

TAKING
COOPERATION
FORWARD

 Praha, Konference GIS Esri v ČR | 7.-8.11.2018

 **Air Tritia - GIS při hodnocení kvality ovzduší v rozsáhlé oblasti**

 AIR TRITIA | VŠB - TU OSTRAVA | Jan Bitta

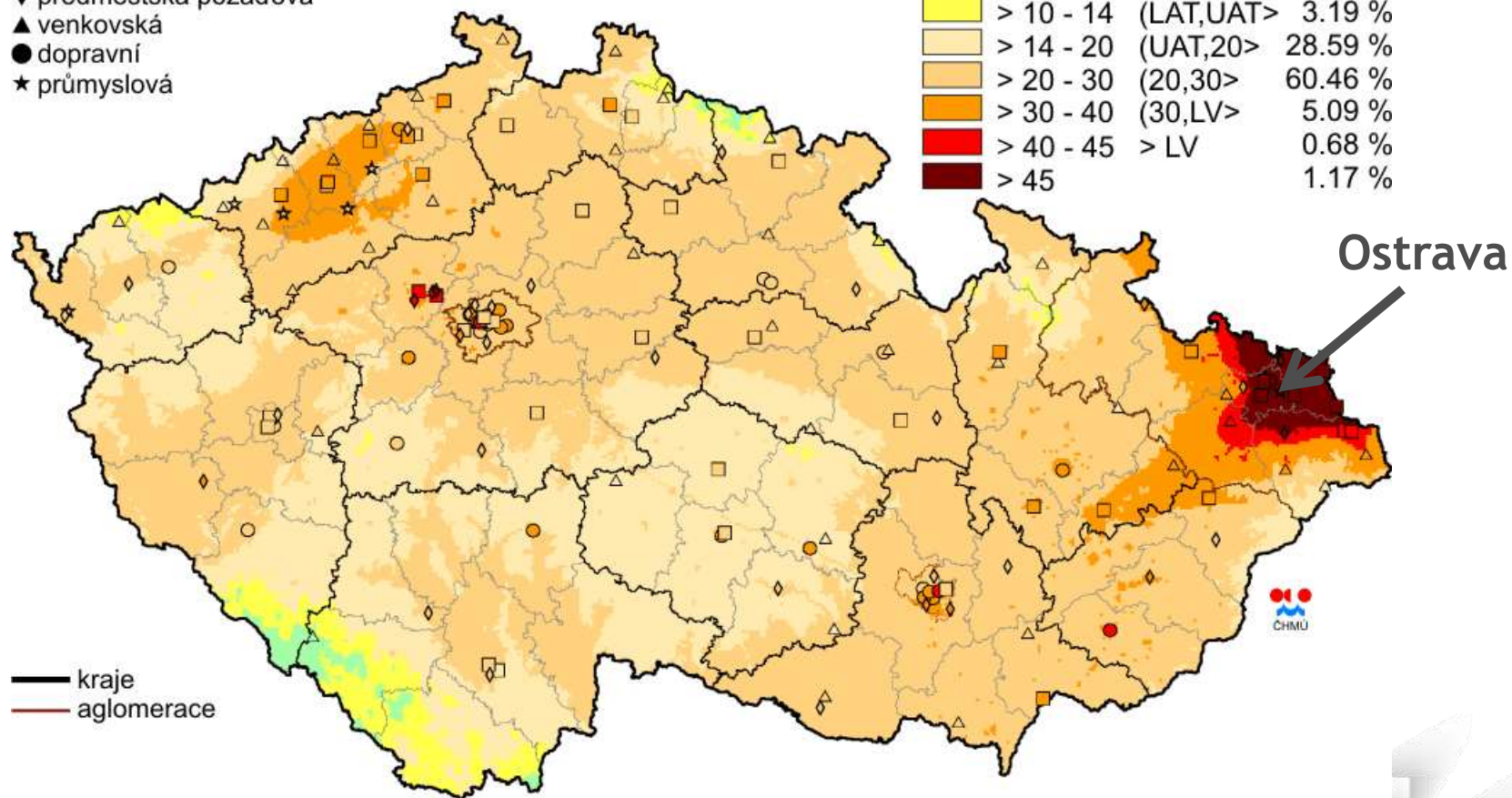
PROBLÉM Z OVZDUŠÍM

klasifikace stanic

- městská pozadová
- ◆ předměstská pozadová
- ▲ venkovská
- dopravní
- ★ průmyslová

koncentrace [$\mu\text{g}\cdot\text{m}^{-3}$]

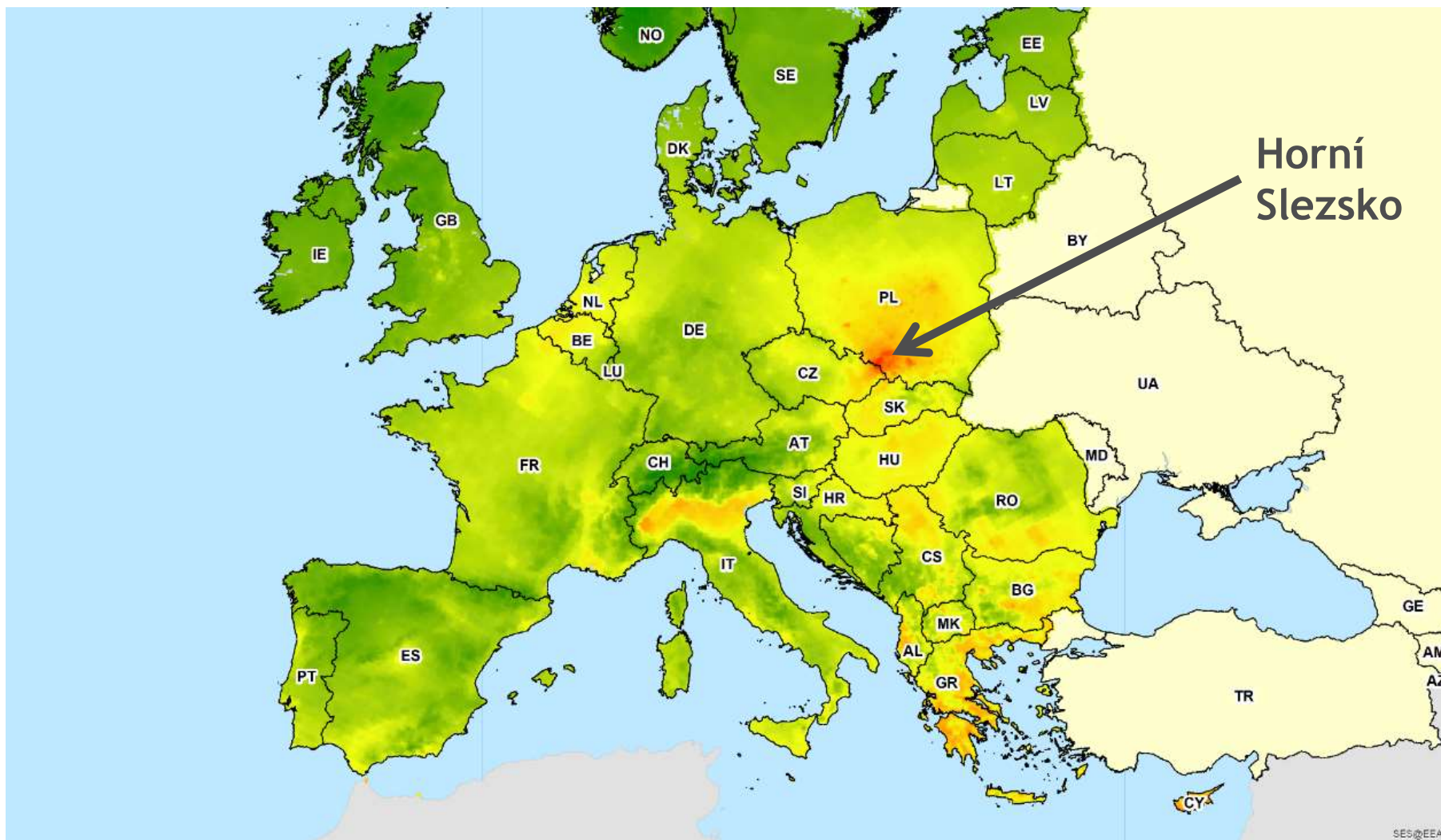
≤ 10	≤ LAT	0.82 %
> 10 - 14	(LAT,UAT>	3.19 %
> 14 - 20	(UAT,20>	28.59 %
> 20 - 30	(20,30>	60.46 %
> 30 - 40	(30,LV>	5.09 %
> 40 - 45	> LV	0.68 %
> 45		1.17 %



