


ANTWERP INSPIRE HACKATHON 2018

Inno@nnect

**TEAM 14: Analytical map of incidents registered by
the Municipal Police in Plzeň, Czechia**

TEAM AND SUPPORTING PROJECTS

- **InnoConnect**



Jiří Bouchal (managing director, business development, UX, UI design)



Alvaro Silva (frontend and backend software development)



Jan Ježek (technical coordination, backend development)



František Kolovský (backend software development)

- **Plzen City IT Organisation (SITMP)**

Václav Kučera (data provider, GIS expert)



Analytical map of minor offences

- **Solution: Interactive map**

- that helps the city of Plzeň (Czechia) to identify trends and patterns in their security-related data provided by the Municipal Police,
- e.g. to identify areas with the highest risk of minor criminality, streets with most frequent parking, driving or speed violations, locations with pedestrian or cyclist offences, or neighbourhoods with alcohol- and drug-related offences.

- **Web app:** <https://innoconnect.kolovsky.com/development/innoconnect-development/plzen-mp/>

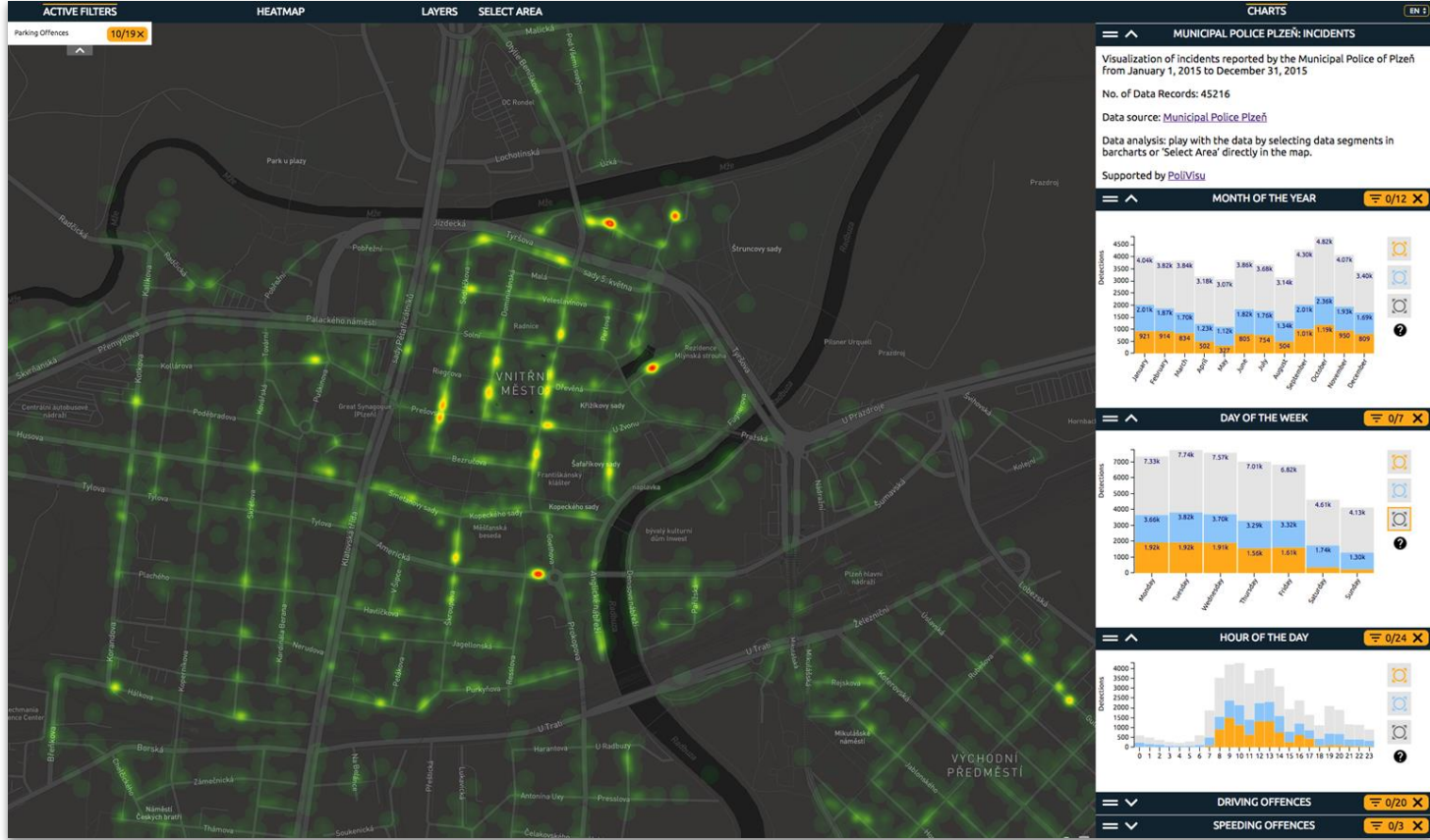
- **Videos on how to use the app**

https://www.youtube.com/watch?v=rTGRRU1YQVA&list=PLvBmaG71gGSUeM_H7yirw72D0EflKNIZg&index=1

- **WebGLayer Tutorials and User Guide**

<https://github.com/jezekjan/webglayer/wiki/User-Guide>

Screenshots



Filtering options per type of offence/incident:

- MONTH OF THE YEAR 0/12 X
- DAY OF THE WEEK 0/7 X
- HOUR OF THE DAY 0/24 X
- DRIVING OFFENCES 0/20 X
- SPEEDING OFFENCES 0/3 X
- PARKING OFFENCES 0/19 X
- NO ENTRY OFFENCES 0/8 X
- PEDESTRIAN & CYCLIST OFFENCES 0/12 X
- PROPERTY OFFENCES 0/17 X
- PUBLIC ORDER OFFENCES 0/19 X
- ASSAULTS 0/7 X
- ALCOHOL & ADDICTION OFFENCES 0/4 X
- LOCAL GOVERNMENT OFFENCES 0/7 X
- OTHER OFFENCES 0/13 X
- CONTROLLING, LOST & FOUNDS 0/15 X
- MP TASKS, ASSISTANCE 0/31 X
- OTHER INCIDENTS 0/30 X

INPUT DATA

- Incidents reported by the Municipal Police of Plzeň from January 1, 2015 to December 31, 2015.
- No. of Data Records: 45216.
Data source: Municipal Police Plzeň <http://www.mpplzen.cz/>
- licence
 - proprietary data at the moment (for the purpose of this prototype app)
 - It's planned that the next release of the app will be developed with the data that will be made open to public (and combined with the data provided by the State Police)

USED OR GENERATED SOFTWARE/TOOLS

- **Software: WebGLLayer library**
