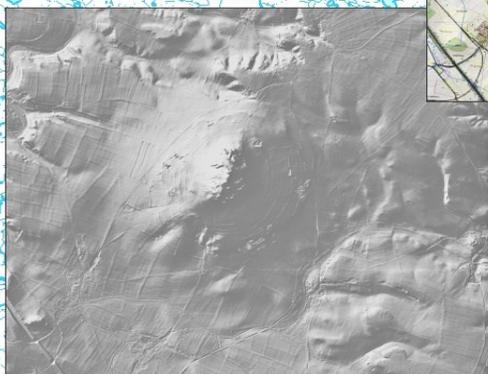
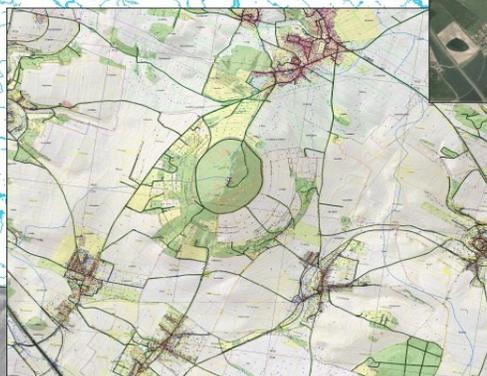
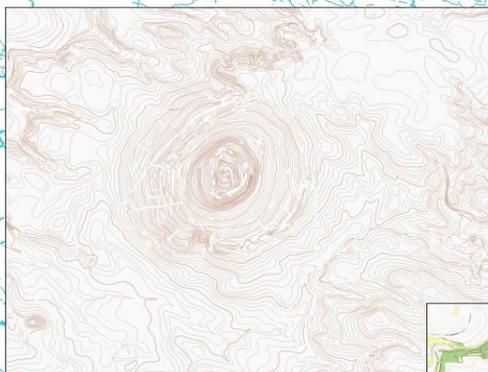


ANNUAL REPORT

2014



Český úřad zeměměřický a katastrální

**Annual Report
Of the Czech Office for Surveying, Mapping and Cadastre
For 2014**

Prague, 2015

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INTRODUCTION

State administrative bodies of the cadastre of real estate managed by the Czech Office for Surveying, Mapping and Cadastre (ČÚZK) provide state administration of the cadastre of real estate in the Czech Republic and ensure performance of surveying activities in the public interest given by the law.

In 2014 fundamental change of legal regulations of the cadastre of real estate occurred as a result of new Civil Code having come into force. The definition of the subject of the registration has changed in coincidence with renewal of the principle that a building is a part of a parcel even in coincidence with newly introduced right of building. The number of registered types of material rights increased to 20 as well as the number of notice types increased rapidly. The principle of material publicity in the civil law enforced significant change of the procedure regarding the registration of rights. It is no longer possible to realize some of registrations of rights out of the regime of administration procedure without communication with owners of real estate which is affected by the change of registered or deleted rights. Hundreds of thousands submissions were therefore moved yearly to the regime of administration procedure regarding the entry permission. That is why cadastral branch offices received 53 % more proposals for entry of owners' and other rights to real estates than in 2013, in total 1 022 590 proposals. Cadastral branch offices in the Czech Republic were carrying out the registrations of rights in 2014 in 28 days from the submission of the application on average. Prolongation of the time necessary for registration from 11 days in 2013 to 28 days in 2014 has been a direct consequence of the new legal rules, containing a 20-day period during which the entry cannot be permitted as a measure for improving the security of real estate business. The number of completed registrations or deletions based on record and notation reached nearly 605 356. Decrease in the number of these registrations is in direct consequence with move of all material rights to the entry proceedings. The number of requests regarding the verification of the survey sketches decreased about 16 % for 115 815 in comparison to 2013. Data provision was realized mainly by the electronic way using the remote access to the cadastre of real estate. At counters of cadastral offices the number of requests decreased by 11 % in comparison to 2013. In total 8 708 thousands requests for information were performed, representing yearly increase 5.4 %. Even in 2014 the requests for data provision for purposes of property settlement with the church and other religious associations were performed smoothly, cadastral offices satisfied more than 7 thousand requests for documents from the Land book and set of documents of the cadastre of real estate. Digitization of cadastral maps went on continuously in 2014. The number of cadastral units with digitized cadastral maps for disposal increased yearly on 910 and so the digital form of the cadastral map was available in 85 % of all cadastral units by 31. 12. 2014.

State administration of land surveying and cadastre of real estate is responsible beside the cadastre for important land surveying products and services which co-create the national geoinformation infrastructure necessary for task fulfilment of the state and local administration. In 2014 operation and modernization of the Czech network of GNSS permanent stations (CZEPOS) was ensured providing services for fast and precise positioning at the whole territory of the state with cm accuracy thanks to permanent reception of signals from satellites of global navigation system. The care for classic ground and gravimetric control points was realized as well together with all planned land surveying works on the state borders. Both continuous and periodical update of the Fundamental base of geographical data (ZABAGED®) went on being provided both to the public administration and commercial use and serving also as a data source for state map series. In cooperation with the Ministry of Agriculture and Ministry of Defence the acquisition of new terrain model of the Czech Republic with help of airborne laser scanning was completed, which should serve not only for the state map series and geographical databases included the military ones but is fully usable for planning of anti-flood measures, for preparation

of transport and other important constructions as well. Most products are being provided via remote access from Geoportal ČÚZK.

More information on results of work of land surveying and cadastral offices in 2014 brings this annual detailed report.

1. Surveying, Mapping and Cadastre Sector in the Czech Republic

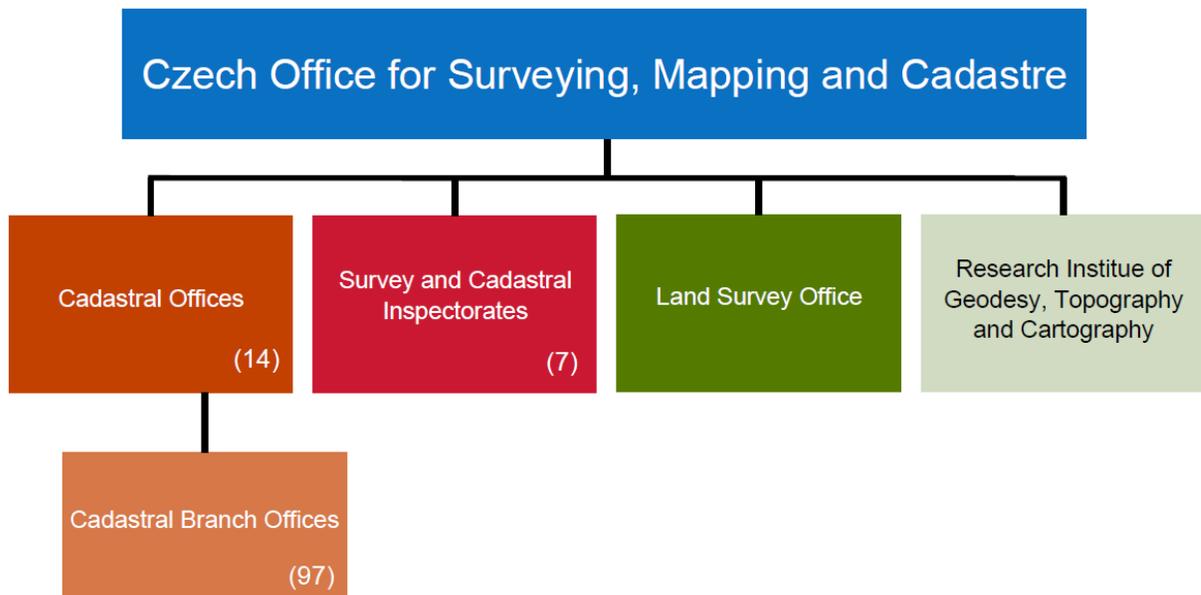
The cadastre of real estate of the Czech Republic is a set of data about real estate in the Czech Republic, including their inventory and description and their geometric specification and position. Parts of it are records of property and other material rights and other legally stipulated rights to real estate.

State administration of land surveying ensures chosen land surveying products and connecting services from the whole territory of the state as stipulated by the Act No. 359/1992 Coll., on land surveying and cadastral bodies and by the Act No. 200/1994 Coll., on land surveying.

ČÚZK governs 14 regional cadastral offices, which have 97 cadastral branch offices in larger towns and execute state administration of the cadastre of real estate, it further manages 7 survey and cadastral inspectorates that control cadastral offices and supervise some commercial activities, whose results are applied to the cadastre of real estate and state documentation funds, and finally the Land Survey Office (ZÚ), which focuses on other land survey activities that are provided in the public interest. ČÚZK is also the founder of the Research Institute of Geodesy, Topography and Cartography, p.r.i (VÚGTK, v.v.i.).

Administration authorities in the branch of land surveying and cadastre have been set up by the Act No. 359/1992 Coll., on land surveying and cadastral bodies, which also specifies their subject-matter and territorial competence.

Organizational Structure of the Branch of Land Surveying and Cadastre



2. Administration of the Cadastre of Real Estate

Current Czech cadastre of real estate was established in 1993 and integrates the function of Land Registry Book (registration of rights) and former Cadastre of Lands (records of real estate) into one tool. On 1.1.2014 the Act Nr. 256/2013 Coll., on the Cadastre of Real Estate (Cadastral Act) came into force, having replaced not only the Cadastral Act Nr. 344/1992 Coll., but also the Act Nr. 265/1992 Coll., on Registration of Rights into the Cadastre of Real Estate. Both issues - cadastre of real estate and registration of rights to the cadastre of real estate - are now regulated in one Act.

Cadastre of real estate in the Czech Republic is administered with help of the information system. The Information system of the cadastre of real estate - ISKN - is an integrated information support system for state administration of the cadastre of real estate and for providing user services of the cadastre.

Since 2012 ISKN has been interconnected to the Information system of territorial identification – ISÚI – together representing the key agenda information systems serving for editing of the Registry of territorial identification, addresses and real estate – RÚIAN, which is one of the four basic registries of state administration. Launch of the system of basic registries has brought tangible results into the administration of cadastre of real estate particularly in the area of checking up data on physical and legal persons compared to the registries of inhabitants and persons so as in the possibility of taking over the data changes from these registries (changes of addresses, surnames etc.).

With force from 1.1. 2014 the private law was recodified, new Civil Code came into force, and number of regulations were cancelled and replaced by new ones. Follow-up the new Civil Code even the new Cadastral Act had to take into account many new provisions regarding real estates. The principal change is the brand new definition of the term “real estate” and application of the principle “superficies solo cedit”, according to which the building is a part of the parcel. The new Civil Code also introduced many other material rights not existing yet, which have to be registered into the cadastre of real estate from 1.1.2014. As from the same day the implementing rules of the Cadastral Act came into force, i.e. Decree Nr. 357/2014 Coll., on the Cadastre of Real Estate (Cadastral Decree), the Decree Nr.358/2013 Coll., on Information Provision from the Real estate and the Decree Nr.359/2013 Coll., on Specimen Form Specification for Submission of the Proposal for Institution of Proceeding on Entry Permission.

2.1. Main Tasks of Cadastral Offices and Their Statistics

The main task of cadastral offices is recording of proprietary and other rights to real estate and other data by means of entry or registration and record of notations and other data. Contractual transactions or setting up of material rights to real estate have been completed by the constitutional entry of right into the cadastre of real estate till the end of 2013, whilst the records or deletions of material rights arising or extinct by the decision of the public authority organ, by law a. o. were performed in a simpler procedural way, by means of so called registration. Similar procedure was used for record of some other data, in particular for record of notations, which should inform the users of cadastral data on important facts regarding the real estate. Recodification of the civil law and connecting cadastral legislation has brought significant changes to this part of cadastral offices’ agenda since 2014.

Entries of Proprietary Rights into the Cadastre of Real Estate

Property rights to real estate (right of ownership, right of lien, right of easement, pre-emptive right with material effect) and other rights stipulated by the cadastral act were registered by entry till 31.12.2013. In administrative proceedings the cadastral office assessed deeds and

other documents, decided on permitting entry and, based on these decisions, registered the rights into the cadastre of real estate. Property right to real estate was created by registering into the cadastre of real estate with legal effect on the date of application for entry.

In accordance with the renewal of the principle of material publicity in the new Civil Code the procedure regarding registration of rights had to be changed with effect from 1.1.2014. The entry has not only solely constitutional nature, but is used for registration of all changes of material rights, rights agreed as material so as lease and tenure. The number of these rights has been significantly enlarged in the new Civil Code and includes at present ownership right, right of building, easement, right of lien, future right of lien, right of sub-mortgage, pre-emptive right, future possibility of using the property after its transfer (type of easement), supplementary co-ownership, administration of trust fund, reservation of ownership right, reservation of the right to purchase back, reservation of the right of back sale, prohibition of alienation or encumbrance, reservation of the right of better purchaser, trial purchase arrangement, lease (based on the request of the owner or leaseholder with the approval of the owner), tenure (based on the request of the owner or the tenant with the approval of the owner) and surrender the right for damage compensation on the estate. Further the distribution of right to real estate into single ownership rights to units is registered by entry.

Procedural routine regarding the entry proceeding had to be rapidly changed. Entry proceeding can be opened not only based on the proposal of the participant of the proceeding, but also after delivery of the decision or confirmation of right to the particular cadastral office from the court or court distrainer that has to be registered into the cadastre. Participants of such proceedings are not burden with the obligation to submit the proposal for entry and pay the administration fee, but this procedure causes many problems within registration and deletion of distrainer's right of lien. It is therefore not clear from distrainer's documents which type of registration has to be performed and so many entries of this kind end by refusal of the proposal or by discontinuation of the proceeding causing so inexpedient spending of state funds.

Cadastral offices are burden with another informational obligation except for procedure after opening the proceeding in accordance with the administrative rules. It is their obligation to inform the owner of the property or another authorized person - not later than the day following after labelling that the right is touched by the change – about this fact and following 20 days the entry shall not be permitted. This measure is result of deputies' and senators' effort to increase the security of the real estate transactions. It is too early to evaluate its efficiency, but the cost connected with its implementation reached in the first year nearly 100 million CZK.

Further changes in entry proceeding such as submission of one original document only or different examination of entry documents depending on its type (being either private or public) proved to be successful. Participants of the proceeding are step by step getting used to sending the outputs depicting the performed change in the cadastre instead of getting counterparts of agreements containing the entry clause. This change of routine brought some problems, especially in case of large changes that meant creation of multi-pages textual output depicting them (changes in large houses with many apartments, sales of real estate burden with many distraints etc.). Despite all these facts this change has been inevitable because of the 30-day period starting on the date of delivery of the output during which the participants of the proceeding can express their disagreement with the performed registration. That is why the information about performed entry has to depict the performed registration as it is in the cadastre unlike the agreement with the clause.

In 2014 the number of accepted proposals for entries of rights by cadastral offices was 1 022 590 which means increase of 53 % in comparison to 2013. Number of completed proposals for entry of proprietary right was 1 018 020, which means increase of 59 % in comparison to 2013. In the first half of 2014 the 30-day time for settlement of the entry performance has been

exceeded due to significant increase of number of submissions in the end of 2013 caused by the insufficient experience with new procedures. In the second half of the year this problem did not occur yet. The 30 day-time was exceeded only in cases containing some defects.