Pole roční průměrné koncentrace PM_{10} v roce 2010

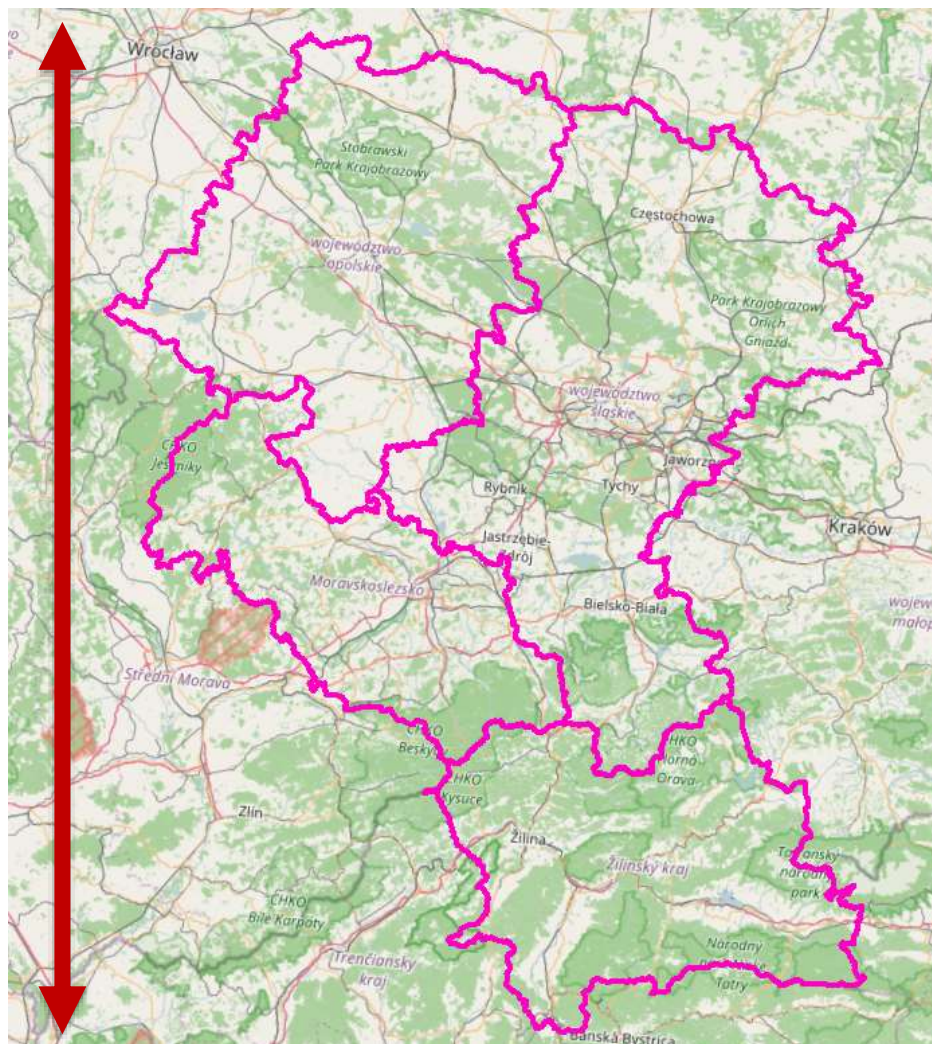


PROBLÉM Z OVZDUŠÍM



AIR TRITIA OBLAST ZÁJMU

220 km



34 000 km²
7 550 000 obyvatel

280 km

TAKING COOPERATION FORWARD



	2006	2010	2015
PL	4770	11629	23335
CZ	5445	7021	9029
SK	2099	2099	2099

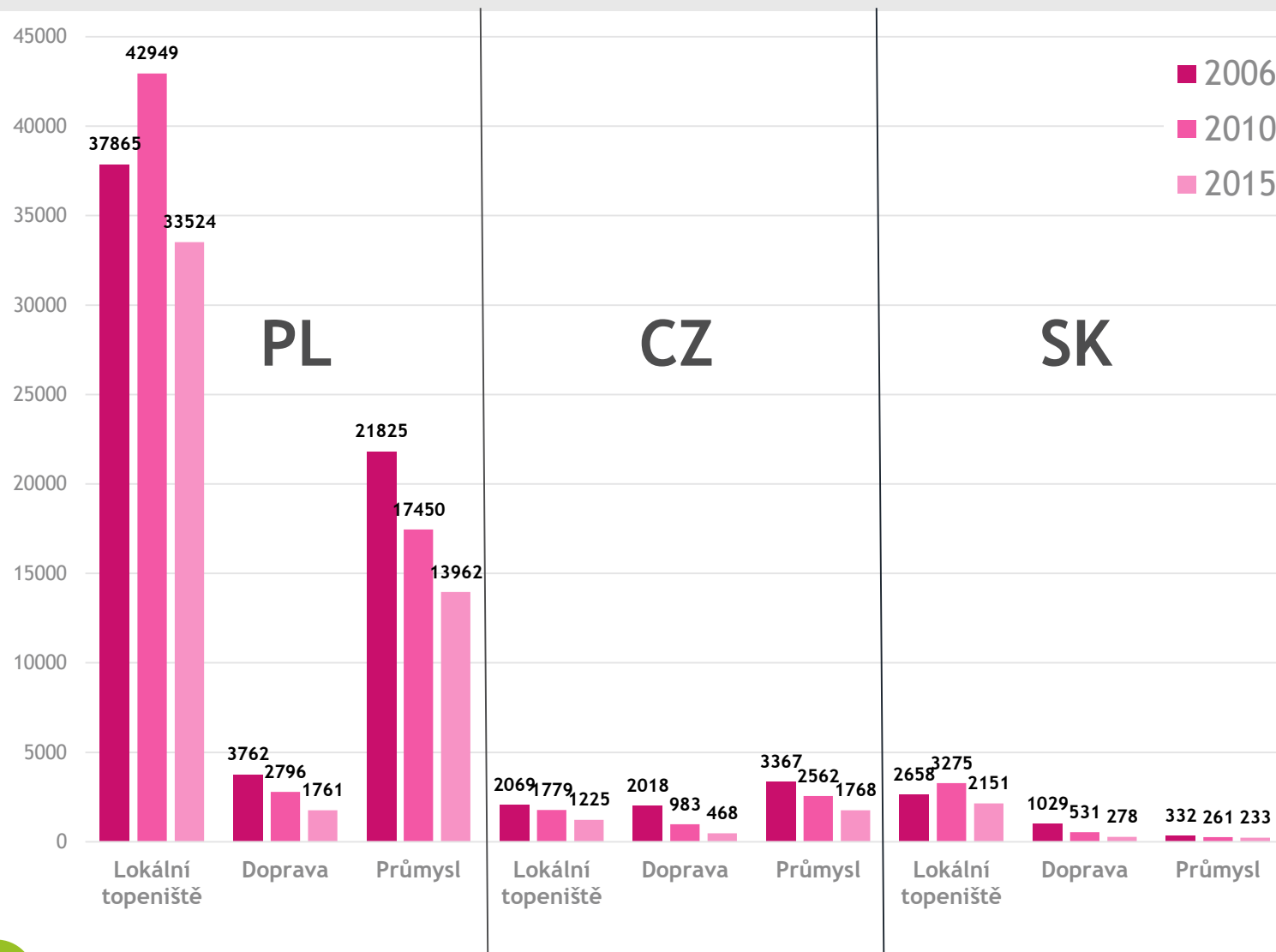


