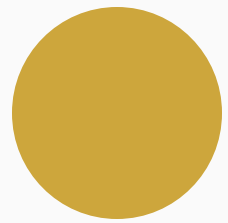




Metoda vyhledávání kritických míst cyklistické infrastruktury na základě velkých dat

A method of searching for critical places
of cycling infrastructure based on big
data



SMART CITY



A (really) Smart City Concept - Sensoworks
sensoworks.com



Smart City: Co jsou to chytrá města? | Újezd.net
ujezd.net



Smart City/sustainable city development/e-mobilit...
spcleantech.com



Města opakuji ve Smart City stále stejné chyby, říká po...
elektrina.cz



Smart city jako perspektivní obor ve Střední Americe a ...
businessinfo.cz



SMART CITY- A Step Into the Future | TTE
thetechnologyera.com



Advantages and disadvantages of Smart Cities | BBVA
bbva.ch



Smart City: Co jsou to chytrá města? | UVT Internet s.r...
uvtnet.cz



Smart City: využití pro datové analytiky a vzdělání | by ...
medium.com



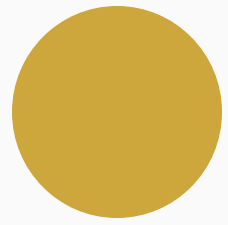
Smart cities – inteligentní města budoucnosti
bydlenivevate.cz



Smart City Plan - Karta hry | GAMES.CZ
games.tiscali.cz



Ministerstvo pro místní rozvoj ČR - Smart Cities
Aktivujte Windows



CLIMATE CRISIS



National Oceanic and Atmospheric Administration
Climate change impacts | National Oceanic...



EKOenergy
More about the climate crisis - EKOenergy



IUF.org
Climate Crisis - IUF



rededuct.com
What Are The Causes Of Climate Chang...



BBC
What is climate change? A really simple gui...



Save the Children
Effects of Climate Change on Future Generatio...



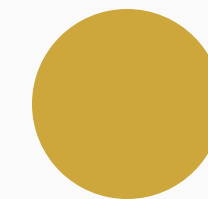
edie
ThisIsACrisis: 7 harsh realities of the global...



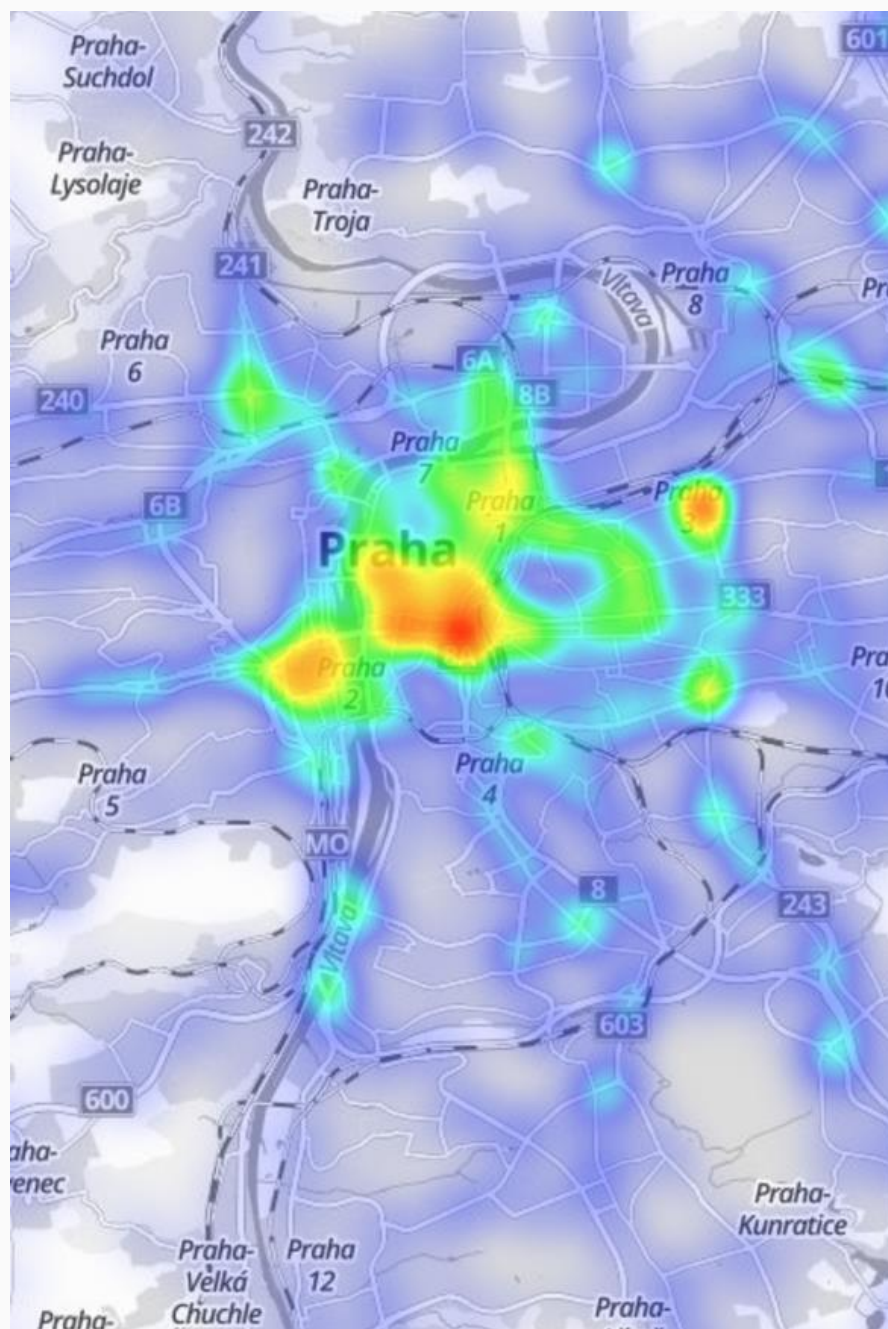
The New Humanitarian
The New Humanitarian | Climate cha...