 - <http://webglayer.org/> , <https://github.com/jezekjan/webglayer>
 - JavaScript, WebGL based library for coordinated multiple views visualization.
 - Library is focused on spatial data and large datasets (up to hundreds of thousands of features)
 - licence: open source BSD licence
- Library enriched with **new features** during the development
 - new chart type for a subset of data
 - GUI updates
 - sharing with Permalink and PDF export
 - translation tool - CZ and EN localisation

USE OF APIS

- The data for this first release of the application is provided as a sample DB export
- It's planned for the future that the data will be regularly updated and provided by the city through an API

CROSS SECTORAL OR CROSS BOUNDARY INTEROPERABILITY

- solutions is suitable (and tested) in various domains:
 - police reports and criminality data
 - traffic accidents
 - traffic intensity (sensor data)
 - customer/client base analysis
 - traffic flow analysis

BUSINESS/INNOVATION

'InnoConnect is helping people understand their data'

- **InnoConnect**

- software startup based in Pilsen, est. 2016
- focus on the development of interactive analytical maps
- contributes to the WebGLayer open source library

- **Business model**

- currently direct B2B and B2G direct sales, project-based development
- shifting towards indirect sales: through businesses managing big data

ENVIRONMENTAL, SOCIETAL AND/OR ECONOMICAL CHALLENGES

- Even though the data was anonymised, it contains sensitive data that the owner of the data currently cannot make public
- Therefore, due to security reasons, the dataset is currently not available as open data. The application is therefore protected by a password and at this stage is not be available to public. However, it can be demonstrated during the hackathon presentations.
- It's planned that the new release of the app will be developed with data that can be made available to public.

FOLLOW-UP

- We will further work with the city of Plzen to
 - enrich and update the data
 - access the latest data through API
 - combine the data with more data sources for more added valuea for the city and policy managers (e.g. traffic accidnets data and criminality data from the State Police)
- we're always happy to join effort with other teams from the INSPIRE Hack 2019 to build more advanced solutions



THANK YOU.

Any Questions?

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