmaceutical industry, medicine and biotechnology.

The EPO EPOQUE Net system remained 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.

The agreement on the granting of access for Ukrpatent's examiners to EPOQUE Net, concluded with the EPO in 2017, is in force until December 31, 2020.

In 2017, as in the previous years, the activities on providing access for Ukrpatent examiners to the mentioned foreign commercial information resources which contain the PCT Minimum Documentation and the use of which is a prerequisite of quality patent search were given particular emphasis in the context of Ukrpatent's functioning as ISA/IPEA. The significance and relevance of this task will remain in place, as in October 2017 an Agreement was signed between the Ministry of Economic Development and Trade of Ukraine and the International Bureau of the World Intellectual Property Organization in relation to the functioning of the State Enterprise "Ukrainian Intellectual Property Institute" as an International Searching Authority and International Preliminary Examining Authority under the Patent Cooperation Treaty, entering into force on January 1, 2018, and remaining in force until December 31, 2027.

**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-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 <http://opendata.uipv.org>.

Annual reports of the Office (in Ukrainian and English), quarterly review "Industrial Property in Figures. Performance Indicators of the Ministry of Economic Development and Trade of Ukraine and the State Enterprise 'Ukrainian Intellectual Property Institute'" (further – "Industrial Property in Figures") are also accessible for free on the web-site of Ukrpatent.

External users could also purchase the Official Bulletin "Industrial Property" on CD-ROM equipped 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 the Ministry of Economic Development and Trade of Ukraine.

See also Part 1 of Section 5 concerning the PPDC.

In 2017, a system of electronic exchange between the parties to the relationship arising in connection with the procedures of acquisition and keeping in force of intellectual property rights (the web-site of Ukrpatent - <http://uipv.org/en/index.html> ).

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

Information concerning the 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 the Notices section 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**

Record management for 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 record management of patent applications for inventions, ensures storage of all documents and bibliographic data and provides a wide variety of search options.

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

In 2017 measures were taken to further build up the functional capacities of the Inventions AS. Thus, to ensure the interaction of the Inventions AS with the general EDMS, a set of new functions were implemented. In the environment of technological automated systems new program modules were developed and existing ones were updated to provide for application of electronic digital signature on electronic documents, their storage and sending to applicants.

#### **Hardware used to supporting business processes of the Office**

The general network infrastructure consists of the security system on the Check Point 5600NGTP device, which contains the VPN and Firewall modules for secure Internet connection and the internal router (designed on the Unix server) to support the internal network, as well as Barracuda Spam & Virus FireWall for mail server protection. The availability of two firewalls enhances the overall security.

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

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

The network uses the following hardware:

- HP (DL380Gen8, DL380G7, DL380G5, DL360 Gen8, DL360 G5, DL320 Gen8) servers;
- HP (3Par StoreServ 7200, MSA2040, P2000, MSA2324fc, MSA1000), Infortrend (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 Switch 2910a1-24G, ProCurve Switch 2510-48, 2530-48 Switch).

Operating systems and software:

- Windows Server 2016, Windows Server 2012R2, Windows Server 2012, Windows Server 2008R2, Windows Server 2008, CentOS 7 operating systems are applied on servers;
- servers virtualization is built on Microsoft Hyper-V Server 2012R2 on 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) is designed to allow for centralized management 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 operating systems.

The anti-virus server "Eset Endpoint Antivirus" provides centralized control of all anti-virus 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 upgrading all servers and services after a failure was adjusted.

#### **Internal databases: coverage, updates, interlinks with external sources**

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

- CEDA database which provides storage of documents and their attributes in electronic form;
- the Inventions AS technological database which ensures performing the procedures of the examination record-keeping and maintenance of the State Register of Patents for Inventions and Utility Models. The database contains the whole range of information on applications and patents for inventions (utility models) from the moment of founding the Patent Office of Ukraine (1993). The data are updated on an ongoing basis in line with the process of filing new applications, carrying out record-keeping on the procedures of application examination and keeping patents in force;
- 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 searches in multiple collections of patent and non-patent literature.

Some of these databases have external connections with remote information sources. For example, the technological database has an indirect connection with the International Bureau of WIPO via PCT-EDI system.

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

The electronic search collection is located on the internal information resource called the Search Portal. This resource was created to enable access and search patent documentation and non-patent information sources in the process of patent application examination. The data at the Portal are updated regularly once patent information updates are made available by foreign patent offices on optical carriers or ftp-servers.