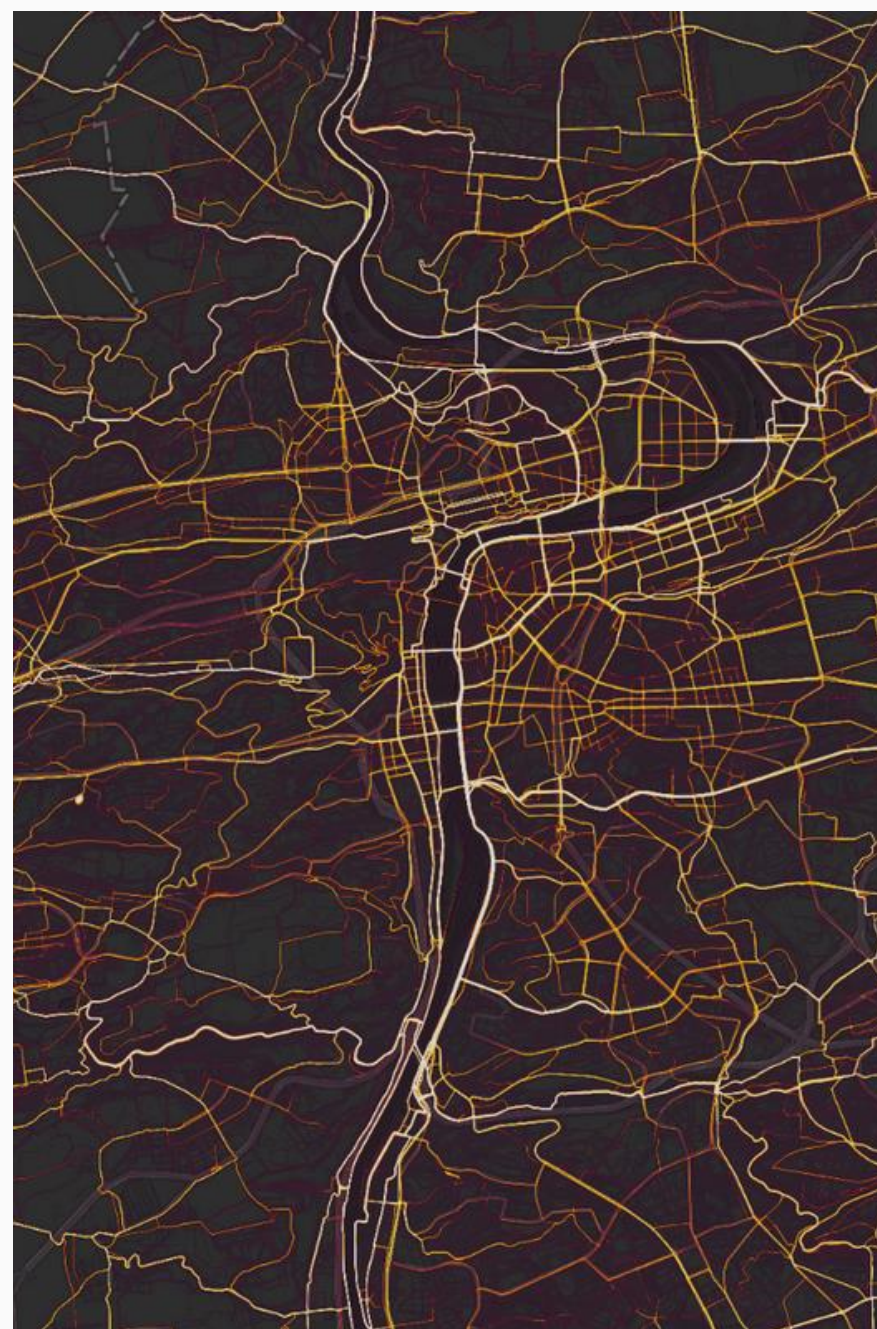
••• What we have? - BIG DATA



👤 Policie ČR



👤 Pohybové aplikace



👤 Městská správa



●●● Teze / Thesis

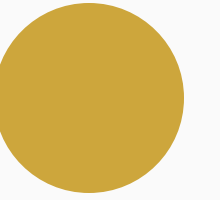


- Dobře navržená (nejen cyklistické) infrastruktura je plynulá, prostupná a bezpečná.
 - Spojitost sítě infrastruktury je pro její účelnost klíčová.
 - Navrhujeme pro všechny věkové i výkonostní skupiny obyvatel.
-
- Well-designed (not just cycling) infrastructure is fluid, permeable and safe.