LOKÁLNÍ TOPENIŠTĚ A DOPRAVA

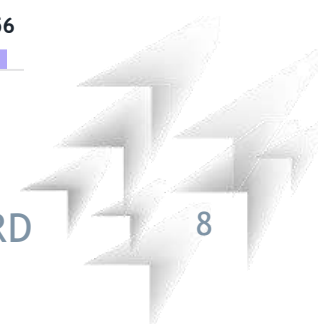
	PL	CZ	SK
topící domácnosti	1 652 199	201 147	157 846
počet plošných zdrojů	403 451	60 295	34 641
délka silnic [km]	6 173	2 523	1 555
počet liniových zdrojů	131 759	55 724	33 586

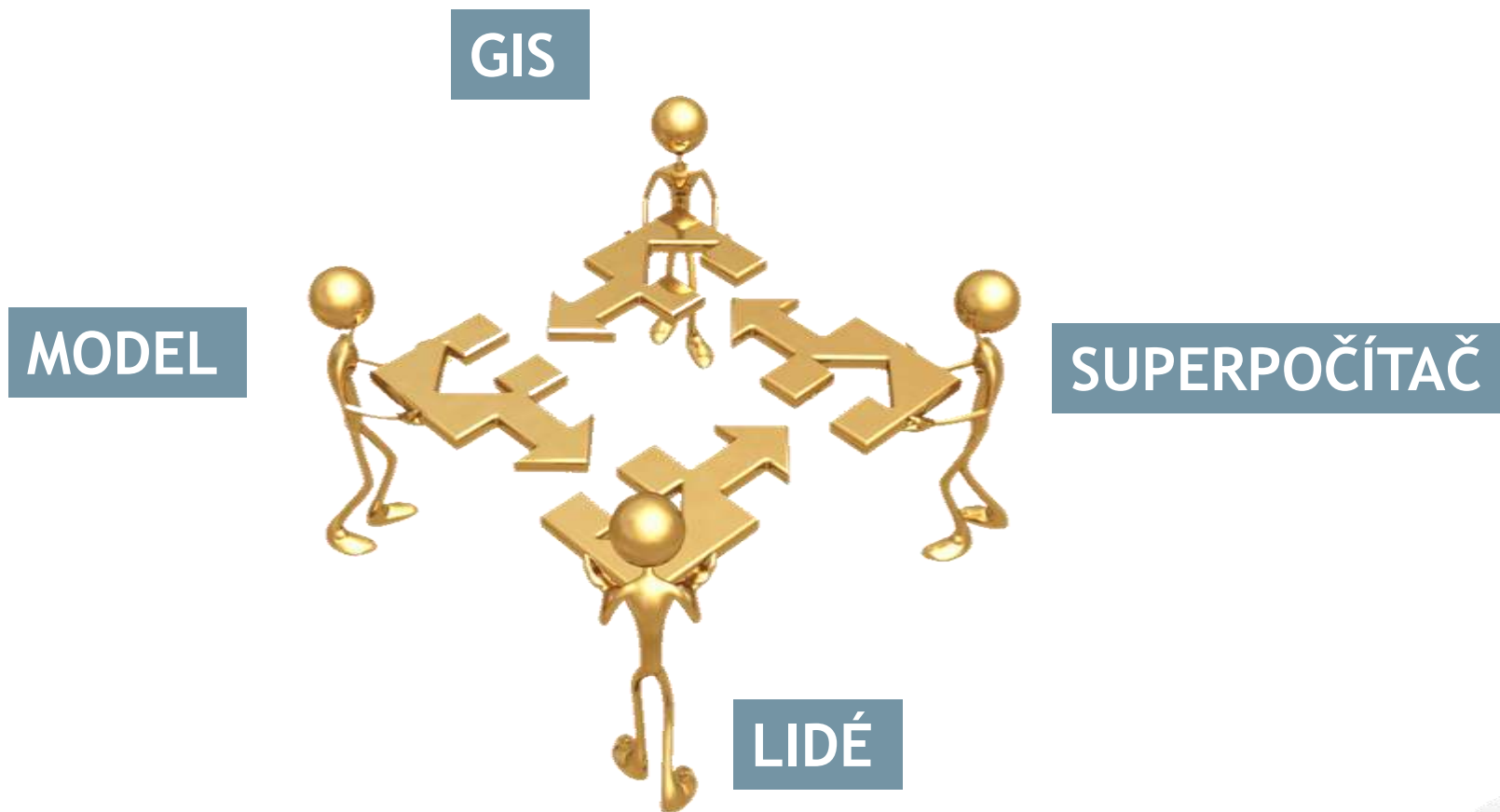


EMISE PM₁₀ [t/rok]



EMISE NO_x [t/rok]

