



Impacts and Challenges of the EU Membership on Surveying Profession in the Czech Republic

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Abstract

The surveying profession in the Czech Republic has been always closely connected and influenced by the latest developments in the countries belonging to the European area, be it what is today understood by European Union or the European Continent as delimited by cartographers.

The road to the Czech EU membership started in November 1989 by the sudden and important political and economic changes leading to privatization, restitution of property, lifting of trade barriers, free movement of goods, services and personnel. Embargo on certain products and instruments mainly in the field of information technology were lifted. About 50% of best-qualified surveyors decided to go private. The tasks connected with renewal of real estate cadastre were enormous.

Technical schools and Universities had to cope not only with the new technology and with the most recent applications of geoinformatics but also with the high flood of new students, expecting to obtain an attractive qualification in profession, that would enable them to make a good living and to find new opportunities within the European Union that the vast majority of the population wished to join as soon as possible. After nearly 15 years of hard and complicated political and economic negotiations and preparations it did happen on the 1 May 2004.

But the reality of EU membership was somewhat different from the expectations. The economy has changed due to the technology, the EU tries to challenge the globalization by growing number of directives and regulations, people are on the move from country to country bringing with them new habits, new values and new ethics.

The directives of free movement of personnel and mutual recognition are understood differently in different countries. The expectations are sometimes contradictory to what has been expected by individual citizen.

Our profession is changing and we are not always ready to accept the necessity of continuous learning and flexibility. Professionals want to get good and lucrative jobs and they are not prepared to change their domicile and move to different towns or countries.

Surveying companies want to be competitive on the market but are not ready to employ cheaper qualified labor.

These are the some paradigms also our profession has to cope with – be it a new or old EU member country.

1. Introduction

The political changes at the end of 1989 accelerated the rebirth of private sector in surveying in the Czech Republic. At present there are over 500 registered private survey companies and over 3000 surveyors with Official Authorization for verification of either cadastral, or geodetic or engineering surveys. The state sector in surveying is represented by the Czech Office for Surveying, Mapping and Cadastre (CUZK). This Office is a central body of the state administration with an own chapter in the national budget. The president of the CUZK is appointed by the government. The CUZK ensures through its organizations uniform performance of main activities in the field of cadastre, mapping, surveying and geodetic control. The CUZK manages directly the Land Survey Office in Prague (ZU), 7 Survey and Cadastral Inspectorates in regions, 14 Cadastral Offices in administrative regions with all together 110 Cadastral Work Places in individual districts and the Research Institute for Geodesy, Topography and Cartography VUGTK). Education and

Training in Surveying at university level are at present offered by the Technical Universities in Prague, Brno, Ostrava and recently also in Plzen and České Budejovice. At present the yearly outputs are about 100 MSc. graduates (5 year courses) and 20 BSc. graduates (4 years course). Education for Survey Technicians (4 years course) is offered by the High for Surveying in Prague and by some regional High Schools for Building (about 100 students a year). In the nongovernmental Association of Scientific and Technical Societies the surveying profession is represented by the Czech Union of Surveyors (CSGK) and Cartographers and by the Chamber of Surveyors and Cartographers (KGK) and recently also through Czech Association for Geographic Information (CAGI). The membership and cooperation with international nongovernmental organizations is ensured through Committees for FIG, ISPRS, IUG and ICA. Two monthly journals GEODETICKÝ A KARTOGRAFICKÝ OBZOR (Geodetic and Cartographic Review) and ZEMĚMĚŘIČ (The Surveyor) are published and widely circulated in the Czech Republic.

2. Private Sector In Surveying, Mapping And Cadastre

During the second half 20th century the activities of private surveyors in the Czech Republic were practically completely suppressed. The same happened also in the majority of other liberal professions.

Surveying, mapping and cartographic activities were performed exclusively by state organizations, and exceptionally, by some cooperative associations. The performance of geodetic and cartographic activities in former Czechoslovakia was regulated by the Federal Act No. 46/1971 on geodesy and cartography. This was succeeded later on by the Act of the Czech National Council No. 36/1973 on state bodies of geodesy and cartography. According to this legal regulation, with the exception of state bodies of geodesy and cartography and bodies of the Ministry of National Defense, only "socialist" organizations were allowed to work in the surveying profession. Private natural and legal persons could not perform any work in the branch of geodesy and cartography as a subject of their activities.

Since the political and economic changes at the end of 1989, the situation has been changing quite rapidly. The Act No. 105/1990 on private enterprising of citizens (Entrepreneurial Law) has generally stated that since the 1st May 1990 private entrepreneurs may start such activities. We may therefore speak about the gradual rebirth of a private survey sector since the 1st May 1990.

At the beginning there was an absence of any general legal regulations that could determine and delimit the areas of activity between private surveyors and the state bodies. According to the regulation from 14 May 1990 on geodetic and cartographic practice of citizens, approved by the president of the Czech Office for Geodesy and Cartography (the former central body of geodesy and cartography in the Czech Republic within the Czech and Slovak Federal Republic) also private persons could obtain a permission to exercise geodetic and cartographic work. These entrepreneurs could not execute professional activities that were (according to existing legislation of that time) uniquely in the competence of state bodies of geodesy and cartography.