 - The continuity of the infrastructure network is key to its effectiveness.
 - We design for all age and performance groups of the population.

● ● ● Požadavky / Requirements

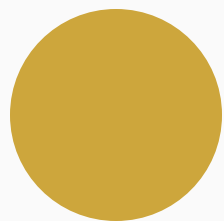


- Cost effective
- Smart targeting
- Fulfills SDG's and other strategic documents
- Positive impact

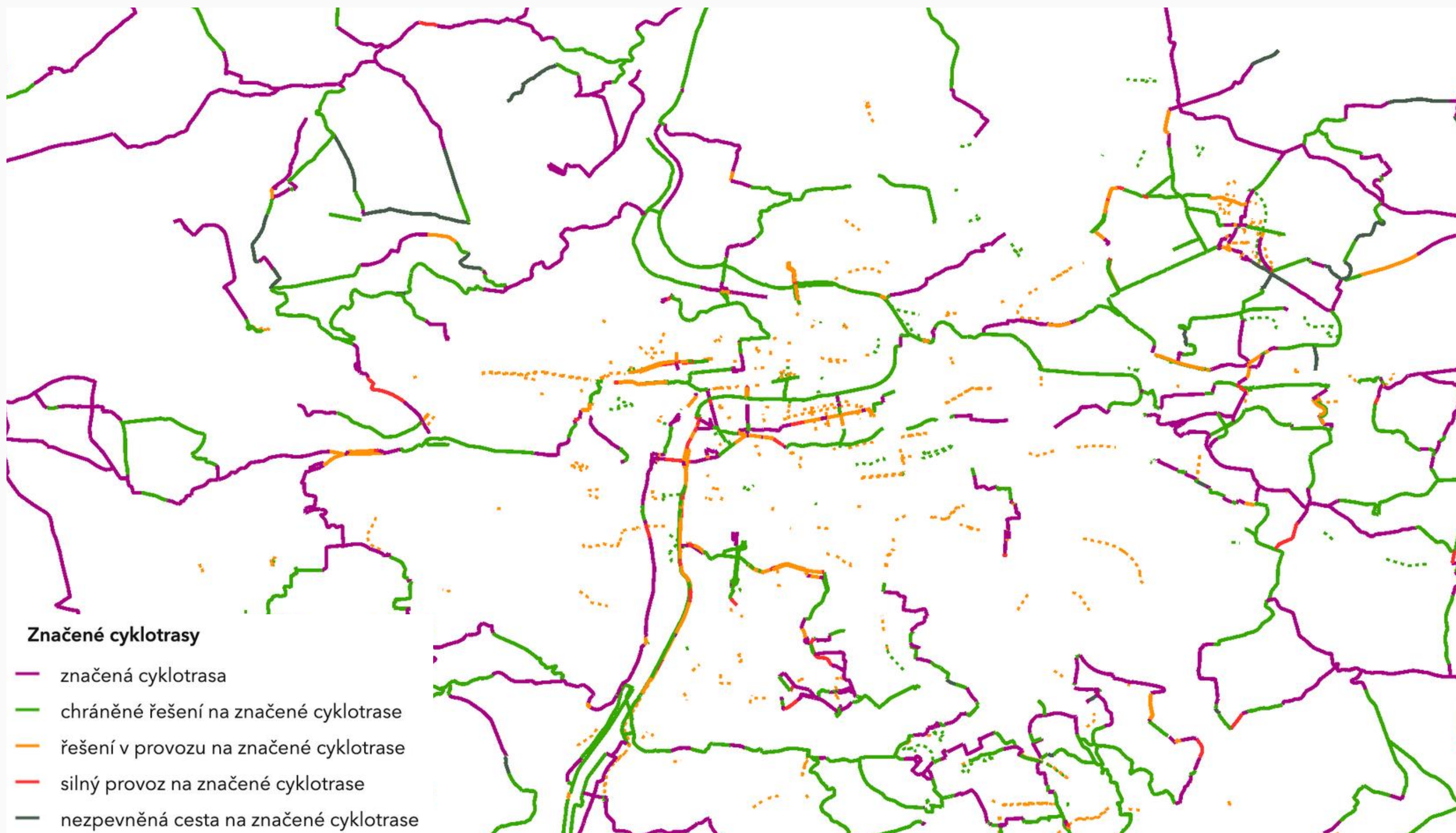


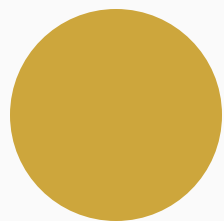
Metoda vyhledávání kritických míst v cyklistické infrastruktuře v Praze skrze analyzování dat dopravních nehod a dat o pohybu cyklistů.