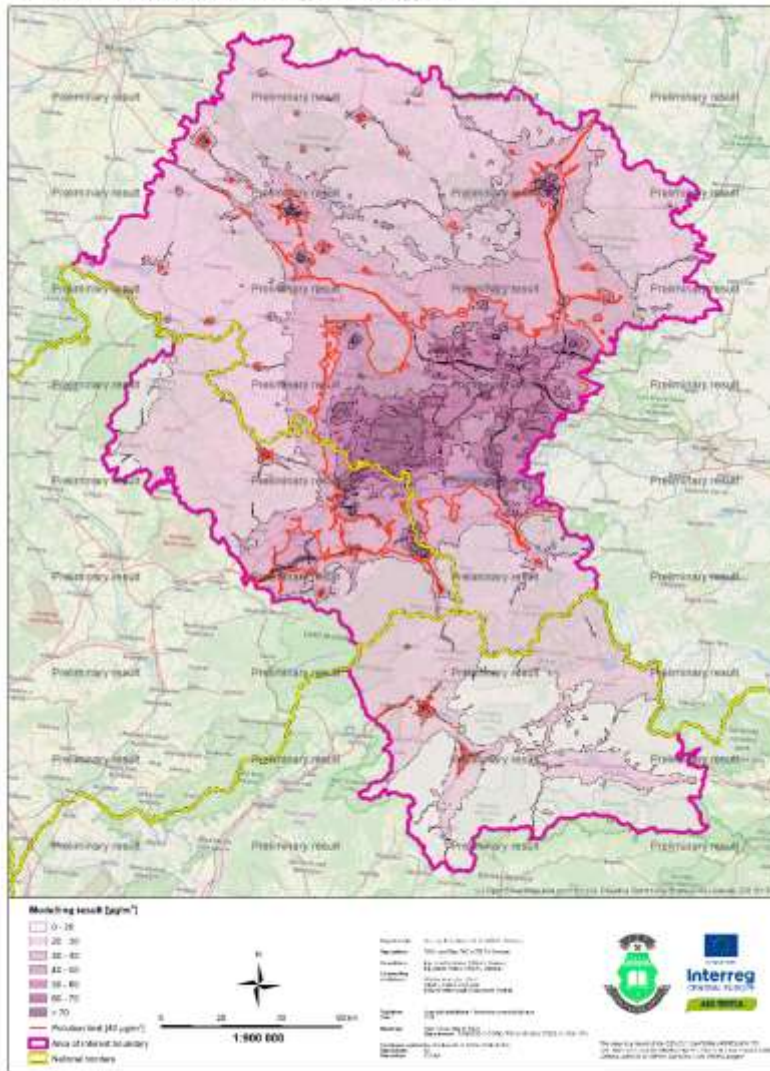




VÝSLEDKY MODELOVÁNÍ

AVERAGE ANNUAL CONCENTRATION OF PM₁₀ IN THE AREA OF INTEREST

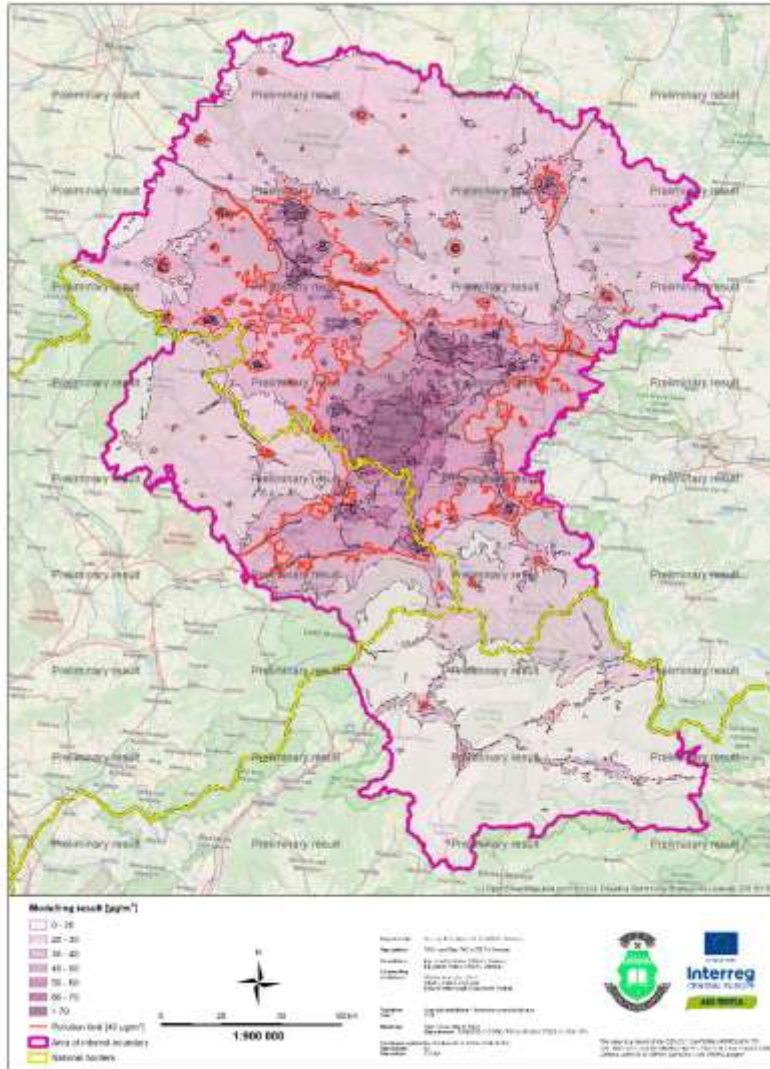
Total concentration, model SYMOS 5V with correction by pollution monitoring, year 2008



VÝSLEDKY MODELOVÁNÍ

AVERAGE ANNUAL CONCENTRATION OF PM₁₀ IN THE AREA OF INTEREST

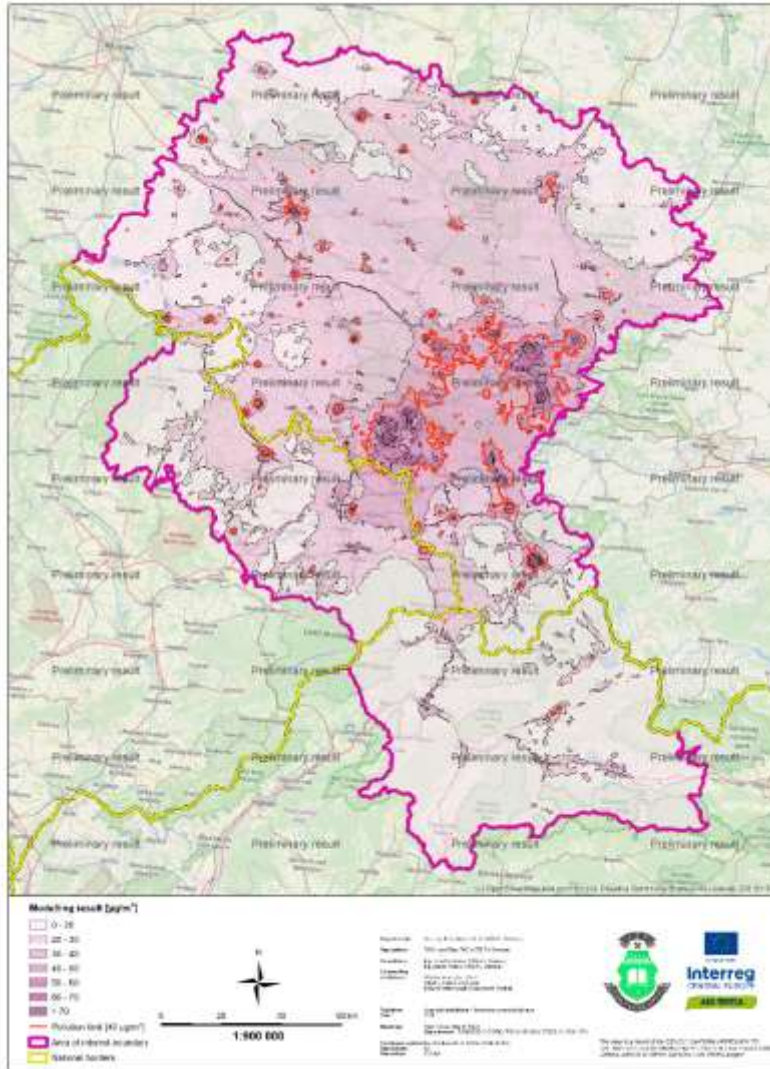
Total concentration: model SYMOS 5.07 with correction by pollution monitoring, year 2010



