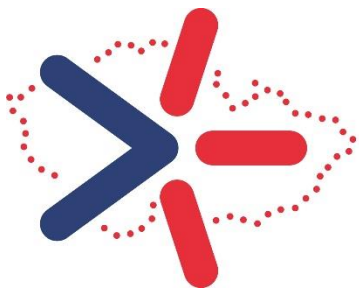


# Využití GIS v ekonomické agendě ÚSC Data Open Street Map

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**Národní  
plán  
obnovy**



**Financováno  
Evropskou unií**  
NextGenerationEU

# Open Street Map

- Tvorba volně dostupných geografických dat uživateli
- Od 2004
- Pod licencí Open Database License
- Obdoba Wikipedie
- Jednoduchá editace dat, s uchováním historie

Rozdíl v zobrazení ČR (S JTSK x WGS 84)

# Použití

- Mapy.cz
- Free-map (turistika)
- OSM cycle map
- OpenRouteService (navigace)
- OpenRailwayMap
- MissingMaps (mapování s ČK a Lékaři bez hranic)
- ...

# Jak se k datům dostat?

## Data Download – Differences

<i>Data Differences</i>	Geofabrik	Osm-Estratti	OSM	Metro Extracts	Overpass
Custom Area	<b>+</b> 100-200Km	<b>++</b> Limited customization	<b>+++</b>	<b>++</b> Registration required	<b>+++</b>
Completeness	<b>+</b> 1 Tag	<b>+</b> 1 Tag	<b>+++</b>	<b>+++</b>	<b>+++</b>
Custom Features	<b>-</b>	<b>-</b>	<b>-</b>	<b>+</b>	<b>+</b>
Data Export Format	<b>++</b> No raw XML, No GeoJSON	<b>++</b> No raw XML	<b>+</b> Only raw XML	<b>+++</b>	<b>+++</b>
Total Score	<b>4/10</b>	<b>5/10</b>	<b>7/10</b>	<b>9/10</b>	<b>10/10</b>

# Geofabrik

Do you find OpenStreetMap data useful? Consider giving something back in the OSMF's [funding campaign!](#)

GEOFABRIK [downloads](#)

Download OpenStreetMap data for this region:

## Czech Republic

[\[one level up\]](#)

The OpenStreetMap data files provided on this server do **not** contain the user names, user IDs and changeset IDs of the OSM objects because these fields are assumed to contain personal information about the OpenStreetMap contributors and are therefore subject to data protection regulations in the European Union.

[Extracts with full metadata](#) are available to OpenStreetMap contributors only.

### Commonly Used Formats

- [czech-republic-latest.osm.pbf](#), suitable for Osmium, Osmosis, imposm, osm2pgsql, mkgmap, and others. This file was last modified 17 hours ago and contains all OSM data up to 2024-02-25T21:21:00Z. File size: 809 MB; MD5 sum: [37f1f91103675e92715b57bc39de3ea4](#).
- [czech-republic-latest-free.shp.zip](#), yields a number of ESRI compatible shape files when unzipped. ([Format description PDF](#)) This file was last modified 15 hours ago. File size: 1.3 GB; MD5 sum: [3482893dca1501548d1fc4932af00e60](#).

### Other Formats and Auxiliary Files

- [czech-republic-latest.osm.bz2](#), yields OSM XML when decompressed; use for programs that cannot process the .pbf format. [Deprecated](#). This file was last modified 99 days ago. File size: 1.2 GB; MD5 sum: [a62652b34bfcf835cd91be06dadbd05d](#).
- [czech-republic-internal.osh.pbf](#) The history file contains personal data and is available on the [internal server](#) only. See notes above for further information.



🇬🇧 Not what you were looking for? Geofabrik is a consulting and software development firm based in Karlsruhe, Germany specializing in OpenStreetMap services. We're happy to help you with data preparation, processing, server setup and the like. [Check out our web site](#) and contact us if we can be of service.

# OverpassTurbo

## – Nástroj pro těžení dat z OSM

- **Uzly** – body lokalizované souřadnicemi v daném referenčním systému.
- **Cesty** – posloupnost *uzlů*, reprezentující **polylinii** nebo v případě uzavření polylinie pak **polygon**.
- **Relace** – skupina *uzlů*, *cest* a dalších *relací*, které může být přiřazena daná vlastnost.

