



Czech Office  
for Surveying, Mapping and Cadastre

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*Annual Report*  
**2007**





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***Annual Report 2007***



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# Introduction

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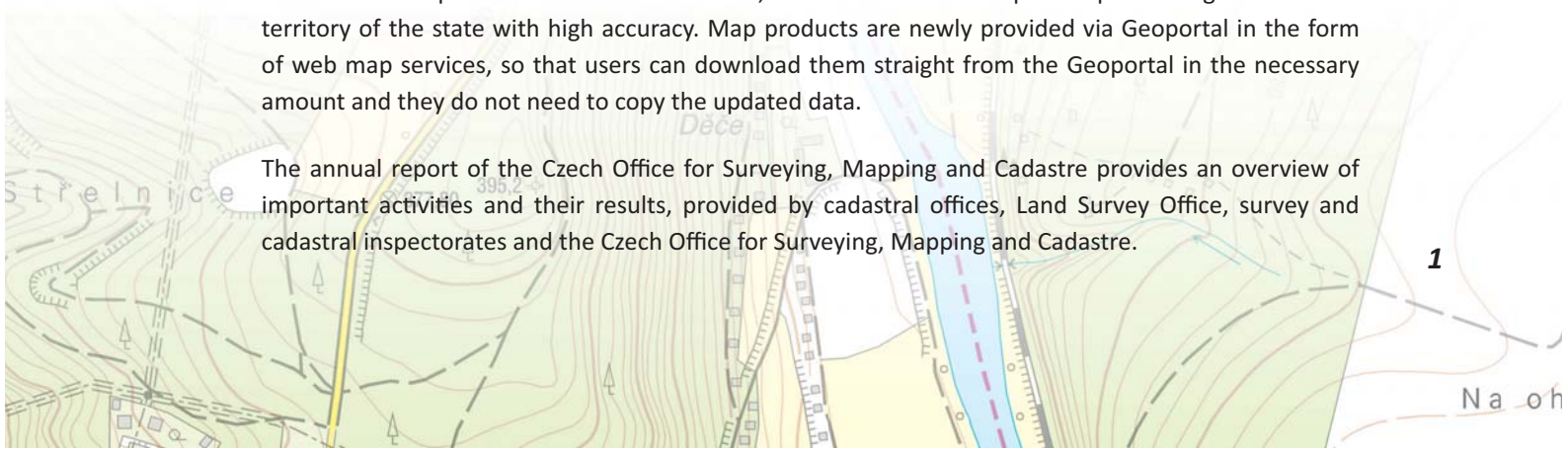


State administrative bodies of the Cadastre of Real Estates managed by the Czech Office for Surveying, Mapping and Cadastre provide state administration in the area of registration of land parcels represented by the Cadastre of Real Estates. Apart from this they ensure performance of surveying activities in the public interest including particularly administration of basic geodetic control, running the Fundamental Base of Geographical Data, publishing the set of the Basic Maps of the Czech Republic, surveying the state border and managing of the Central Archives of Surveying, Mapping and Cadastre.

Economic development of the Czech Republic brought a large amount of work for cadastral offices in 2007. There was a significant growth in requests for providing information from the Cadastre of Real Estates as well as in the number of proposals for entry of ownership or other property rights to real estate and other proposals for registration by records or notations. Yearly increase of 30% in the number of requests for outputs from the cadastre was solely covered by e-services of the Remote access, which satisfied even 50% of 3 500 000 requested information from the Cadastre of Real Estates last year. In 2007 cadastral offices handled 695 564 proposals for registration of rights, which represents yearly increase of 11%. Completed entries by record and notation even reached 1 064 336 in 2007, which represents a yearly increase of 19%. Only the number of records and annulments of notations for seizure reached 577 000 last year. This trend, continuing now for several years, has not been taken into account in any of budgetary indexes. This fact has brought a range of difficulties in the provision of services by cadastral offices to participants in the housing market. In spite of this, cadastral offices still manage to perform the registration in the Cadastre of Real Estates in short time, out of Prague varying from 10 to 30 days. In 2007 there was a considerable improvement in Prague as well, where most entries were made within 2 months, thus in legal time limit. Nevertheless, we have run out of resources, the influence of technological changes is not sufficient enough to provide necessary increases in productivity. This has resulted in reduction of some important activities, which are not immediately connected with registration in the Cadastre of Real Estates, for instance digitalization of cadastral maps. There are being prepared such provisions for the year 2009, which enable to move forward with digitalization of cadastral maps as well.

In 2007 fulfilment of the long-term program of constructing a national geoinformation infrastructure, provided by the Czech Office for Surveying, Mapping and Cadastre continued, included operation of the network of GPS permanent stations – CZEPOS, which allows fast and precise positioning in the whole territory of the state with high accuracy. Map products are newly provided via Geoportal in the form of web map services, so that users can download them straight from the Geoportal in the necessary amount and they do not need to copy the updated data.

The annual report of the Czech Office for Surveying, Mapping and Cadastre provides an overview of important activities and their results, provided by cadastral offices, Land Survey Office, survey and cadastral inspectorates and the Czech Office for Surveying, Mapping and Cadastre.



# The Surveying, Mapping and Cadastre Sector

## Cadastre of Real Estates

The Cadastre of Real Estates of the Czech Republic is a set of data on real estates 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 these real estates. The Cadastre of Real Estates continues a long tradition and inventories of ownership and land registrations in the territory of the Czech Republic, with roots going back to the 14th century. The current Cadastre of Real Estates is integrated in the Information System of the Cadastre of Real Estates (ISKN) and represents one of the principle registers of state administration.

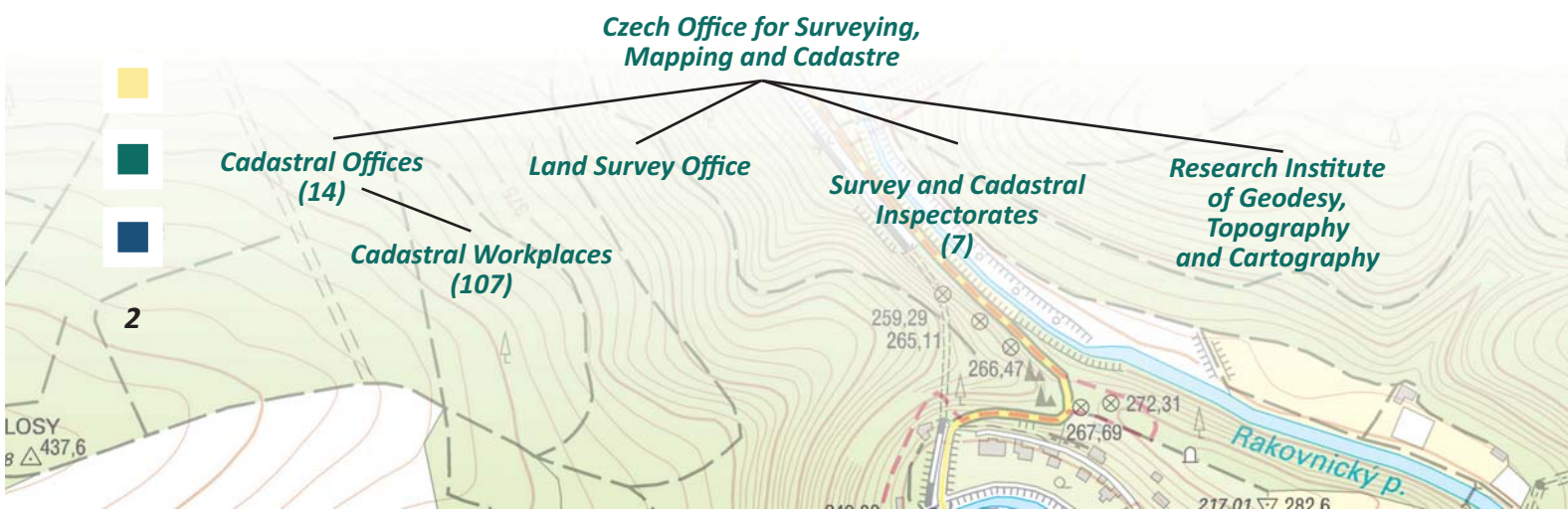
## Land Surveying Activities

Among the most important land surveying work in the public interest provided by the surveying, mapping and cadastre sector are, e.g. building and maintenance of the geodetic of the Czech Republic, maintenance and documentation of the state borders and, equally important, issue of the state map series. These land surveying activities, as well as the administration and management of the Cadastre of Real Estates, fall fully within the competence of state administration.

## Organizational Structure

The Czech Office for Surveying, Mapping and Cadastre (COSMC) governs 14 regional cadastral offices, which have 107 workplaces in larger towns and execute state administration of the Cadastre of Real Estates, 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 Estates and state documentation funds COSMC further manage the Land Survey Office, which focuses on other land survey activities that are provided in the public interest by the surveying, mapping and cadastre section, and it is also the founder of the Research Institute of Geodesy, Topography and Cartography.

Administration authorities for the cadastre and land survey activities were set up by Act No 359/1992 Coll. on land surveying and cadastral bodies, which also specifies their material and territorial competence.

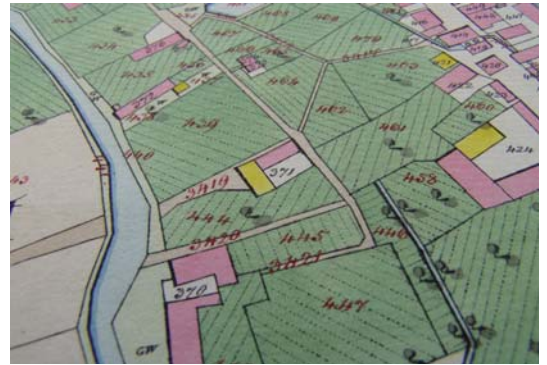


# Administration of the Cadastre of Real Estates

First records concerning the land inventory were collected for tax purposes. The effort for unified tax policy was tangible even in 1022, when the Czech prince Oldřich from the family of Přemyslovci set up the hide tax. Despite the area of the estate taking for the tax basis was not accurate, we can consider it as the first step towards the development of the cadastre (real estates records) as a fiscal tool.

The nobility started to secure private rights of property by recording in Land records at the beginning of the 14th century. That was the start of the recording of rights to real estate here. Later other records of real estate and cadastres were set up, serving predominantly for more effective and fair tax collection.

The foundations of today's modern Cadastre of Real Estates were laid by issuing a supreme patent of the Austrian Emperor Franz I on 23.12.1817, on land tax and land surveying. Its basis was a precise inventory and geodetic measurement of all land, so-called Stable Cadastre. Most cadastral maps of the territory of the Czech Republic are today still derived from the survey documentation of the Stable Cadastre. Such cadastral maps (usually at a scale of 1:2 880) are available for about 64% of the territory of today's state.

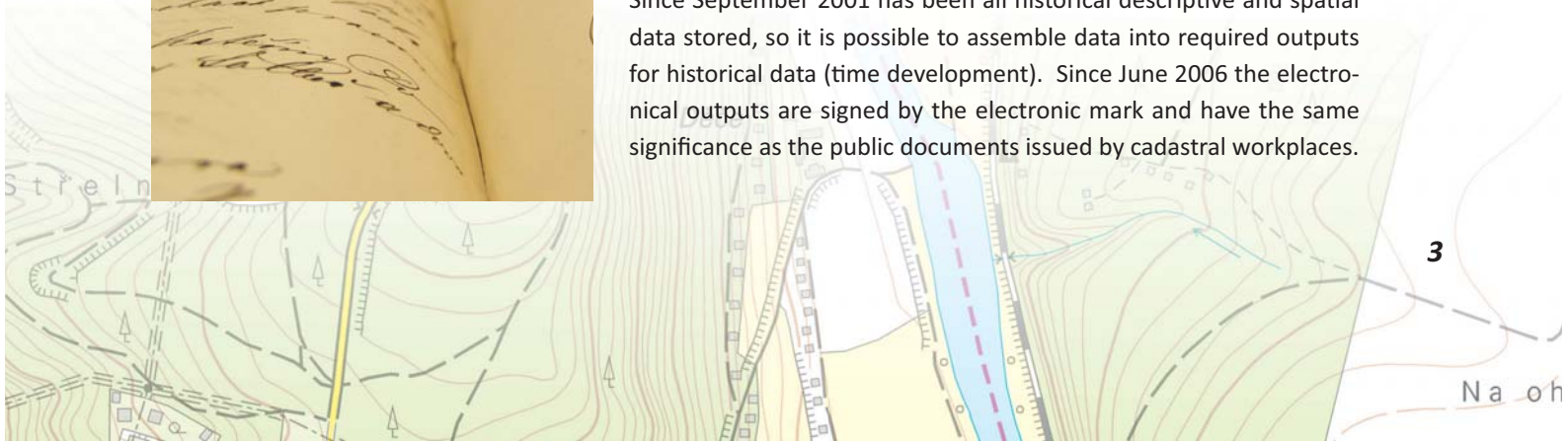


Current Czech Cadastre of Real Estates was established in 1993 and integrates the function of Land Registry Book (registration of rights) and former Cadastre of Lands (records of real estates) into one tool.

Cadastre of Real Estates in the Czech Republic is administered with help of the information system. The Information System of the Cadastre of Real Estates (ISKN) is an integrated information support system for state administration of the Cadastre of Real Estates and for providing user services of the cadastre. It was implemented in 2001. The new system increases the data quality, their accessibility and reliability and offers the option of connecting to other basic registers of state administration. Data are administered in local databases and replicated in roughly 2-hour intervals in the central database by means of the WAN department network. Thanks to this functionality it is possible to search up-to-date data of the cadastre throughout the whole Czech Republic by means of the Internet service „Remote Access to the Cadastre of Real Estates“.



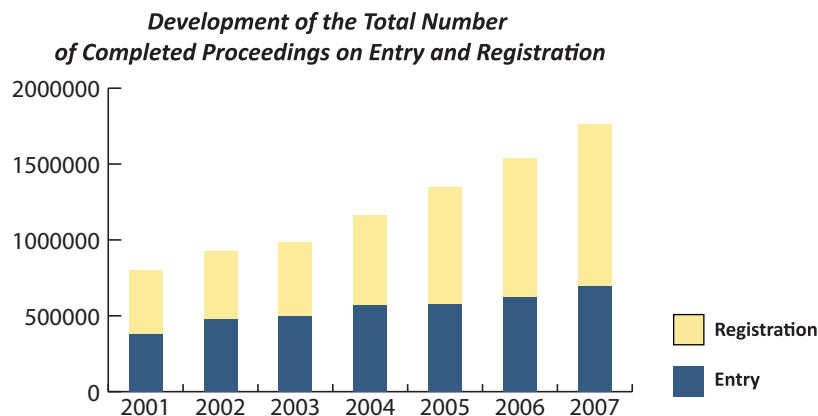
Since September 2001 has been all historical descriptive and spatial data stored, so it is possible to assemble data into required outputs for historical data (time development). Since June 2006 the electronic outputs are signed by the electronic mark and have the same significance as the public documents issued by cadastral workplaces.





## Main Tasks of Cadastral Offices

The main task of cadastral offices is recording of material rights to real estates and other data by means of entry or registration and record of notations. Total number of completed records increased yearly more than a 200 000 again.