VÝSLEDKY MODELOVÁNÍ

AVERAGE ANNUAL CONCENTRATION OF PM₁₀ IN THE AREA OF INTEREST

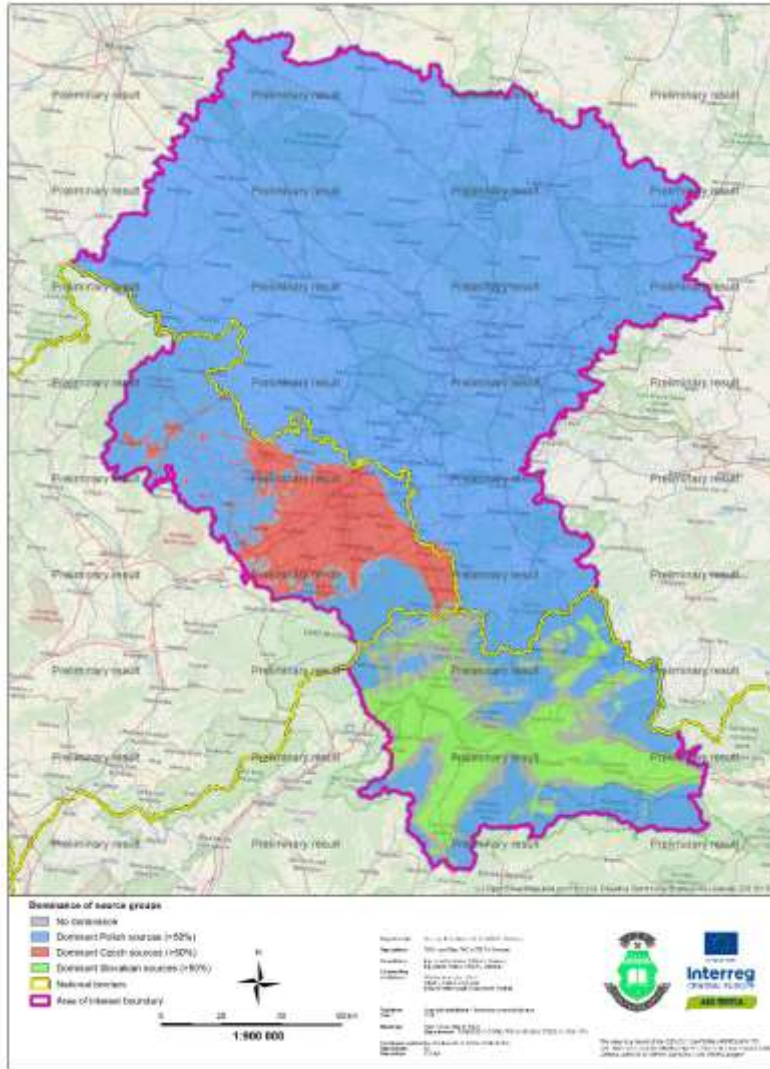
Total concentration: model SYMOS 57 with correction by pollution monitoring, year 2015



VÝSLEDKY MODELOVÁNÍ

DOMINANCE BY COUNTRY OF ORIGIN FOR PM₁₀ IN THE AREA OF INTEREST

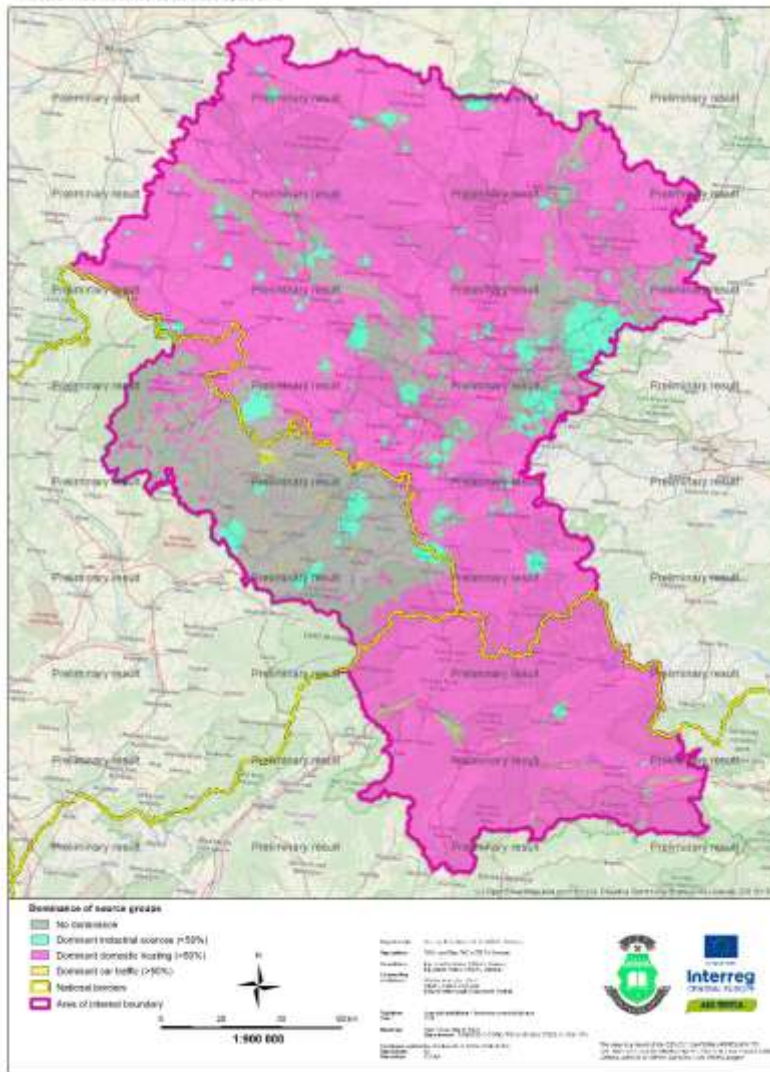
Model SYMOSS7, actual concentration, year 2010



VÝSLEDKY MODELOVÁNÍ

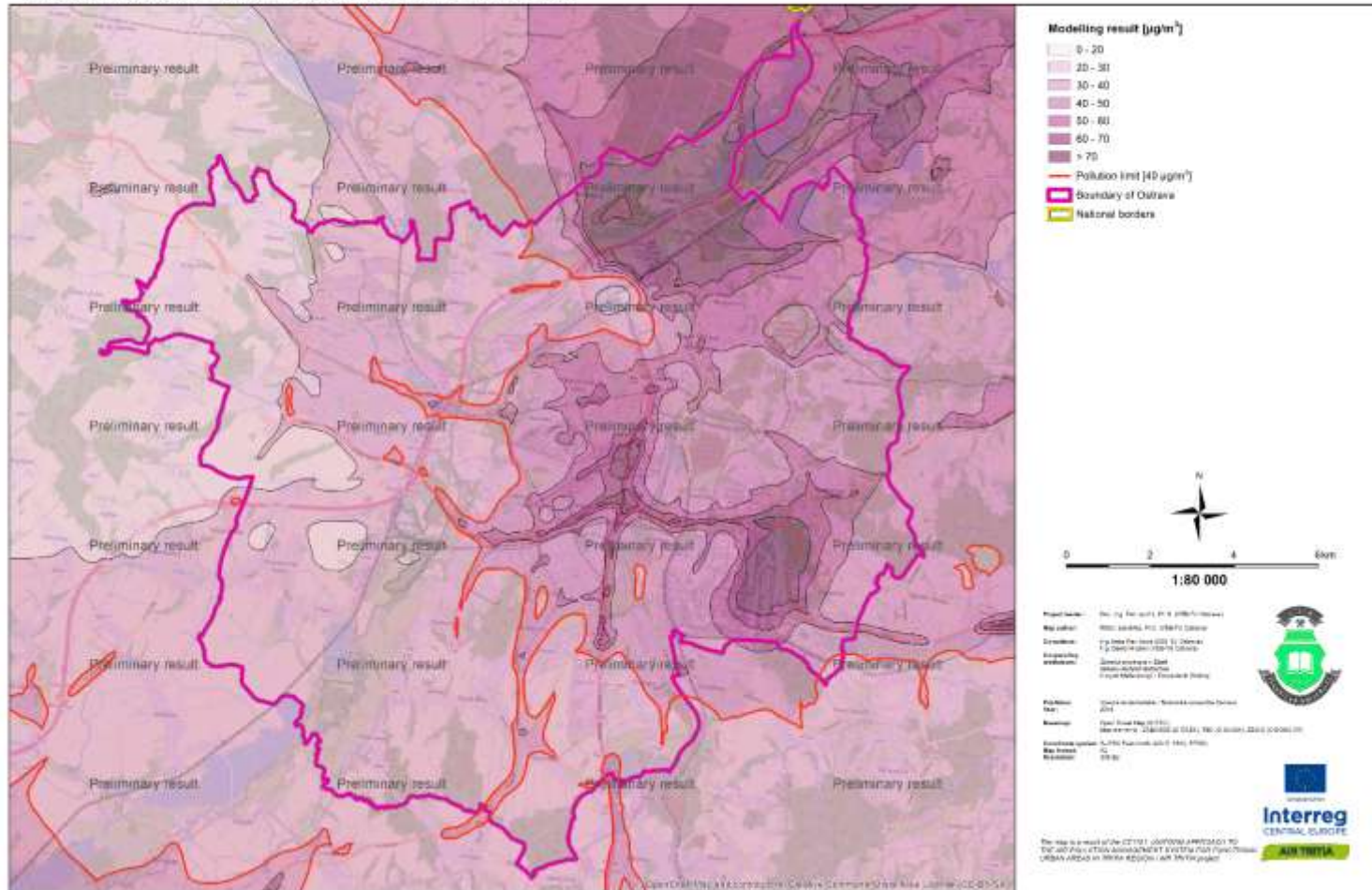
DOMINANCE BY SOURCE GROUPS FOR PM₁₀ IN THE AREA OF INTEREST