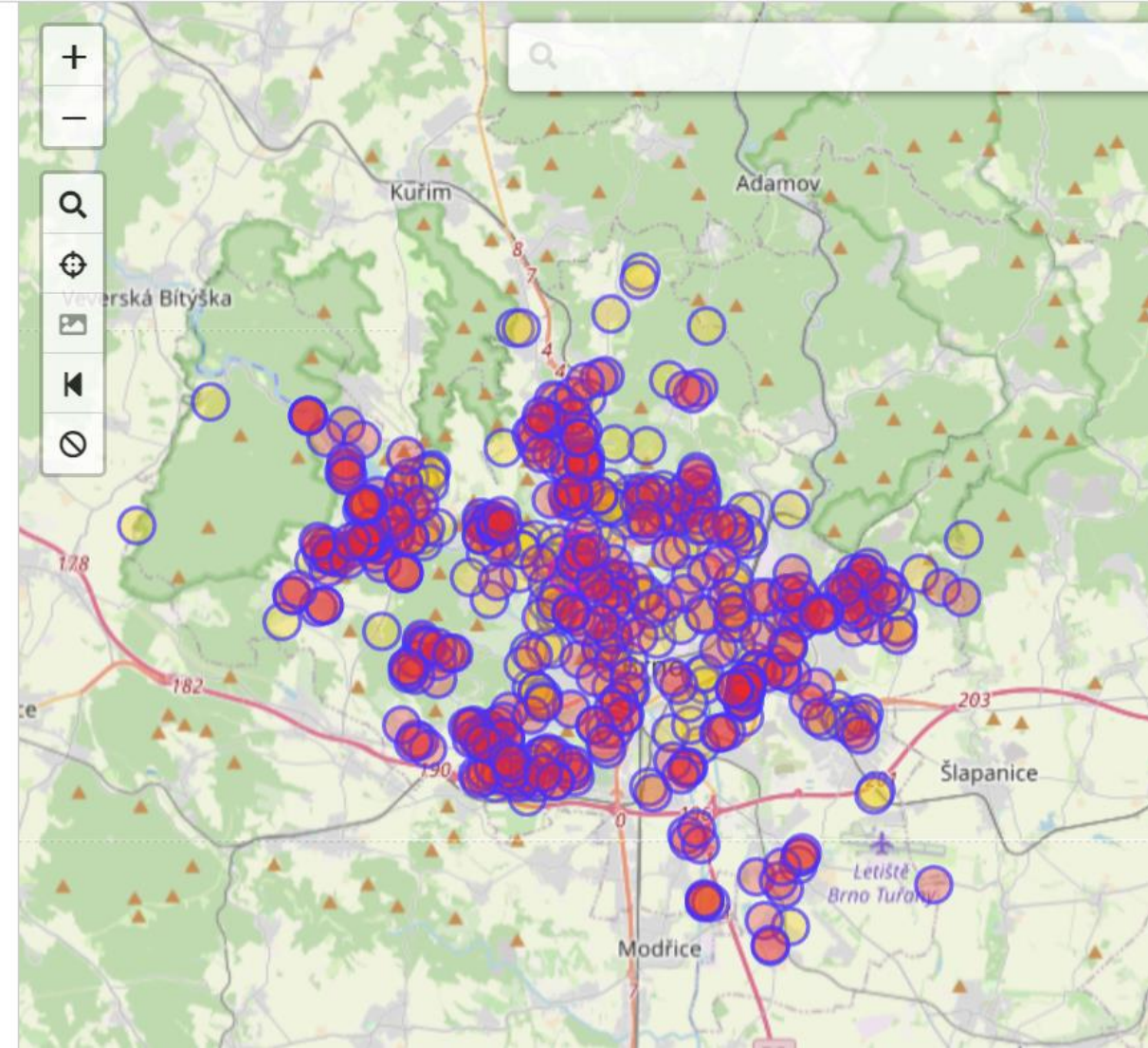
# Příklady dotazů

- Poštovní schránky: <https://overpass-turbo.eu/s/1HR8> Loaded – nodes: 1076, ways: 0, relations: 0
- Úprava kódu:

```
1 node["amenity"="post_box"]({{bbox}});  
2 out;|
```
- Křižovatky: <https://overpass-turbo.eu/s/1HR9>
- Banky, od kterých je nejbližší policejní stanice 3km: <https://overpass-turbo.eu/s/1HRa>
- Nově editované objekty (budovy): <https://overpass-turbo.eu/s/1HRb>



```
1 /*  
2 This has been generated by the overpass-turbo wizard.  
3 The original search was:  
4 "playground in Brno"  
5 */  
6 [out:json][timeout:25];  
7 // fetch area "Brno" to search in  
8 {{geocodeArea:Brno}}->.searchArea;  
9 // gather results  
10 nwr["leisure"="playground"](area.searchArea);  
11 // print results  
12 out geom;
```





# Export dat

```
/*
This has been generated by the Overpass API.
The original search query was:
"playground in Brno"
*/
[out:json][timeout:25]
// fetch area "Brno"
{{geocodeArea:Brno}}
// gather results
nwr["leisure"="playground"]
// print results
out geom;
```

**Export**

**Data**

GeoJSON	<a href="#">download</a>	<a href="#">copy</a>
GPX	<a href="#">download</a>	<a href="#">copy</a>
KML	<a href="#">download</a>	<a href="#">copy</a>
raw OSM data	<a href="#">download</a>	<a href="#">copy</a>

raw data directly from [Overpass API](#)

load data into an OSM editor: [JOSM](#), [Level0](#)