Registration of Rights to the Cadastre

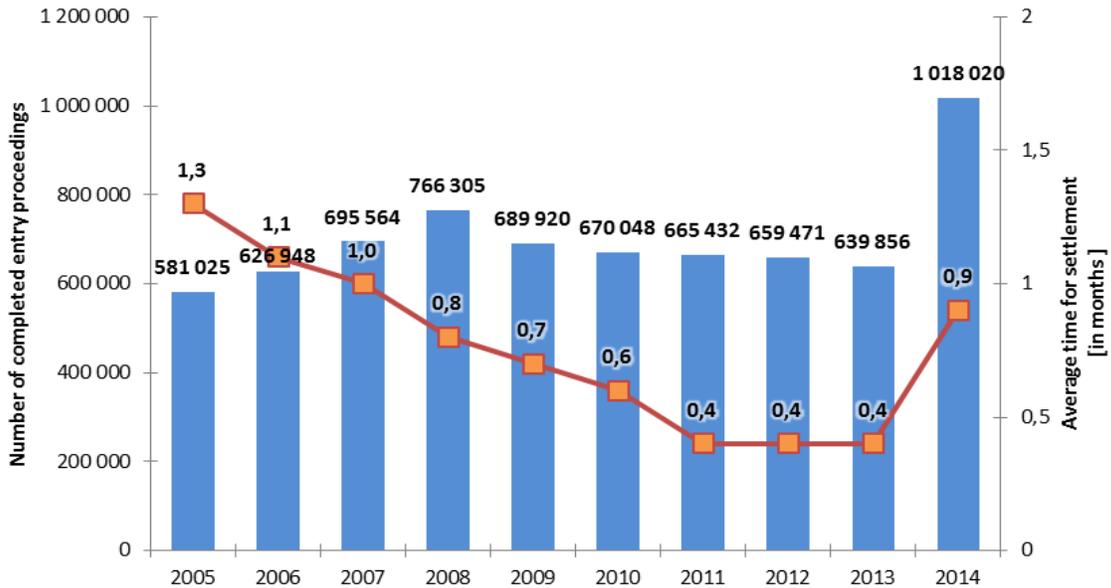


Fig 1: Development of the Total Number of Completed Entry Proceedings

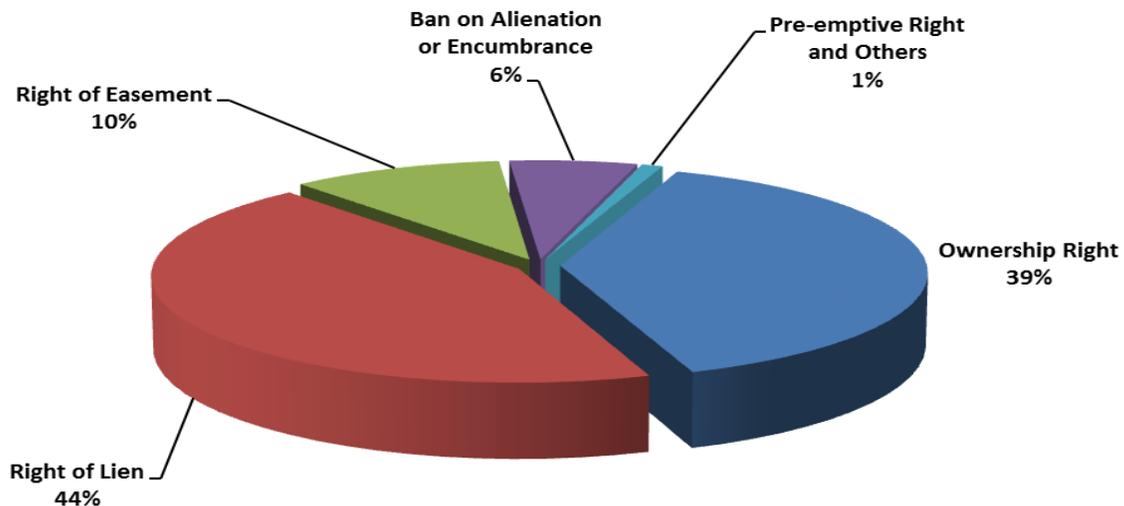


Fig 2: Share of Different Types of Rights Recorded by Entry into the Cadastre of Real Estate

From the total number of yearly requests for entry, 93 % entries of rights are approved, the rest of administrative proceedings are refused or interrupted. In 2014 both absolute and relative

number of refused entries increased rapidly, as you can see in Fig 3. This increase is in direct consequence to the registration of new rights. The share of incorrect entry proposals at yet registered rights, which have to be corrected during the proceeding, and which means its prolongation, is still high in the long term. The biggest number of defects regarding entry proposals concerned the distraints' rights of lien that are above that constituted together with issuing of executory sale order.

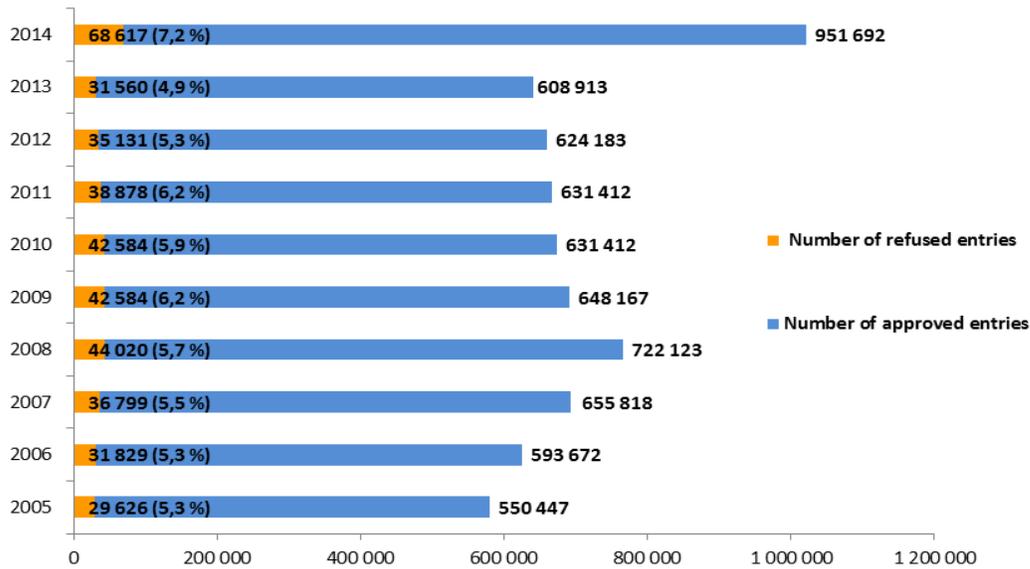


Fig 3: Development in the Number of Approved and Refused Entries

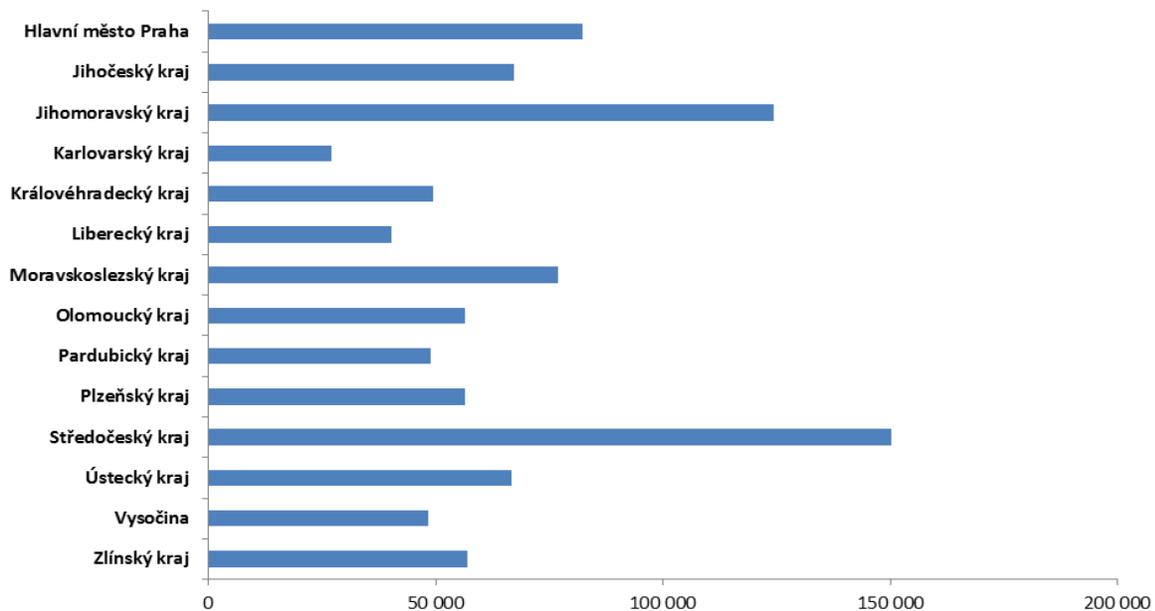


Fig 4: Number of Entries in Single Regions of the Czech Republic

Registration by Record and Note and Others

Cadastral offices performed also other registrations into the cadastre of real estate. In 2014 registering by record was not used for registration of any material rights, but it has been used solely for registration of rights derived from the proprietary right. Further types of registrations are the registrations by notes serving to denotation of legally stipulated facts or relations relating to the real estate or a person. Following data are recorded into the cadastre of real estate regarding e.g. change of land type, real estate protection etc.

Whilst 1 106 575 submissions for registration by record and by notation were delivered to cadastral offices in 2013 the number of these submissions decreased to 605 356 in 2014, which represents an annual decrease of nearly 45 %. This decrease was caused by above described process of registration of material rights that occurred in comparable increase in the number of entry submissions. The number of completed submissions was 642 156.

Other Records to the Cadastre

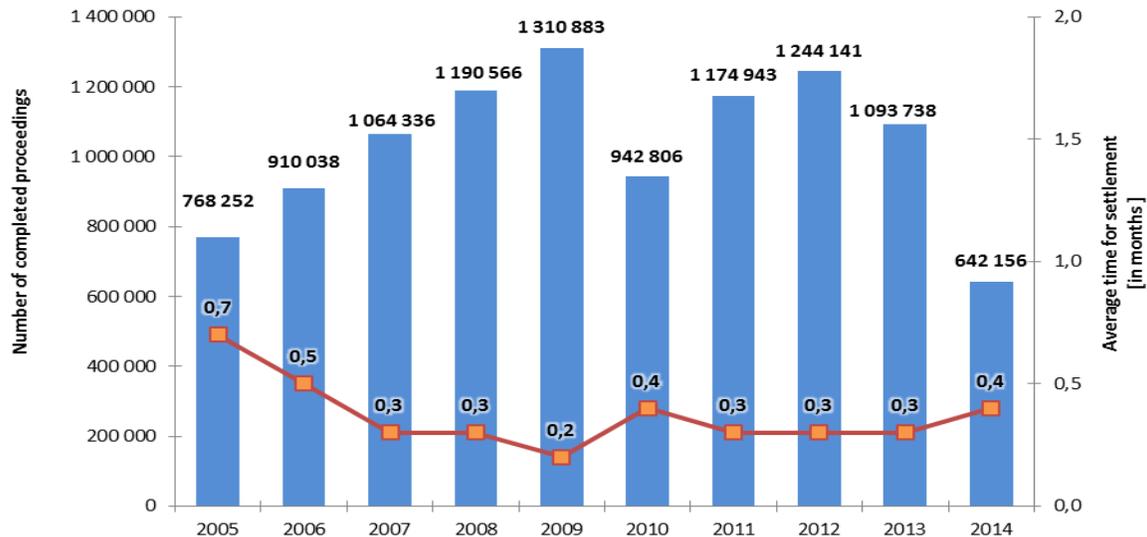


Fig 5: Number of Completed Submissions for Registration by Record and Notes.

Certification of Survey Sketches

Survey sketches represent land parcel division, position of a building or change of its external outline in the cadastre of real estate and some other changes depicted in cadastral maps. They are made solely by private geodetic companies. They create important part of documentation for maintaining of cadastral maps, thus every survey sketch must be certified by an authorised surveyor who is officially authorised to certify the results of surveying activities by the ČÚZK under Section 14 of Act No 200/1994 Coll. on Surveying and Mapping.

The number of survey sketches is still very high in the Czech Republic although it decreased mildly in 2014. The average time for checking and certification of survey sketches by the cadastral offices was 8 days in 2014. Its mild prolongation was caused by some ambiguities within application of the new legislation which has brought some changes even into the area of survey sketches.

Certified Survey Sketches

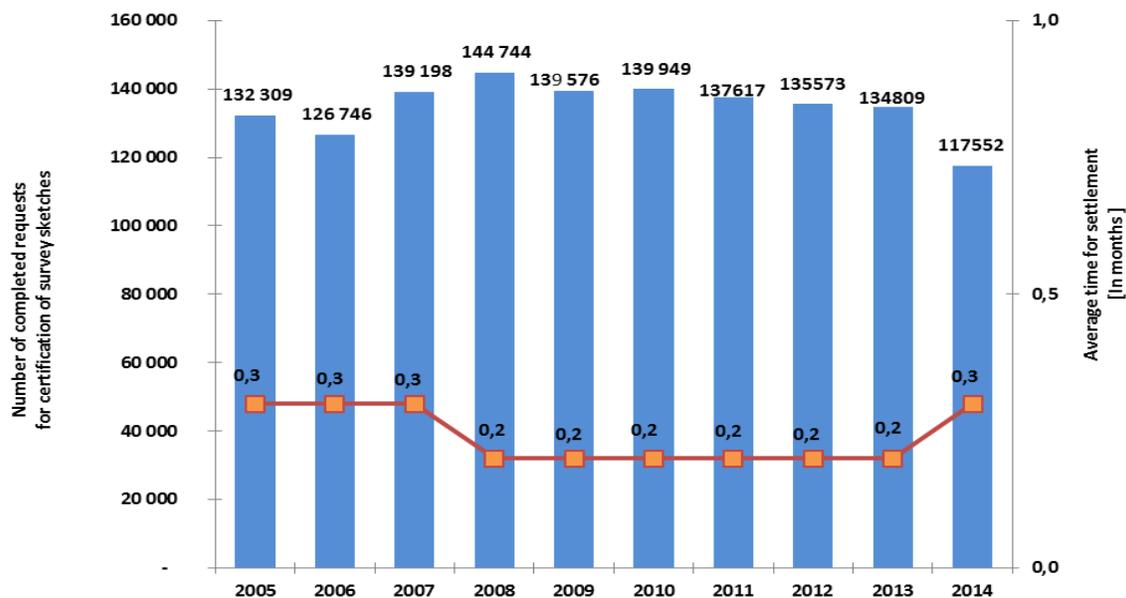


Fig 6: Development in the Number of Requests for Certification of Survey Sketches

Provision of Information from the Cadastre of Real Estate

Individual workplaces of cadastral offices provide clients with information from the cadastre over the counter during office hours. Outputs from the cadastre contain both technical data on real estate and data on legal relations. In addition, copies of cadastral maps, copies of documents stored in document funds, copies from historical registries (Land Registry Book, Cadastre of Lands) and some other outputs are provided. Since 2001 internet services have been available allowing outputs from the cadastre by remote access, without visiting the cadastral office. These services satisfy today most of continually growing demands for information from the cadastre of real estate.

The number of completed requests for information provision at the counters of cadastral offices decreased yearly on nearly 11 % in 2014, while the total increase of completed requests for information from the cadastre of real estate including remote access was about 5.4 %. Therefore in 2014 92.8 % of applicants for information from the cadastre of real estate were satisfied by electronic services. Big share on this high number of electronically provided services have permanently municipalities, regions and governmental bodies, because of free of charge remote access to the data from the cadastre of real estate. On contact points of public administration (Czech POINT) 376 thousand outputs from the cadastre of real estate were issued in 2014. Professional users, such as banks and real estate agencies have been more and more oriented towards acquiring information by means of remote access via internet services, and so the trend of continuous decrease of information provided at the desks of cadastral offices goes on. The electronic statements from the cadastre of real estate are since 2006 marked with an electronic mark and are considered as public documents. More in the chapter Electronic services of the cadastre of real estate – Remote access.