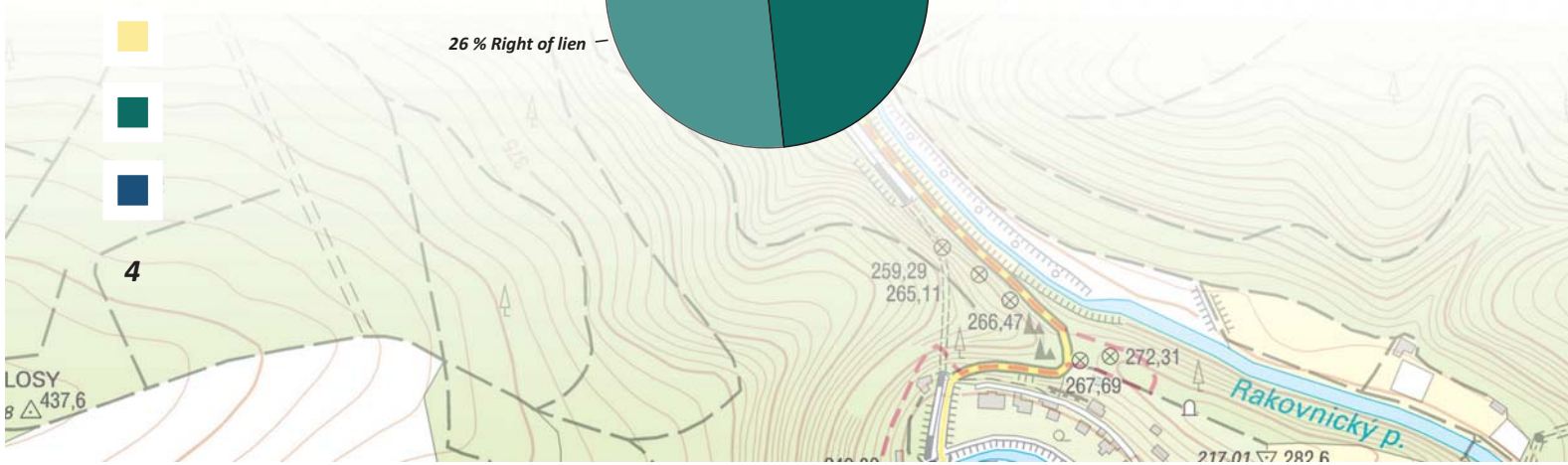
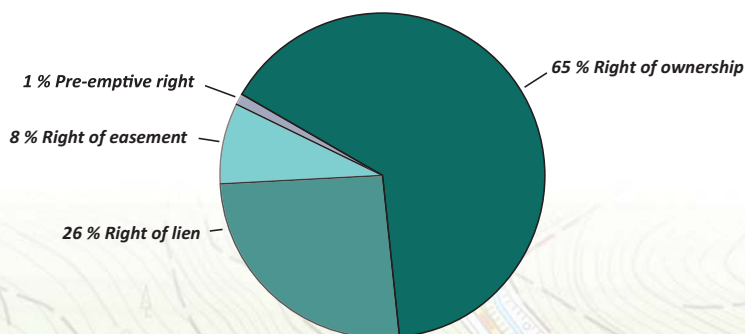


## Entries of Proprietary Rights into the Cadastre of Real Estates

Entry in the Cadastre of Real Estates records 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. In administrative proceedings the cadastral office assesses deeds and other documents, decides on permitting entry and, based on these decisions, records the rights in the Cadastre of Real Estates. Property rights to real estates are created by registering in the Cadastre of Real Estates with legal effect on the date of application for entry.

Entries of rights in the Cadastre of Real Estates are the most demanding activities of cadastral offices in terms of capacity and time. Year 2007 brought a growth in processed proposals for entries of rights of 11% compared to 2006 – a total of 695 000. Proposals for entry of proprietary rights are represented 64,5% of the total number, rights of lien concerned 26,5% of proposals, 7,5% of proposals concerned easements and 1,5% pre-emptive rights with material effects. During years the number of entry of rights of lien has increased most, which shows the development of mortgages.

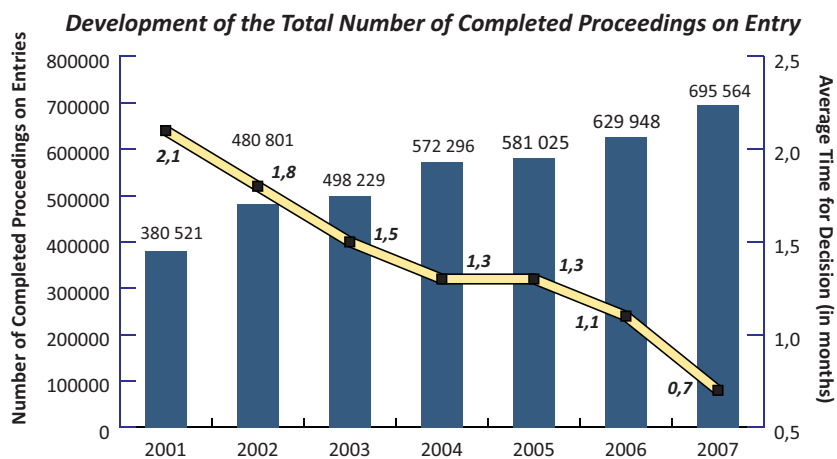
**Share of Different Types of Rights Recorded  
by Entry in the Cadastre of Real Estates**





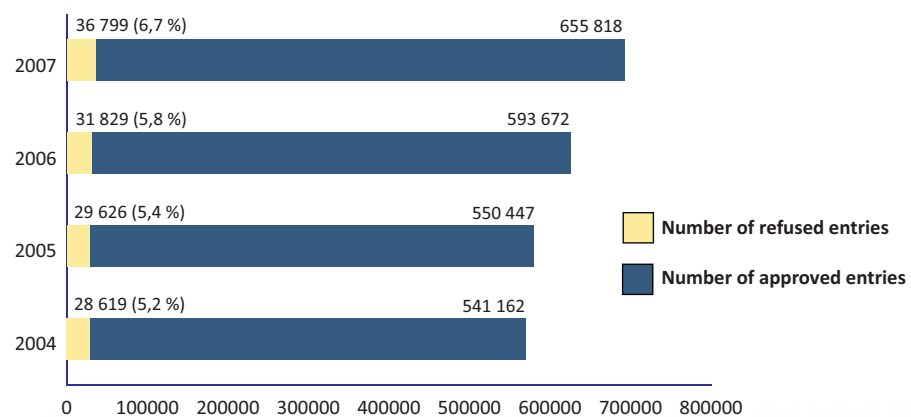
## Reduction of the Time for Entry

We managed to reduce the time for processing requests for entry of rights in 2007 in comparison with previous year conjoined with significant increase in number of completed requests. Average time for decision on the request was reduced from 32 to 20 days – cf. following chart. Discrepancy between the development of financial resources for ensuring of activities of cadastral offices and development of the amount of performed activities has further significantly intensified.

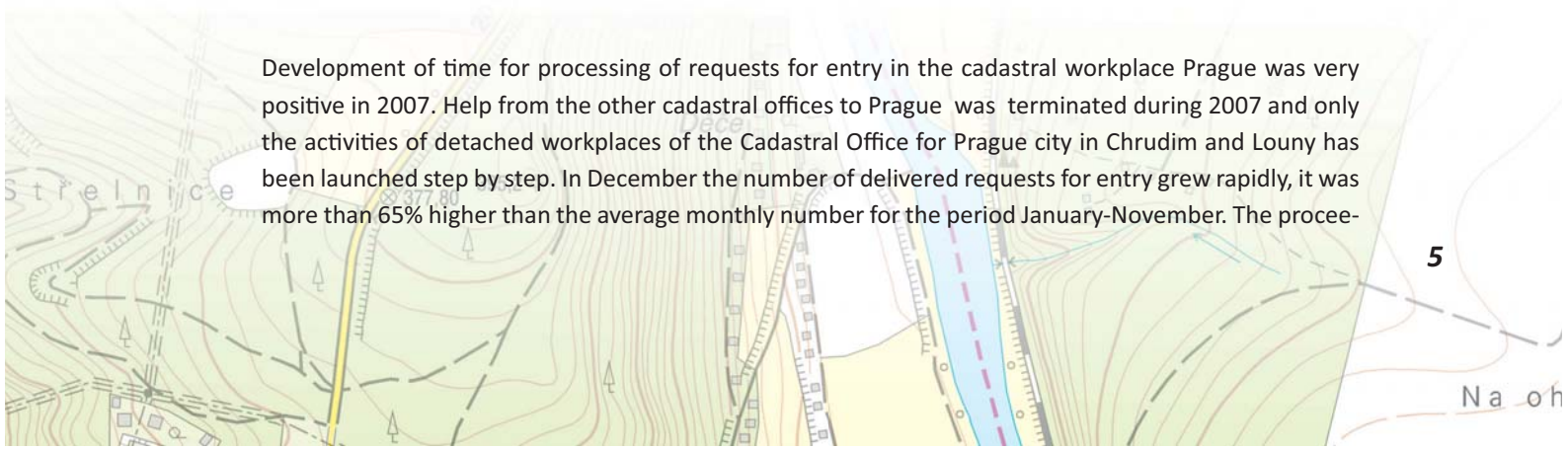


From the total number of yearly requests for entry, 93% entries of rights are approved, the rest of administrative proceedings are refused or interrupted. Not only the total numbers of refused entries, as you can see in chart, but also their percentage at the total number of received requests for entries is growing, which implies degradation in quality of delivered requests for entry of rights. The share of incorrect requests for entry which has to be corrected during the proceeding and which means prolongation for the proceeding, is in the long term high. In some workplaces, e.g. Prague, it is nearly half of all delivered requests.

**Entries of Rights into the Cadastre**  
Number of Approved vs. Number of Refused Entries



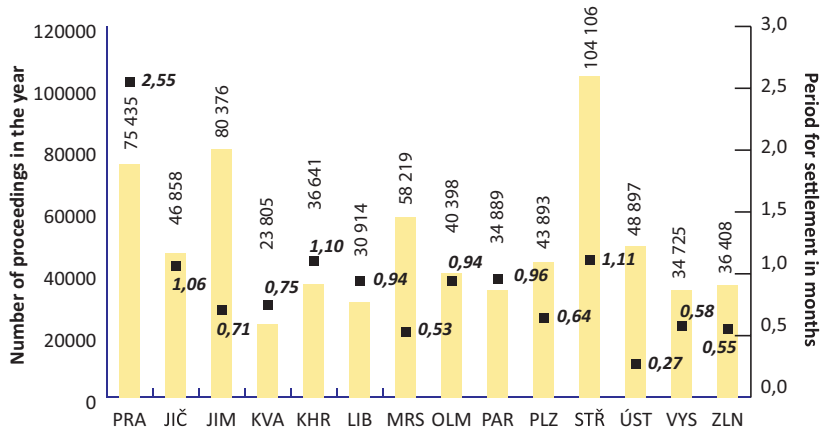
Development of time for processing of requests for entry in the cadastral workplace Prague was very positive in 2007. Help from the other cadastral offices to Prague was terminated during 2007 and only the activities of detached workplaces of the Cadastral Office for Prague city in Chrudim and Louny has been launched step by step. In December the number of delivered requests for entry grew rapidly, it was more than 65% higher than the average monthly number for the period January-November. The procee-



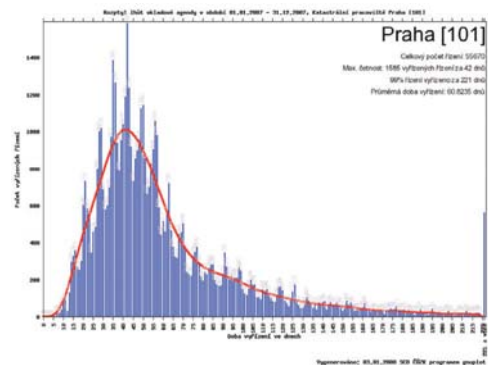


ding for entry took still the longest time in Prague, 2,6 months on average (at the end of the year 2006 it was, however, 3,8 months). At the end of the year the correct requests were proceeded in legal time limit (60 days) and only the requests, which required complement were proceeded longer. In other regions the time limit for proceeding varied from 9 to 33 days, as it is evident in the chart above.

**Entries of Proprietary Rights by Entry in to the Cadastre – in Regions**



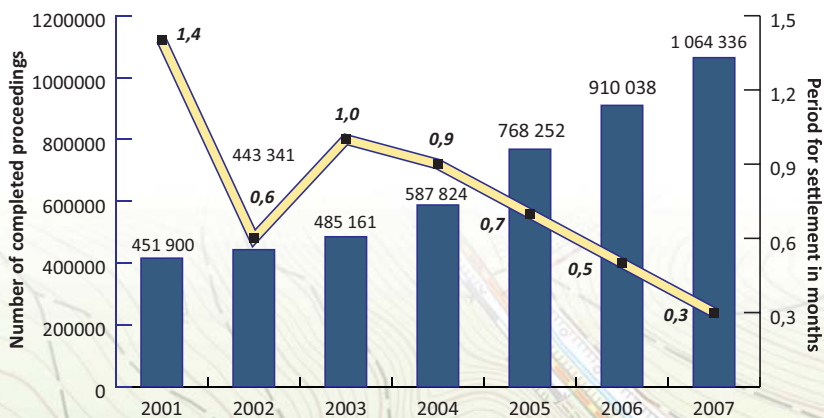
Following Chart of dispersion of period for entries in the Cadastral Office for Prague-City depicts the proposals delivered and completed in 2007 and proves, that the highest number of applicants was satisfied within 1,4 months from the delivery of the proposal for entry and most of proposals were completed within 60 days.



## Registering of Rights by Record, Notation and Registering of Other Data

Cadastral offices perform also other registrations into the Cadastre of Real Estates, namely registering by record. This is the way how to register the rights to real estates established by decision of the other organizations of state administration, by decision of courts or given by the law, by knocking down of the auctioneer in the public auction, how to annul extinguished rights of lien and easements. Further types of registrations are the registrations by notation. Notations serve to denotation of facts or relations relating to the real estate or a person, which are solely informative. Following data are recorded into the Cadastre of Real Estates regarding e.g. change of land type, real estate protection etc.

**Registering by Record in the Cadastre of Real Estates**





In 2007 the enormous growth in the number of submissions for recording and registering of notation went on.

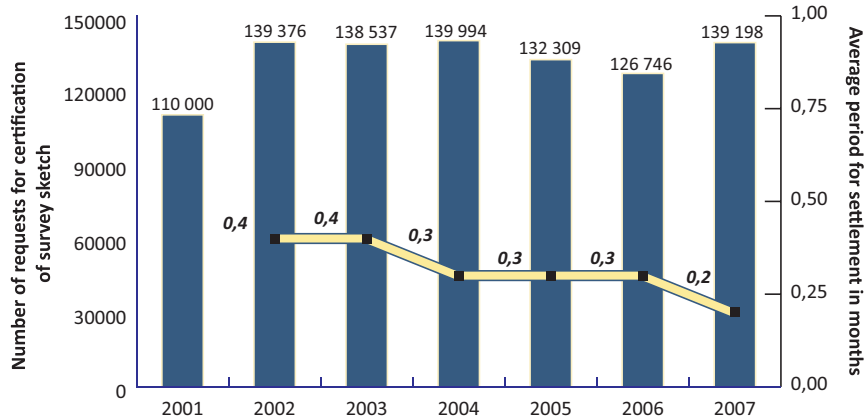
Whilst 856 000 submissions were delivered to cadastral offices in 2006, in 2007 the number of these submissions exceeded 1 059 000, which represents an annual growth of more than 19%. The situation is complicated, by the fact that the number of requests for recording and annulment of property by seizure of assets (in total 45% out of recording and notation proceedings), which the cadastral offices carry out without delay, has increased. In order to do not prolong the time for other registrations by records, significantly more requests had to be managed than those submitted in the particular year. In total 1 064 000 submissions including documents for making records were handled. Despite of growing number of submissions, the average period for completing has shorten by about one third – instead of 14 days in 2006 it was 10 days in 2007.

