

Standards in Action

- Input on national professional language
- Standards in action in the Czech Republic

The Czech Republic-centric view

Eva Sovjáčková , The Czech Republic

Introduction

RNDr. Eva Sovjáčková

- since 1996 the chairperson of the MTC/TNK Geographic information/Geomatics organised by Czech Office for Standards, Metrology and Testing
- advisor in research

Subjects that mainly support me:

- 1) Research Institute of Geodesy, Topography and Cartography (VUGTK), p.r.i., Zdiby in the field of standardization and the project of national SDI
- 2) the Masaryk's Water Research Institute, p.r.i., Prague in several themes, standardization first

Czech Standardization bodies

1) The Czech Office for Standards, Metrology and Testing (ÚNMZ)

Office fulfills the obligations resulting from the international agreements which are binding for the Czech Republic and from the membership in International (ISO) and European (CEN) standardization organizations.

2) Czech Standardization Agency (CAS)

- It takes the responsibility for the development, publication and distribution of Czech standards (CSN) in compliance with Act No. 22/1997 Coll.
- Organises the national mirror committees (MTC).

20 years of standardization of GI processing

The NMC/TNK 122 Geographic information /Geomatics was set up in 1996

- At the beginning we worked with the series of the pre-CEN standards.
- These were later declared as obsolete documents and after 2001 were cancelled.
- But we had gained valuable experience and dozens useful professional terms.
- The next decade from 2000 to 2010 was very fruitful.
- All International Standards published during that decade were translated into Czech language.

1. Improvement of professional language

- This series of documents in CZ interpretation is at disposal,
- newly improved and newly translated documents are in bold.
- Documents edited by „—“ were cancelled later.

2000 - 2010			
19101-1	19110	19119	19131
19101-2	19111	19120	19133
19103	19112	19121	19135
19104	19113	19123	19136
19105	19114	19125-1	19137
19106	19115-1	19126	19138
19107	19116	19127	19139
19108	19117	19129	
19109	19118	19130	

How have we used the wealth of terms?



- We have joined the foundation of the Terminological Dictionary of Geodesy, Cartography and Cadastre.
- The Terminological Dictionary is the reference dictionary at this moment for the adoption of the International Standards in the Czech national collection by interpretation and applications development.
- We continue in our interpretation work, but at this time we are allowed to interpret only International Standards that are also European Standards (according to the Vienna agreement).

Entries to the formal CZ dictionary from the serie of ISO 19100 standards



Terminological Commission of the Czech Office for Surveying Mapping and Cadastre
Terminological Dictionary of Geodesy, Cartography and Cadastre



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Jazyk/language



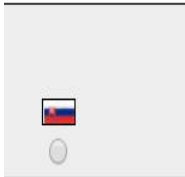
Branch:

- [cadastre of real estates \(KN\)](#)
- [cartography \(K\)](#)
- [engineering surveying \(IG\)](#)
- [geodesy \(G\)](#)
- [geographic information \(GI\)](#)
- [global navigation satellite system \(GNSS\)](#)
- [instruments and tools \(P\)](#)
- [mapping \(M\)](#)
- [metrology \(MET\)](#)
- [other terms \(O\)](#)
- [photogrammetry and remote sensing \(F\)](#)
- [theory](#)

4261

All terms

Geographic information	86
Metrology	51
Theory of errors	55
Instrument and tools in surveying	13
Geodesy	10
Engineering surveying	2
	<hr/>
	217



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2. Standards in Action

CZ has to improve dealing with Construction Permits

ISO 19152 , ISO 19166 , ISO 19112

Agenda:

World Bank Group Flagship Report, Doing Business 2019

CZECH REPUBLIC statistics prepared by OECD

Dealing with construction permits (rank) **156** from 185 countries

This initiated a lot of activities.

Activities:

A) We are focusing on 3D model of Cadastre.

ISO 19152 is the great help for further development of the Land Administration,

Mr. Janečka, as a member of MTC, is also interested in the work of the ISO project team.

New law is under preparation, the International Standards ISO will support it.

Expecting steps according the BIM

ISO 19152, **ISO 19166**, ISO 19112

B) To improve the procurement of the building act the new methods or schemas of BIM including the ISO Standards are expected.

We have learnt more details from OGC standards in the meantime (CityGML, LandInfra).

We have not a nominated expert in the EG for ISO 19166 development but on the national level we cooperate closely with the MTC to ISO/TC 59.

Cohesion between cadastral and administrative units and units of residential areas

ISO 19152, ISO 19166, **ISO 19112**

C) To improve the procurement of the building act there is also under preparation the whole digitalization process on the administration schemas and forms accompanying the building act.

D) This year we celebrated 50 years since the systems of geographic identifiers for spatial referencing in the CZ were set up. They are able to support mapping in between cadastre units, administration units (NUTS, LAU) and residential units.

We are able to support the development of various geographic information systems based on this system, even when we cannot use GIS technologies. Today it plays still its significant role in Census, and will be again in action in 2021, because the system of residential units is compositional to and generates the system of census units.

Inspiration and Achievement

Example of Standards in Action, ISO 19119

A) Inspiration

The Czech Republic is the European country that has implemented the EU INSPIRE Directive, mentioned also in ISO 19119 (2016).

The INSPIRE program provides an example of establishing a spatial information base, in this case to support environmental policy on national and pan-European levels.

The program INSPIRE gave a very good inspiration how to start a project which would cover all geospatial data and sources in the country. The ISO standards play the significant role.

Inspiration and Achievement

ISO 19154, ISO/TR 19167 ?

B) Achievement

How to assess the Spatial Data Infrastructure in the Czech Republic?

It is possible to show it on the example of the project – Use Case described by the South Korea.

In the references of the prepared ISO/TR it introduces the European project CITI SENSE

The project examined health of citizen in a small locality close to Ostrava city (coal mining, steelworks, metallurgical industry). The locality is even under stress from transboundary pollutants.

The leader of the project was **Institute of Experimental Medicine (IEM)** in Prague.

The technological support was provided by the **Czech Hydrometeorological Institute** in Ostrava (server, HW and GNSS), mobile operators, voluntaries (citizens), local city warden and the Czech social media.

I realised, that only few people know more, but not in all details of this projects, the infrastructural supporters played their role in very natural way.

I thank colleges from the South Korea for their Use Case; this UPA to GI projects did not need any key assistant from the capitol city, they did not need us.

They run. This is the best way of evaluation of the SDI on Czech national level.

Thank you.

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