Information Provision from the Cadastre

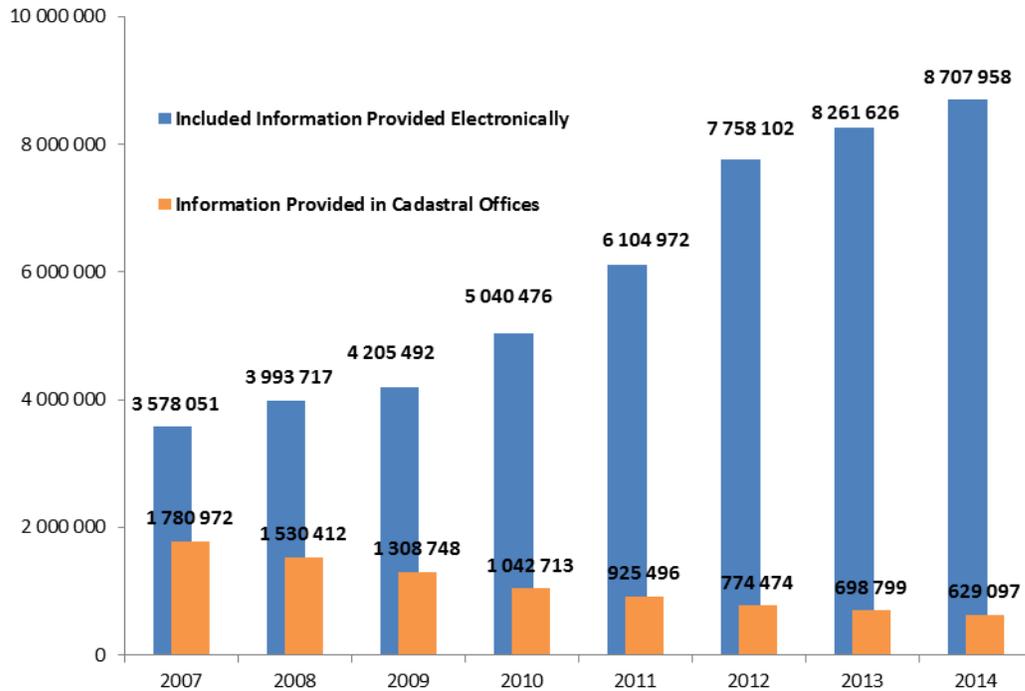


Fig 7: Development in the Number of Provided Information: over the Counter (number of requests), electronically (number of external outputs-reports)

2.2. Digitization of the Cadastre of Real Estate

Digitization of the real estate registry is a vital step for effective operation and administration of the cadastre of real estate and for operative satisfaction of the users of the cadastral information. Cadastral maps in digital form are fundamental databases for administration and decision-making about the area. They serve not only for overview on the territorial range of material rights, but they are important as a reference basis for creation of further maps, information systems and applications relating to the territory as f.i. digital technical maps, spatial plans, price maps etc.

Digitization of the file of descriptive information of the cadastre of real estate was realized in years 1993 – 1998, having created basic conditions for the transition to a higher version of the information system equipped with remote access to data in the central database of the cadastre.

Digitization of cadastral maps started in connection with the completion of digitization of descriptive information of the cadastre. The capacities that cadastral offices could give to map digitization were very limited in view of the growth of volume of other activities. Therefore only 2 to 3 % of the total cadastral territories in the Czech Republic were transformed into digital form yearly by the end of 2008.

Development of Digitization of the File of Geodetic Information of the Cadastre (FGI):2003-2014												
Rok	till 2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Digitization Completed	3424	383	314	279	263	313	763	1 106	1 094	1 127	1 074	910
Total in Digital Form	3424	3 807	4 121	4 400	4 663	4 976	5 739	6 845	7 939	9 064	10166	11 121
Yearly Growth from the Total of 13 027 c.u.(%)		2,9	2,4	2,1	2,0	2,4	5,9	8,5	8,5	8,7	8,4	7,0
% from the Total Number	26	29	32	34	36	38	44	52,5	61	69,6	77,9	84,9

In 2009 the reversal occurred thanks to the provisions for acceleration of the digitization, accepted by the government in 2007. That is why the number of cadastre units covered by the digital form of map exceeded 8 % of the territory yearly in previous years. In 2014 the increase of the number of cadastre units covered by the digitized cadastral map reached 7.0 % from the total number of them because some employees had to be moved to help with registration of rights and other data under new legislation.

Results of Digitization in 2014

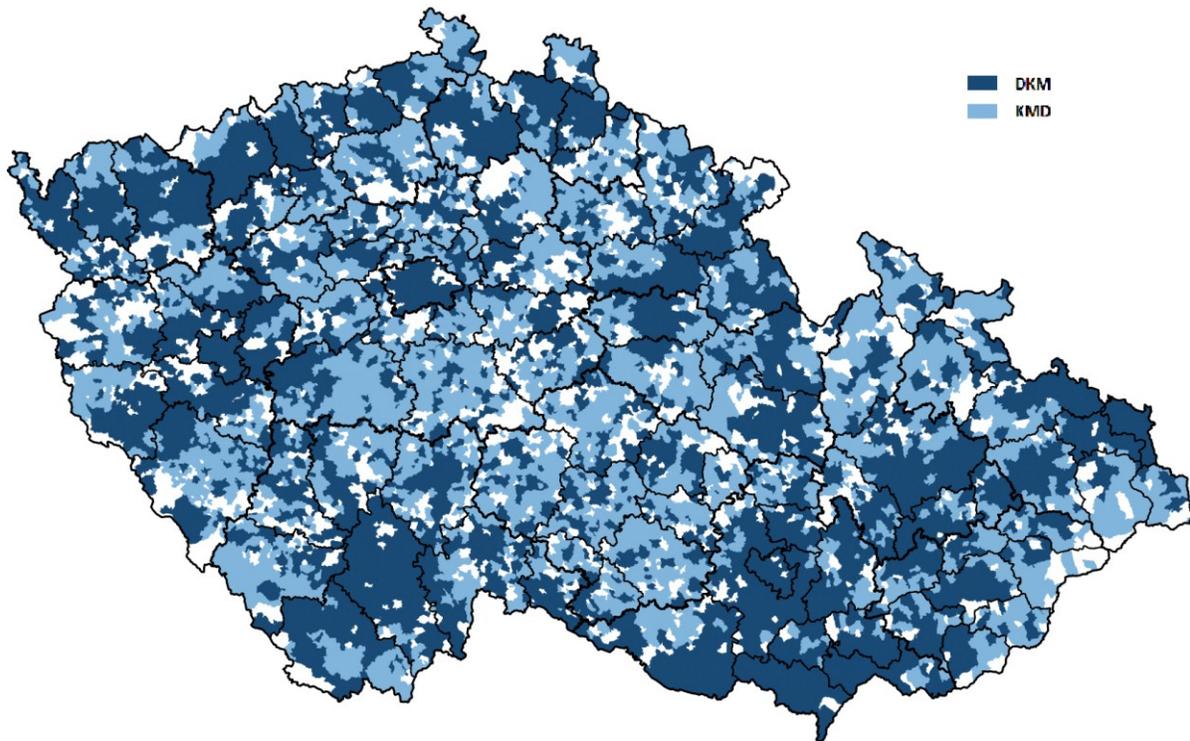
Cadastral office have started the year 2014 with the goal of increasing the number of cadastral units with cadastral map in digital form by 898. The given task was mildly higher and the number of cadastral units increased by 910. Digitization of cadastral maps did use 201 results of land consolidation. Positively can be evaluated also the contribution of public tenders to chosen activities during digitization, covering part of the capacities needed for the field surveying.

In 2013 revision of cadastral documentation was completed based on the results of land consolidation and based on new mapping (particularly in the territories out of the realized land consolidation) in 250 cadastral units. Renewal of the cadastral documentation by adaptation of the set of geodetic information in the S-JTSK (System of Unified Czech /Slovak Trigonometric Cadastral Net) coordinate system to DCM was realized in another 103 cadastre units. Renewal by adaptation of maps originating from the system of Stable cadastre to the digital form (CMD) was completed in 766 cadastral units. By the end of 2014 the cadastral map was in digital form in 11 121 cadastral units, which means 84.9 % from the total number in the CR by the end of 2014 (13 099 cadastral units – 45 newly established cadastral units in connection with prepared optimization of military estate). The total increase in the number of cadastral units with digital form was therefore 955 in 2014 in comparison to the end of 2013. The fulfilment of the tasks of digitization of cadastral maps was running in 2014 in accordance with the long-term frame schedule and was successful.

Plan of Digitization of Cadastral Maps in Further Years

Year	1997-2014	2015	2016	2017
Proposal of the number of cadastre units for map digitization		842	760	376
Total number of cadastre units with cadastral map in digital form	11 121	11 963	12 723	13 099
Yearly growth in % out of total number		6,4	5,8	2,7
% out of total number	84,9	91,3	97,3	100

In 2015 the digitization plan for 2016 and 2017 will have been completed with the goal of move from digitization towards new mapping in selected cadastral units with the worst quality of cadastral maps or with unfinished land consolidation. It is undesirable to carry out the digitization of those cadastral units where the map should be replaced in a short time by a new map, whether it was the result of land consolidation or new mapping due to the very low quality of the original map. Such a procedure could not be considered economical and could provoke negative reactions by property owners.



State of Digitization of Cadastral Maps on 31. 12. 2014

3. Electronic Services of the Cadastre of Real Estate

Some eServices have been launched in the area of the cadastre of real estate, which enable to get a wide range of information from the cadastre for our customers. There are both free of charge services enabling to get some chosen data without any restrictions, as well as paid services providing verified documents serving as public documents, that is from the whole territory of the Czech Republic. Except for this, some other applications are for disposal facilitating the access to cadastral data and communication of inhabitants with cadastral offices.

From 2013 there is a legal obligation to submit the entry proposal on the form. The objective of this measure is to reduce errors that still occurred in the proposals for entry of right and get clearly formulated requirements for what should be registered into the cadastre of real estate according to the attached documents. In order to facilitate completing the form to the applicants a web application was launched enabling creation of the entry proposal in an interactive way. This application is interconnected to the cadastral database and draws some data from it. It leads the user through the entire process, and contains also some pre-prepared simplified scenarios for the most common situations. The application is very popular; in 2014 more than 629 thousands entry proposals were created via it. Since January 2014 it is possible not only to

complete the entry proposal in electronic form but also to perform the registration into the cadastre of real estate on the basis of documents in electronic form. If the document is drawn up in electronic form, it must be provided with a qualified time stamp as well.

3.1. Remote Access to the Cadastre of Real Estate

<http://katastr.cuzk.cz/>

Remote access (DP) enables to get the data from the cadastre of real estate from the whole territory of the Czech Republic via internet. Outputs from the cadastre of real estate, such as extract from the cadastre of real estate and other compositions provided in this way, are formally and materially identical to the documents issued with the same timestamp by the cadastral office and are considered public documents.

The application enables provision of outputs not only based on input of basic parameters but it also supports the visual search based on digital cadastral map or on raster picture of cadastral map in areas, which have not been digitized yet, so as with help of orthophotomaps and topographic maps as navigation tools.

DP outputs are charged, but numerous groups of users from public and local administrations receive the information from the cadastre of real estate in this way free of charge. DP has been in operation since 2001 and since that the number of customers actively using it has been constantly growing. The yearly increase of users was 9 %. The number of accounts for users was 22 911 by 31.12.2014, 5 547 out of which were free of charge and 6 356 accounts were for verifiers, particularly in the frame of CzechPOINT project.

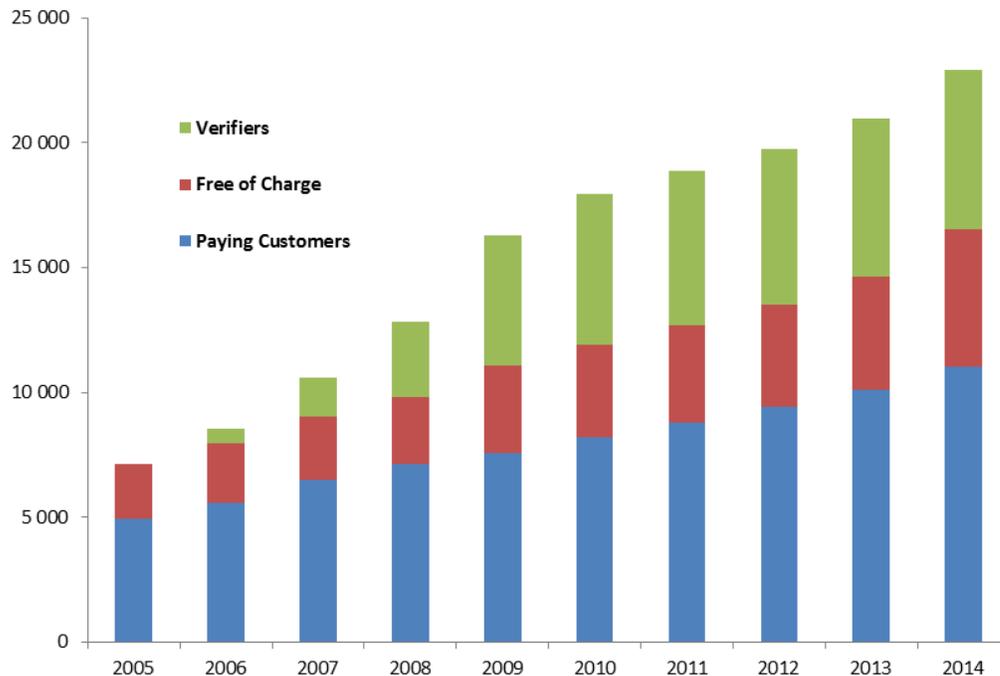


Fig 8: Development of the number of users as for the type of account

In the frame of CzechPOINT project it is possible to acquire the verified extract from the cadastre of real estate, from the trade and commercial



registries and from criminal record. The verified extracts from the cadastre of real estate create in the long term approximately one quarter of all CzechPOINT outputs. In 2014 it was more than 376 thousand outputs. At present it is possible to issue the extract from the cadastre of real estate at CzechPOINTs.