Therefore, at the beginning, the persons having the state Authorization to carry out geodetic and cartographic activities were mostly surveyors in the building industry. Only after publishing the next regulation (20 December

1990) entrepreneurs were allowed to produce cadastral survey plans and make boundary delimitation of land parcels. The necessary condition was that the entrepreneur or his/her employee had a special Authorization. Only Czech citizens with a completed technical university degree of education in surveying and at least five years surveying practice could obtain such authorization following an examination in front of a commission constituted by the Czech Office for Geodesy and Cartography.

At the same time, the execution of survey plans for cadastral purposes by the state sector was considerably reduced. This corresponded to the state interests in support of development of market economy. Thus the state monopoly in surveying has changed and split starting the 1 January, 1991 into two groups:

- organizations that should continue as state administration bodies and
- organizations that will be active as private firms.

This process was completed by an act dealing with competencies – namely the Act of the Czech National Council No. 359/1992 on Surveying, Mapping and Cadastral bodies by which the new bodies of the state administration of Surveying and Real Estate Cadastre were instituted. The remaining organizations were privatized or dissolved. In the latter case their employees have in most cases started their own private survey activities.

3. State Sector In Surveying, Mapping And Cadastre

According to the present wording of the Act of the Czech National Council No. 359/1992, the following bodies represent the state administration of surveying, mapping and cadastre in the Czech Republic:

The Czech Office for Surveying, Mapping and Cadastre (CUZK) is the central body of the state administration in this field. It is headed by a president, appointed by the Government of the Czech Republic. The CUZK ensures uniform performance of important activities (administration of the Cadastre of Real Estates, establishing and maintenance of basic and minor survey control, creation, updating and editing of basic and thematic state map series, standardization of names of geographic objects, forming and maintaining of the Automated Information System of Surveying and Cadastre, documentation of results of survey activities). The Czech Office also

acts as coordinator of research and of international cooperation in surveying and mapping, exercises controls over the Land Survey Office, over Survey and Cadastral Inspectorates and over Cadastral Offices and decides in some cases of appeals against their administrative decisions, approves standardized names of cadastral units, grants and withdraws Official Authorizations for Surveyors, nominates administrators of basic and thematic map series.

The Land Survey Office (ZU) is a body operating over the whole state area. It administers geodetic control, maintains central data base files of the Cadastre of Real Estates, administrates the Fundamental base of Geographic Data of the Czech Republic (ZABAGED), maintains the Central Archives of Surveying, Mapping and Cadastre, performs surveys along the state boundary, decides about monumentation of geodetic control.

The Survey and Cadastral Inspectorates (ZKI) are regional bodies of state administration acting over several administration districts. They control the performance of the Cadastral Offices; supervise authorization of results of surveys that is used by the Cadastre of Real Estates and by the State Map Series; decide about some appeals against decisions of Cadastral Offices; submit proposals to withdraw Official Authorizations. There are seven Survey and Cadastral Inspectorates in the Czech Republic.

The Cadastral Offices (KU) are regional bodies of state administration. They perform state administration of the Cadastre of Real Estates of the Czech Republic; they hear cases of order violations in the field of the Cadastre of Real Estates; approve changes of local geographical names; provide activities that are connected with standardization of geographic names and approve boundary changes of cadastral units. There are 14 Cadastral Offices in administrative regions with 110 cadastral work places in individual districts.

The Research Institute of Geodesy, Topography and Cartography (VUGTK) is the research institution in the branch of the Czech Office for Surveying, Mapping and Cadastre. VUGTK is engaged in research, development and consultancy services in geodesy, cartography and including cadastre of real estates, GIS and engineering surveying. It operates as a national centre for metrology for long distances, azimuths, gravity a positioning by GNSS methods. The Research Institute runs also a Branch Information

Centre which is in charge of the Surveying library and organization of educational and training activities within the framework of continuing professional development. Costs of some activities like informatics, tasks resulting from international cooperation, geodetic observatory, etc. are covered by a state contribution. The rest of activities are carried out on a contract basis between the Research Institute and individual clients.

4. Training And Education In Surveying

Training and Education in Surveying at the University level is offered at present by Technical Universities in Prague, Brno, Ostrava and recently also in Plzen. The total number of graduates at BSc level (3 - 4 years courses) is about 35. The number of MSc graduates (survey engineers) is about 140 every year.

Technical college training (survey technicians) is offered by the College of Surveying in Prague and also by some regional Colleges of Building. The duration of the college courses is 4 years and successful students are awarded general certificate of education (Abitur) which entitles them to carry out the surveying profession at survey technician level and also to continue the studies at a university level.

More attention is now also paid to Continuing Professional Development. Courses and Seminars are at all levels by the Czech Office for Surveying, Mapping and Cadastre, by the Universities, by the Czech Union of Surveyors and Cartographers and also by the Research Institute.