### Certification of Survey Sketches

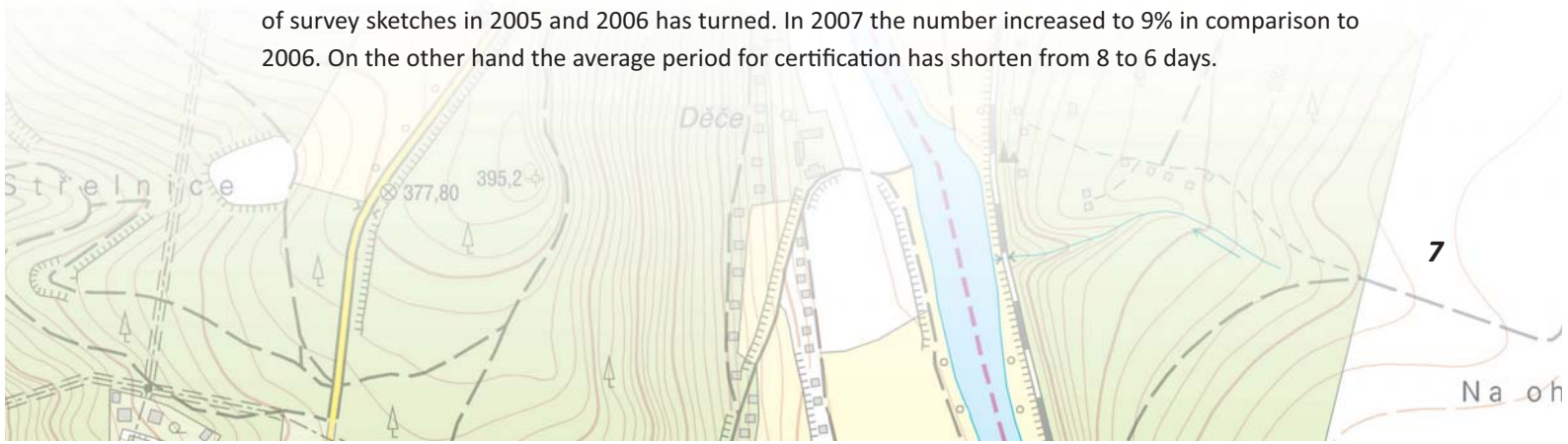
Survey sketches represent land parcel division, position of a building or change of its external outline in the cadastre and some other changes shown in cadastral maps. They are made solely by private geodetic firms. They are important documentation for maintaining cadastral maps, thus every survey sketch must be legalised by an authorised surveyor who is authorised to cer-



**Development in the Number of Requests for Certification of Survey Sketch**

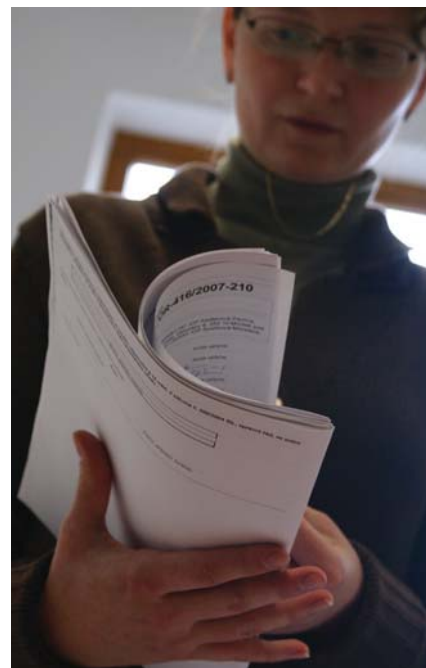


tify the results of surveying activities by the Czech Office for Surveying, Mapping and Cadastre under Section 14 of Act No 200/1994 Coll. on surveying and mapping. The number of surveying sketches has been very high in the Czech Republic for a long time, since there are transformation processes constantly occurring, whose result or partial step is land division (agricultural restitution, registering property of municipalities, sale of state farming land etc.). Building of residential, industrial and infrastructure constructions is also developing. The trend of moderate lowering in number of requests for certification of survey sketches in 2005 and 2006 has turned. In 2007 the number increased to 9% in comparison to 2006. On the other hand the average period for certification has shorten from 8 to 6 days.



## Provision of Information from the Cadastre of Real Estates

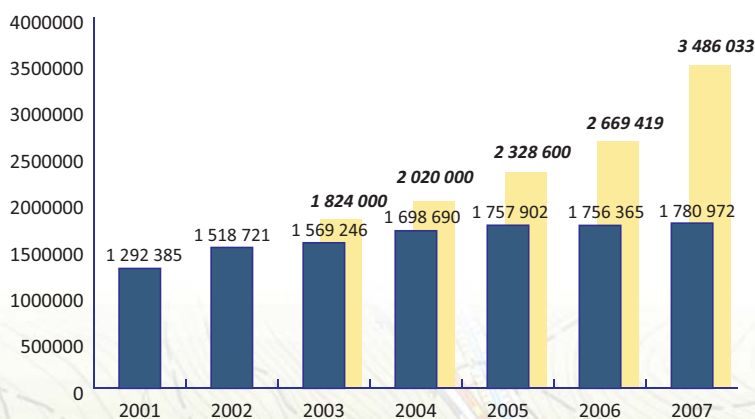
Individual workplaces of cadastral offices provide clients information from the cadastre over the counter during office hours. Outputs from the cadastre contain both technical data on real estates and data on legal relations. In addition, copies of cadastral maps, copies of documents stored in document 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 visit to the cadastral office. These services satisfy a significant part of the continually growing demand for information from the Cadastre of Real Estates. Requests for provision of information at the counters of cadastral offices in 2007 remained at the level of the previous year, while the total increase of satisfied requests for information from the cadastre including remote access was 31%. Number of electronically provided information has grown on about 81%. We suppose therefore, that in 2008 will the number of electronically provided information overreach the number of information provided over the counter, because the proportion of information provided electronically and over the counter is being equalized progressively. This trend shows greater orientation of users towards acquiring information by means of remote access via Internet services, which have started to use not only banks and real estate agencies, but also municipalities and regional authorities. On 1.7.2006 notation of statements from the Cadastre of Real Estates with an electronic mark began. Such statements are considered as public documents. More in the chapter Electronic services of COSMC – Remote access.



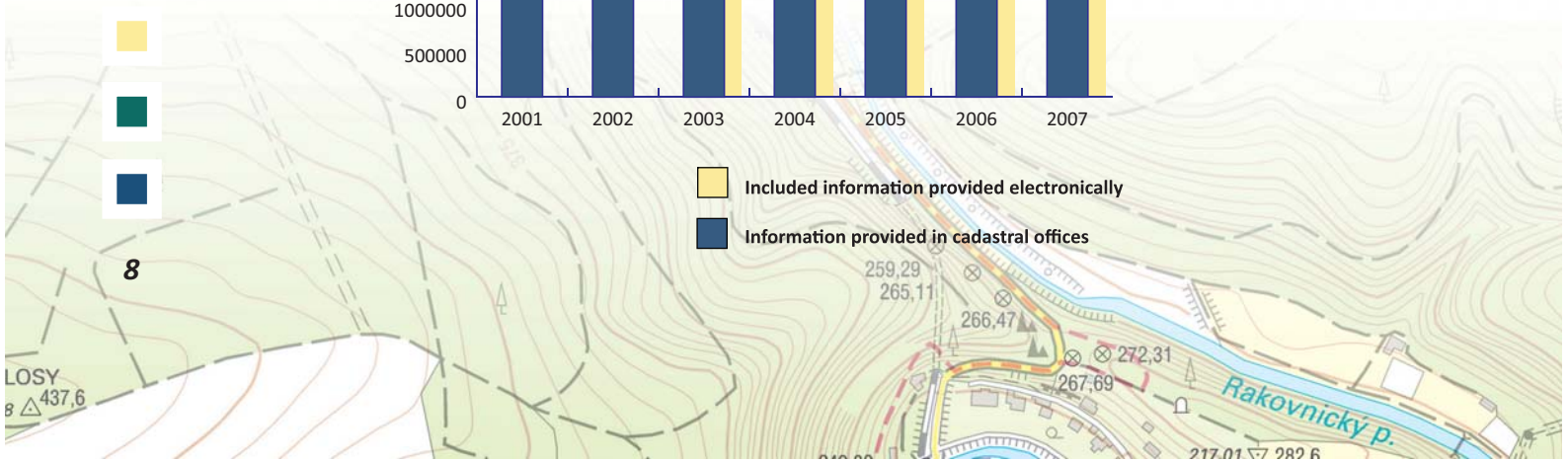
## Digitalization of the Cadastre of Real Estates

Digitalization of the real estates registry as a whole is a vital step not only for effective operation and administration of Cadastre of Real Estates. Cadastral maps in digital form are fundamental databases for administration and decision-making within the area. They are strategically important as a reference

**Provision of Information from the Cadastre of Real Estates**



 Included information provided electronically  
 Information provided in cadastral offices







basis for creation of further maps, information systems and applications relating to the territory as f.i. digital technical maps, spatial plans, price maps, monitoring and development of technical and traffic infrastructure, environment and many others. Digitalization of the file of descriptive information of the cadastre began in 1993. The 5-year objective was completion of the cadastral database with missing data on land parcels consolidated into large agricultural and forest areas, supplementation of some data on ownership of real estate, supplementation of identifiers of owners and data on agricultural land quality. In the course of this process almost 40 million entries were added to the database and its volume thus doubled. Digitalization of the file of descriptive information of the cadastre created basic conditions for the transition to a higher version of the CIS equipped with remote access to data in the central database of the cadastre. Currently the size of the database is in total 0.6 Tb (terabytes).

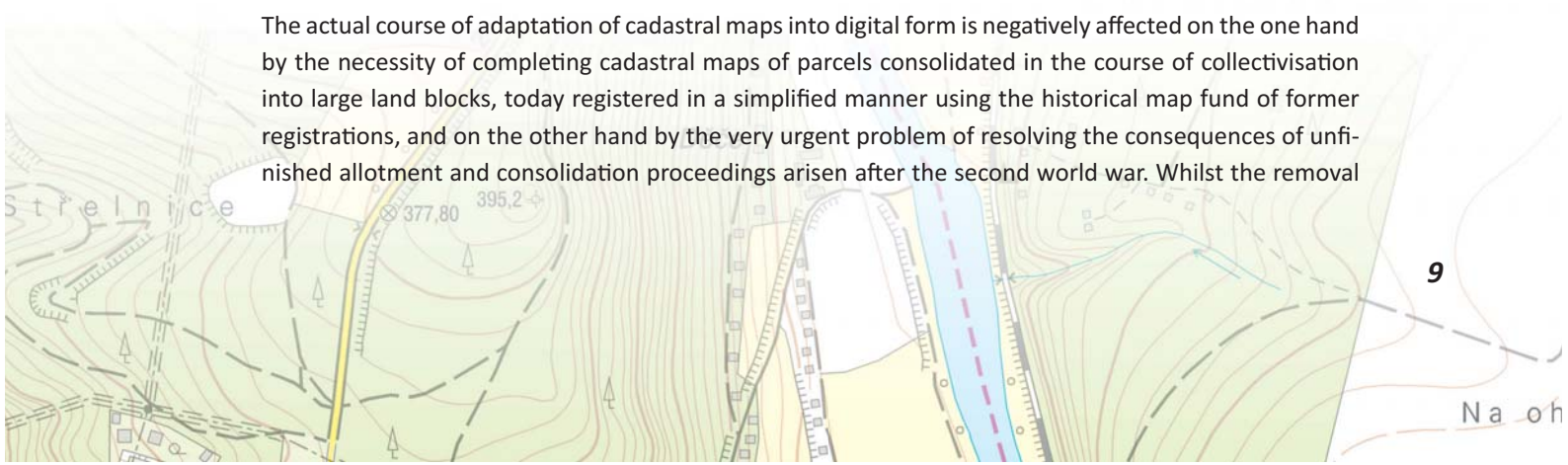
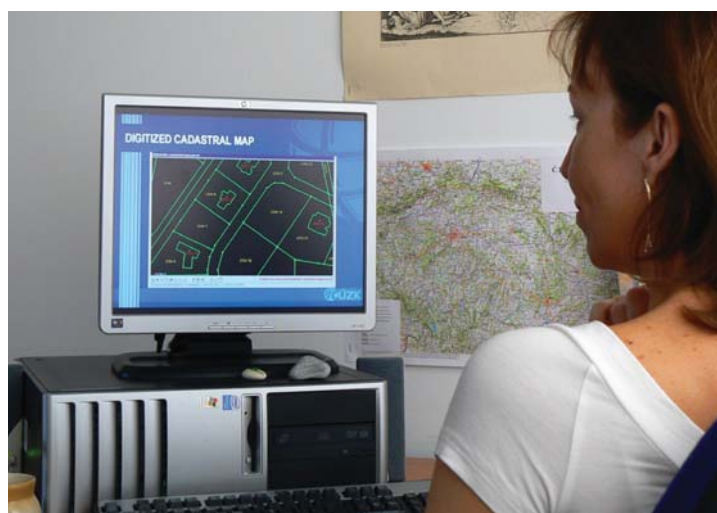
Digitalization of cadastral maps started in connection with the completion of digitalization of descriptive information of the cadastre. The capacity that cadastral offices can give to map digitalization is limited in view of the growth of volume of other activities. Therefore only 2 to 3% of the total cadastral territories in the Czech Republic are transformed into digital form annually. Attention is focused above all on cadastral maps of cities and larger municipalities, where higher quality documentation is usually available, there are more transactions on the property market and development objectives are realized. Digitalization of cadastral maps in such localities is time consuming.

### Progress of Digitalization

At 31.12.2007 the cadastral map was available in digital form in 4 663 cadastral districts, which represents 36% of the total number of 13 027 cadastral districts of the Czech Republic. 27% of them are DCM (Digital Cadastre Map) and 9% are the CM-D (Cadastral Map-Digitized). Revision of cadastral documentation was completed in the form of vector digital cadastral maps (DCM) based on the results of land consolidation projects and new mapping in 189 cadastral districts (or their parts), revision of cadastral documentation by adaptation of the set of geodetic information in the S-JTSK coordinate system to DCM in 87 cadastral districts and in 70 cadastral districts transformation of the cadastral map in S-JTSK to DCM was carried out in 2007.

Until digital cadastral maps are available in other regions, users make use of raster data, obtained by precise scanning of cadastral maps and land cadastre maps. Raster data of cadastral maps with up-to-date content are procured continually, based on requests. Currently these maps are available in the whole CR by means of the application „Remote access to the Cadastre of Real Estates“.

The actual course of adaptation of cadastral maps into digital form is negatively affected on the one hand by the necessity of completing cadastral maps of parcels consolidated in the course of collectivisation into large land blocks, today registered in a simplified manner using the historical map fund of former registrations, and on the other hand by the very urgent problem of resolving the consequences of unfinished allotment and consolidation proceedings arisen after the second world war. Whilst the removal



of parcels registered in a simplified manner is a technical problem, resolution of the consequences of unfinished allotment and consolidation proceedings is a problem with serious legal aspects. Land consolidation, which is the most effective tool for the solution of relations in the area as a whole, because it provides digital cadastral map together with resolution of ownership relations, is however proceeding very slowly due to insufficient financial support.

Lowering in the number of completed cadastral districts in 2004-2007 was influenced in particular by the reduction in the number of employees (2% yearly in 2004-2006).