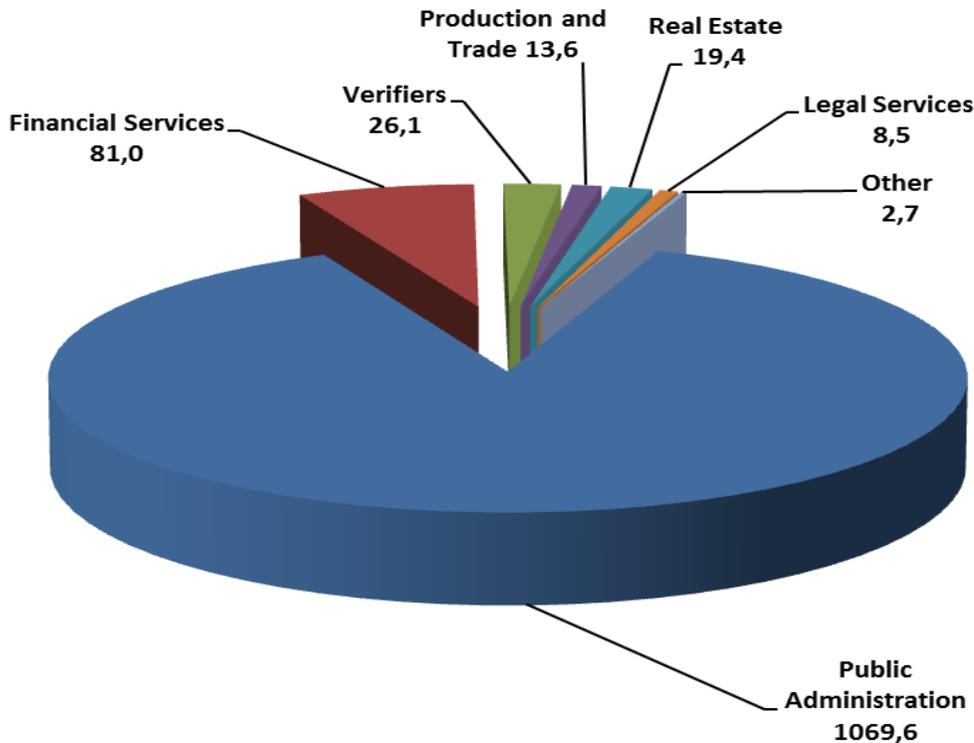


Fig 9: The biggest DP users – as for the data value in million CZ

The number of DP users has been growing constantly, so as the income for data provision via DP service even if 88 % of data are provided free of charge to the public administration. DP is provided free of charge not only to municipalities and regions for performing of their competency but also to governmental bodies, notaries and distrainers. Despite it the income from charged customers reached 149.5 million CZK in total. The biggest charged user of DP service is the bank sector, which uses it for acquiring of necessary documentation for mortgage provision.

3.2. Viewing the Cadastre of Real Estate

<http://nahlizenidokn.cuzk.cz/>

Probably the best-known eGovernment service, operated in the ČÚZK branch, is Viewing the cadastre. This internet service allows provision of selected technical data and data concerning ownership of parcels, buildings and flats. By means of viewing it is possible to find information on the state of proceedings from the moment of submission to the cadastral office for the purposes of registering property and other rights to real estate or other data recorded in the cadastre of real estate of the Czech Republic. The viewing application is very intensively used by a wide range of users and has contributed in a significant way to increasing the transparency of the course of individual administrative proceedings.

The major changes made in 2014 include integration with web applications Entry proposal to the cadastre of real estate, integration with RÚIAN for searching of buildings by addresses, and adjustment of depicted information in different types of proceedings for better user orientation in

the process during the proceedings. During 2014 the application Viewing the cadastre was enriched by the service enabling the users, who are not clients of Remote Access, to obtain individual outputs from the cadastre and pay for them through the payment portal. Extracts from the cadastre of real estate are provided with an electronic mark based on a qualified certificate having so the nature of public documents. Since launching the service in September 2014 to the end of 2014 in total 7 500 orders were solved in this way.

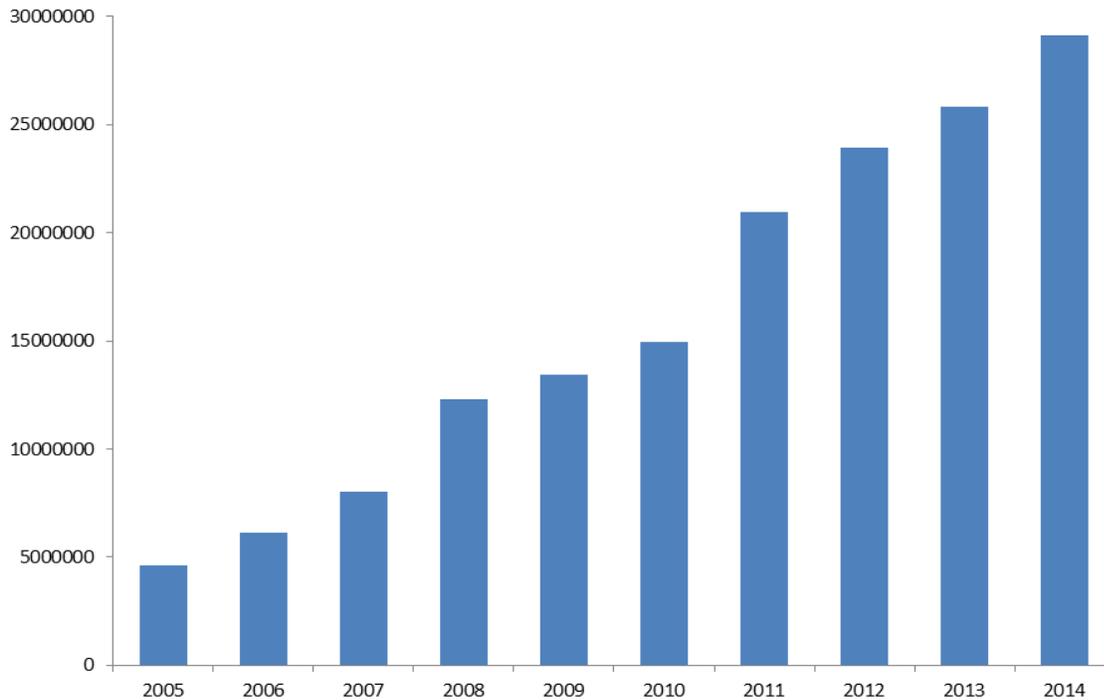


Fig 10: Development of the number of accesses via Viewing the cadastre

Viewing the cadastre is one of the most visited websites of Czech state administration. In the nine years of its existence the application has achieved a constant growth in the number of users; in 2014 it had nearly 30 million visits. Yearly growth in the number of visits reached 8 %. In localities not covered by the digital cadastral map, the raster pictures of cadastral maps are for disposal, which are regularly updated with depiction of changes based on survey sketches solving for better orientation. That is the way the users have access to currently updated complex information from the cadastre of real estate directly from their worktable.

Viewing for Property Settlement with the Church

<http://cirkevni-restituce.cuzk.cz/>

In December 2012 the sub application of the Viewing of the cadastre has been put into operation for support of the process of the property settlement with the church and other religious associations. It is possible to find there not only historical and current cadastral maps together with information on owners of existing parcels and buildings, but also some information from land books necessary for proper formulation of appeals for property delivery and its checking, such as name lists or names and numbers of some chosen parts of land books, electronic form of copies from land book already issued and sets of documents for church restitutions, comparative sets from the renewal of the cadastral documentation and some other documents.

This application has been intensively used in 2014 by obligatory persons for inspection of delivered appeals.

Web Map Services for Cadastral Maps

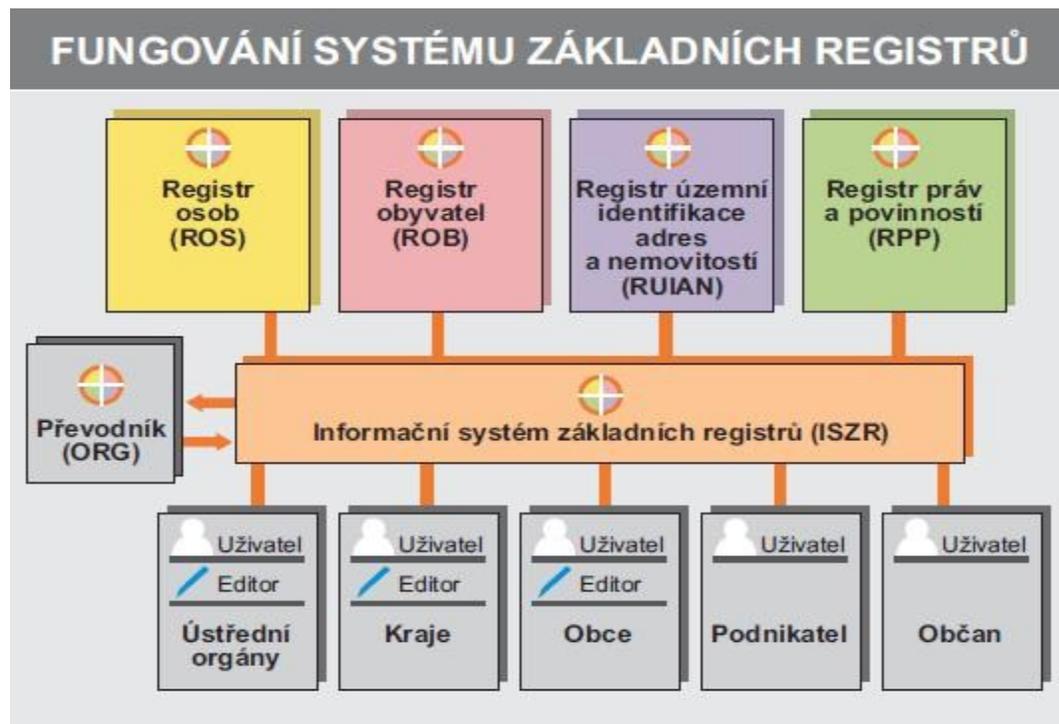
<http://wms.cuzk.cz>

Web map services for cadastral maps enable further possibility of work with cadastral maps; the user can combine the cadastral maps layer in his computer with other datasets. In that way he gets access to brand updated data via internet and has to take care neither about the storage of map copies in his data storage nor about their updating. This service is also free of charge. Yearly growth in the volume of provided data is 20 %.

4. Registry of Territorial Identification, Addresses and Real Estate (RÚIAN)

<http://www.ruian.cz>

RÚIAN is one of the four basic registries being created in the frame of the national eGovernment conception. Basic registers contain data on people (ROB-Registry of Inhabitants), companies (ROS-Business Registry), real estate (RÚIAN) and on rights and obligations (RPP-Registry of Rights and Obligations). The basic registries of the state administration were put into operation on 1.7.2012 and so the year 2014 was the second year of their full year operation.



Information System of Basic Registries – main scheme (more on <http://www.szrcr.cz/>)

Even 2014 proved that interconnection of basic registries of public administration and their connection to other information systems really ensure homogeneous basic data on natural and legal persons, addresses and territorial identification for all public administration official agendas. After launch of basic registries on 1.7.2012 in accordance with the Act Nr.111/2009 Coll., on Basic Registries, these data are acquired from one source which saves financial resources and time. At present brings the system of basic registries savings particularly to the public administration itself, because there are no many follow-up systems connected to basic registries providing further useful services for public and so the basic registries potential is still waiting for its wider use.

RÚIAN is the main source of reference and localization data on territorial items and territorial registered units included parcels, buildings and addresses. The branch ČÚZK was assigned the task of administration of RÚIAN based on the Act on the basic registries.

RÚIAN project, officially completed only on 31.12.2013, was in 2014 in the first year of so called phase of sustainability that has to last for 5 years at least to meet the conditions for drawing subsidies from EU funds.

The content of RÚIAN at 31.12.2014 for chosen items was following:

Subject	Number
Municipality	6 253
Part of municipality	15 071
Cadastral unit	13 099
Building object	4 075 632
Building object with the orientation/registry number	2 827 655
Address point	2 898 412
Parcel	21 609 219
Street	81 115

In the frame of the so called cleaning process of basic registries data single users point out the errors and discrepancies in registries and database is being updated. ČÚZK generates the datasets which are reviewed by the editors (especially from municipalities and construction offices) in accordance with the stated procedures and methodology some times during the year. All construction offices and many municipalities participated step-by-step in this work in 2014. ČÚZK provides them methodical help in this area continuously.

The most important impact on RÚIAN improvement in 2014 was implementing of electoral districts as the special-purpose territorial elements in the end of 2013. In fact the first half of 2014 was under the intensive effort of municipalities to put the data in the basic registry RÚIAN into correct state, because the improper data about addresses in RÚIAN resulted into mistakes in the list of electors. Due to interconnection of registers those citizens living on incorrectly registered addresses in RÚIAN did not occur in the electors list that is generated from the registry of inhabitants (ROB). Especially the definition points of address places were added, because the address place without localization cannot be assigned to the electoral district. The year 2014 was definitely the year in which the vast majority of municipalities and other public administration bodies recognized the importance and coherence of the whole system of basic registries.

With regard to significantly limited budget for project development only minor changes were implemented in 2014 leading for example to improvement of the claims resolutions. The option demanded by users has been implemented enabling to display multiple elements' layers simultaneously in the application Public remote access (VDP). In 2014 upcoming transfer of the users' administration system ISÚI from the system ePUSA to the Uniform identity space (JIP) under the responsibility of the Ministry of Interior was also realized.

A major on-going challenge of the year 2014 was the start of systematic performance inspections of the editors' delegated competencies regarding data recording into RÚIAN. In cooperation with the department of supervision and control of the Ministry of Interior the performance of activities of local governments have been included into the government document regarding inspection of delegated state administration and developed methodological documentation. At the end of the year first inspection took place at the Regional Office for the Region Karlovy Vary followed by a methodical day for all regional offices and RÚIAN methodists. The inspection and supervision department of the ČÚZK closely cooperates on inspections in the area. The inspection plan is now set so that in three-year cycle each regional office will be reviewed. We expect increasing of the quality of RÚIAN data management in the area based on this measure.

Public Remote Access to RÚIAN Data

<http://vdp.cuzk.cz>

The new service Public remote access to RÚIAN data (VDP) and data provision in the exchange format (VFR) has been launched on 1.7.2012. It enables to acquire and view RÚIAN data and some data from editing agenda information systems (ISÚI, ISKN). The application is open and free of charge. All data are provided in the electronic form. Only data, which are not determined for creation of the territorial analytical documentation and which are provided on portable data devices based on special request, are charged.