A method of finding critical places in the cycling infrastructure in Prague by analyzing traffic accident data and data on the movement of cyclists.

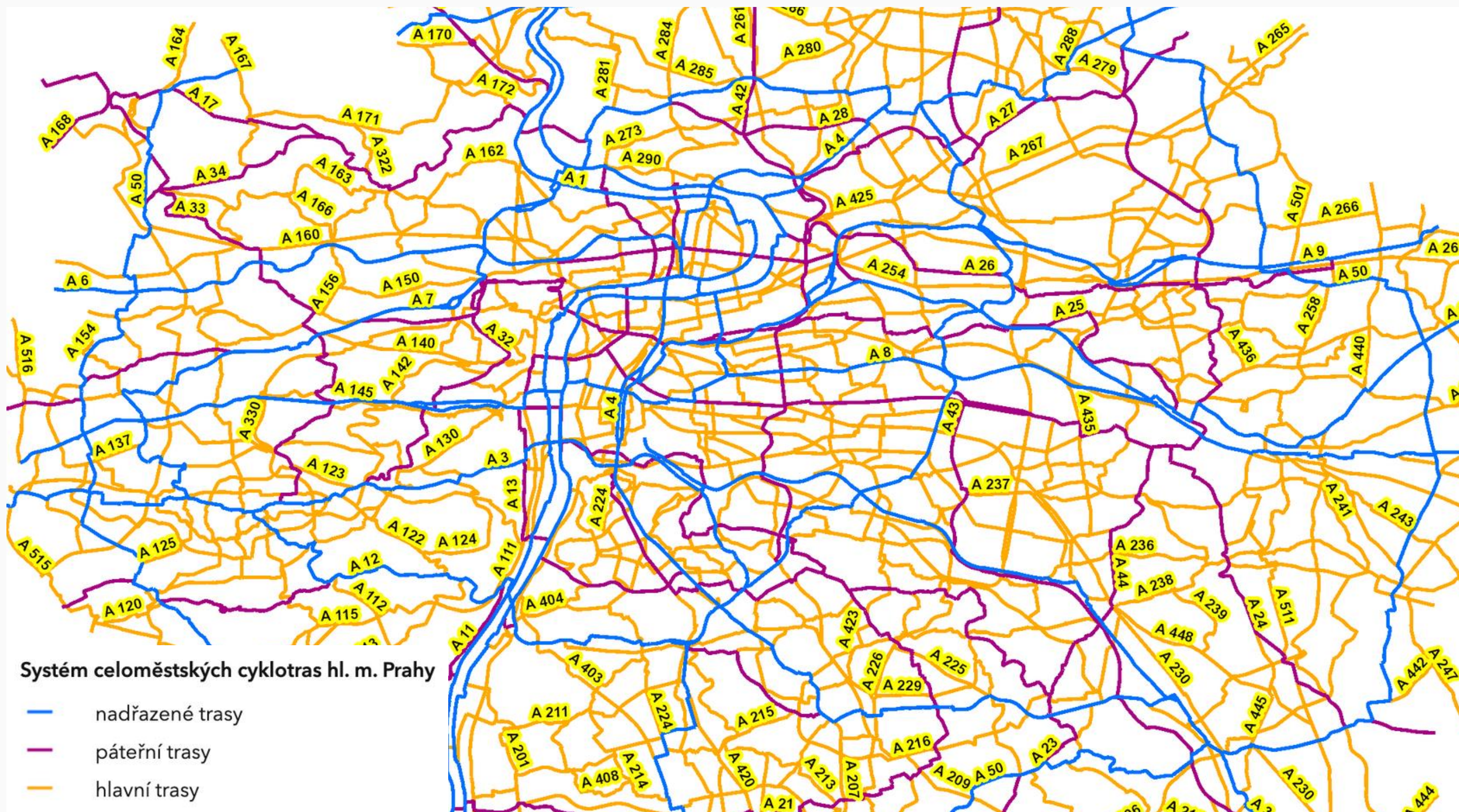


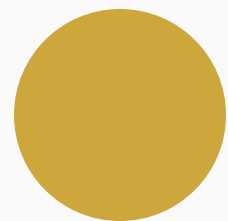
Mapa značených cyklotras, Praha, 2023, 1:100 000