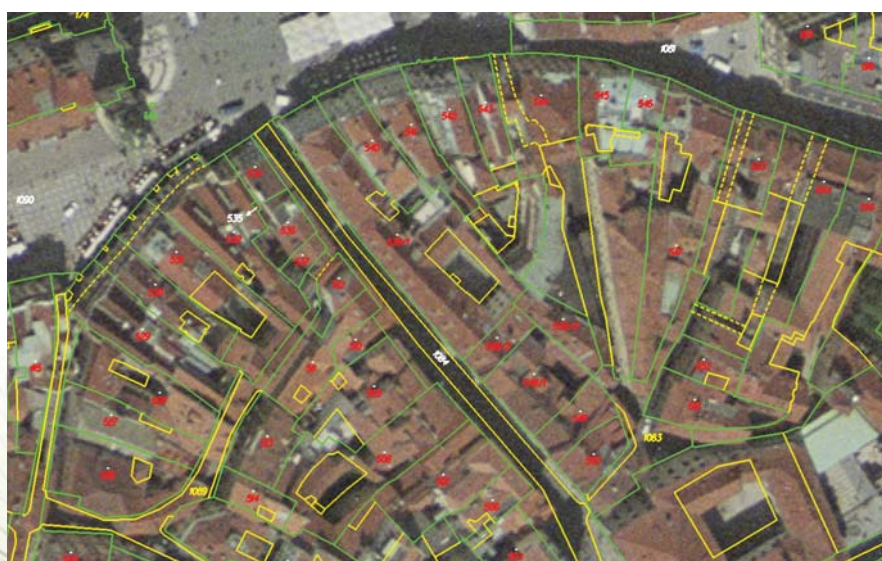
### Plan of Digitalization of Cadastral Maps

The Czech government decided in July 2007 to speed up the digitalization by creating suitable conditions, which enable completing of digitalization of cadastral map on 64% of the state territory by the end of 2015. It means the speed 1200 of completed cadastral districts yearly (9%), see the following figure.

To meet the proposed deadline is necessary to complete step-by-step land consolidation and allocation in cadastral districts with uncompleted proceeding in it by the end of 2015.

**Development of Digitalization of the File of Geodetic Information of the Cadastre (FGI): 2000-2007**

Year	MJ	Until 2000	2001	2002	2003	2004	2005	2006	2007
Digitalization Completed	c.d.	1049	440	453	543	383	314	279	263
Total in Digital Form	c.d.	1988	2428	2881	3424	3807	4121	4400	4663
Yearly Growth from the Total of 13 027 c.d.		8%	3%	3%	4%	3%	2%	2%	2%
(% from the Total Number)		15,3	18,6	22,1	26,3	29,2	31,6	33,8	35,8



Rakovnický p.





To ensure funding of this task the amendment of the Act on administrative fees has been prepared in which the fees for entries in the Cadastre of Real Estates all raise to 500 CZK for each real estate the right to which is being registered. Part of this increased income of the state budget will be used direct for financing of the digitalization of FGI.

<b>Schedule of Digitalization of FGI: 2007 – 2015</b>									
<b>Year</b>	<b>1997-2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<i>Proposal of the Number of Cadastral Districts for Map Digitalization</i>	-	690	1055	1286	1322	1210	1167	1034	600
<i>Total Number of Cadastral Districts with Cadastral Map in Digital Form</i>	4663	5353	6408	7694	9016	10226	11393	12427	13027
<i>Yearly Growth in % out of Total Number</i>	2%	5%	8%	10%	10%	9%	9%	8%	5%
<i>(%out of Total Number)</i>	36%	41%	49%	59%	69%	78%	87%	95%	100%

The problem is also unbalanced fulfilling of digitalization in single regions, which ranges between 20% and 50% out of the total number of cadastral districts in region. The lowest digitalization ratio influencing the need for strengthening of personal capacities is in Prague and in Central Bohemia region. This fact significantly complicates the organizational and methodical aspect of control of the whole digitalization task.

### **Cooperation with Private Sector**

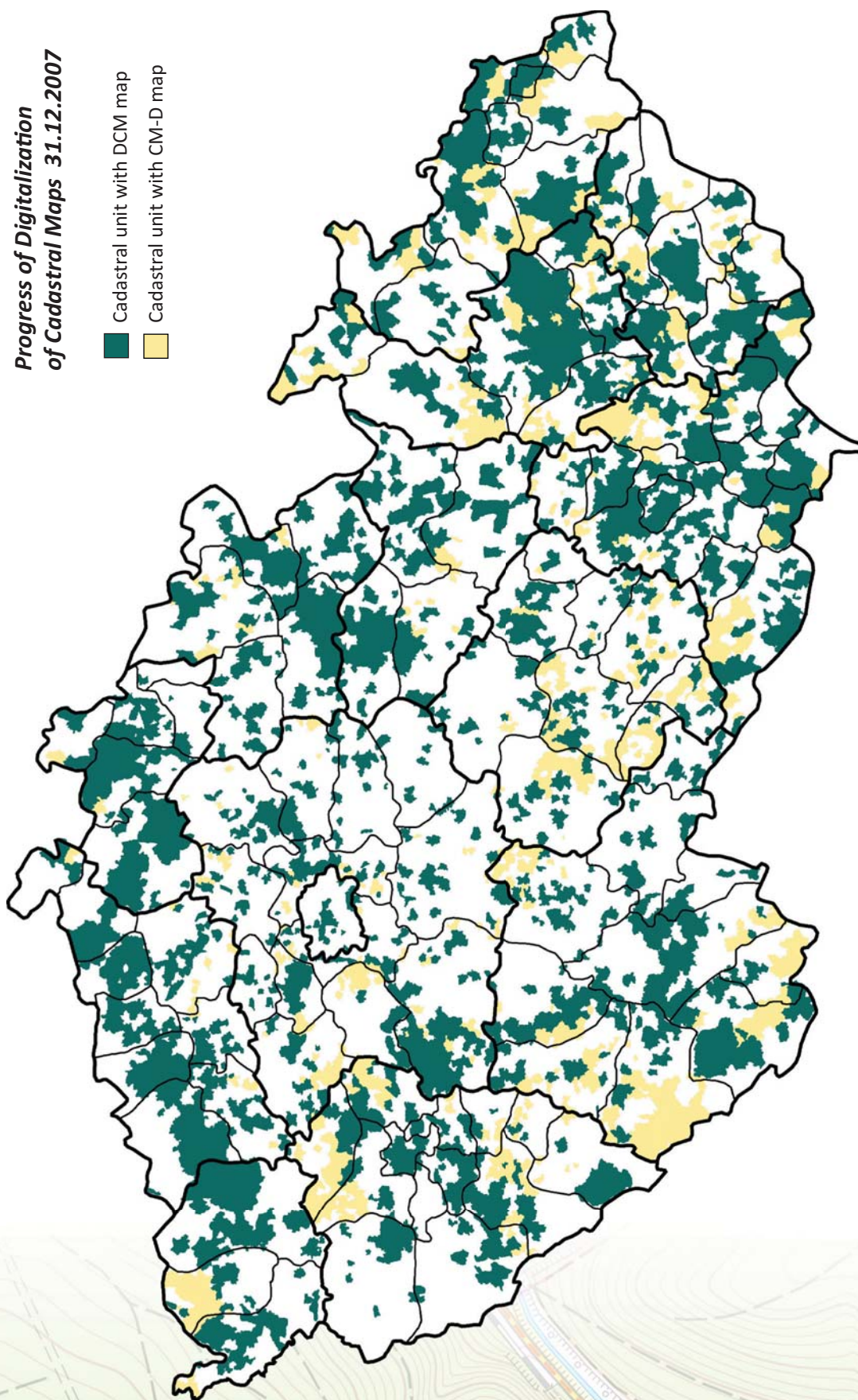
Following the resolution of the government on speeding up the digitalization the private sector will take part on digitalization approximately in range of 40% of necessary capacity during 7 years. The possibility of joining of private companies will be proved in 2008, because we consider submitting of tender offers in following areas: establishing of detailed horizontal control in reasonable range, planimetry surveying, counting of point coordinates from original surveys and assignment of identical points in areas with fathom cadastral map.

Activities provided solely by cadastral offices remain following preparative and completing works given by legislation, revision of the cadastre, taking of boundaries, acceptance and processing of renewed FGI and FDI.



**Progress of Digitalization  
of Cadastral Maps 31.12.2007**

- Cadastral unit with DCM map
- Cadastral unit with CM-D map





# 3 Land Surveying Work in the Public Interest

It is typical at present for land surveying work in the public interest guaranteed by state systematic proceeding and storage of results of land surveying activities into the database systems for the purpose of support and step by step creation of the environment of the national geoinformatic infrastructure in the Czech Republic. Fundamental components of the national geoinformatic infrastructure in the responsibility of the Czech office for Surveying, Mapping and Cadastre are: basic and detailed geodetic control (horizontal, vertical, gravity) creating the reference frame of spatial data, Fundamental Base of Geographic Data (ZABAGED®), sets of basic and thematic map series, orthographic representation of the Czech Republic, digital terrain model and database of standardized geographical names (GEONAMES).

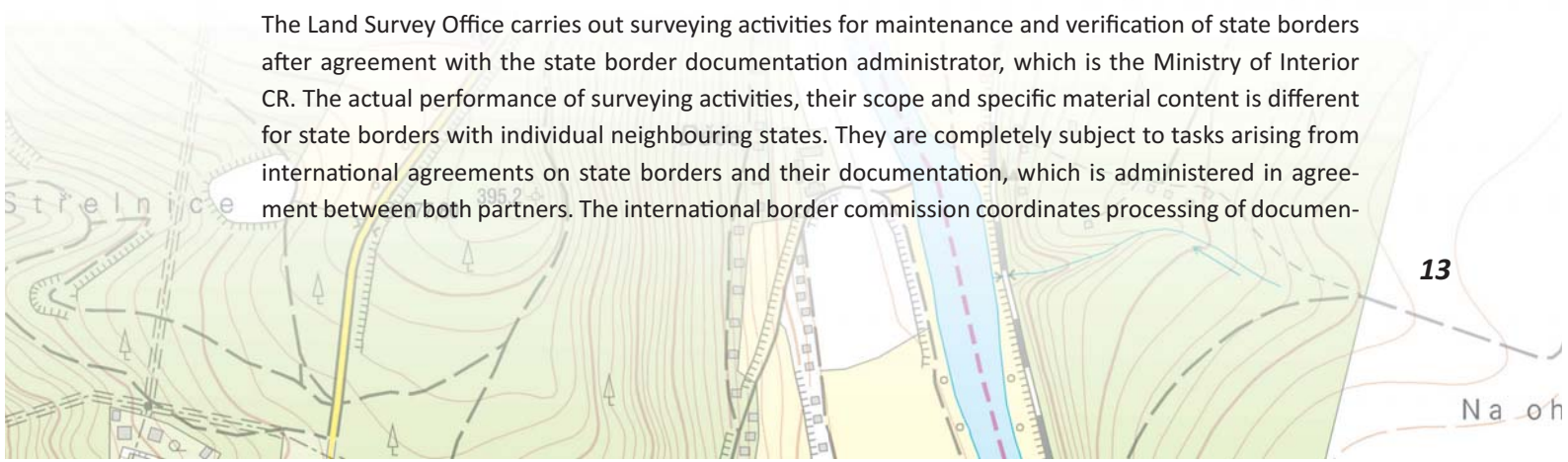
## Establishing and Maintenance of Geodetic Control

The Land Survey Office performs administration of geodetic control of the Czech Republic and decides on the localisation, transfer or removal of survey marks of basic geodetic control. The Triangulation Department sets up, maintains and renews the points of basic horizontal control and carries out maintenance of selected points of the Czech State Trigonometric Network equipped by coordinates in the European Terrestrial Reference System (ETRS). The Levelling and Gravimetry Department sets up, maintains and renews points of basic vertical and gravity control and carries out maintenance and renewal of the Czech State Levelling Network, special levelling networks and the Fundamental Geodynamic Network of the Czech Republic. In the end of 2007 the new Conception of administration of geodetic control in the Czech Republic was prepared, which takes note of use of new GNSS technologies (Global Navigation Satellite System). Main focus will be paid to continuous administration and further development of CZEPOS functions. Regular maintenance of geodetic control points will be significantly reduced and focused on damaged and extinguished points. In the frame of realization of the project in the CR fundamental data are being prepared and coordinates will be calculated to the level of points of the survey maintenance of the Czech State Trigonometric Network.



## Maintenance and Documentation of the State Border

The Land Survey Office carries out surveying activities for maintenance and verification of state borders after agreement with the state border documentation administrator, which is the Ministry of Interior CR. 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 documen-



tation for maintenance, signalling and verifying state borders and updating border documentation. From the point of view of surveying activities the current period can be described as a period of transformation and updating of state border documentation from a graphical to a digital form and specification of positioning coordinates of all break points of the state border.

## Fundamental Base of Geographic Data (ZABAGED®)



ZABAGED® is a database set of selected geographic, topographic and geodetic data from the whole territory. It creates a digital topographic model of the territory of the Czech Republic derived from the Base Map of the Czech Republic 1:10 000, which was compiled in the S-JTSK geodetic reference and Baltic vertical system after adjustment of data. ZABAGED® has the character of a geographic information system integrating a spatial component of vector graphics with topographic relations of objects and attributes containing descriptions and other information on features. The content of ZABAGED® represents 106 types of features structured in the database into 60 graphical layers of vector (DGN) files. Complementary information or identifiers of some types of features (hydrography, communications) are taken from databases of their expert administrators. The vertical component equipped with a vector file of contours allows creation of a digital terrain model. Space organizational units of ZABAGED® are map sheets of 1:10 000 in the sheet line system of the Base map of the Czech Republic at medium scales. In the area of updating ZABAGED® is the new application equipment fully used and according to the schedule the area of 1 600 map sheets of Base Map 10 will be updated in the regime of aerial maintenance. Further cooperation with external administrators at taking over of kept features or attributes is mostly assigned by partial real tasks.

## State Map Series

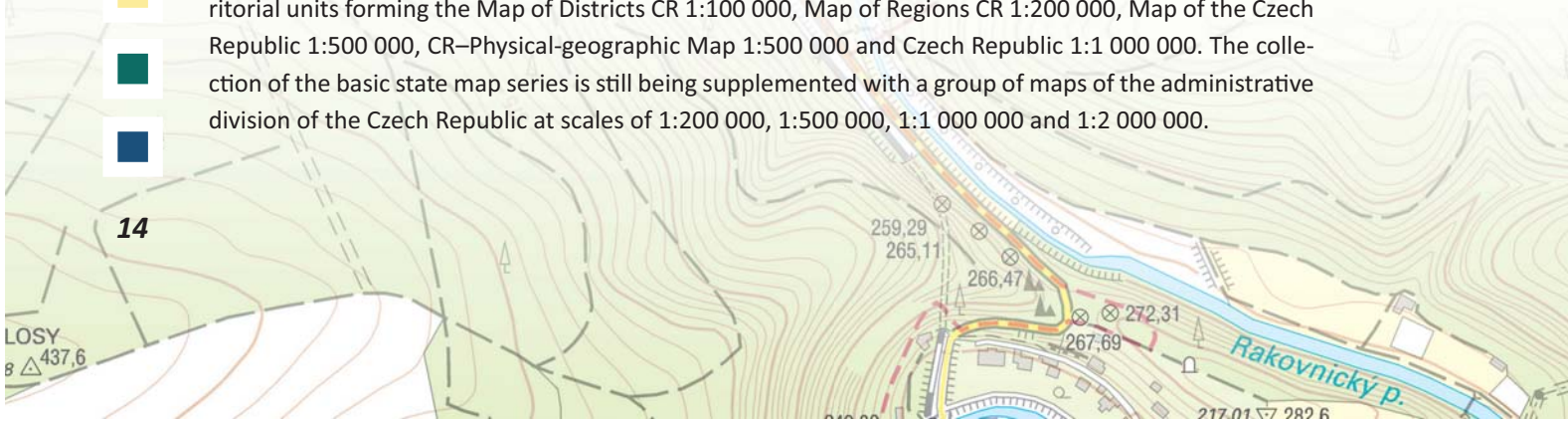
State map series represent sets of basic and thematic map series produced by the Land Survey Office and the Czech Office for Surveying, Mapping and Cadastre. The basic state map series is a cartographic work with a basic generally usable content, coherently showing the territory according to unified principles, created and issued in the public interest. The sources of topographic content of the basic state map series are cadastral maps and ZABAGED®.