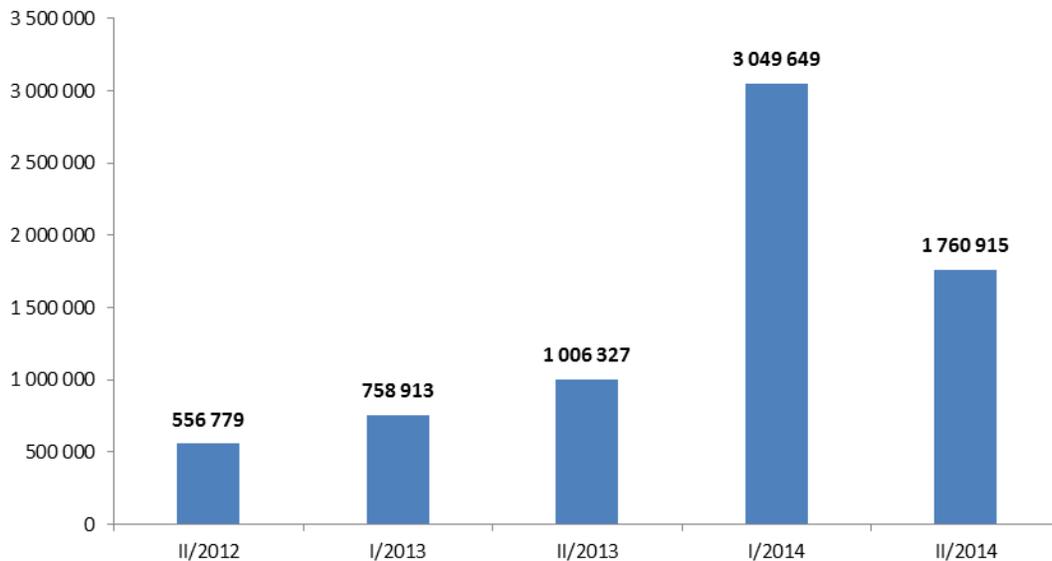


Fig 11: Number of accesses from launch in the 2nd half of 2012

5. Land Surveying Activities in the Public Interest

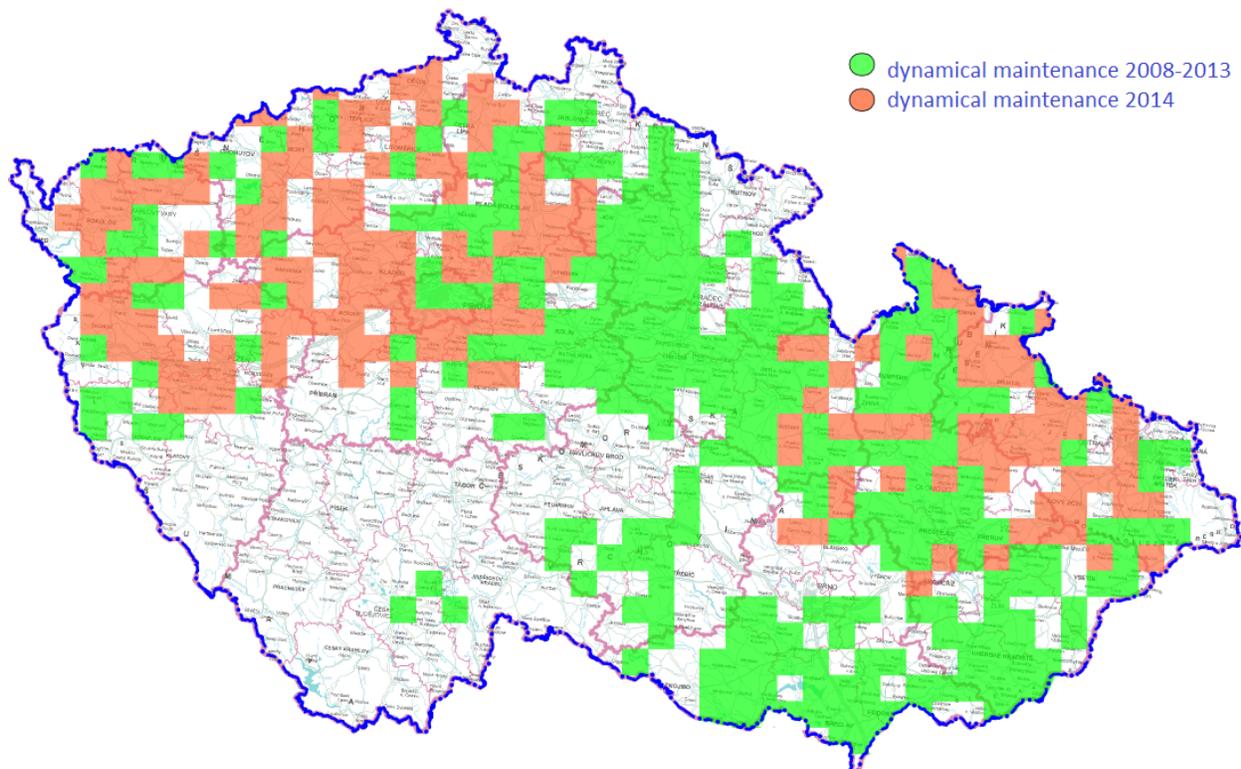
Main task of the state land surveying service is administration of national geodetic control and creating basic standardized geographic datasets and map products particularly for support of activities of the state and local administration of the Czech Republic. To fulfil this task in the ČÚZK branch is in responsibility of the Land Survey Office (ZÚ).

5.1. Geodetic Control

Geodetic control is a set of theories, equipment, technologies and services enabling spatial and time assignment and documentation of geographical objects and features in binding reference systems with defined accuracy. Basic frame for the geodetic control of the Czech Republic are fundamental geodetic control points (ZBP) being divided into horizontal, vertical and gravity geodetic control. Taking into account the development of technologies of global navigation satellite systems (GNSS) the fundamental geodetic control comprises also the points of the network of permanent stations GNSS CR (CZEPOS) that create the fundamental reference frame for horizontal and time assignment of geodetic surveying by means of satellite geodesy.

By the end of 2014 the database of geodetic control points included 73 281 centres of trigonometric and densification points and 34 246 associated points, further 1 313 levelling lines of the Czech state levelling network being in total 25 144 km long, 119 463 levelling points (82 613 out of them are fundamental vertical control points and 462 gravimetric points).

In the area of ZBP administration ZÚ focuses at present particularly on so called dynamic maintenance based on defects reporting on single ZBP points sent to ZÚ by private surveyors. In 2014 in total 571 trigonometric points were renewed in localities depicted in the following picture.



Dynamical maintenance of trigonometric points in past years

In the frame of fundamental vertical control, resp. levelling networks, the reconnaissance of the fundamental levelling network (ZNS) Ostrava was realized. Administration and development of the fundamental gravity geodetic control points (ZTBP) was ensured by completing the Uniform gravimetric network with the results of relative gravimetric surveying from 2013; further the maintenance of 159 gravimetric points was realized.

Using new technologies of satellite geodesy enables continuous accuracy improving of reference systems both at the national and global levels with emphasis on unified use of internationally defined reference systems. ZÚ as the administrator of geodetic control in the CR ensures both theoretical and practical activities, some supporting documents and data with the goal of positioning points of geodetic control in new reference systems, particularly, in the frame of European projects, publishes information about realized reference systems and provides the development of transformation services that enable transformation of points coordinates between geodetic reference systems mandatory in the state territory. At present it concerns in particular the work on accuracy improvement of transformation relations between the coordinate reference system S-JTSK and European ETRS89.

In the frame of international relations and cooperation ZÚ participates in projects dealing both with geodetic control initiated by the Sub commission of international geodetic association for European reference systems (EUREF) and with European network of permanent stations GNSS (EUPOS). For purpose of unified adjustment of coordinates of EUPOS stations the EUPOS processing centre was regularly provided with bulk data from GNSS surveying (SINEX) from the CR territory based on the CZEPOS monitoring. ZÚ participates significantly in this way on the definition and accuracy improvement of the European geodetic frame.

Czech Positioning Network GNSS - CZEPOS

<http://czeapos.cuzk.cz/>

The CZEPOS is the network of GNSS permanent stations spread on the whole territory of the Czech Republic. CZEPOS stations are installed on roofs of cadastral offices' buildings and record the data from GNSS signals in the interval of 1s for 24 hours a day. Users are provided with them in the form of corrections enabling to specify GNSS measurements. CZEPOS services are provided in continuous operation since 2005. The network solution uses data from together 55 stations, 28 of them located on the territory of the Czech Republic and 27 in the cross-border areas of neighbouring countries.

CZEPOS services are compatible with all accessible satellite systems, i.e. American navigation satellite system (NAVSTAR GPS), Russian global navigation satellite system (GLONASS) so as with European navigation satellite system (GALILEO) being under preparation. In 2014 the new CZEPOS service was launched – the category of virtual reference station.

Availability and quality of the provided CZEPOS services and products can be verified on the internet website in on-line regime by the users. CZEPOS gains its wide ground in geodesy, navigation or in the area of intelligent control systems. At 31.12.2014 there were 1 278 registered CZEPOS network users, it means grow of 82 users in comparison to the end of 2013.



Overview CZEPOS map

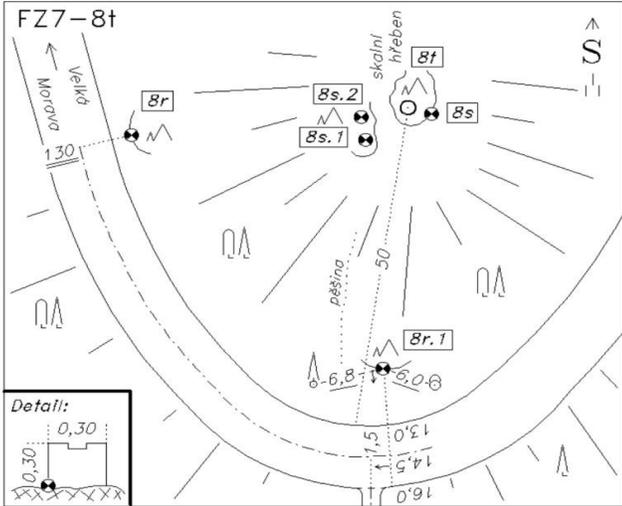
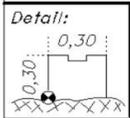
Database of Geodetic Control Points

<http://bodovapole.cuzk.cz/>

Database of geodetic control points (DBP) contains geodetic data on points of fundamental horizontal, vertical and gravimetric control, data on densification and minor vertical control points. Database serves either as the basic tool for CR geodetic control administration or for the geodetic public providing them with basic reference data for follow-up geodetic surveys and setting-out in the territory of the CR.

NIVELAČNÍ ÚDAJE

Nivelační pořad: FZ7 Králíky-Lipová - 1.odbočný pořad					
Předchozí bod	Nivelační bod	Délka v km		Nadmořská výška Bpv	Výška z roku
		oddilu	od počátku		
FZ7-8s.2	FZ7-8t	0.006	9.237	992.900 m	1996

<p>Místopisný popis: Velká Morava, měřický pilíř</p>  <p>Stav a stáří objektu: shora 0,3 m nad zemí zachovalá rostlá skála</p> <p>Poznámky: 1. Výška vztažena k horní plošce pilíře 2. Původně bod 27 lokální geodynamické sítě Sněžník</p>	<p>Místopis:</p>  <p>Detail:</p> 
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Levelling data

The database is available via remote access; users can download geodetic information regarding individual geodetic points included location sketches and other information or to print the map with geodetic points in a chosen area. At the end of 2014 there were 1 865 DBP users registered.

5.2. Maintenance and Documentation of the State Border

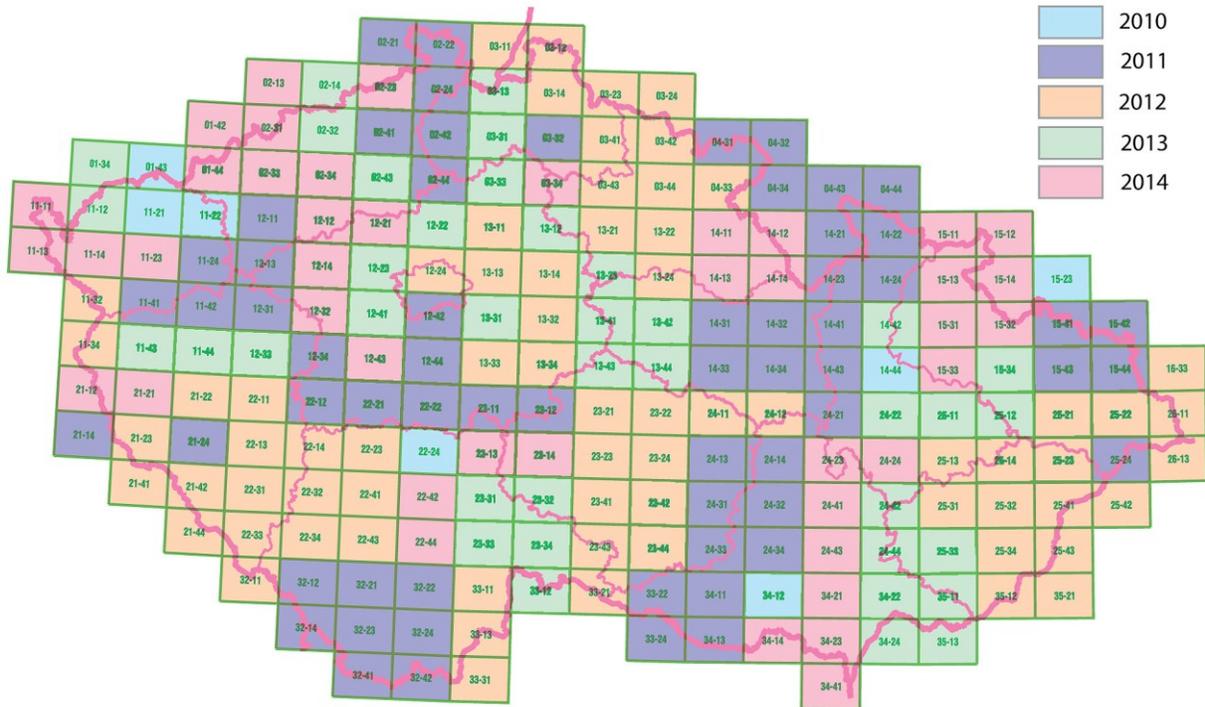
Land survey activities for maintenance and verification of state borders are carried out based on agreement with the state border documentation administrator, which is the Ministry of Interior. The actual performance of surveying activities, their scope and specific material content is different for state borders with individual neighbouring states. They are completely subject to tasks arising from international agreements on state borders and their documentation, which is administered in agreement between both partners. The international border commission coordinates processing of documentation for maintenance, signalling and verifying state borders and updating border documentation. All state borders have just been under regular examination. Besides regular examination of the stability of state borders according to international agreements precise geodetic surveying with the goal of interconnection of geodetic data on state borders into a uniform geodetic reference system ETRS89 is in the process.



5.3. Fundamental Base of Geographic Data (ZABAGED®)

ZABAGED® is a digital geographic model of the territory of the Czech Republic. ZABAGED® content represents at present 116 types of features represented by vector graphic and descriptive part with more than 350 types of descriptive and qualitative attributes. Selected types of features (hydrography, communications) contain in its descriptive part the identifiers (integration keys) for the connection to the databases of their expert administrators.

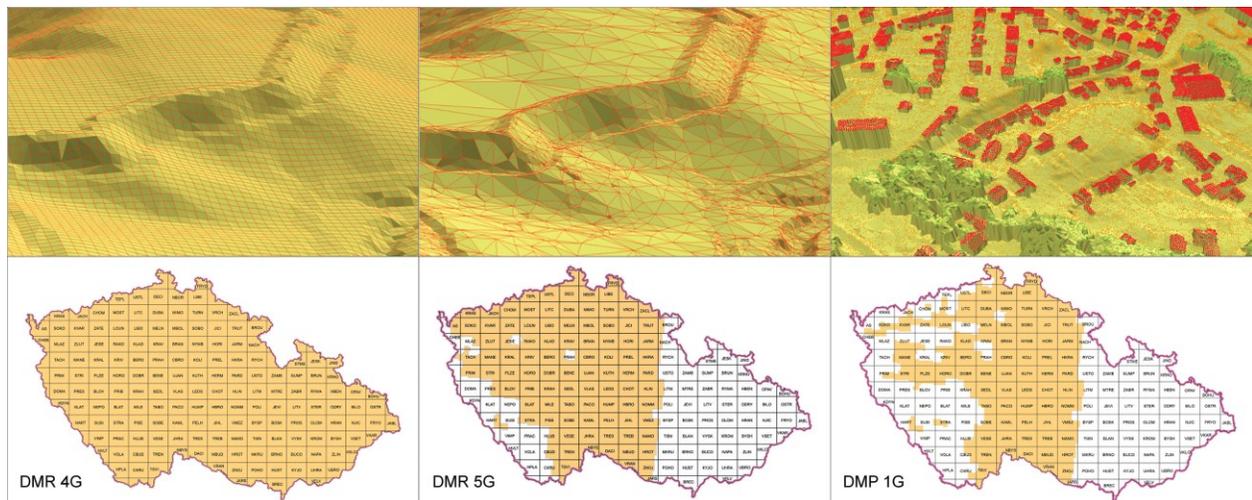
In 2014 the regular updating of ZABAGED® at the whole territory of the state went on with use of orthophotos, aerial photos and field investigation on 871 map sheets of the Base map CR in the scale of 1 : 10 000 (ZM 10). The updating cycle of ZABAGED® is less than six years. The ZABAGED® content is being simultaneously improved by continuous updating of more significant types of features; roads, administration boundaries, buildings etc. are updated based on the changes gained from their administrators. In 2014 systematic accuracy improvement of the position of roads, highways, railroads, watercourses and further ZABAGED® elements based on the data of a new altimetry model of the Czech Republic went on. Roads were improved on 471 map sheets of ZM 10 and watercourses and chosen points and lines of the terrain on 599 map sheets of ZM 10.