In 2017, 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 308 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)**

The functions of the administrative management are implemented in the environment of the Inventions AS by separate software subsystems and software modules.

Thus, to maintain the registers and legal status of titles of protection for inventions and utility models, a multifunction subsystem is operative within the Inventions AS. The information from this system is forwarded to relevant databases for publication and for drawing statistic reports.

The Indicators statistical subsystem is characterized by the capability to form multiple reports and implementation of a mechanism of calculation of indicators by objects giving multiple details, namely:

- indicators for filing of applications by "IPC" and "applicants" requisites;
- indicators for registration of titles of protection by "IPC" and "applicants" requisites.

The subsystem provides for the possibility to extend the list of indicators. The function of automated analysis of calculated data and prediction is implemented. The possibility is foreseen to enter into the base of the Indicators subsystem of the data on main economic indicators of the country's development and other external factors directly influencing the state of inventive activity of applicants.

#### **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 which is necessary for study and analysis in the process of creation, legal protection and use of IPR's, the Public Patent Documentation Collection (PPDC) functions within the structure of the Department of Patent Information Services, Consultations and Innovation Activity Promotion. 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 long been the main source of foreign patent documentation. Such international cooperation allowed accumulating in the state system of intellectual property rights protection a considerable amount of current and retrospective foreign patent documentation, in particular official bulletins of 65 countries, primarily on optical carriers. The PPDC also contains methodological, reference and informational and periodical materials.

Current updating of the PPDC by national and foreign patent documentation on optical discs continued during 2017. In 2017 the PPDC was updated by nearly 400 optical disc with current patent documentation. As of December 31, 2017, the PPDC collection of official bulletins constitutes over 21,1 thousand items and collection of optical discs constitutes nearly 33,5 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 Department of Patent Information Services, Consultations and Innovation Activity Promotion of Ukrpatent.

In 2017 the PPDC was attended by 254 users, 10% of which were legal entities and 90% – individuals.

Information concerning the contents of the PPDC and its quarterly updating was published in the Patent Information Files section on the web-sites of Ukrpatent (<http://uipv.org/en/index.html>) and its Department of Patent Information Services, Consultations and Innovation Activity Promotion (<http://iii.ua>).

Throughout 2017 proper storage conditions for the PPDC documents were ensured which correspond to respective requirements and guarantee the documents' safety.

The PPDC is located on the premises of the Department of Patent Information Services, Consultations and Innovation Activity Promotion of Ukrpatent in the three specially adapted and equipped areas (two depositories with the total area of 81 sq. m. and a reading room of 40 sq. m.). The PPDC is equipped with 10 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 free-of-charge concerning optimal ways to carry out information search, qualified drawing up of retrieval schedule, search on CD-ROMs and in the free databases of patent documentation via the Internet and consultations on the most common issues: concerning the detection of the subject matter of invention or utility model in the materials presented by the applicant, acquisition of IPRs, detection and discontinuation of unlawful use of IPRs.

A total of 227 consultations were provided concerning verification of correctness of drawing up of application materials, including 46 for patents for invention/utility models.

Separate services were provided on carrying out patent research for detection of infringement of rights of owners of titles of protection in force and rights of applicants for inventions (utility models) and drawing up a patent pattern (3 researches in 2017).

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 30 such consultations per day);
- concerning the detection of the subject-matter of invention or utility model in the materials presented by the applicant (in total for the year – over 60 consultations);

Fulfilling users' requests, the employees of the Department of Patent Information Services, Consultations and Innovation Activity Promotion of Ukrpatent provided appropriate paid services, including carrying out different types of search of patent information and documentation.

In particular, the following information searches were carried out during the 2017: 1281 title (firm) searches were made by all IPRs on the requests of arbitration managers and liquidators of bankrupt enterprises, the Ministry of Justice of Ukraine, including 191 paid search; 17 title (firm) searches by all IPRs ordered under the contracts; 53 information searches regarding inventions and 595 searches regarding utility models to conduct a preliminary evaluation of compliance of the declared object with conditions of legal protection; 58 searches within the specialized database "Inventions (Utility Models) in Ukraine" in sections A and C; 11 thematic (information) searches regarding inventions (utility models). In addition, upon the request of users 24 practical recommendations were given on drawing up application materials for inventions (utility models).