The basic state map series is represented by a state map series at a scale of 1:5 000, which includes a digital and classical map at a scale of 1:5 000 based on an orthophoto, completed with contours and highlighting important elements of planimetry by vectors. For most of the state territory there exists only the former version of the state map of 1:5 000 with planimetry derived from cadastral maps with contours taken from the Base Map of the CR. Base maps at medium scales represent the most important part of the basic state map series. Base Maps of the CR are produced in a scale series of 1:10 000, 1:25 000, 1:50 000, 1:100 000 and 1:200 000. An important part of the state map series are maps of territorial units forming the Map of Districts CR 1:100 000, Map of Regions CR 1:200 000, Map of the Czech Republic 1:500 000, CR–Physical-geographic Map 1:500 000 and Czech Republic 1:1 000 000. The collection of the basic state map series is still being supplemented with a group of maps of the administrative division of the Czech Republic at scales of 1:200 000, 1:500 000, 1:1 000 000 and 1:2 000 000.



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The thematic state map series is a cartographic work as a rule representing certain thematic phenomena, on the basis of the basic state map series, which is published in the public interest. The collection of the thematic state map series issued by the Czech Office for Surveying, Mapping and Cadastre includes the Base Hydrographic Map CR 1:50 000, Road Map of the Czech Republic 1:50 000, Regional Road Map CR 1:200 000, Map of Fundamental Settlement Units 1:50 000 and some other maps with thematic land surveying content. In 2008 completion of a new version of BM10 is scheduled and much effort is given to process of creation of BM25 to be completed by the end of 2009. Development of creation of Derived State Map (DSM) will be supported in the new information cartographic system prepared in cooperation with the company T-Mapy Ltd., which is due to be launched in the middle of 2009. In the course of the year the folded maps are to be sold stepwise via all cadastral workplaces. Land Survey Office has taken over the administration of creation of SM5 on 1.1.2008 and activities connected with launching of the new technology for creation of this map work are being in progress at present.

## Orthophotographic Representation of the Czech Republic

Aerial photographs with distortion caused by height differences of terrain surface removed find more and more uses in various field of activity. A colour orthophoto is available for the whole territory of the Czech Republic. The Land Survey Office distributes this product to users in map sheets of the State Map 5 (ca 5 sq m). Data in TIF raster format, JPEG or MrSID with resolution of 0.5 m and are georeferenced in coordinate system S-JTSK with help of text set TFW (SDW). Sets for georeferencing to WGS84 system are also provided – UTM representation.

In 2008 completion of taking cycle and creation of orthophotos from the west zone is scheduled, so as preparation for conversion to the orthographic representation of the republic with smaller pixel size 0,25 m since 2009.



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## GEONAMES Database

The GEONAMES database provides a complete set of information on geographical names (terrain features, hydrography, land – a total 68 types of designated objects) and names of settlement units standardised on the Base Map of the Czech Republic.

GEONAMES is a spatially relational database that is replacing the existing system of registration in the Lists of Geographical Proper Names and registration maps at a scale of 1:10 000. The GEONAMES database speeds up access to these data and allows data analysis. Alongside data from the Fundamental Base of Geographic Data CR (ZABAGED®) it provides users with an integrated view of the territory of the Czech Republic. It is a source for publishing state map series of various scales. Updating of the GEONAMES database is going on in cooperation with municipalities harmonized with updating of ZABAGED®. In 2008 the methodology for integration of data in both mentioned applications is to be completed.



# 4

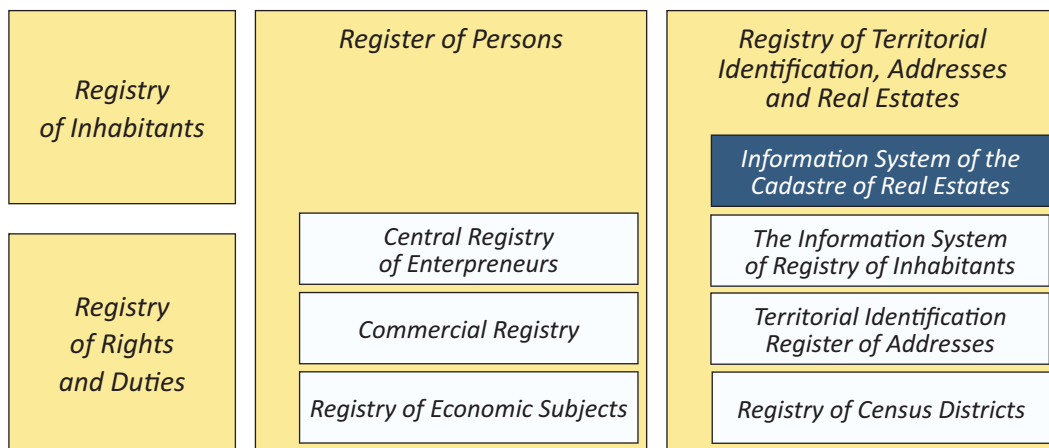


## e-Government Services

Headstones of the national e-Government conception (electronic public administration) are the basic registers forming the registry system of public administration. Basic registers contain datasets on people, companies, and real estate and on rights and obligations.

Chordal structure of electronic public administration should create four registries depicted in the following picture. Interior ministry prepares launching of the first registry in 2010.

### Basic registers under construction



The branch COSMC is in particular involved in the Registry of territorial identification, addresses and real estates (RÚIAN). The registry should serve as the source of reference and other data on territorial items and territorial-registered units included parcels, buildings, addresses and their localization. The Act on RÚIAN is supposed to come into power in 2009 and that is why RÚIAN should be launched first.

Interconnection of basic registries of public administration with other registries should remove current problems with heterogeneous data in particular in the area of people, companies, addresses and territorial identification. After launching of basic registries these data will be centralized in one place, which will save financial resources and time not only to public authorities but also to other subjects outside the public administration. These resources could be then allocated to creation of other information services. Citizen should have benefit from cooperation of these registries in the area of notification duty (notification of changes at one place – Czech POINT).



## Electronic Services in COSMC

Informatization of the public administration and society in general brings the need of creation of geo-information infrastructure on the national level. Introduction of e-Government encompasses several component technical problems, such as digitalization of the data series and information funds, use of protected electronic communications (ciphered communication, electronic signature, electronic mark), making accessible agendas and remote services (presentation of products and services on www portals, implementation of web services for remote access to data), interconnection of information systems of public administration and similar. In the area of land surveying and the cadastre users have several services that can be termed applications of electronic public administration available. These services allow clients to acquire information from the cadastre, use the on-line map services or determine the actual position or carry out a precise measurement using the network of GPS ground stations.

### Remote Access to the Cadastre of Real Estates

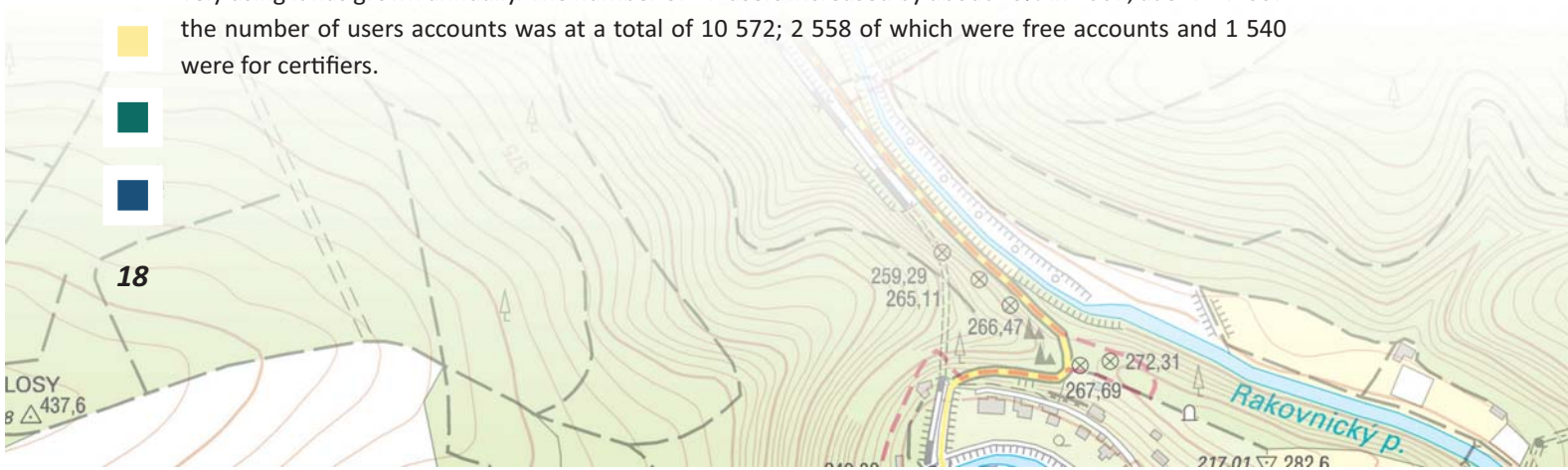
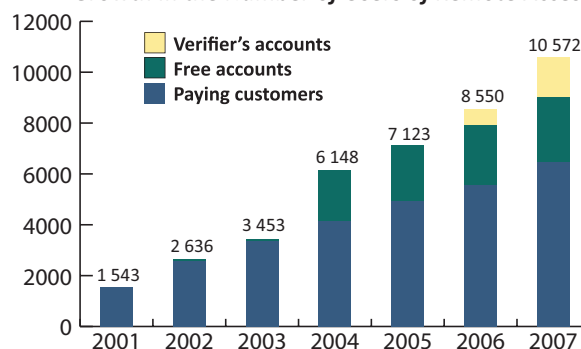
<https://katastr.cuzk.cz/>

Remote access (DP) allows the provision of data from the cadastre for the whole territory of the Czech Republic over the Internet. Outputs from the cadastre obtained in this way – for example statements from the cadastre and other configurations – are formally and materially completely identical to documents issued at the same time by the cadastral office.

In 2006 the possibility of visual search in the application was improved. Aside from digital cadastral maps, orthophoto maps (aerial photographs) and Base Topographical Maps at a scale 1:50 000 and 1:10 000 for the whole territory of the CR were made available, as a navigation tool for orientation in space and improved searching of parcels. Since 2.1.2007 scanned raster maps of the cadastre are also available through the application Remote access to the Cadastre of Real Estates for the whole CR and those cadastral districts where digital maps are not available yet. Raster cadastral maps are the part of the so-called orientation map of parcels and are updated once a year – they do not show the actual state of the cadastre (they are valid only at the moment of scanning). The second layer of the orientation map of parcels is depiction of applied geometric plans – the combination of two components thus provides information on the actual state in the depicted district.

Using of digital and raster basis made available the digital data from the cadastre for the whole territory of the Czech Republic. Outputs from Remote access are paid, but substantial group of users from state administration and self-government have been provided with data from the cadastre in this manner free-of-charge since 2004. Remote access has been operated since 2001 and since its launch the number of clients actively using it has grown annually. The number of DP users increased by about 20% in 2007, at 31.12.2007 the number of users accounts was at a total of 10 572; 2 558 of which were free accounts and 1 540 were for certifiers.

*Growth in the Number of Users of Remote Access*

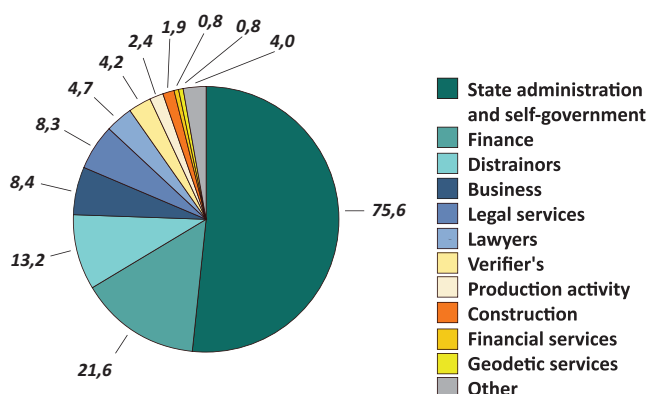






As well as the number of users, the income for provision of data via Remote Access is growing. In 2007 the income from paid accounts overreached in total 73 million CZK. In term of the total volume of turnover the biggest paid private customer of the DP is the group „Legal services“ (court executors in particular), followed by the group „financial services“ (represented above all the banking sector) and real estate agencies.

**Depiction of the Biggest Users of DP  
According to the Data Value**



At 31.12.2007 in total 10 572 users' accounts were opened up, a lot of them in connection to the project Czech POINT.

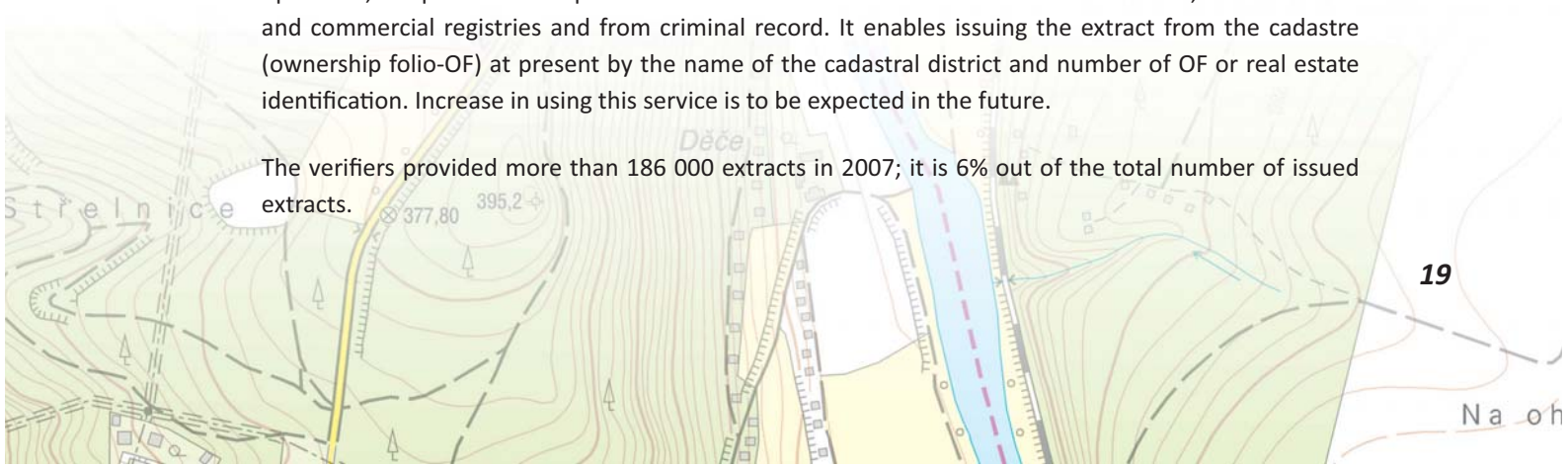
As for the statistics of frequency of outputs from DP in 2007, the most popular is the extract from the cadastre of real estates, followed with a large spacing by the summary of ownership.

### Issuing of Verified Outputs from the Information Systems of Public Administration

Based on the amendment of Act No 365/2000 Coll. on public administration information systems (ISVS), marking of outputs from the DP with an electronic mark based on a qualified system certificate started at the beginning of July 2006. That electronic mark guarantees authenticity (issued by the Czech Office for Surveying, Mapping and Cadastre) and constancy of the output. An electronically marked statement from the cadastre has all the appurtenances of a public document. Furthermore, the number of places where it is possible to acquire a certified statement from the Information System of the Cadastre of Real Estates was increased. The amendment to the Act on ISVS mentioned above allowed issue of statements to following subjects from 1.7.2006: notaries, regional, matrimonial, municipal and city district authorities, the list of which is stated by the implementing legal regulation, and further the Post Office and the Czech Chamber of Economy. These subjects (verifiers) then put outputs into the paper form and issued them consequently as the public output from the information system of the public administration.