State of aerial updating of ZABAGED[®] by the end of 2014

5.4. Altimetry

The digital terrain model of the 4th generation (DMR 4G) based on the data collected via airborne laser scanning has been for disposal since 2013. In 2014 processing of scanned data for creation of the digital terrain model in the irregular triangular network (DMR 5G) and digital surface model (DMP 1G) went on.

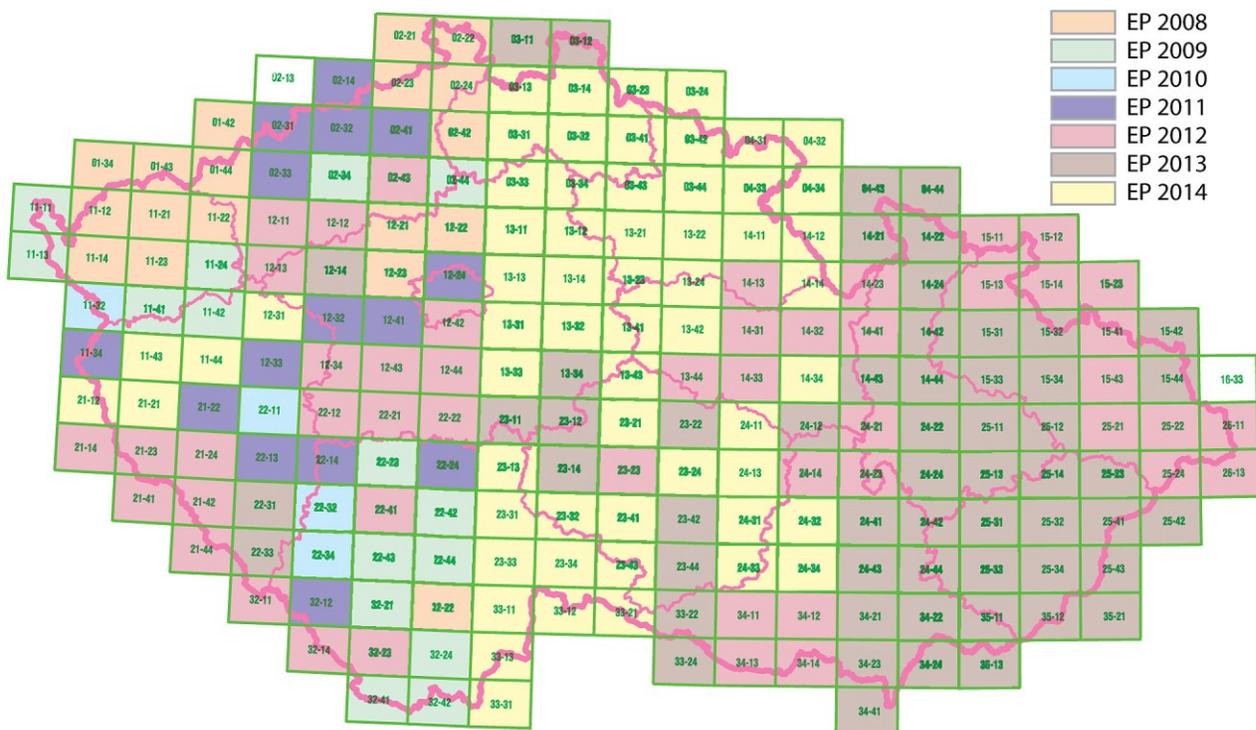


State of play of works on the digital terrain and surface models by the end of 2014

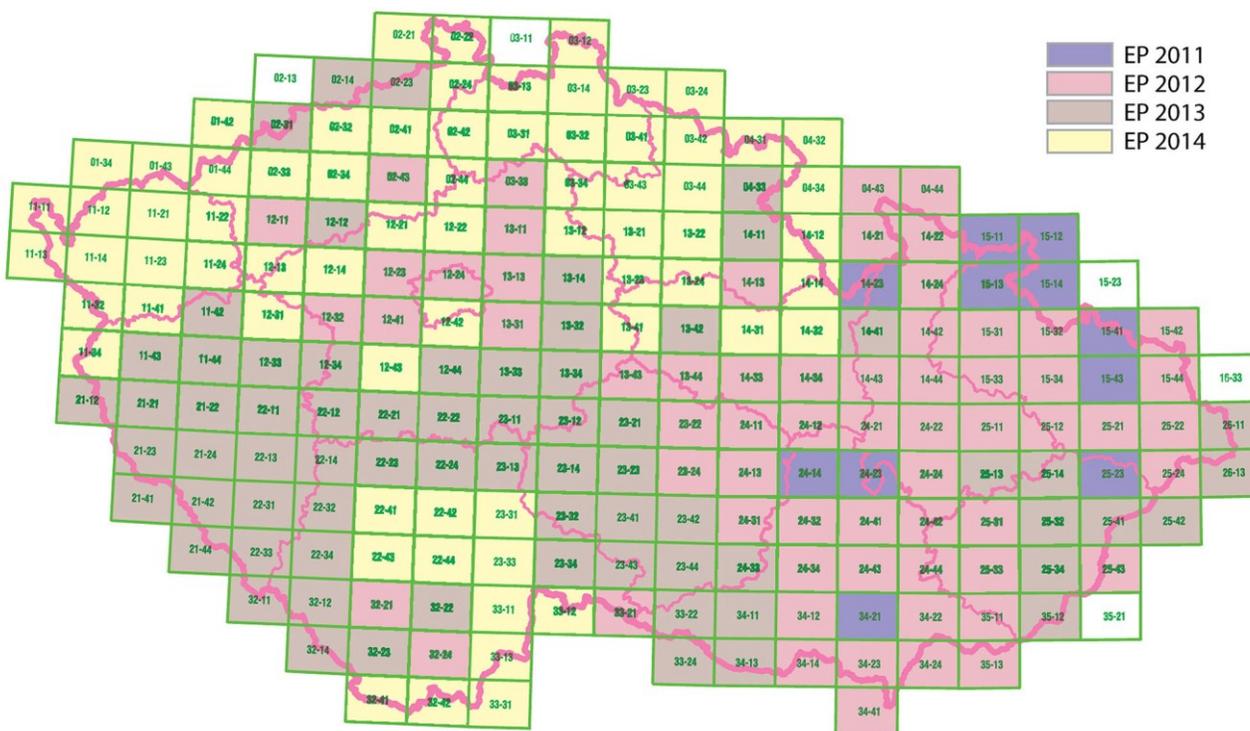
5.5. State Map Series

Apart from cadastral maps state map series represent sets of basic and thematic map series. The base state map series is a cartographic work with a widely usable content, coherently showing the territory according to unified principles, created and issued by the state administration body in the public interest. The sources of topographic content of the base state map series are ZABAGED® and Geonames, in particular. Modern technology of database cartography and digital print ensures the quality of map outputs processing and gradual reduction of their updating cycle.

Base maps of the Czech Republic (ZM) at scales 1 : 10 000 to 1 : 100 000 have been created since 2010 from two digital databases, Data 10 and Data 50, which are part of the modern information system of state map series. In 2014 following map sheets were created: 1 307 map sheets of ZM 10, 206 map sheets of ZM 25, 68 map sheets of ZM 50 and 25 map sheets of ZM 100. In accordance with the publishing plan following map sheets were updated: 20 m.s. Overview of trigonometric and densification points, 20 m.s. Overview of the levelling points and 10 m.s. of the Road map of the CR all in the scale of 1 : 50 000 and 40 m.s. of the Map of municipalities with enlarged administrative competencies in scale of 1 : 50 000. Finally 10 m.s. of the Map of Regions of the CR 1 : 200 000 and the Map of the Czech Republic 1 : 500 000 were updated particularly for needs of local administration bodies.



Overview of ZM 10 publishing



Overview of ZM 50 publishing

In 2014 production of the new edition of the State map 1: 5 000 (SM 5) was going on with the intention of serving especially for the purposes of urban planning. The conception of the new SM 5 is an automate visualisation of chosen object types based on the data from the cadastre of real estate, ZABAGED® and Geonames. In 2014 it was published in the state of update by 1.1.2014 at 65.8 % of the territory of the Czech Republic.

5.6. Orthophotographic Representation of the Czech Republic

Orthophotos created by the orthogonalization of aerial photographs find more and more uses in various fields of activities. Colour aerial photography is being taken on the whole territory of the Czech Republic in cooperation with the Ministry of Agriculture and Ministry of Defence of the Czech Republic. Since 2010 the aerial photographs have been taken by means of digital scanning, which enables simplification of data processing and improvement of their photo interpreting quality. Since 2012 the aerial photographing of the CR territory has been realized in two-year cycle. The newest photographing in 2014 was realized in the eastern half of the CR.

Orthophoto CR is provided in datasets on map sheets of the State map 1 : 5 000 (5 sq. km) via viewing services and in print form. Data are in raster format JPEG or TIFF with the resolution of 0.25 m on the ground (from the period 2003 – 2008 only in the resolution of 0.50m) and are georeferenced in the coordinate system S-JTSK with help of the text set JGW (TFW). The data sets for coordinate system WGS 84 are also provided. Since 2013 the provision of file data of the archival black-and-white orthophotos from years 1998 – 2001 and archival colour orthophotos from years 2003 – 2009 has been launched.

5.7. Geonames Database

The Geonames database provides a complete set of information on standardized geographical names (in total 165 types of designated objects) and names of settlement units. The Geonames database facilitates the access to terminological data, allows their analysis for the needs of onomastic and historical research. It is increasingly used in map portals, web applications and search services. Alongside with the ZABAGED® data it provides users with an integrated view of the territory of the Czech Republic. It is a source for publishing state map series of different scales.

In 2014 updating of the Geonames database was going on in cooperation with municipalities harmonized with updating of ZABAGED® together with digitization of cadastral maps. In the process of Geonames database updating, which was based on changes discovered by the cadastral offices during renewal of cadastral documentation, the local names in together 968 cadastral units have been approved in 2014. After completing the data integration in both mentioned applications geographical names have been connected directly to the objects and set into the database only once and not in the number of their occurrence in the map.

5.8. Archivní mapy

<http://archivnimapy.cuzk.cz>

Central archives of land surveying and cadastre (ÚAZK) is a public specialized archive, the main activity of which is taking over and registration of branch archival documents, their proceeding and systematic digitization which enables making them public in the largest range both to the professional and non-professional public.

Funds and collections of the ÚAZK were enriched by many valuable pieces not only from the current ZÚ production (mandatory copies) but also from the discarding procedures or as gifts from institutions and private persons. In 2014 together 22 406 maps were scanned, particularly from the files Cadastral maps 1 : 2880, Technical maps 1:1 000 and 1 : 2000.

The archival documents can be viewed via application Archival maps ÚAZK. The archival documents available via this application are continuously extended. The most used archival documents are among others imperial mandatory prints of the Stable cadastre from 1824 to 1843 in scale of 1 : 2880, included the comparison records of areas between 1845 and 1948, prints of topographical sections of the third military mapping between 1872 and 1853 in scale of 1 : 25 000, collection of maps and plans from the second half of the 16th century until 1850. Even so called indication sketches are available there, which are physically stored in other archives. Via Geoportal of the ČÚZK it is possible to order copies of archival documents or digital sets in printing quality.

Part of the ÚAZK creates also a public research room enabling to study the archival directly from the originals. In 2014 there were 240 visitors in the research room visiting the archive for 545 times. In the frame of their visits 2 276 archival copies in total were created for them at place and further 141 copies were sent to the customers based on their written request.

5.9. INSPIRE

ČÚZK branch is a key provider of basic data sets for gradually building infrastructure for spatial information in the EU, called INSPIRE (see Directive 2007/2 / EC). According to the Act No. 123/1998 Coll. and § 4 of the Act No. 200/1994 Coll. ČÚZK provides data sets for most of the themes of Annex I of the Directive, ie. coordinate reference systems, geographical coordinate networks, geographical names, administrative territorial units, addresses, parcels, transport networks and hydrology, which are published in the INSPIRE data specification in GML format.

Above these datasets network services are created enabling searching, viewing, downloading or transformation and provided via Geoportal ČÚZK. Data sets and services are described in metadata.

From the ZABAGED® datasets following themes are published: transport network and hydrology, from RÚIAN territorial administrative units and addresses and parcels from ISKN. Datasets buildings and Orthoimagery are in preparation. Data sets metadescriptions also include description of their quality. Network services are provided in accordance with the requirements for performance, availability and capacity. INSPIRE data and services are the first step in building the European position Framework (ELF) described in more detail in Chapter 9.

5.10. Geoportal of the ČÚZK

<http://geoportal.cuzk.cz/>

The Geoportal of the ČÚZK enables not only finding information (metadata) on spatial data in responsibility of the branch in one place, but also their viewing or ordering in the form of datasets or services. Internet shop serves to ordering of printed maps as well. ČÚZK Geoportal homepage fulfils the role of the link to further applications and services of the branch (Viewing the cadastre, Public Remote Access to RÚIAN data, Archival maps ÚAZK, CZEPOS, Geodetic control points database etc.). The developing service of the ČÚZK Geoportal is providing the network services based on spatial data. Network services are used not only in its own applications, but also in geographic information systems, map portals and web applications of other providers. In accordance with requirements of the Implementation rules of the INSPIRE Directive the meta-information file on provided data and services are completed and regularly updated in line with the branch metadata profile. Beside the metadata on datasets there are even more detailed data on single map sheets for instance on the state of their updating or digitization of cadastral maps. In previous years the viewing and searching services together with the service for transformation of coordinates have been harmonized in accordance to INSPIRE implementing rules.

The service for transformation of coordinates enables more accurate transformation between S-JTSK and ETRS89 based on the global transformation key. Transformations between further coordinates' reference systems setting by the INSPIRE Directive included the heights transformation are for disposal as well. There is free available client of the transformation service on Geoportal ČÚZK website.

Searching service is a public service providing metadata to the searching clients. It enables searching in metadata not only in the frame of ČÚZK Geoportal, but also in other geoportals using this service (f.i. national and European INSPIRE geoportals).

Datasets Provision

By means of the internet shop it is possible to order data not only in existing vector and raster formats, but also, for example, in GML format (ZABAGED®, Geonames and INSPIRE themes data). The client has the possibility to select required data according to the sheet line system or according to square units for direct files.

The most demanded data sets still are ZABAGED®, orthophoto and raster form of the Base map of the Czech Republic 1 : 10 000. The biggest data amount is provided to users from the public administration. Also other natural and legal persons are important users.

Viewing services of the ČÚZK Geoportal enable on-line internet access to spatial data administered by the branch of land surveying and cadastre. Those users who connect their system to such a service need not to administer their own database of fundamental geodata and accessible data are provided to them with the maximum possible relevance.