Model SYMOSS7, actual concentration, year 2015



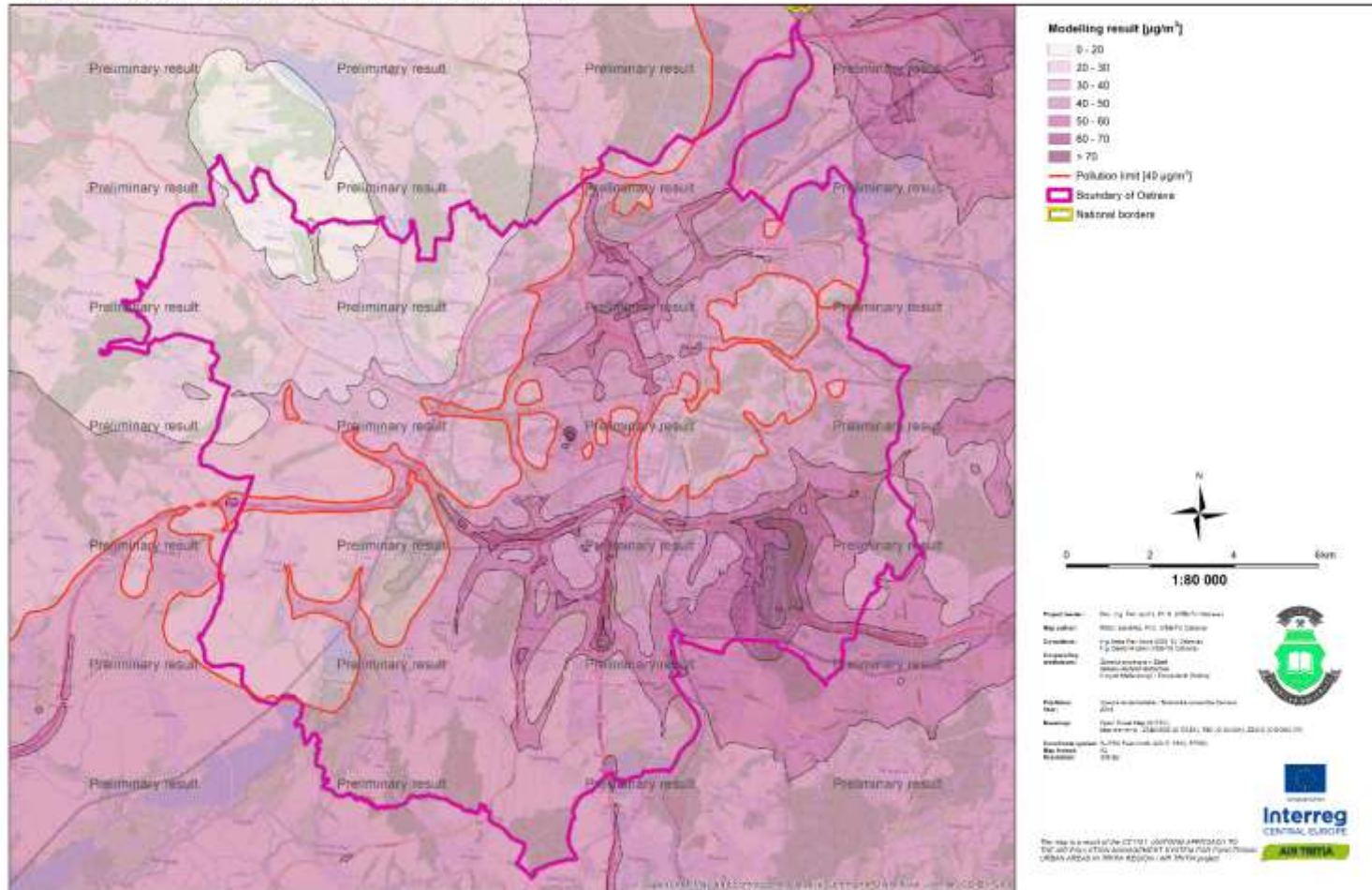
AVERAGE ANNUAL CONCENTRATION OF PM₁₀ IN OSTRAVA

Total concentration, model SYMOS 97 with correction by pollution monitoring, year 2006



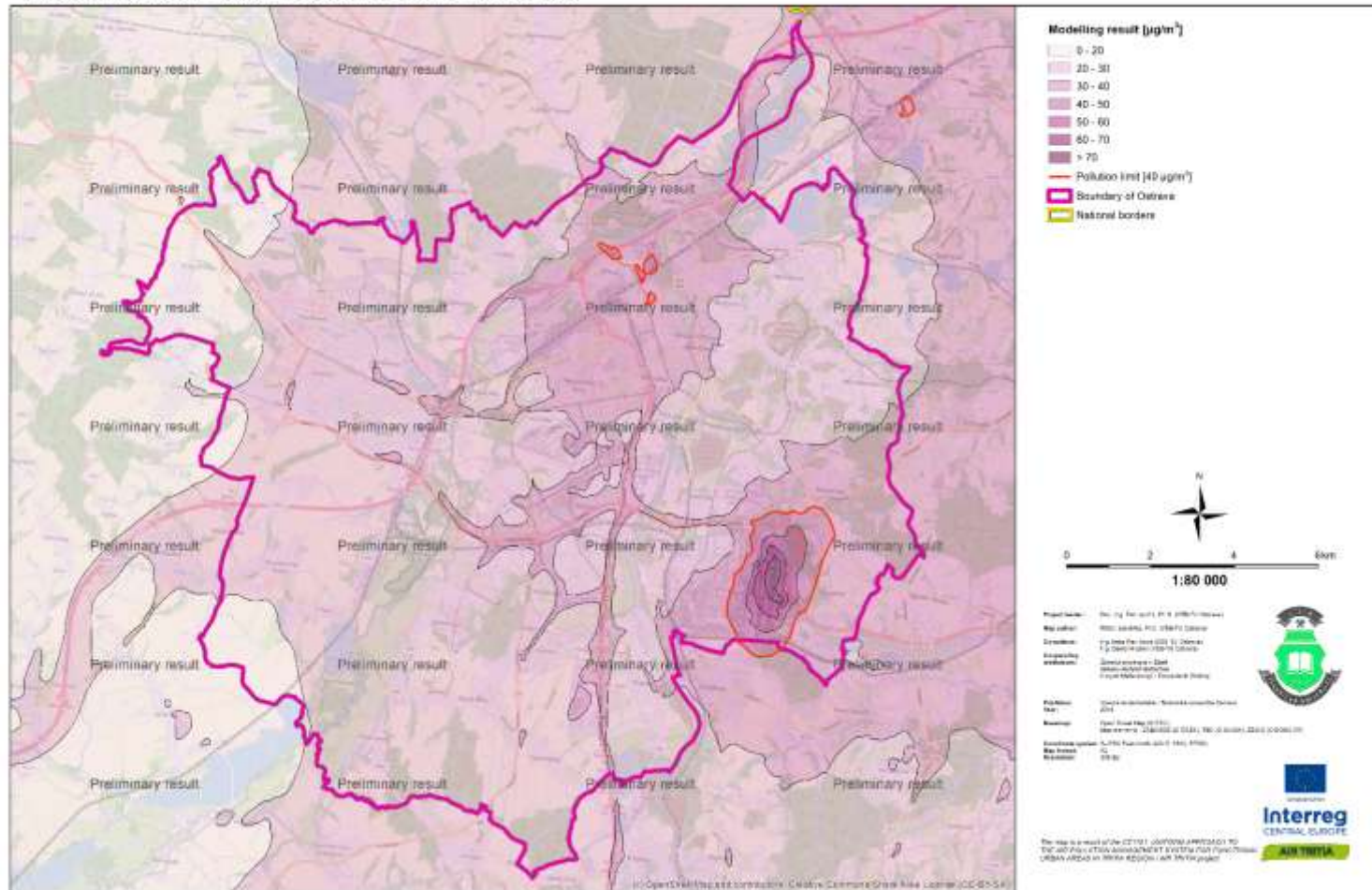
AVERAGE ANNUAL CONCENTRATION OF PM₁₀ IN OSTRAVA