In the frame of the project Czech POINT (POINT stands for - Czech posting authorization information national terminal), that has been launched in pilot version in April 2007 and since 1.1.2008 it is in full operation, it is possible to acquire the verified extract from the Cadastre of Real Estates, from the trade and commercial registries and from criminal record. It enables issuing the extract from the cadastre (ownership folio-OF) at present by the name of the cadastral district and number of OF or real estate identification. Increase in using this service is to be expected in the future.

The verifiers provided more than 186 000 extracts in 2007; it is 6% out of the total number of issued extracts.

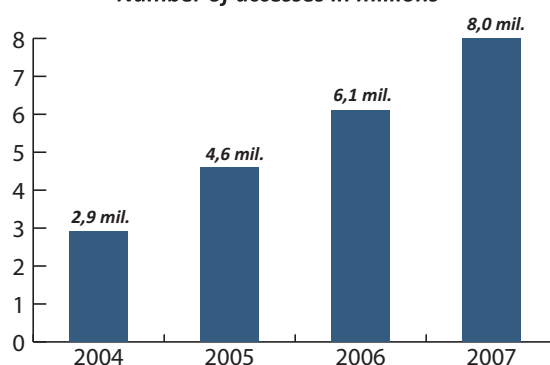


## Consultation of the Cadastre of Real Estates

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

Probably the best-known e-Government service, operated in this department, is free consultation of the cadastre. This Internet service was launched on 1.1.2004 and allows provision of selected data concerning ownership of parcels, buildings and building units (flats or non-residential space). By means of consultation 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 application Consultation of the Cadastre won the "Czech @" for 2004 and the Prize of the Minister of Informatics. The consultation application is very intensively used by a wide circle of users and has contributed in a significant way to increasing the transparency of the course of individual administrative proceedings, whose course can be monitored by users over the Internet.

**Number of Visits to Consultation of the Cadastre of Real Estates**  
Number of accesses in millions



Consultation of the cadastre is one of the most visited websites of Czech state administration. In four years of its existence the application has registered a constant growth in users; in 2007 it had more than 8 million visits. Previous chart shows the development of the number of visits since launch of the application till present. Yearly growth in the number of visits is 31%.

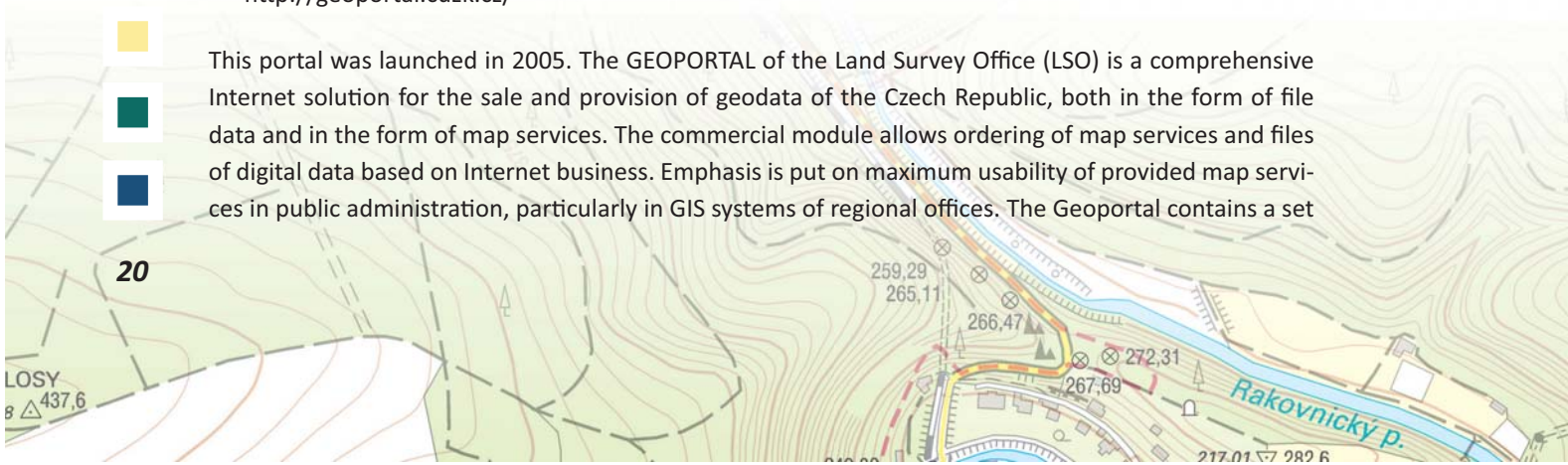
## Web Map Services for Cadastral Maps

In January 2008 pilot operation of the web map service (WMS) for cadastral maps has been launched. WMS KN uses the identical databases for storage of scanned maps as the „Remote Access“ and provides Graphical data from the digital cadastral map (DCM) and orientation parcel map (OPM). Digital data (DCM, drawing of changes and definition points) are being obtained in the form of outputs from the central database. At present the whole territory of the CR is covered by this data and updating will be realized approximately in two-week cycles in start-up phases.

## Geoportal of the Land Survey Office

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

This portal was launched in 2005. The GEOPORTAL of the Land Survey Office (LSO) is a comprehensive Internet solution for the sale and provision of geodata of the Czech Republic, both in the form of file data and in the form of map services. The commercial module allows ordering of map services and files of digital data based on Internet business. Emphasis is put on maximum usability of provided map services in public administration, particularly in GIS systems of regional offices. The Geoportal contains a set







of services and client accessible data (Geoprohlížeč LSO) from data storage to a wide group of users.

## Data Provision

By means of the Commercial Module it is possible to order issue of data in separate files not only in existing vector and raster formats, but also, for example, in GML format (ZABAGED® data). The client has a significant increase in comfort when ordering data, since he is able to select required data according to the sheet line system, i.e. units for which files are available direct via the internet.

## Map Services

The second part, Map Services, allows on-line Internet access to map data administered by the Land Survey Office. Clients who connect their system to such a service need not administer their own database of fundamental geodata and accessible map data are provided to them with the maximum available relevance.

In 2006 work was also started on a project for adapting the functions of the Geoportal to new data model for administration of the Fundamental Base of Geographic Data (ZABAGED®) with the objective of providing the most up-to-date ZABAGED® data and map services and to ensure provision of this data set comprehensively by the department of administration and use of geoinformation. The project also includes a new tool for issue of data.

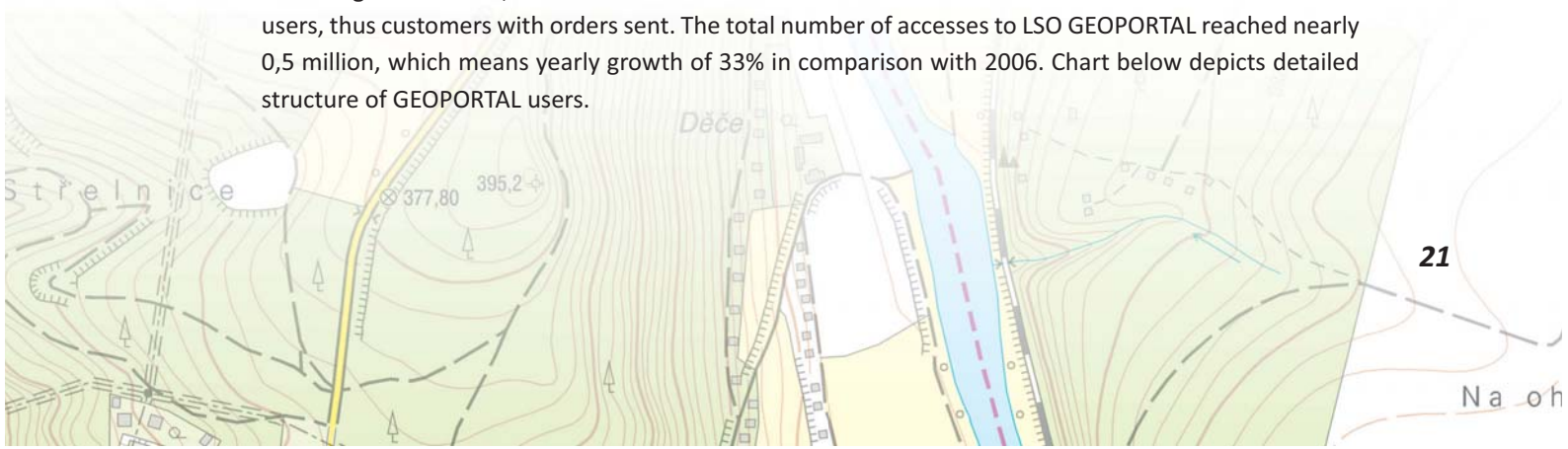
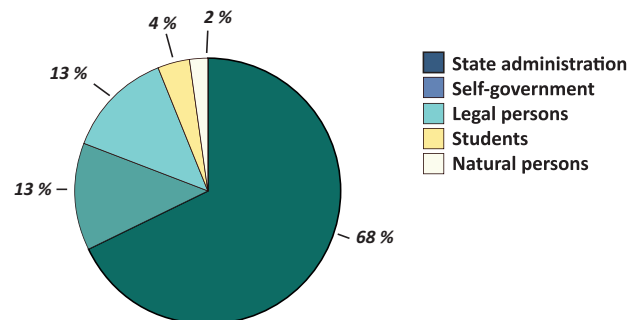
In December 2007 pilot operation of Public Map Service of the Land Survey Office was launched. New client WMS accessible in the Map Services section via GEOPORTAL enables browsing data from the whole territory of the Czech Republic free of charge. WMS contain the most up-to-date data being for disposal in the Land survey office. Following datasets are available via public browsing services:

- Digital set of administrative and cadastral boundaries
- GEONAMES
- State map 1:5 000
- Raster Base Map 10 and 50
- Orthophoto of the CR

The level geodetic points and Stations of CZEPOS net are being prepared.

At 31.12.2007, the LSO GEOPORTAL had a total of 8 153 registered users, 3 918 of them were active users, thus customers with orders sent. The total number of accesses to LSO GEOPORTAL reached nearly 0,5 million, which means yearly growth of 33% in comparison with 2006. Chart below depicts detailed structure of GEOPORTAL users.

**Structure of LSO GEOPORTAL Users per Number of Issued Units**



Regarding the value of ordered products the paid data were provided for 11,8 million CZK and free of charge data for 67,6 million CZK. The most active group of users from the public administration was state administration with ordered data for 54,7 million CZK (in comparison to 2006 growth by 33%), followed by the self-government with ordered data for 6,9 million CZK. The most provided data were ZABAGED®, orthophoto and Raster base map of the CR (RZM10).

Access to on-line map services was provided to 60 subjects in total, 20 of them being from the state administration and self-government, so as to educational institutions. Students are provided with the data via LSO Commercial module in reasonable amount free of charge based on the agreement with the management of the respective school or faculty in frame of their bachelor or graduation thesis.

## Archive maps

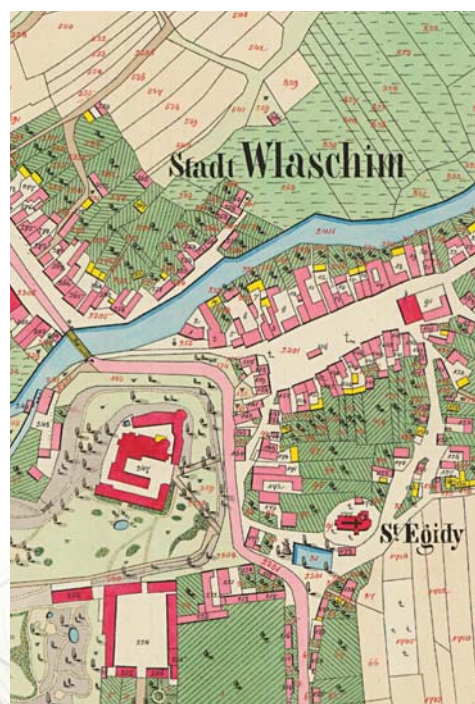
In 2006 the application Archive Maps was launched within the Geoportal. The application is available both from the website of the Geoportal and separately at the <http://archivnimapy.cuzk.cz>. Through this service it is possible to view hand coloured maps of the imperial mandatory prints of the Stable cadastre of Bohemia from the years 1824–1843, which are part of the collection of the Central Land Survey and Cadastral Archive.

Available archive maps:

- Imperial mandatory prints of the Stable cadastre originated from 1824 to 1843 in scale of 1:2880
- 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

The whole territory of the Czech Republic on old maps of the Stable Cadastre (about 50 000 map sheets) should be available by the end of 2008 as scheduled by Land Survey Office. In case the imperial mandatory print is not extant in certain cadastral district, it will be replaced by adequate map, such as original map of Stable Cadastre in the end of scanning works.

The offer of these maps on Internet is being continuously enriched according to the proceeding of scanning of single map sheets. Access to on-line data is free of charge. Via Commercial module on GEOPORTAL it is possible to order printed map copies or digital sets in printing quality. Information on further archivals of the COSMC is available on the address: <http://geoportal.cuzk.cz/ISAR/>.



- Further development of the LSO GEOPORTAL is being continuously supported, in particular enlargement of services via WMS, preparation of provision digital data from ZABAGED®, administrative boundaries, GEONAMES via WFS and addition of metadata portal harmonized with INSPIRE requests, etc.

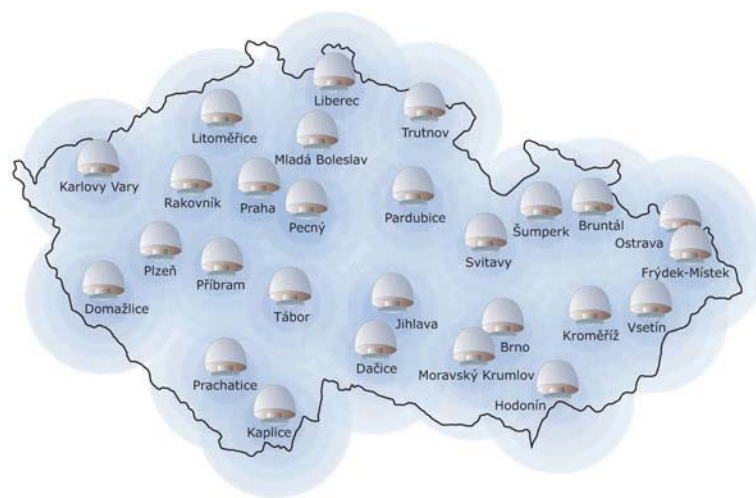




## CZEPOS

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

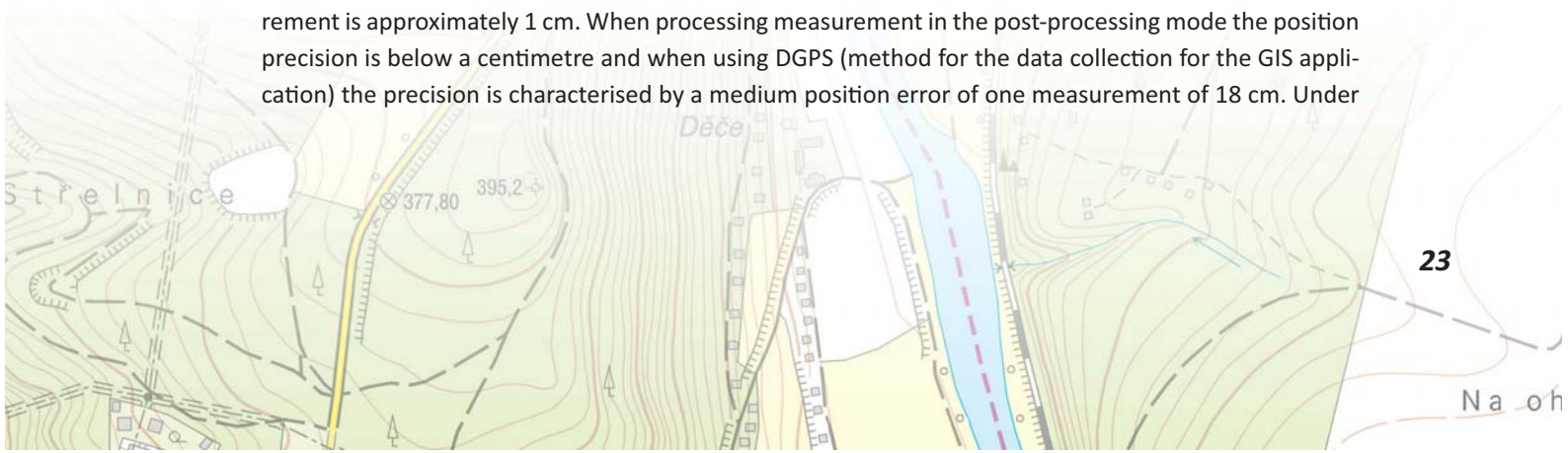
Establishment of a network of GPS (Global Positioning System) permanent stations for positioning was completed by 1.1.2006. CZEPOS net offers wide applications in geodesy, navigation and in the domain of intelligent managing systems. Establishment of these permanent stations is a trend even in other European countries. For example, in neighbouring Germany the SAPOS network has been in operation for a number of years, the Slovak Republic is building its own SKPOS national network. The CZEPOS network includes 22 stations placed on cadastral office buildings, 1 station on the building of the Czech Office for Surveying, Mapping and Cadastre and 4 external stations. The stations will be uniformly located in the CR territory at a distance of cca 60 km from each other.