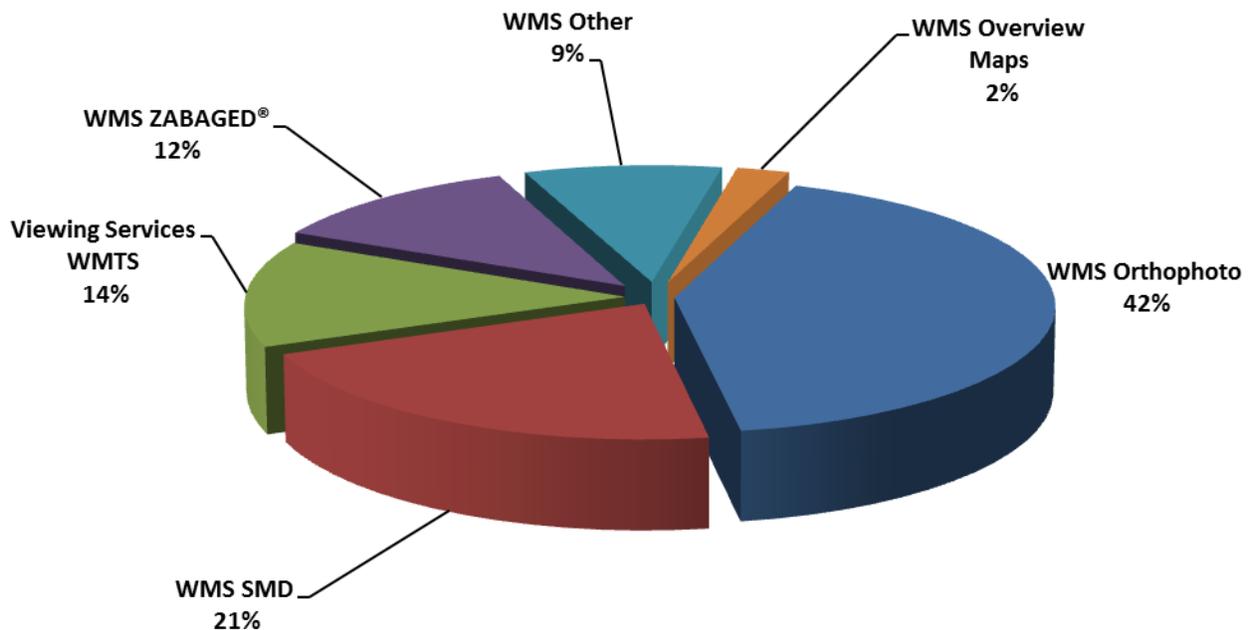


Fig 12: Development in requests for network services provided by Geoportal ČÚZ infrastructure

Wide public can still use viewing services via own ČÚZK Geoportal applications such as Map window and Geoviewer. It is possible to search in a map according to names administered in Geonames as well as according to addresses via them. Geoviewer offers also searching of points in the database of geodetic control points included the geodetic information.

A significant enrichment of viewing services was in the 2014 publication of archival orthophotos. Users have the possibility to view black and white orthophotos from 1998 to 2001 so as color orthophotos from 2003 both in Geoportal ČÚZK and in their own client applications.

During the year attention was paid to strengthening of the Geoportal infrastructure with result of increasing the speed and particular the reliability of both viewing services and other applications of the system. Geoviewer application has been adjusted as well. The most significant change for the users is fast access to view all archival materials in the selected area of the overview map of the Czech Republic.

Online Shop

In 2014 significant changes in the data provision via eShop on Geoportal ČÚZK were implemented. Payment portal was launched and data can be provided based on a license agreement agreed simply by clicking on the published use conditions. Order of the provided data can be solved very quickly; however, the main significance lies in the possibility of distribution raster cadastral map.

6. Economics and Human Resources

6.1. Employees and Education

By 31.12 2014 together 5 302 persons were employed in the ČÚZK branch, 1 421 (26.8 %) out of them were men and 3 881 (73.2 %) were women. Neither educational nor age structure in the branch has not changed rapidly in past years. Traditionally prevailing share in educational structure are workers, who reached the secondary school education (60.1 %); the most numerous age group create the employees aged 41-50 (32.1 % from the total number).

Year	Number of Employees	Women	Graduated	Age Structure				
				to 30	31–40	41–50	51–60	61 and more
2014	5 302	73.2 %	35.2 %	485	1 242	1 704	1 533	338
2013	5 271	72.5 %	35.4 %	478	1 346	1 649	1 492	306
2012	5 280	72.8 %	34.9 %	520	1 425	1 623	1 424	288

By 31.12 2013 the number of women in managerial positions was 309 (51.3 %) in the ČÚZK branch, the total number of managerial positions being 608. It is the ideal result as of gender equality in managerial positions. The area for possible improvement is to achieve higher number of women on the position of the administration office manager, which is, however, given by the lower women interest on the long-term basis to participate in competitive tendering for these managerial demanding positions. The year 2015 may bring some changes in these results due to the Civil Service Act providing for mandatory tenders at all managerial levels.

Managers	Managed Organizational Unit				Total
	Administration Office	Section	Department	Division	
Total Number	23	13	133	431	600
Women Number	3	5	57	243	308
Women Share	13.0 %	38.5 %	42.9 %	56.4 %	51.3 %

During 2014 together 359 employees terminated employment, this was 11 less than in 2013 and 44 less than in 2012. The rate of fluctuation was 6.8 % in 2014.

Year	Terminated Employment	Rate of Fluctuation
2014	359	6.8 %
2013	370	7.0 %
2012	403	7.6 %

Employees' education is one of main priorities of the human resources management in the branch. The branch educational conception is based on the highly-developed training system, which enables particularly increasing and intensification of the qualification of every particular worker in accordance with requested qualification of the employees of administrative bodies and with further demands connected with requirements on activities performance at particular job positions.

Based on the approved plan of education in the Czech Office for Surveying, Mapping and Cadastre a lot of educational activities were realized by the personal departments of individual administrative offices for their employees focused on legal, economic, personnel and cadastre of real estate subject matters in 2014. Moreover the ČÚZK personal department realized some specialized team workshops for chosen workers from all branch offices. The crucial part of educational activities in 2014 was focused on training regarding the new legislation which has come into force since 1. 1. 2014 having capital importance for functioning of the whole ČÚZK branch. A positive trend that continued even in 2014 was utilization of internal lecturers from the ČÚZK staff. Not only enabled it to save budgetary means and use them afterwards for realization of other beneficial educational events, but also the training has been prepared by lecturers being familiar with the trained branch issues.

6.2. Granting Official Authorization for Verification of Results of Land Surveying Activities

In the framework of granting official authorization for certification of the results of surveying activities professional competence exams for authorization were held in four terms in 2014 in accordance with section 14 of the Act No 200/1994 Coll., on surveying and mapping.

In the year 2014 the total number of completed applications was 59 (15 of them from 2013). Based on the professional competence exams new official authorization was granted to 34 applicants and 4 applicants enhanced their existing authorization. The other cases were solved as follows: 3 applicants did not meet the legal requirements for granting official authorization, 4 applicants did not confirm sufficiently their applications, 7 applicants did not pass the exam and are going to repeat it in 2015 and 5 applicants apologized from the exam. 2 applicants who submitted the application in the end of 2014 will be invited to the exam in the beginning of 2015. In 2014 no official authorization was deleted from the registry.

2 501 persons have been registered on the updated list of officially authorized land surveying engineers administered by the ČÚZK by the end of 2014.

6.3. Economics

Approved state budget of the Czech Republic for 2014 specified revenue of CZK 580 981 thousand and expenditure of CZK 2 756 230 thousand for the chapter 346 ČÚZK.

Revenue budget increased in 2014 by the revenues from the EU budget in the amount of CZK 3 488 thousand. Revenue collection, coming to the budget from the administrative fees, were prescribed in the amount of CZK 470 000 thousand, their fulfilment reached CZK 542 068 thousand, it is 115.3 %. EU revenues were prescribed in the amount of CZK 981 thousand and reached in fact CZK 420 624 thousand. Significantly exceeded revenues were due to later revenue payments from previous years for projects of Integrated operational program (RÚIAN, DMS and Complex Electronic Document Service). Budget of non-revenue collection of CZK 110 000 thousand was filled in by the amount of CZK 197 945 thousand, it is 180 %, in 2014. In comparison to previous years the revenue for the data from the geodetic information file decreased because they are free of charge for the public.

The budget for expenditure was changed in 2014 by the budgetary measures of the Ministry of finance. The budget was increased by CZK 20 687.6 thousands in total. The increase dealt in particular with the salaries and connected expenditures in the amount of CZK 11 412.8 thousands, further it was CZK 3 488.3 thousands for building insulation of the seat of Cadastral branch office Trutnov from the Operational programme regarding environment and CZK 6 461.8 thousands moved from the Ministry of agriculture and Ministry of defence for ensuring aerial survey photographing. Within legitimate exceeded indicators particularly the savings of the ČÚZK budget from past years were used in the amount of CZK 123 691 thousand. The biggest share of CZK 83 489 was used for EU projects.

Total expenditure in 2014 reached CZK 2 826 373 thousands, CZK 1 973 370 thousand from it being employees' salaries and other payments for carried out work and associated expenditure, which was 69.8 % of the total expenditure of the branch. The average monthly income achieved in 2014 reached CZK 23 853 per employee.

The second biggest expenditure group of the chapter 346 ČÚZK were other material ones in the amount of CZK 587 207 thousand. These were used on other ICT services (CZK 159.2 million), particularly on support of the hardware, SW products and highly specialized applications of ISKN and RÚIAN administrations. Further expenditure were as follows: postal services (CZK 134.6 mill.), other services (CZK 83.2 mill.) included catering allowance, security service, cleaning service, services within cadastral maps digitization and aerial survey photographing, services for property repair and maintenance (CZK 39.3 mill.), buying of electricity applications support, operation of information systems of land surveying and cadastre of real estate, further on energy purchases (CZK 31.3 mill.), telecommunication services (CZK 31.1 mill.), heating, gas, fuel and water, office and PC renting, material supply and travel costs. In 2014 significant increase occurred in the postal services by CZK 47.2 mill. in comparison to 2013. This increase was due to the new cadastral law that stated new obligations regarding postal information of participants of the administration procedure about registration of rights.

Significant part of the expenditure were those used on financing of programmes administered in the information system of programmed financing, it means the expenditure allotted for procuring and modernisation of sector tangible and non-tangible property. In 2014 there was mild decrease in share of these expenditures of the total chapter expenditure only on 9.5 % particularly due to the priorities given to the operational expenditure of the branch. Further important part of the programme expenditure were those used for ICT; in total it was CZK 217 837 thousand, from it especially DMS (CZK 82.7 mill) co-financed by the EU budget. Further actions were connected with ISKN (CZK 70.4 mill.), RÚIAN operation (CZK 37.2 mill.) and SW system management (CZK 14 mill.). Further items were the programme investments for building reconstructions (CZK 37.2 mill.) and renewal of the transport and surveying means (CZK 3.6 mill.).

Index/ Year	2009	2010	2011	2012	2013	2014
Income of the chapter	271 592	276 942	439 481	599 126	721 424	1 160 637
Out of it: revenues for administration fees	30 016	62 770	67 239	348 866	503 369	542 068
Income from EU budget		3 423	135 802	18 703	723	420 624
Total expenditure of chapter	3 170 650	3 336 483	2 785 290	2 753 079	2 787 362	2 826 373
Out of it: projects co-financed from EU budget	26 778	400 226	59 518	130 494	97 518	87 717
Current expenses without non-investment	2 460 125	2 351 702	2 145 791	2 082 017	2 477 766	2 558 418

Including: wage resources ¹⁾	1 597 945	1 536 985	1 427 387	1 412 214	1 426 590	1 462 339
Insurance and FKSP	575 343	549 632	498 865	493 133	498 743	511 031
Other material expenditure	286 837	252 145	219 539	176 670	552 434	587 207
Program expenditure	679 225	984 781	617 428	682 196	314 192	267 955
Including: non-investment	437 128	396 053	444 627	433 124	56 455	49 280
Investment	242 097	588 728	172 801	249 072	257 737	218 675
Research and development expenditure	31 300	22 159	34 391	0	0	0
Including: operational	31 300	22 159	34 391	0	0	0
Investment	0	0	0	0	0	0
Number of employees in Sector²⁾	5 596	5 532	5 258	5 130	5 070	5 096
ČÚZK	151	159	155	150	147	146
Cadastral Offices	4 935	4 864	4 618	4 498	4 450	4 486
Land Survey Office	417	416	394	392	384	378
Survey and Cadastral Inspectorates	93	93	91	90	89	86

7. Inspection and Supervision Activity

7.1. Professional inspection and Supervision

Inspection of state administration of the cadastre of real estate, supervision over the certification of results of land survey activities used for the cadastre of real estate and state map series, and decision-making on appeals against first instance decisions of cadastral offices (CO) are delegated by law to the 7 surveying and cadastral inspectorates (SCIs).

The extent of decision-making agenda of SCI on appeals against decisions of CO increased in 2014 on 16.5 % (586 appeals delivered in 2014 as opposed to 503 appeals delivered in 2013). The quality of decision making activities of cadastral offices as first step organs remained practically on the same level in comparison to 2013 (46.7 % of decisions of cadastral offices were found illegal in the appeal proceedings in 2014, whilst in 2013 it was 46.2 %). The number of appeals in matters regarding correction in cadastral documentation increased on 12.1 % in comparison to 2013 (324 appeals delivered in 2014 as opposed to 289 delivered in 2013), the number of appeals in matters regarding objections against the content of renewed cadastral documentation decreased on 3.2 % (153 in 2014 as opposed to 158 in 2013) and the number of delivered appeals against procedural decisions of CO increased by 112.0 % in 2014 in comparison to 2013 (106 in 2014 as opposed to 50 in 2013).

Systematic inspection activity of SCI's was in 2014 focused mainly on monitoring of problems occurring within registration of rights into the cadastre of real estate in accordance with new legislation (particularly with application of new Civil Code, new Cadastral Act and new Cadastral Decree), application of the Cadastral Decree on creation and verification of survey sketches and documentation of setting-out parcel boundaries, on following prescribed technological proceedings during the renewal of the cadastral documentation and on acquiring information about possible problems connected with their follow-up utilization and with maintenance of digitized cadastral maps. SCI performed in 2014 in total 1 301 documented inspection actions in the workplaces of cadastral offices. Particular cases of discovered insufficiencies were specified

and commented in half year SCI analyses which are systematically organized according to unified concept and regularly handed over to other ČÚZK departments for further utilization. Internal branch publicity has been ensured via branch intranet. In the framework of supervisory activity (supervision of certification of the results of land survey activities) SCI performed a total of 262 documented supervisory actions in 2014. In 22 cases in the subsequently conducted administrative proceedings SCI decided that the verifier of the result of land surveying activities had committed an administrative offence of infringement of order in the sphere of surveying and imposed fines at a total of CZK 321 500.

Complaints

Inspectorates	Not resolved at 1.1.	Received after 1.1.	In total	Forwarded	Legitimate	Not legitimate	Still being resolved
in Brno	1	9	10	4	1	4	1
in Č. Budějovice	-	3		1	-	2	-
in Liberec	-	5	5	2	-	3	-
in Opava	-	6	6	6	-	-	-
in Pardubice	1	2	3	1	-	2	-
in Plzeň	-	4	4	1	1	2	-
in Praha	-	12	12	9	1	2	-
In total	2	41	43	24	3	15	1

SCI Decisions on Appeals against CO Decisions

Matters	Not resolved at 1.1.	Received after 1.1.	In total	Appeal rejected	CO decision changed	CO decision repealed and proceeding terminated	CO decision repealed and returned to CO	Decision annulled	Still being resolved	Faulty and Forwarded proceedings
Correction of errors in the cadastre	36	324	360	163	30	4	115	2	40	6
Objections to revised cadastral documentation	16	153	169	89	10	-	56	-	11	3
Infringements of order in the sphere of the cadastre	-	-	-	-	-	-	-	-	-	-
Procedural	6	106	112	40	3	2	36	5	22	4
Changes in the boundaries of cadastral districts	-	-	-	-	-	-	-	-	-	-
Administrative fees	-	1	1	-	-	1	-	-	-	-
Rejection of applications for submission of information	-	-	-	-	-	-	-	-	-	-
Other	1	2	2	1	-	-	-	-	-	1
In total	58	586	644	293	43	7	207	7	73	14

7.2. Financial Inspection

ČÚZK as the administrator of budget chapter performed financial inspections according to the Act No 320/2001 Coll. on financial inspection, in its subordinated bodies in 2014.