In April 2017 a WIPO depository library was open on the basis of the Department of Patent Information Services, Consultations and Innovation Activity Promotion of Ukrpatent.

**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 (available on Ukrpatent's web-site) and Annual Technical Reports on patent information activities of the Office which Ukrpatent prepares for WIPO. Statistics on inventions (utility models) is also published in quarterly issues of the review "Industrial Property in Figures" accessible for free 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 specialists of the state system of intellectual property legal protection) on various matters and in particular relating to legal protection of inventions (utility models). The printed edition of the magazine is accessible free of charge at the PPDC of the Department of Patent Information Services, Consultations and Innovation Activity Promotion of Ukrpatent.

**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 organizations of Ukraine (bodies of national system of scientific and technical information, in particular state and national libraries as well as universities, departments of which are entrusted with the appropriate information functions, including universities' business innovation centers) 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 according to the free of charge distribution Registries approved by the Ministry of Economic Development and Trade 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 a 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; examiners also improved knowledge of English.

On November 7, 2017, within the framework of Ukraine's cooperation with WIPO, a WIPO Regional seminar on the Patent Cooperation Treaty (PCT) jointly organized by WIPO and the Ministry of Economic Development and Trade of Ukraine took place in Ukrpatent. A WIPO Regional seminar on the same topic was also held in Lviv on November 9, 2017. The key speaker at these events was Ms Anjali Aeri, Program Officer, PCT International Cooperation Division, WIPO. The reports were also presented by the specialists of Ukrpatent.

Also in 2017, on the premises of the Kyiv University of Law of the National Academy of Sciences of Ukraine (KUL of NASU) WIPO seminar "Intellectual Property Policies in Universities and Research Institutions" was organized by WIPO jointly with the Ministry of Economic Development and Trade of Ukraine and KUL of NASU.

Local events in IP sphere in 2017 were held with active participation of Ukrpatent's specialists. In May, in the National Academy of Agrarian Sciences of Ukraine (NAAS) a masterclass "Practical Aspects of IPR Protection, Particular of Creation and Protection of License Agreements" was held.

In June Ukrpatent's experts took part in the work of the IV International Intellectual Property Forum IPF 2017 of the Yurydychna Praktyka Publishing House.

At the end of June Ukrpatent hosted a training on the matters of using chemistry, pharmacology and medicine databases organized by Elsevier S&T for the users of Reaxys retrieval system, which has been widely used by examiners for the search purposes for 10 years.

Specialists of Ukrpatent also gave lectures (in particular on the topics related to inventions) at the Summer School "Intellectual Property: Basic Course", which was organized by the Ministry of Economic Development and Trade of Ukraine, Ukrpatent, Taras Shevchenko National University of Kiev (Department of Intellectual Property), Scientific and Research Institute of Intellectual Property of the National Academy of Law Sciences of Ukraine and held in Kyiv on July 17-23, 2017.

In July on the premises of the Ukrainian examination body a working meeting of the representatives of Ministry of Health of Ukraine and the Intellectual Property Research Institute of the National Academy of Law Sciences of Ukraine with Ukrpatent's specialists was held. The topic of the meeting was the improvement of the processes of examination of applications in medical and pharmaceutical fields.

In October 2017 a meeting of the examiners of the Department of Examination of Applications for Inventions, Utility Models and Integrated Circuit Topographies of Ukrpatent with a Clarivate Analytics representative was held. Within the framework of the meeting a proprietary patent research application Derwent Innovation, Derwent Data Analyzer, Cortellis Competitive Intelligence and other products in the sphere of pharmaceuticals and biotechnology were discussed. The final stage of the event was marked by reaching an agreement on providing the Ukrpatent's examiners with a test access to the mentioned search platforms and on the organization of presentations of search and analytical platforms GenSeq (for searches by biological sequences) and Derwent Innovation (for searches by chemical structures).

In November Ukrpatent hosted a training seminar on the use of STNext information and search system for the examiners, in which representatives of Chemical Abstracts Service (CAS) took part.

Information concerning intellectual property representatives (patent attorneys) providing services in the intellectual property rights protection sphere can be found in the State Register of Intellectual Property Representatives (Patent Attorneys) available in the "Intellectual Property" page (heading "State Registers and Official Bulletins", subheading "Data of State Registers") of the "Activity" section of the web-site of the Ministry of Economic Development and Trade of Ukraine (<http://www.me.gov.ua/>).