Data provided in the CZEPOS network allows geodetic and non-geodetic users equipped with a single GPS (Global Positioning System) apparatus with GPRS or GSM transfer to determine the position in real time with accuracy of one cm, or determine this position by post-processing after measurement to the accuracy of 1 mm.

Real time data in the form of RTCM corrections will be provided in an accessible format and by means of services, i.e. differential GPS for improving navigation position, RTK (real time kinetics) in the form of FKP (area correction) and RTK in the form of VRS (virtual reference station). Data for post-processing will be provided from individual stations in RINEX format.

In 2006 test operation of the CZEPOS network was completed and provided services became fee paid services from 1.1.2007 according to the price tariff of the Land Survey Office. Part of test operation was testing of the precision of CZEPOS network stations. From the results of testing it is clear that when determining a position by means of the CZEPOS RTK services the medium position error of one measurement is approximately 1 cm. When processing measurement in the post-processing mode the position precision is below a centimetre and when using DGPS (method for the data collection for the GIS application) the precision is characterised by a medium position error of one measurement of 18 cm. Under



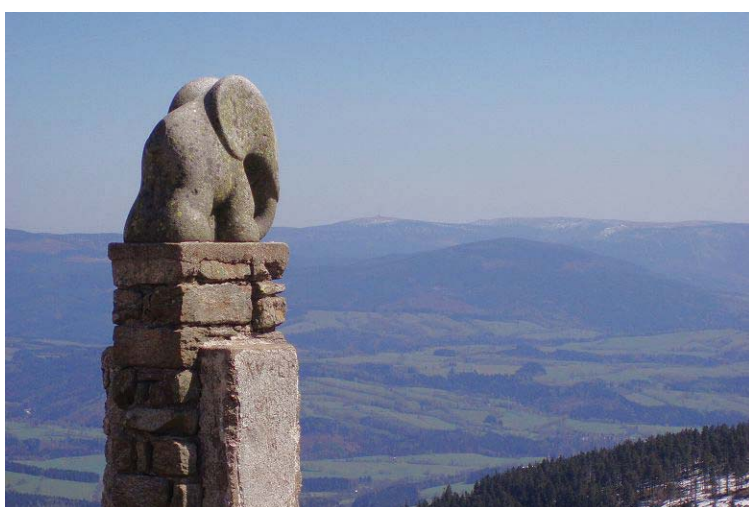
standard operation the CZEPOS network covers the whole of the Czech Republic with its services based on the network solution with the same quality. It does not depend on the position of the specified point towards the permanent stations. At 31.12.2007 there were 471 registered CZEPOS network users.

## Database of geodetic control points – DGCP

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

Database of geodetic control points was established by connection of the Database of Trigonometric and Densification Points DATAZ with the Points database of the Czech State Levelling Network – ČSNS. DGCP contains 72 000 centres of trigonometric and densification points, 38 000 associated points and further 83 000 levelling points and 400 gravity points. The points can be searched in the application directly in the overview map.

The Land Survey Office performs administration of the database and its continuous updating. Selection of points from the DGCP is possible through localization units (number of point and triangulation sheet, sheet of the Base Map of the Czech Republic 1:50 000 or State Map 1:5 000 – derived, cadastral district), surroundings given by coordinates and distance or localization in map sections with a sketch of trigonometric and densification points. The database is accessible free-of-charge.



In 2007 the website of integrated databases DATAZ and ČSNS recorded a total of 315 000 visits, which means yearly growth of nearly 25%.

A raising interest for information provided by the COSMC branch, in particular in electronic form, can be concluded from these facts. It is proof of successful steps reasoning in much effective functioning of the state administration, data management and making them available for public.



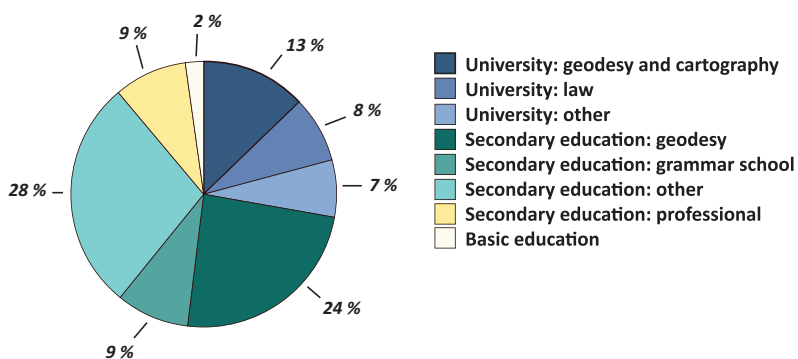


## Economics and Human Resources

### Personnel Structure in the Branch

In last few years we can observe a positive trend of constantly increasing share of university graduates among employees in the categories to 50 years of age in comparison to categories of 51 to 70 years of age. The share of employees with secondary school education with a geodetic, professional and general focus has also risen. In the youngest age categories there are no longer employees with basic education only. A reality is the constantly increasing representation of other fields than geodesy and cartography; above all these are employees with training in information technology, law and economics.

Overview of the Personnel Structure in 2007

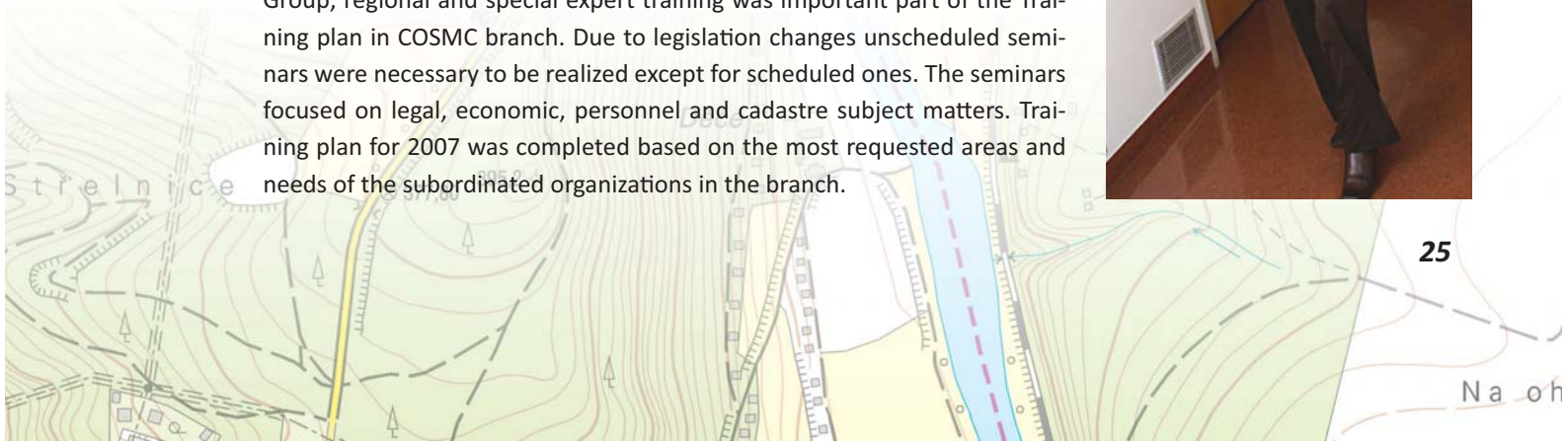


In comparison to 2006 the number of employees went down slightly (0,3%). Regarding the changes in structure of education of employees, the number of employees with secondary education in geodesy grew (34) in particular in the age category to 40, on the other hand the biggest loss we recorded in other secondary educated employees (47).

### Assessment of Employee Training

Training in the sector of the Czech office for surveying, Mapping and Cadastre (COSMC) is governed above all by rules of preparation of employees in administrative bodies and the office of the Government of the Czech Republic adopted by resolution and further by internal regulations, including the Training Plan in the Sector of the Czech Office for Surveying, Mapping and Cadastre, based on which the human resources department carried out a whole range of training activities in 2007 for the branch and COSMC employees. Training activities have been realized in particular as further managerial training with the goal of systematic mediation, mastering and strengthening of knowledge, skills, values and attitudes of employees.

Group, regional and special expert training was important part of the Training plan in COSMC branch. Due to legislation changes unscheduled seminars were necessary to be realized except for scheduled ones. The seminars focused on legal, economic, personnel and cadastre subject matters. Training plan for 2007 was completed based on the most requested areas and needs of the subordinated organizations in the branch.





## Granting Official Authorization

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 2007 in accordance with Section 14 of the Act No 200/1994 Coll. on surveying and mapping.

From the total number of 82 applications (10 of them from 2006) 55 new official authorizations were granted and authorizations of 7 applicants were expanded. In the remaining cases with 6 applicants proceedings were terminated (they did not attend the exam or they did not fulfil the legal conditions for granting the official authorization), 3 applicants did not pass the exam and will repeat it this year, 1 applicant did not succeed repeatedly, 6 applicants were excused and proceedings are continuing with 4 applicants, since they did not fulfil the legal conditions for granting the official authorization. In 2007 1 official authorization was withdrawn.

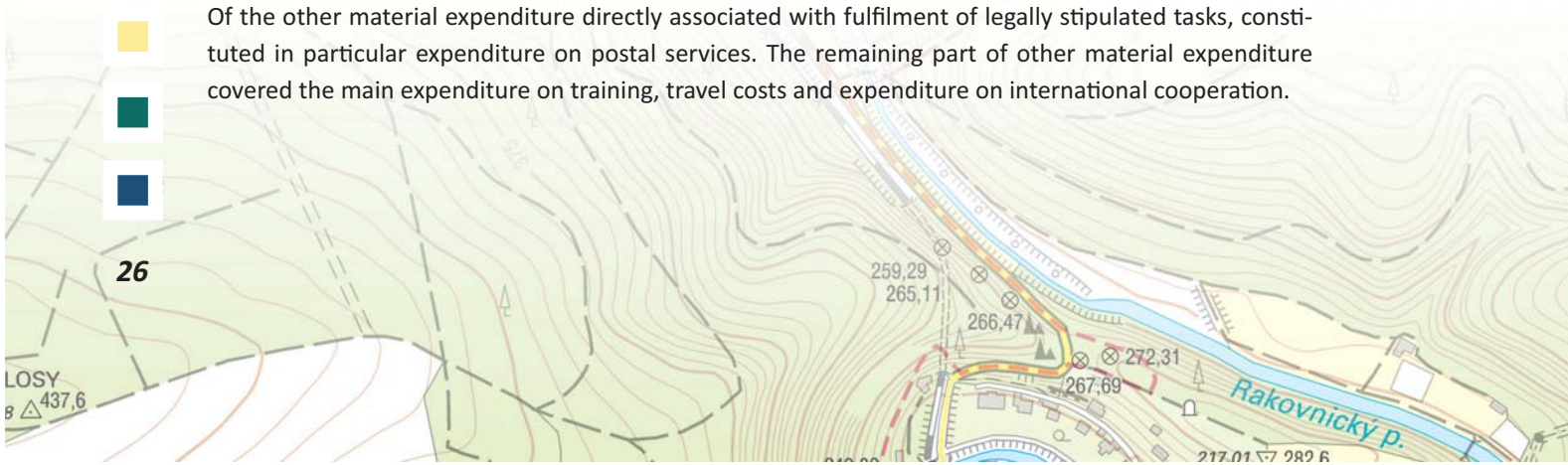


## Economics

The approved state budget of the Czech Republic for 2007 specified revenue of CZK 150 000 000 and expenditure of CZK 2 792 294 000 for the Czech Office for Surveying, Mapping and Cadastre. After a request by the COSMC, the Ministry of Finance increased expenditure for program expenditure by CZK 1 000 000 by reswitching from the chapter 398 – General treasury administration. The reason for the request for an increase in resources was to get financial means for alteration of ISCRE based on requests of CzechPOINT project. To strengthen the expenditure given by the state budget for 2007 did branch administration bodies use the unexpended resources from previous years by means of reserve funds.

The approved budget stipulated income in 2007 of CZK 150 000 000 was filled by CZK 175 459 000, thus means fulfilment of 117% of the approved budget. The greatest share on the exceeded incomes was the higher income for the data from the Cadastre of Real Estates provided via Remote Access. All subordinated branch bodies succeeded in fulfilling and exceeding of the approved incomes for 2007, but the share on exceeding of incomes has slightly changed in single bodies. As in previous years in 2007 the greatest share of expenditure was expenditure on employee salaries, other payments for work carried out and associated expenditure, which form 69% of the total expenditure of the sector.

The average monthly income achieved per 1 employee in 2007 was CZK 21 843, thus means growth on about 9% in comparison to 2006. The second major part of expenditure was program expenditure allotted for procuring and management of state tangible and non-tangible property. In 2007 the proportion of this expenditure was 24% of the total expenditure of the chapter. More than two thirds of program expenditure was non-investment expenditure intended for securing the operation, maintenance and repair of state assets and for the lease of computer technology and administrative buildings. Total expenditure also included other material expenditure and expenditure on research and development. Of the other material expenditure directly associated with fulfilment of legally stipulated tasks, constituted in particular expenditure on postal services. The remaining part of other material expenditure covered the main expenditure on training, travel costs and expenditure on international cooperation.