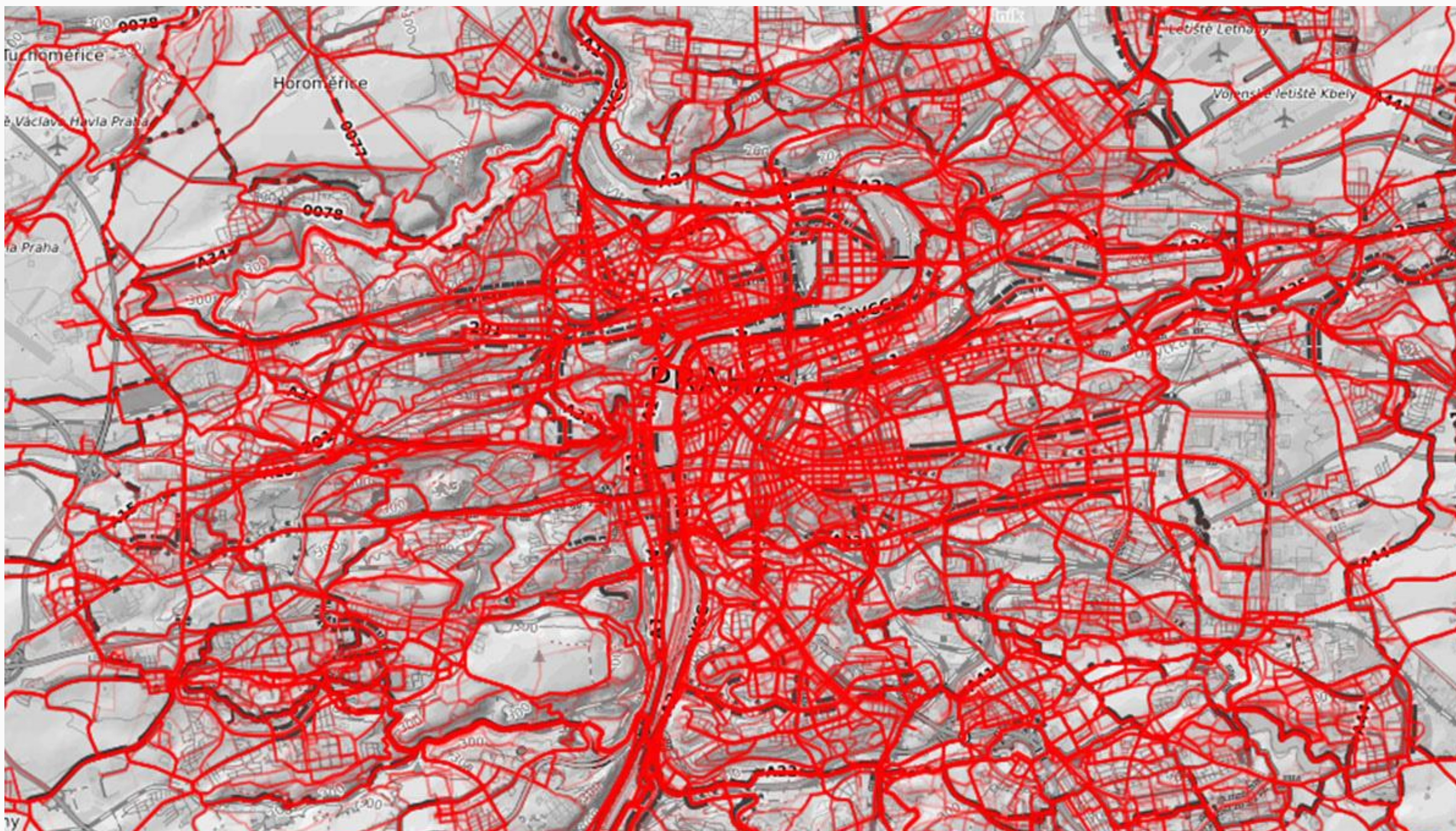


Navržený systém celoměstských cyklotras, Praha, 1:100 000

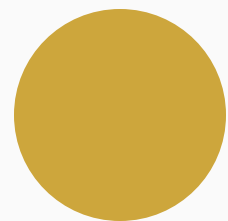




Mapa pohybu cyklistů v Praze, 2023, 1:100 000

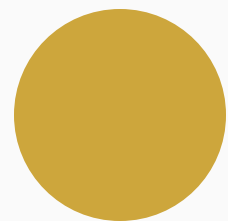


Zdroj: mapa.prahounakole.cz;