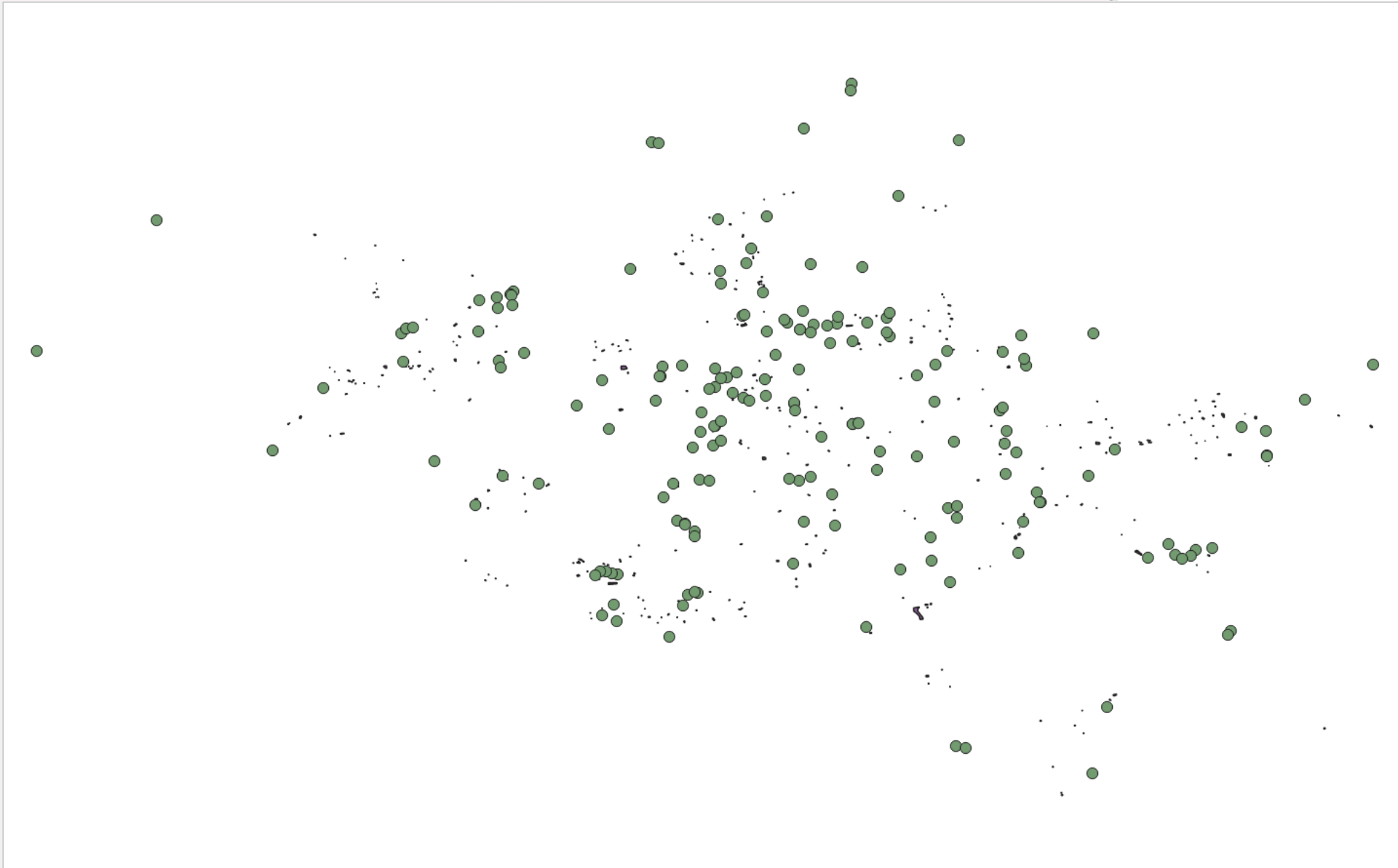
**Map**

as [png image](#)

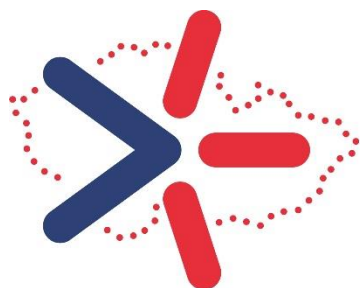
as [interactive Map](#)

- K:\
- GeoPackage
- SpatialLite
- PostgreSQL
- SAP HANA
- MS SQL Server
- Oracle
- WMS/WMTS
- Vector Tiles
- XYZ Tiles
- WCS
- WFS / OGC API - Features
- ArcGIS REST Servers
- GeoNode

- export (3)
- export (3)



# Děkuji za pozornost



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