## Summary of Obligatory Indexes of Chapter 346 of the State Budget for the Years 2001 - 2007

Financial indexes in CZK '000s

Index / Year	2001	2002	2003	2004	2005	2006	2007
Revenues of the chapter <sup>1)</sup>	162 310	205 209	181 437	158 315	143 125	157 572	175 459
Administrative fees	323 300	456 000	466 998	486 472	544 156	549 614	644 280
Data provided free	95 000	312 000	329 461	336 544	438 426	536 376	630 959
<b>Total expenditure of chapter<sup>2)</sup></b>	<b>2 100 418</b>	<b>2 030 922</b>	<b>2 133 961</b>	<b>2 327 168</b>	<b>2 421 660</b>	<b>2 513 377</b>	<b>2 815 730</b>
Current expenses without non-investment	1 657 917	1 748 294	1 680 182	1 802 266	1 830 893	1 956 447	2 109 573
Including: wage resources <sup>3)</sup>	992 667	1 060 661	1 148 146	1 179 756	1 308 839	1 308 839	1 424 864
Insurance and FKSP	365 051	390 089	421 717	434 688	452 144	483 848	527 530
Other material costs	300 199	297 544	110 319	187 822	154 686	163 760	157 179
Program expenditure	402 545	251 986	429 516	500 302	563 362	528 266	677 493
Including: non-investment	0	16 377	218 804	247 735	256 231	356 631	414 244
Investment	402 545	235 609	210 712	252 567	307 131	171 635	263 249
Research and development expenditure	39 956	30 642	24 263	24 600	27 405	28 664	28 664
Including: operational	26 126	27 827	23 763	24 100	26 405	27 664	28 164
Investment	13 830	2 815	500	500	1 000	1 000	500
<b>Number of employees in Sector<sup>4)</sup></b>	<b>5 663</b>	<b>5 676</b>	<b>5 680</b>	<b>5 616</b>	<b>5 523</b>	<b>5 445</b>	<b>5 430</b>
COSMC	69	70	70	158	158	157	159
Cadastral Offices	5 097	5 107	5 106	4 902	4 816	4 755	4 755
Land Survey Office	406	407	411	466	455	443	430
Survey and Cadastral Inspectorates	91	92	93	90	94	90	91

1) revenues are adjusted for resources from revenue accounts of the CNB with prefixes 4714 and 2110, used for increasing expenditure (resources of RF, FKSP, donations)

2) the given expenditure does not include state budget resources transferred to reserve funds, which will be used in following years

3) employee wages + other payments for work performed

4) average corrected calculation



# 6 Inspection and Supervision Activity

Control of state administration of the Cadastre of Real Estates, supervision over the certification of results of land survey activities used for the Cadastre of Real Estates 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). On 1.7.2006 Addendum 4 to the SCI Procedural Code came into effect, according to which SCI started to be considered in the sense of the new administration code (Act No 500/2004 Coll.) as governing bodies of cadastral offices in accordance with the interpretation made by the Advisory Committee of the Ministry of Interior on the Administration Code. The new Administration Code also brought a new definition of the term complaint and modified the procedure for handling them. According to the new Administration Code SCI began to decide once again on applications for measures against the inaction of CO. In 2007 accepted the SCI 45 applications for measures against the inaction of CO (136,4% in comparison to 2006). The extent of decision-making of SCI on appeals against decisions of CO remained practically unchanged in 2007 (760 appeals delivered in 2007 as opposed to 726 appeals delivered in 2006). The quality of decision-making of CO as first instance bodies has slightly improved compared with 2006 (38.9% of CO decisions were found to be illegal in appeal proceedings in 2007, in 2006 this figure was 43.1%). The number of appeals in matters regarding correction in cadastral documentation slightly decreased in comparison to 2006 (427 appeals delivered in 2007 as opposed to 500 delivered in 2006), the number of appeals in matters regarding objections against the content of renewed cadastral documentation (76 in 2007 as opposed to 69 in 2006) slightly increased and the number of delivered appeals against procedural decisions of CO rapidly increased grew (234 in 2007 as opposed to 144 in 2006). Inspection activity of SCI in 2007 was focused above all on compliance with new procedural processes associated with the applicability of the new cadastral decree No 26/2007 Coll. In the framework of inspections of state administration of the Cadastre of Real Estates SCI carried out a total of 1 556 documented inspections at cadastral offices. All knowledge from inspections collected in the SCI quarterly analyses was systematically organized in unified style and passed to individual COSMC expert units for use. Wide internal publicity of these analyses was ensured by means of Intranet of COSMC. Dominant among the negative findings was the situation at the Cadastral Office for Prague-City, where time limits stipulated by generally binding regulations for handling the business of entries and records were not complied with to a great extent. In comparison to previous years the state has been significantly improved. Concrete cases of realized insufficiencies are being specified and commented in single quarterly SCI analyses. In the framework of supervisory activity (supervision of certification of the results of land survey activities) in 2007 SCI performed a total of 313 documented supervisory actions. In 13 cases in the subsequently conducted administrative proceedings SCI decided that the verifier had committed an administrative offence of infringement of order in the sphere of surveying and imposed fines at a total of CZK 400 000.







## Financial Control

The COSMC, as administrator of budget chapter 346 of the state budget, performed financial checks according to the Act No 320/1990 Coll. on financial control, at its subordinated bodies. According to the approved plan of public administration checks for the year 2007 the check group of COSMC carried out public administration checks together at following 12 checked persons: CO for Vysočina Region, CO for the Ústí Region, CO for Region Zlín, CO for Region Olomouc, CO for Region Karlovy Vary and all 7 SCI, in which performing of internal audit is substituted by performing of public administration check in a compliance with the Section 29, art.5 of the Act No 320/1990 Coll. on financial control. In the frame of planned check in the Region Ústí was the check group engaged also in solving claims delivered to COSMC during the selection procedure for the director of the cadastral workplace in Chomutov, in selection procedure for the tender and in checking of payments for private phone calls. Public administration checks of some checked persons in 2007 found less serious formal and objective shortcomings emerging from the inconsistent compliance with some provisions of COSMC economic rules, some partial shortcomings in records of assets and in provision of information from the cadastre of real estates in the CR. No serious shortcomings were discovered by public checks in 2007 that would unfavourably affect the activities of controlled persons. All documents from carried out checks, included information on revision of the complaint in the frame of the check in CO for the Region Ústí, were delivered to the president of the COSMC, who then in compliance with Section 18, art. 2 of the Act No 320/1990 Coll. on financial control, imposed measures to elimination of realized shortcomings and to prevention of their recurrence.

## Internal Audit

Internal anticorruption audit was carried out according to the task given by the Czech Republic Government decree No 1199 from 25.10.2006, on the Governmental strategy in the fight against corruption for the period of 2006 to 2011.

Audit proved the functioning and effectiveness of the internal check system, internal rules and further documents, evaluated fulfilling of the tasks, given by the president of COSMC in the Anticorruption program from September 2003 and proved the process of public tenders submitting. The goal of that was to minimize the risks in prevention and beating corruption and frauds in the internal office. Recommendations of this audit regarding creation of the rules for submitting of public tenders, definition of economic, effectiveness and expedience criteria, possibility to launch electronic system of the preliminary operative control, are the subject of further solution in the frame of working order. Audit stated that internal control system is functioning and effective from the view of prevention and beating corruption. Further realized audit focusing on evaluation of transparency of submitting of public tenders recommended using of the institute of central submitter for joined COSMC branch tenders. On the other hand audit has stated that the existing internal control system covers the possible risks in this area.





### SCI Decisions on Appeals Against CO Decisions

Matters	Not resolved at 1.1.	Received after 1.1.	In total	Forwarded	Appeal rejected	Decision amended	Decision repealed	Decision annulled and returned to CO	Still being resolved	Faulty proceedings
Correction of errors in the cadastre	70	427	497	10	228	51	11	114	68	15
Objections to revised cadastral documentation	8	76	84	-	52	3	1	17	9	2
Infringements of order in the sphere of the cadastre	-	-	-	-	-	-	-	-	-	-
Procedural	10	234	244	3	129	16	13	41	13	29
Changes in the boundaries of cadastral districts	-	-	-	-	-	-	-	-	-	-
Administrative fees	1	18	19	-	13	-	2	1	-	3
Rejection of applications for submission of information	-	2	2	-	2	-	-	-	-	-
Other	-	3	3	-	1	-	1	-	1	-
In total	89	760	849	13	425	70	28	173	91	49

### Total Number of Complaints For 2007

Inspectorates	Not resolved at 1.1.	Received after 1.1.	In total	Forwarded	Legitimate	Not legitimate	Still being resolved
in Brno	1	14	15	10	-	5	-
in Č. Budějovice	-	3	3	-	1	2	-
in Liberec	-	8	8	4	-	3	1
in Opava	-	1	1	-	-	1	-
in Pardubice	-	4	4	-	-	4	-
in Plzeň	-	8	8	4	1	2	1
in Praha	4	70	74	41	4	23	6
In total	5	108	113	59	6	40	8

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265,11

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267,69

217,01 282,6

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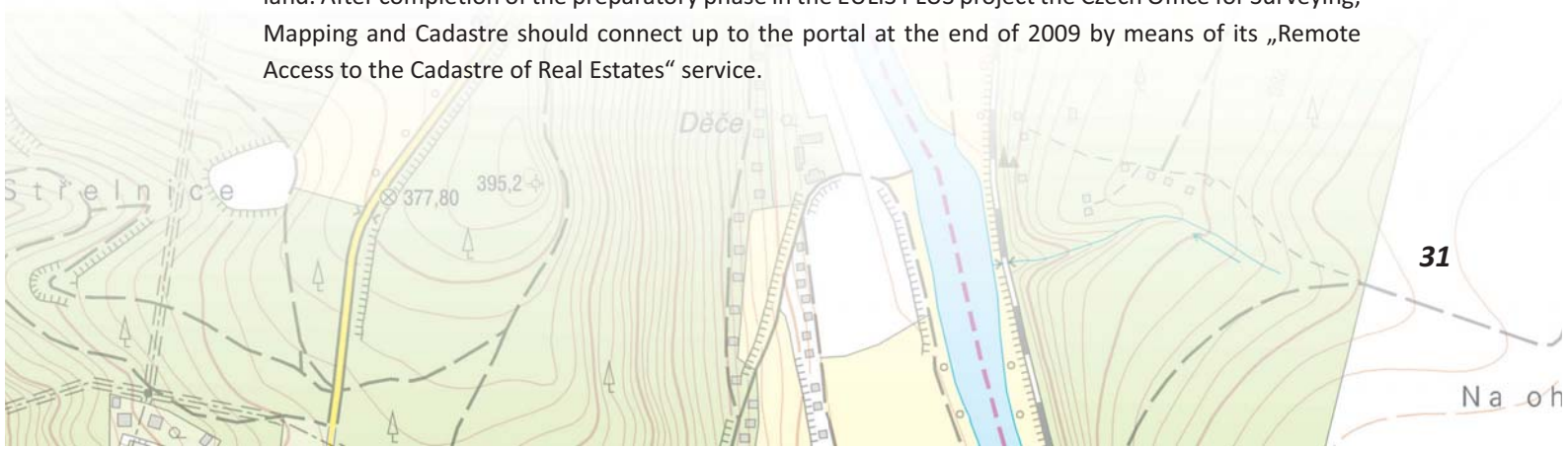
# International Cooperation

The COSMC is actively involved in many international initiatives and is represented on several international working groups. The most involved bilateral cooperation occurs with the land surveying services of neighbouring countries Slovakia, Germany and Austria, in particular in the area of documentation of common state borders, establishing of networks of permanent GPS stations and exchange of data and experience in cartography and cadastral legislation. Furthermore, COSMC actively participates in regular meetings of cadastral service providers of succession state of the former



Austro-Hungarian Empire, who share with us a common cadastral tradition. In 2007 COSMC organized this meeting in the Cadastral Office for the region Pardubice in attendance of participants from Croatia, the South Tyrol, Austria, Slovakia, Trentino, Hungary and the Czech Republic, of course. The development of new map services and projects aimed at constructing a unified infrastructure of spatial data in Europe is the remit of the international organisation Eurogeographics, of which COSMC is a member. In the scope of Eurogeographics activities the work of a special working group for the cadastre went onto, in which COSMC has also a representative.

Branch representatives have taken part not only in national but also in international meetings on the European Directive INSPIRE (Infrastructure of Spatial Information in Europe) and on its implementation. It deals in particular with disclosure of spatial data in electronic form especially for needs of the environment in the European area. The Directive should ensure availability, quality, organization, disclosure and sharing of spatial information and necessary provisions for exchange, sharing, access and use of spatial data and services. Data should be provided free of charge via web services. Implementation of the Directive should be completed by May 2009. Also through the COSMC the Czech Republic has become involved in 2006 in preparations for inclusion to the EULIS service (the European Land Information Service), which has the objective of creating a European multinational portal allowing paid on-line access to information on real estate in various states of the EU. Currently the service is functional for a total of 6 European states – Sweden, the Netherlands, England & Wales, Norway, Lithuania and Ireland. After completion of the preparatory phase in the EULIS PLUS project the Czech Office for Surveying, Mapping and Cadastre should connect up to the portal at the end of 2009 by means of its „Remote Access to the Cadastre of Real Estates“ service.



Czech Office for Surveying, Mapping and Cadastre is represented in the management board of the Working Party on Land Administration (WPLA), working under the auspices of UNECE, which is engaged in land and real estates information and related thematic. Main goal of WPLA is to promote the land administration ensuring material rights, develop the real estates markets in developing countries and modernize registration systems in other European countries.

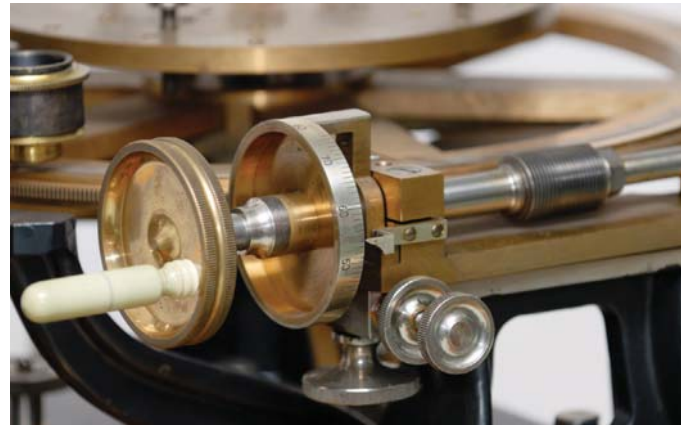
COSMC supports active cooperation also in the frame of FIG (International Federation of Surveyors), in particular in the Commission FIG 7 for the cadastre and real estates administration, where the Czech representative is involved.





# 8 Research and Development

Research and development in the sector of surveying, mapping and cadastre is subject to the needs of state administration with the aim of acquiring and using new knowledge usable for its improvement. It also takes account of needs in the sector for use of information and communication technologies and the needs of international cooperation in the field. Resolution of tasks of research and development is the concern of the Research Institute of Geodesy, Topography and Cartography (RIGTC) in the framework of the research aim Research and development in geodesy, the cadastre and geomatics in 2005-2009, which the Czech Office for Surveying, Mapping and Cadastre provides with institutional support.



Tasks resolved in the scope of the research aim in 2007 were completed pursuant to the stipulated technical and economic parameters in line with the agreement between the COSMC and RIGTC. Minutes from inspection days provide information on the course of individual tasks in the course of 2007.

The projects, which were part of main goals in 2007, will be further proceeded with in 2008. It refers, in particular, to proceeding with the development of tools for renewal of the cadastre map by digital means and for administration of cadastral documentation. By the end of 2008 the verified software should be for disposal, included transfer of some items from survey sketches and interaction of cadastral workplaces with their creators.

Further development of monitoring GNSS techniques and use of collected data from the data centre of the geodetic observatory Pecný is scheduled to examine the influence of the environment on

the results measured by global navigation methods, included modelling of the gravity field of the Earth. The results of stability tests of permanent GPS stations so as the preparation of improved reference frame, included stating of transformation relations between national and European coordinate systems will be of great importance for development of geodetic control in the CR. In 2008 RIGTC should prepare publication of new state standards for acceleration of gravity and long distances in metrology except for the metrology of distances and angles in the range of accredited calibration laboratory. The work on position standard will be carried on, as well.



RIGTC will work on 10 grant tasks from other Czech subjects so as from other international organizations in the frame of cooperation, mainly for EU, except for work for COSMC. This activity is closely connected with the main goal of the institute, which is the work for the COSMC, and represents 35% of total capacities of the Institute.

Beyond the tasks based on the agreement between RIGTC and COSMC web technology for processing of the survey sketch has been solved and website <http://www.geometrplan.cz> has been launched. This web application was honoured in November 2007 with the Prize of Industry in the competition Czech head. Further development of this application focused on data transmission has been involved in the list of tasks for 2008.



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