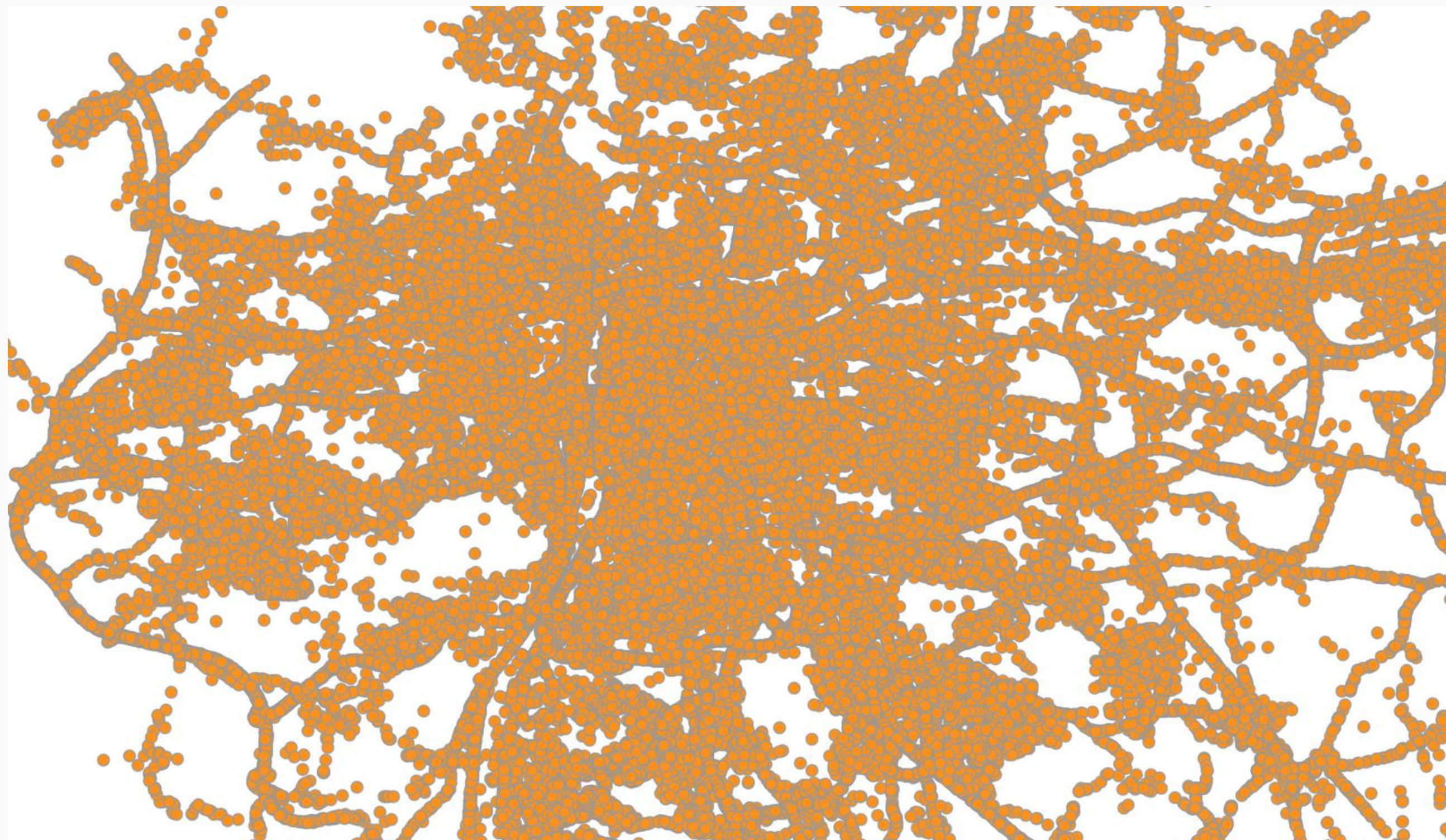


Mapa cykloopatření mimo síť tras, Praha, 2023, 1:100 000

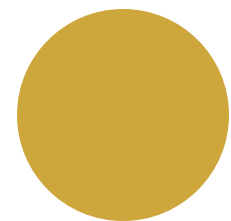




Zaznamenané nehody v Praze 2014-2023 dle PČR



Použitá data: Policie ČR, © 2023 ČÚZK;

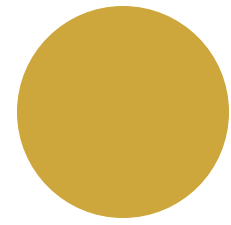


Research question

1) Kde jsou ve městě kritická místa pro cyklodopravu z pohledu bezpečnosti osob a prostupnosti města?

Where are the critical places for bicycle transport in the city from the point of view of the safety of people and the accessibility of the city?



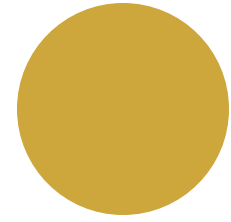


Research question

2) Jaká je prioritizace kritických míst v rámci městské sítě cyklo infrastruktury?

2) What is the prioritization of critical places within the urban network of cycle infrastructure?