**Other activities**

Detailed information on other activities of the state system of intellectual property legal protection in 2017 is published on the Ukrpatent web-site, in particular, in the quarterly issues of the review "Industrial Property in Figures".

In 2017 the Department of Patent Information Services, Consultations and Innovation Activity Promotion of Ukrpatent ensured the functioning of the Industrial Property Internet Exchange (<http://exchange.iii.ua/en>) aimed at promoting domestic inventions on the market, encouraging the development of inventive and innovative activities, increasing the level of public awareness on the intellectual property importance and informing the wide range of stakeholders.

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 400 consultations on the matters of functional activity of the Industrial Property Internet Exchange and the Innovations Department);
- 18 projects relating to inventions and utility models were placed in the Internet Exchange.

To promote the development of talented and creative youth of Ukraine, a useful resource was created – the Factory of Ideas (<http://fabrikaidei.kiev.ua>) – that unites young people keen on 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 2017 the Factory of Ideas had about 200 projects.

Innovation Promotion section functions on the Internet Exchange web-site 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 promising scientists for receiving financing and for developing business opportunities.

## 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 2017, in the framework of international exchange of patent documentation, Ukrpatent:

- received official bulletins from 4 foreign offices with information regarding inventions and utility models;
- received nearly 400 optical discs with current foreign patent documentation;
- unloaded from the FTP-servers in the Search Portal the patent documentation of 4 patent offices: EAPO, Austria, Great Britain, Rospatent;
- sent the Official Bulletin "Industrial Property" on CD-ROM to 9 foreign patent offices, the National CD-ROM "Inventions in Ukraine" – to 3 offices.

Besides, Ukrpatent provided access via the FTP server to the official bulletin "Industrial Property" for the Japan Patent Office and Rospatent; to the data of the National CD-ROM "Inventions in Ukraine" – for the EPO, Japan Patent Office and Rospatent.

In particular, 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's spacenet Internet resource and to fulfill Ukrpatent's obligations under the relevant Agreements on access of Ukrpatent to the EPO EPOQUE Net search system, in the reporting year Ukrpatent uploaded under the defined procedure the national patent documentation from the National CD-ROM "Inventions in Ukraine" Nos. 22-24 for 2016 and Nos. 1-23 for 2017, to the FTP-server. Each uploading is accompanied by sending an appropriate message to the specified addresses at the EPO.

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

In 2017, the representatives of the Ministry of Economic Development and Trade of Ukraine and Ukrpatent took part in the events of WIPO, the EPO and foreign patent offices, in particular in the sessions and meetings of the WIPO Committees and Working Groups. These included: the 24<sup>th</sup> meeting of the ISA and IPEA Quality Subgroup under Patent Cooperation Treaty (PCT/MIA); the fourth International Patent Classification (IPC) workshop and the meeting of the 49<sup>th</sup> session of the Committee of Experts of the IPC Union; the 5<sup>th</sup> session of the Committee on WIPO Standards; the EPO Patent Information Conference; seminar of the State Intellectual Property Office of China (SIPO) on patent examination matters for the countries of the Belt and Road Initiative.

In the framework of international cooperation Ukrpatent experts participated (*online*) in the work of the CWS Task Forces on carrying out the following tasks:

- revision and preparation of revised editions of new WIPO Standards ST.26, ST.27 and ST.37;
- preparation of recommendations on providing the changeover from WIPO Standard ST. 25 to WIPO Standard ST.26;
- ensuring the necessary support and updating of researches which are published in Part 7 of the WIPO Handbook on Industrial Property Information and Documentation, as well as the preparation of recommendations on the systems of provision of public access to patent information by industrial property offices.

Cooperation with the EPO on data exchange aimed at providing representation of the Ukrainian patent documentation in the EPO's spacenet Internet resource was continued.

#### **Assistance to developing countries**

#### **Other activities**

## **VII. OTHER RELATED MATTERS**

One of the priority objectives of the examination body is to ensure the 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).

The new Certificate 321012076/1 concerning QMS, received by Ukrpatent under the established procedure, is valid from November 19, 2015 to September 14, 2018.

In September 2017, an independent certification organization carried out the supervisory audit of the QMS compliance with ISO 9001:2008 requirements. Based on the results of the audit the QMS corresponds with the ISO 9001:2008 standard requirements.

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.