According to the approved plan of public administration inspections for the year 2014 the inspection group of ČÚZK carried out public administration inspections together at following 12 inspected bodies:

CO for the Region Hradec Králové, CO for the Region Plzeň, CO for the Region South Bohemia, CO for the Region Liberec, Land Survey Office, and all seven SCI's, in which performing of internal audit is substituted by performing of public administration inspection in compliance with the section 29, art.5 of the Act No 320/1990 Coll., on financial inspection. Inspection authorization was issued by the president of ČÚZK in accordance with section 13 art. 1 of the Act on Financial Control with reference to section 4 of the Act no. 255/2012 Coll., on the Control (control rules), as amended.

The main goal of realized inspections was not only to verify the financial management of inspected persons, following the binding legislation, economic and internal rules, functioning of internal managing systems, but also creation of the conditions for economical and efficient performance of the public administration.

Inspection of accounting documents verified not only their requirements as of material and formal point of view, but in particular realisation of the previous, continuous and ex-post check. All inspected organizations were proved as of observance of the efficiency, economy and usefulness of public resources utilization for fulfilment of given goals in accordance with the section 2 art. M) to o) of the Act on Financial Inspection. Part of the inspection was checking of the call for public tenders and their realization, the right range of administration fees, payments and prices for provision of data from the cadastre of real estate and results of land surveying activities. In case some losses and damages had been solved in some offices and the damage compensation has been set down, the control group inspected the way of damage settlement as well.

Among others the inspections focused in 2014 on fulfilment of provisions, being adopted to eliminate insufficiencies from previous inspections and inspections performed in the ČÚZK branch by external audit organizations particularly financial offices and financial directorates. Special attention was given to measures being imposed to eliminate insufficiencies discovered by the inspection Nr. 12/24 of the Supreme Inspection Body realized between August 2012 and April 2013 in inspected cadastral offices for the regions South Bohemia and Liberec. Public administration inspections of some inspected persons in 2014 found less serious formal and objective shortcomings emerging from the inconsistent compliance with some provisions of ČÚZK economic rules, some partial shortcomings in records of assets and in provision of information from the cadastre of real estate. No serious shortcomings were discovered by public inspections in 2014 that would unfavourably affect the activities of inspected persons. All documents from carried out inspections were delivered to the president of the ČÚZK together with proposed measures who then imposed measures to inspected persons to eliminate existing insufficiencies and prevent them from repetition, in accordance with the section 18, art. 2 of the Act No. 320/2001 Coll., on Financial Inspection. After information about the measures having been taken by the inspected persons to eliminate insufficiencies, the inspections were terminated properly.

7.3. Internal Audit

Internal audit is a part of the system of financial inspection in the branch ČÚZK. It is carried out by internal auditors. Systemized job positions are established in ČÚZK, Land Survey Office and

in all 14 cadastral offices. Organizational rules ensure full independence of the auditors and their separation from managerial and executive structures. The function of internal audit has not been set up in cadastral inspectorates, because it was substituted there by yearly public administration inspection. The internal auditors are directly subordinated to heads of particular offices. The main task of performed internal audits is independent inspection and evaluation of appropriateness and efficiency of the managerial inspection, including verification of accuracy of chosen operations.

The activity of internal auditors results from the medium-term and yearly plans. Planning of audits is based on the risk evaluation and is focused on priority processes in conditions of particular offices. The part of the plans of internal audits is also performing further tasks in compliance with Standards for the professional practice of internal auditors. Internal auditors carry out methodical and consultation activities and take part in the creation and amending of internal regulations. Integral part of auditors' activities is their professional development. By 31.12.2014 together 13 out of 16 internal auditors in the branch hold the certificate on passing the basic training class of the unified system of professional training of public administration employees in the area of financial inspection and internal audit.

In accordance with approved plans for 2014 internal auditors performed together 91 internal audits. From this total number of internal audits 25 were financial ones focused on the proof of the economy of particular offices, 34 were audits of systems proving the administration of public resources, 14 were audits of operation dealing with the functioning of the internal inspection system and 18 were other audits.

Performed audits were addressed in particular to prove the functionality and efficiency of the internal inspection system, verification of existing state of the fulfilment of suggested recommendations stemming from completed audits and inspections in previous year. Internal audits evaluated whether the standards and internal regulations have been issued and whether the anticorruption measures have been implemented and monitored. The audits were checking developed risk assessments and risk maps, procedures for procurement, management with state property, accounting, budgetary management, control of administrative charges etc. Based on the task of Departmental internal anti-corruption program (RIPP) Catalogue of corruption risks ČÚZK was prepared. Catalogue has been prepared based on the comments of all cadastral offices, Land Survey Office and VÚGTK, v.v.i. and contains a total of thirty-six corruption risks, which were evaluated during 2014 in the individual organizational units. The activities of the branch were realized fluently in 2014 despite incorporating the budget cuts and the budget was balanced without bigger deviations and problems.

There is continuous monitoring process of public tenders assignment in place in the CUZK, which are registered via electronic tool eGORDION. Measures preventing the property in economical administration of CUZK have been implemented as well. Audits inspected created risk analysis and maps of risks, verification of procedures connected with submission of public tenders, managing of state property, accounting administration and dealing with budgetary resources, check of administration fees and others.

Performed audits were completed in the written reports with recommendations, most of which were accepted. In 2014 performed audits proved that internal inspection system is effective, identifies possible risks and diminished probability of their occurrence in auditing activities of ČÚZK. Internal system of inspection is able to inform about possible insufficiencies at all managerial levels thus meaning limitation of necessity to realize measures for their improvement.

8. International Cooperation

ČÚZK actively participates in the work of some international organizations being active in the field of cadastre, land registration and land surveying administration. Beside that it also actively cooperates with all neighbouring countries and exchanges data and information with them based on bilateral agreements.

ČÚZK is an active member of the pan-European organization EuroGeographics (EG), which associates map agencies and cadastral offices of European countries. EG enables experience exchange and their mutual cooperation; it systematically develops the cooperation with the European Union bodies at building of the united infrastructure for spatial data in Europe. EG contributes to it by creating of pan-European products with harmonized parameters for all European countries, f.i. EuroRegionalMap, EuroBoundaryMap, EuroGeoNames, ESDIN, EuroSpec. EG negotiates experts involvement from member organizations into preparations of harmonization provisions included implementing rules of the Directive of the European Parliament and the Council for establishing of the Infrastructure of Spatial Information (INSPIRE) and helps to implement them on the particular member states level.



In March 2013 the project European Location framework (ELF) was launched. Its goal is to prepare the unified frame for provision of European reference geoinformation services. ČÚZK actively participates on the work of some working groups as a project partner and its work has been very positively evaluated by other participants.

The new activity in the international area occurred being the active participation in the newly established European section of the United Nation commission for Global geospatial information management existing since 2011. Its first plenary meeting took part under the auspices of the EG association in Moldavian Kishinev just following its General Assembly.

In 2014 implementation of the INSPIRE Directive went while it was also the first year of evaluation of its implementation on the European level. Czech Republic had done well. To follow the progress and development in other states regarding INSPIRE the international conference was held in Danish Aalborg with active participation of the ČÚZK representatives.

ČÚZK regularly monitors the activities of the Working Party on Land Administration (WPLA), working under the auspices of UNECE, which is engaged in land and real estate information and related thematic. In 2014 the representatives from the ČÚZK took part in two WPLA workshops. The first one was held in Danish Copenhagen and focused on the accessibility barriers for free and open data together with improvement of public data interoperability. The second one focused on knowledge exchange in the area of transparent services delivery in the cadastre taking place in Austrian Wien.

ČÚZK participated also in two meetings of the Permanent Committee for Cadastre in EU (PCC), main goal of which is to represent a privileged link between cadastral institutions and the institutions of the European Union and other entities requiring cadastral information to carry out their activities. Both meetings were held in presiding states of the European commission in given half-year. The first one took place in Greek Athens and the next one in Italian Rome.



In the area of bilateral cooperation it went on with all neighbour states. The joint activities with the Bavarian Land Surveying and Geoinformation Office (LVG) focused particularly on data exchange of the state borders data and works on data harmonization in the borderline areas.

Similar cooperation went on even on the borderline with Saxony, the Saxon State Office for Geoinformation and Surveying (GeoSN) and started also on the borderline with Slovakia, Geodesy, Cartography and Cadastre Authority of the Slovak Republic. Beside these activities with Slovakia also regular working contacts on the highest level went on; in November the president of the Geodesy, Cartography and Cadastre Authority of the Slovak Republic visited the ČÚZK to exchange news and experiences between both offices.

31st meeting of cadastral service providers of succession state of the former Austro-Hungarian Empire, namely Croatia, the South Tyrol, Austria, Slovakia, Trentino, Hungary and the Czech Republic was held in Lednice in May 2014. The main theme of this meeting was the cooperation of the cadastre with other institutions of state administration. The meeting was very positively evaluated by all participants.

In October 2014 the meeting of working group KEN EG dealing with INSPIRE implementation was held in ČÚZK focusing mainly on hydrography and transport networks transformations in connection to ELF project as well.

Further international activities dealt with participation on professional seminars, scientific-technical conferences, information technologies conferences and preparation of the scientific professional magazine Geodetic and Cartographic Revue (GaKO).



9. Structural Funds of European Union

ČÚZK utilizes the Integrated operational programme of EU to finance some of its projects important for further development of the branch and for realization of its part of its responsibility for creation of basic registries of the state administration. In previous years following projects were completed: “Building of the Registry of the Territorial Identification, Addresses and Real Estate” (RÚIAN) and “Complex Electronic Document Service follow-up the system of data boxes”. Both projects are being maintained and developed to enable full utilization of provided applications. Further open projects are as follows:

Document Management System

In 2014, the project "Document Management System ČÚZK following the introduction of electronic document conversion and data boxes" was completed, co-financed by the European Union, the European Regional Development Fund, by implementing the document management system of the ČÚZK - Document management system ČÚZK ("DMS ČÚZK"). DMS ČÚZK is designed in such a way that existing information systems were supplemented with a uniform and safe storage of electronic documents and existing workflows remained unchanged as far as possible. Trusted DMS ČÚZK storage with sufficient capacity is realized in two locations both containing the identical content to exclude the possibility of their destruction. Necessary adjustments were implemented regarding the Information System of the Cadastre of Real Estate ("ISKN") and filing services so as general interface for connecting other information systems. Documents existing in electronic form and stored in different places were unified and transferred into the DMS. Implementation of DMS ČÚZK enabled more efficient scanning process at scanning workplaces delivered in 2013 and interconnection of scanned images to the ISKN proceedings. It allows full use of electronic documents and their parallel use by more employees contributing so to speed up cadastral proceedings. DMS ČÚZK ensures a uniform document storage, their archiving and shredding, viewing of stored documents from either connected information systems or DMS resources and is another important step in the unification and simplification of work with documents in branch information systems

European Location Framework (ELF)

ELF is a strategical project of the consortium of 30 European mapping and cadastral offices associated in EuroGeographics being supported by European Union in the frame of the CIP PSP programme. The main goal of the project is to provide step-by-step the seamless, updated data sets and services based on updated reference spatial data of European national mapping and cadastral offices and provide them to users in a sustainable way. Practical use of such European range data is then demonstrated with help of various thematic applications of further providers with participation of private sector. Unified shape of data and services will be ensured using the technical rules of the INSPIRE Directive. Results of European projects ERM, EGM, EGN, ESDIN a. o., which were being solved by EuroGeographics in previous years, are to be used. The three-year project was launched on 1.3.2013 and in the first period together 15 European countries included the Czech Republic is participating.

In 2014 ČÚZK team of specialists actively participated in comments and testing of ELF technical specifications for data and services, in cooperation with Polish GUGiK realized a pilot regarding data analyses and preparations for cross-border data provision. The cooperation experience were successfully presented on the INSPIRE conference in Danish Aalborg in the form of workshop.

10. Research and Development

ČÚZK performs the function of the founder of the Research Institute of Geodesy, Topography and Cartography (VÚGTK), v.v.i. The activity of the VÚGTK is focused on applied and basic research in the land surveying and cadastre branch, development and testing of new methods, procedures and programs and specialized consultations in the area of creation and management of the ISKN, geodesy, geodynamics, engineering, metrology and standardization,

state map series creation and maintenance, development of special tools, equipment and measuring systems.

Under the roof of the institute work the authorized metrological centre, accredited calibration laboratory and branch information centre included Land survey library®. The institute is also the accredited educational body.

Research activities for the branch have been ensured in 2014 in the frame of the "BETA" program of the Czech technological agency (TA ČR). Beside it some works and services for ČÚZK were realized in the form of small scale public tenders. VÚGTK went on successfully in solution of further projects with state organization, agencies and EU.

Basic and applied research in geodesy and geodynamics focused mainly on the development of the observation infrastructure, namely in the basic station - Geodetic observatory Pecný – and in the experimental research network GNDD – VESOG. The activity of operational, data and analysing centres of GNSS and DORIS technologies that are listed in the system of scientific services of the International geodesy association went on. The gravimetric laboratory with its superconductive and absolute gravimeter took part in some international projects in the area of geodynamics as well. In 2014 the new absolute gravimeter was acquired from the investment funds of the NTIS project (Project of the University in Plzeň with participation of VÚGTK) and the building of a new gravimetric laboratory at Geodetic observatory Pecný was finished. The basic research focused on the theory and numerical methods for Earth gravity field modelling, further on GNSS meteorology and GNSS "real time" methods, on problems of determinability of gravity field parameters from satellite missions GRACE and GOCE and finally on research of untidal variations of gravity acceleration.

The research and development activity in the sphere of GIS and cadastre of real estate concentrated mainly on the maintenance and development of programme products MicroGEOS for renewal of the cadastral documentation and for administration of digitized cadastral maps. Development of DIKAT system for creation of survey sketches, record of detailed changes measurement and non-survey sketches went on as well. Further the completion of the project No. TB01CUZK004 with the working title "EURADIN" is in the final phase. It is specifically proven technology and functional sample (web services RÚIAN). In July 2014 the project No. TB02CUZK002 "Integration of new techniques and technologies in the process of cadastral new mapping" was launched. It aims to verify the applicability of new technologies available and create a mapping application on a mobile device for creating of digital sketches for purposes of cadastral renewal.

For needs of the ČÚZK branch as well as for the widest public the services of the Land survey library® were provided in 2014. Existing library fund contents approximately 45 thousands items. During 2014 digitization of the library fund went on and digitized documents are available via internet in the Kramerius 4 system. In the frame of the educational program the VÚGTK branch information centre organized 15 courses in total.

Multilingual terminological dictionary has been continuously updated with foreign-language expressions and the terms duplicity has been removed. The dictionary is available on the internet on VÚGTK v.v.i., ČÚZK, ČSGK (Czech Union of Surveyors and Cartographers) and FAV ZČU (Faculty of applied sciences of the University of West Bohemia) websites.

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