Total concentration, model SYMOS'97 with correction by pollution monitoring, year 2010



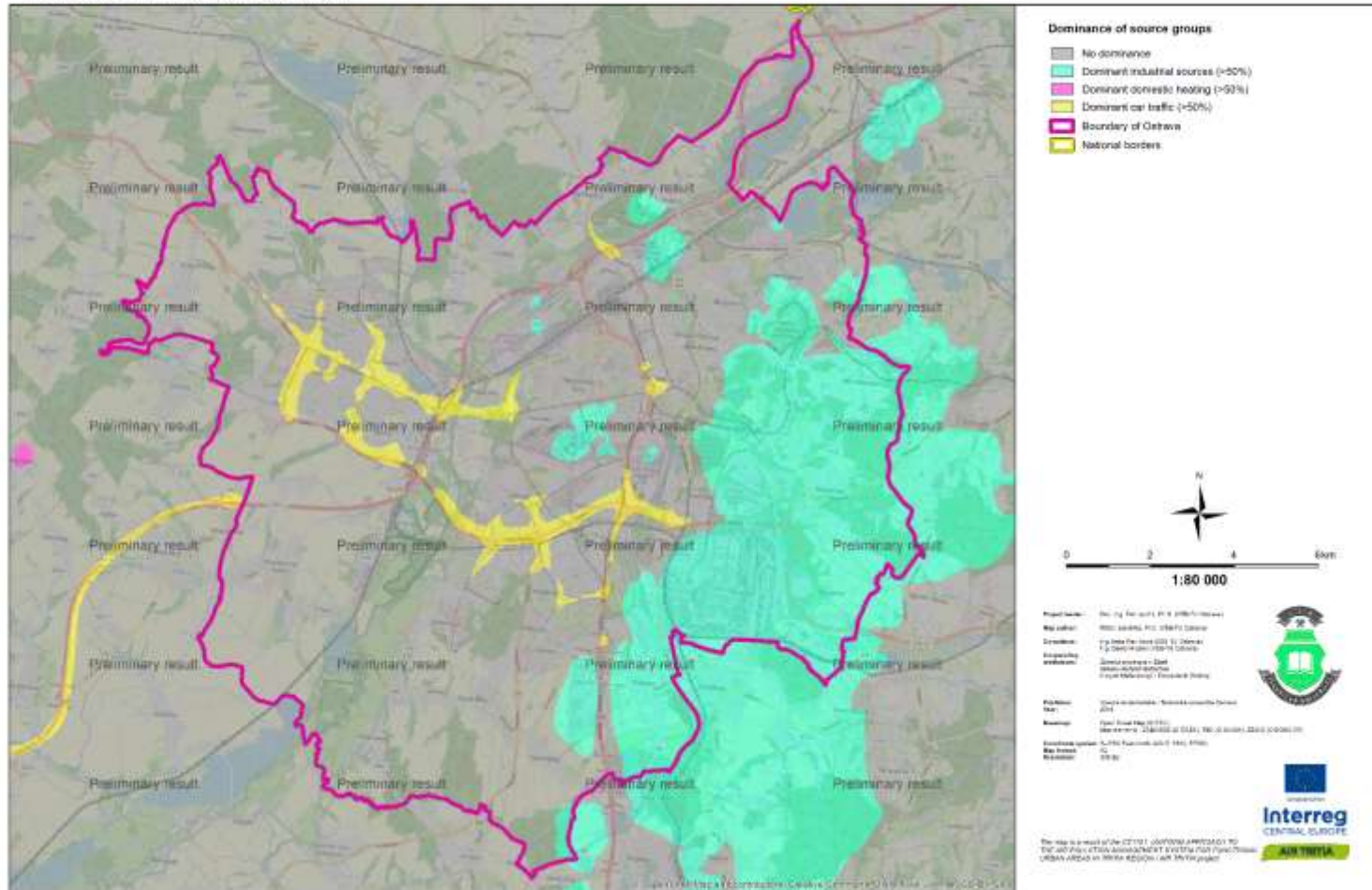
AVERAGE ANNUAL CONCENTRATION OF PM₁₀ IN OSTRAVA

Total concentration, model SYMOS'97 with correction by pollution monitoring, year 2015



DOMINANCE BY SOURCE GROUPS FOR PM₁₀ IN OSTRAVA

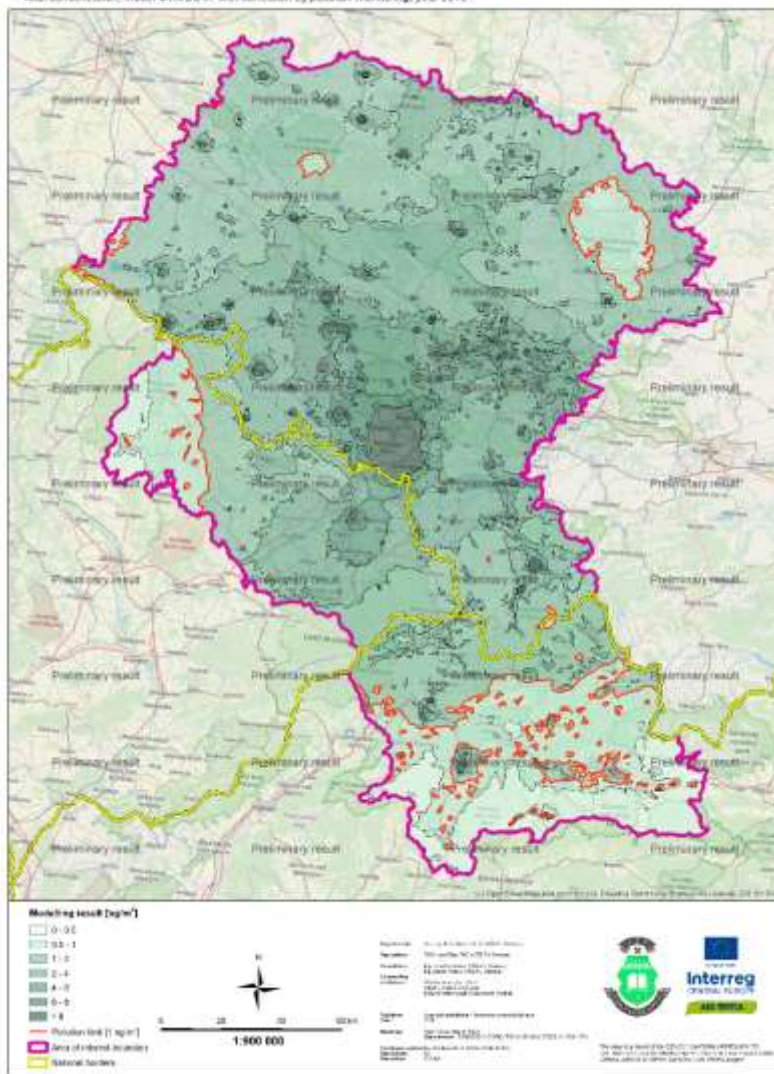
Model SYMOS'97, annual concentration, year 2015



