

# Data transformation – Buildings

according to INSPIRE



Ing. Michal Med

ČÚZK

April 16, 2015

1 Introduction

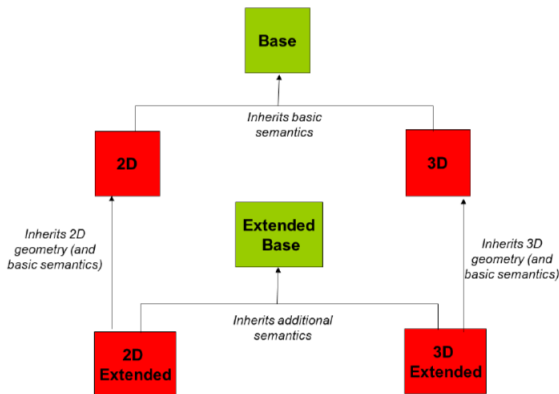
2 Database

3 Transformation





4 Extension

# Application schemas of Buildings

- Data Specification on Buildings → version 3.0 from 10th December 2013

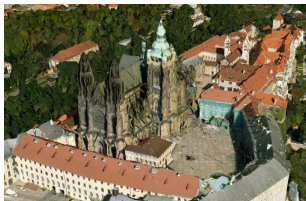


# Application and XSD schemas

- BuildingsBase → 25th March 2014 
- BuildingsCore2D → 25th March 2014 
- BuildingsCore3D → 25th March 2014 
- BuildingsExtendedBase → **22nd March 2015**
- BuildingsExtended2D → **22nd March 2015**
- BuildingsExtended3D 



# Application schemas – usage






Extended



Base

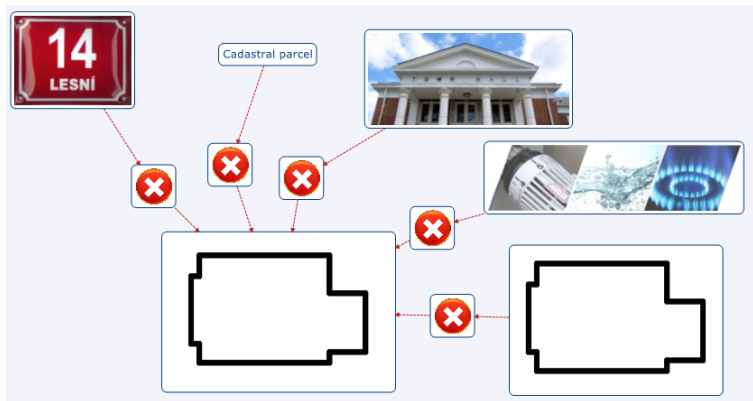


# Usability and completeness of data

- XSD files aren't ready 
- Czech COSMC doesn't have 3D data 
- basic schema is **too** flat 



# Analysis of Application schemas



It has no sense to follow BuildingsBase application  
scheme

# Real meaning of the building



→ Building

## ■ Czech legislation

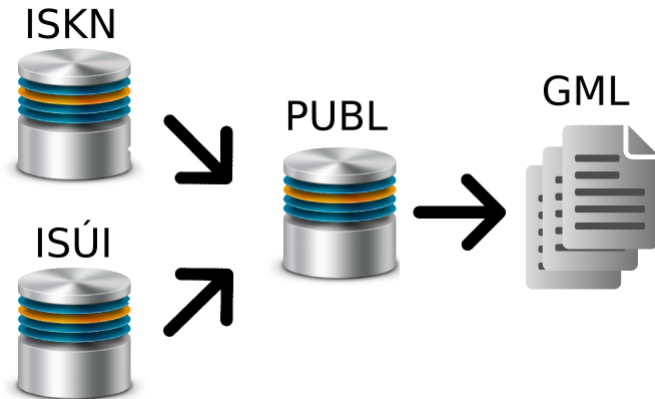
- Building – based in cadastral database  
"Building with building number, registration number or without number or water work."
- Building facility – based in basic register  
"Finished construction retained in Cadastral database or another finished construction with a house number which is used for residential or economical purposes."



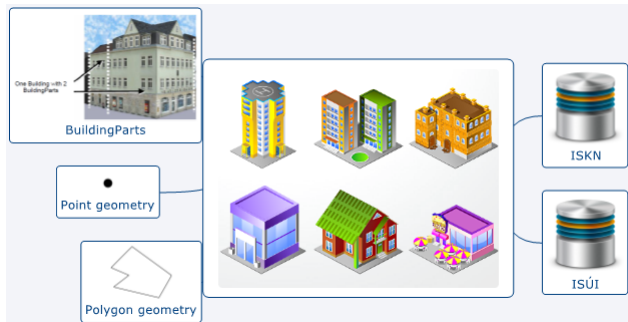
# Data content

- Cadastral database – currentUse, polygonal geometry, water works, connection to parcels, buildings without house numbers, building parts
- Basic register – currentUse, point geometry, technical and economic attributes, connection to addresses and municipalities, building parts
- Fundamental Base of Geographic Data – buildingsNature