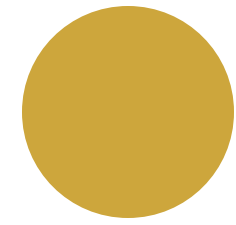




Methodology

- Layer 1 - accidents with participation of cyclist
- Layer 2 - cycling tracks
- GIS Hot spot analysis

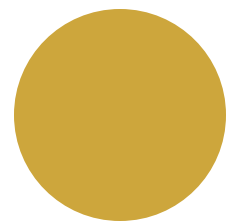




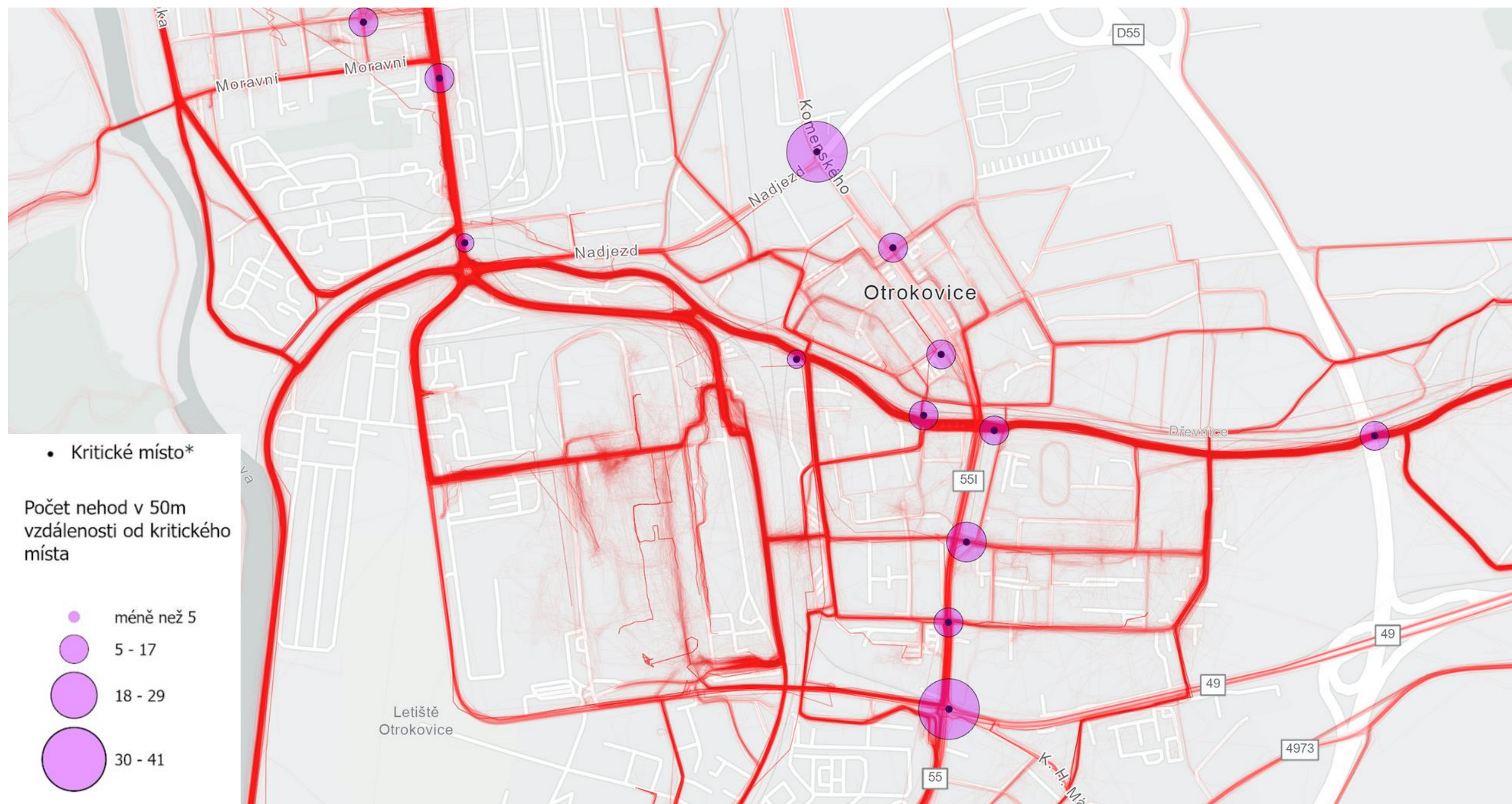
Limits / Opportunities

- **BIG DATA - Prague**
- **Accidents - Police data - ČR covered**
- **Movement of cyclist - STRAVA - worldwide**