There are two monthly journals on Surveying and Cartography which inform the wide public on popular as well as on academic level on the latest development in the Branch. **GEODETICKÝ A KARTOGRAFICKÝ OBZOR** (The Geodetic and Cartographic Review) published jointly by the Czech Office for Surveying, Mapping and Cadastre and by the Slovak Office for Geodesy and Cartography. The contributions are printed in either Czech or Slovak language, with summaries of feature articles also in English, French and German. The second journal **ZEMEMERIC** (The Surveyor) is aimed at a wider surveying public.

5. Nongovernmental Professional Organizations

Nongovernmental organizations in Surveying and Cartography are represented by the Czech Union

of Surveyors and Cartographers (CSGK) and by the Chamber of Surveyors and Cartographers (KGK). Both of them form a part of the Czech Association of Scientific and Technical Societies with their headquarters in Prague.

The membership in the CSGK is open to all who have professional interest in the profession, both from the state and private sphere. The Union issues a bulletin, organizes courses, seminars and excursions, coordinates international cooperation with similar unions abroad. Members can take active part in work of so called „professional groups“ created to deal with special aspects of the profession (engineering surveys, cadastre, standardization, etc.). Through so called „national committees“ the Union exercise the cooperation with FIG, ISPRS and ICA. The Union is now looking forward to host the FIG WORKING WEEK and THE FIG PC MEETING PRAGUE 2000.

The KGK is at present a voluntary association of professionals oriented mainly to private enterprising in Surveying, Mapping and Cadastre. It includes not only many important geodetic companies but also authorized surveyors and small private offices. The Chamber represents its members and protects their interests in front of the public and state administration bodies. The Chamber cooperates with technical universities, scientific and research institutes. The Chamber also comments on proposed legislative KGK maintains good ties with the CSGK and gradually builds up cooperation with analogue professional chambers abroad and ensures activities and liaison with the Council of European Surveyors (CLGE).

6. Czech Surveying Profession And European Regulations

Geodetic surveying in the European Union cannot anymore be regarded as 25 isolated specific professions. The policy of the EU is to achieve a maximum degree of standardization, compatibility, transparency and seamlessness of geographic data. These requirements are gradually applied not only for topographic maps but also for large scale maps including cadastral maps and for data sets necessary for geographic information systems. Surveying will have to undergo also other changes resulting from requirements of EU directives on free movement of people, goods, capital and services and on mutual recognition of qualification. Without fulfilling these requirements the EU with its 400 millions of inhabitants – would

not be able to compete with – with other countries on the world market. In the process of harmonization of the Czech regulations with the EU directives the conditions for obtaining permission to execute private survey activities in the Czech Republic by the EU citizens and for obtaining Official Surveying Authorization for verification of survey activities in the field of Cadastral Surveys, Geodetic Surveys and Engineering Surveys were approved.

A. Requirements to Obtain Permission to Perform Survey Activities a Private Trade

A person can perform private survey activities in the Czech Republic after fulfilling these requirements:

1. University education in land surveying (MSc or BSc) and 3-year practical experience in this field, or
2. High school education in land surveying (survey technician) and 5-year practical experience in this field, or
3. Official Authorization for Verification of Land Survey Activities according to § 14, Act No. 200/1994 Coll., on Surveying and Mapping in wording of the Act No.186/2001 Coll.

Controlling legal regulation: § 6, § 7, § 8 a § 24 of the Act No. 455/1991 Coll., on trading (the Trade Law) in the wording of later regulations

Approving Authority: Ministry for Industry and Trade of the Czech republic

Application for approval of professional qualification: http://www.msmt.cz/uok_doc/cz/zadost.rtf

B. Requirements for Obtaining the Official Authorization for Verification of Results of Land Survey Activities According to § 14, Act No. 200/1994 Coll., on Surveying and Mapping in wording of the Act No.186/2001 Coll.

A natural person can verify the results of land survey activities in the Czech Republic fulfilling these requirements:

1. Full competence to perform legal acts and integrity,
2. University education, land survey specialization, master's degree at least and followed by 5-year practice at least performed in the Czech Republic in those land survey activities, which the certification for verification of results of land survey activities is applied for, and

3. Successful passing the test of professional qualification.

A natural person applies for certification in writing at the Survey and Cadastral Inspectorate on which territory of authority his/her permanent residence is; if the natural person has not his/her permanent residence in the Czech Republic he/she applies at the Survey and Cadastral Inspectorate in Prague.

A EU natural person is holder of Authorization similar to the one according to § 13 of the Act No. 200/1994 Coll., he/she then can obtain the Authorization when fulfilling following conditions:

1. Full competence to perform legal acts and integrity,
2. Successful passing the comparative test of professional qualification, or

3. 3-year practice performed in the Czech Republic in those land survey activities, which the Authorization for verification of results of land survey activities is applied for.

Controlling legal regulation: Act No.200/1994 Coll., on Surveying and Mapping in wording of the Act No.186/2001 Coll.

Approving Authority: Czech Office for Surveying, Mapping and Cadastre (CUZK)

Application for approval of professional qualification: http://www.msmt.cz/uok_doc/cz/zadost.rtf

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