# Basic principle of data transformation

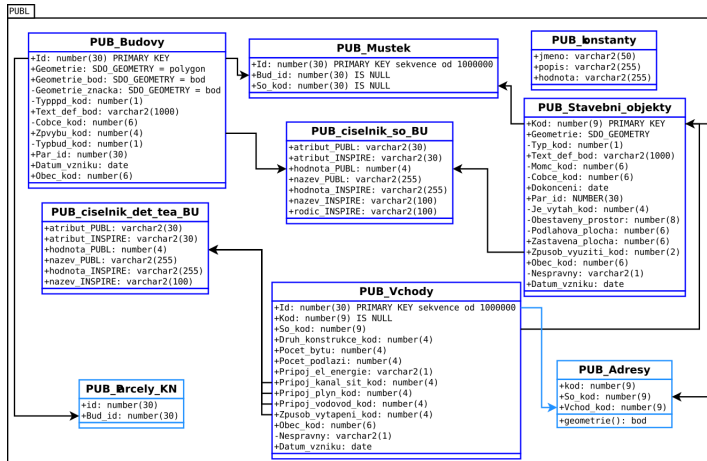


# Various cases of transformation



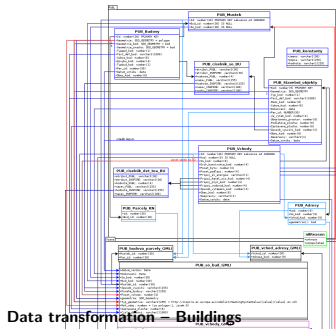
- Tables in Publication database are based on source of the data
- Views in Publication database are based on INSPIRE data

# Preparation of Publication database

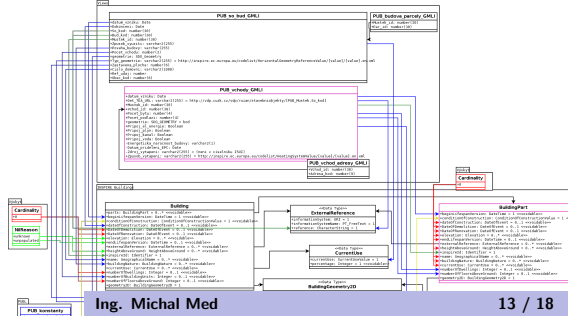


# Transformation schemas

- ISÚI + ISKN → PUBL (PL/SQL scripts)
- PUBL tables → PUBL views (PL/SQL scripts)
- PUBL view → GML files and INSPIRE structure

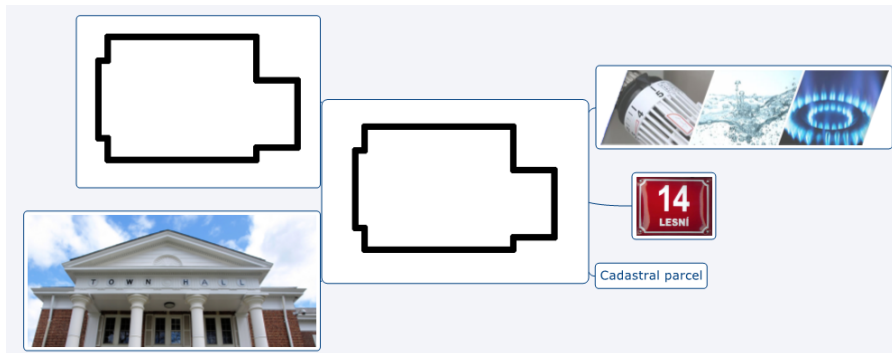


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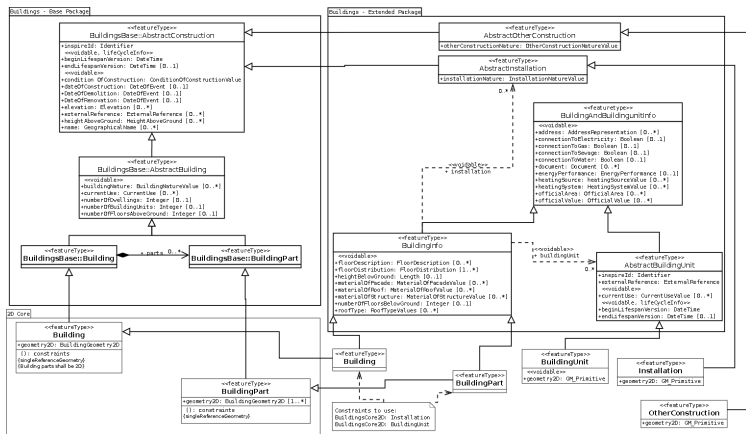
# What we really want



# Imagine situation – complications



# XSD schemas





# Problems

- Heredity – XSD class cannot have two parents
- Instantiation – has been solved before in other XSD schemas (copied)
- Extensions – replacing BuildingsExtended2D with local version with additional information
- Universality – in other countries can be possibly solved another way



# Thanks for your attention