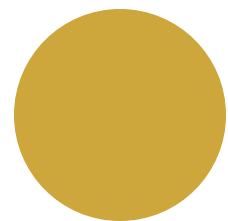




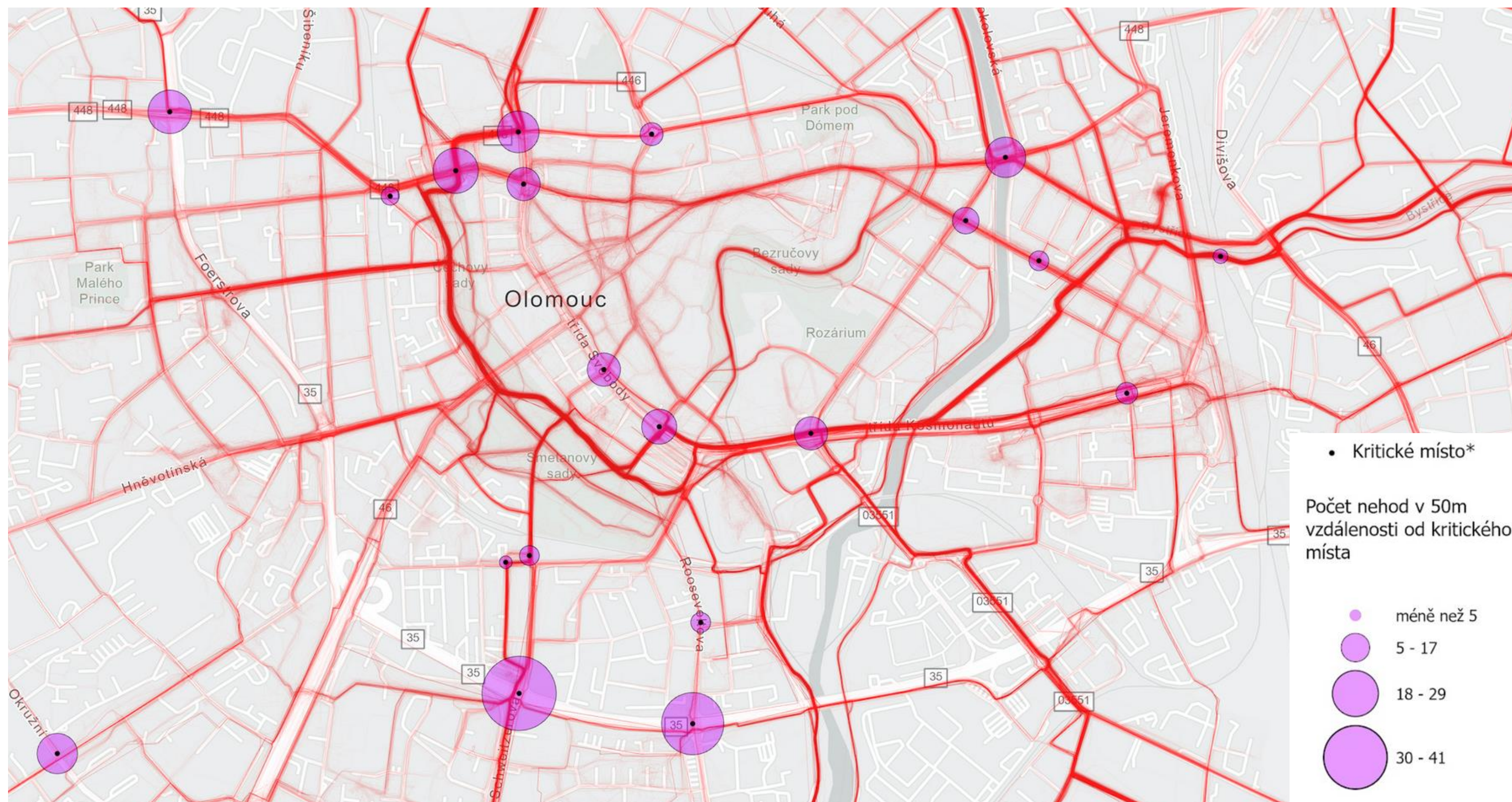
Mapa kritických míst cyklo dopravy v Otrokovicích



Zdroj: vlastní výzkum, použitá data: mapa.mestemnakole.cz 2022, © 2023 ČÚZK;

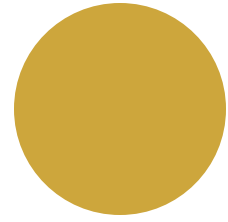


Mapa kritických míst cyklo dopravy v Olomouci



Zdroj: vlastní výzkum, použitá data: mapa.mestemnakole.cz 2022, © 2023 ČÚZK;





Key benefits

- Targeted investments: *Identify critical areas with a high risk of accidents and direct funds to where you need it most.*
- Optimizing routes: *Design and promote safer and more efficient cycling routes that reduce the risk of accidents.*
- Education and awareness: *Use the data obtained to create targeted education and safety campaigns for city residents.*
- Effective use of resources: *Greater benefit for your investments and the possibility of regular measurement and evaluation.*





Děkuji za pozornost

Thank you for your attention

Ústav urbanismu
školitel: doc. Ing. arch. Irena Fialová
zpracoval: Mgr. Jan Haruda
4. ročník