VÝSLEDKY MODELOVÁNÍ

AVERAGE ANNUAL CONCENTRATION OF B(A)P IN THE AREA OF INTEREST

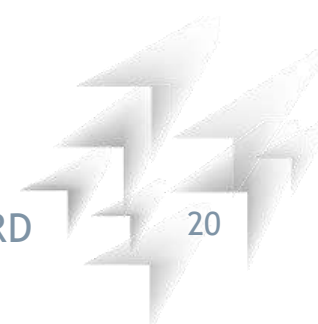
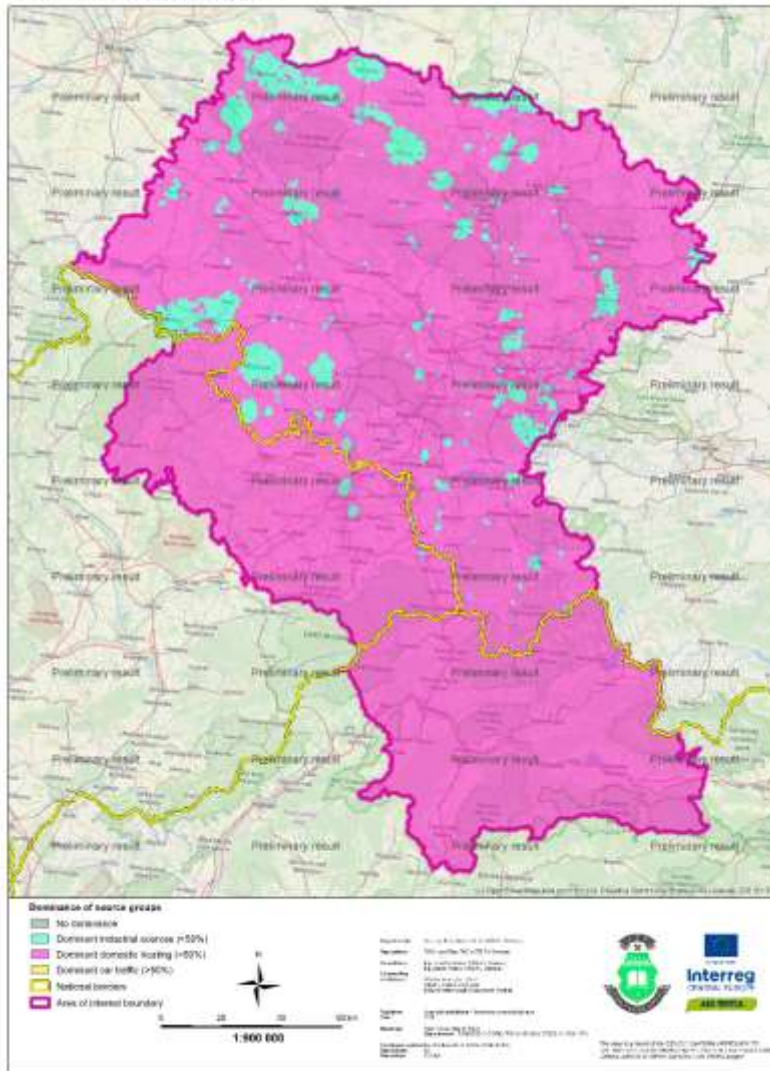
Total concentration model SYMOS 57 with correction by pollution monitoring, year 2015



VÝSLEDKY MODELOVÁNÍ

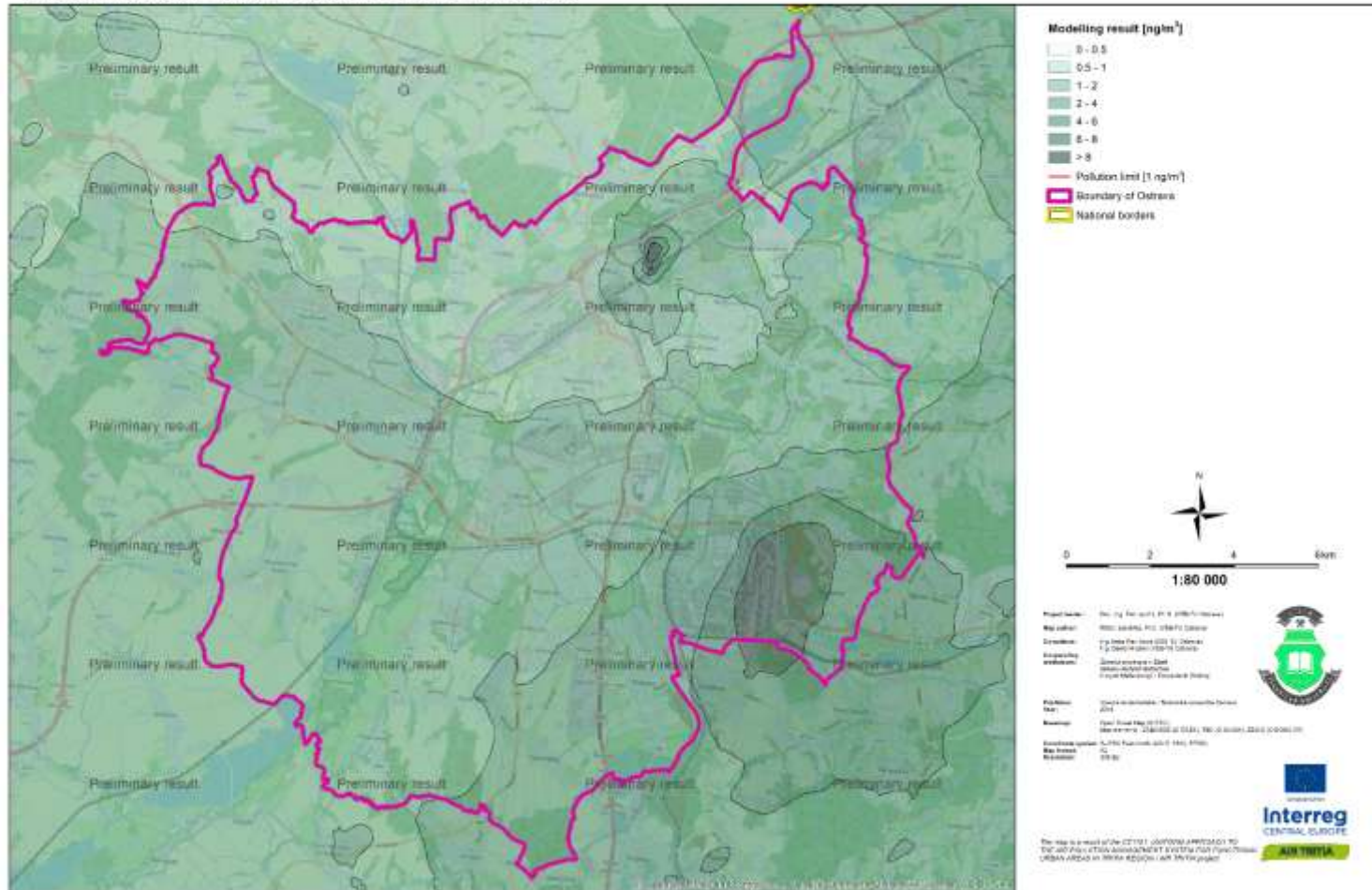
DOMINANCE BY SOURCE GROUPS FOR B(A)P IN THE AREA OF INTEREST

Model SYMOG37, actual concentration, year 2015



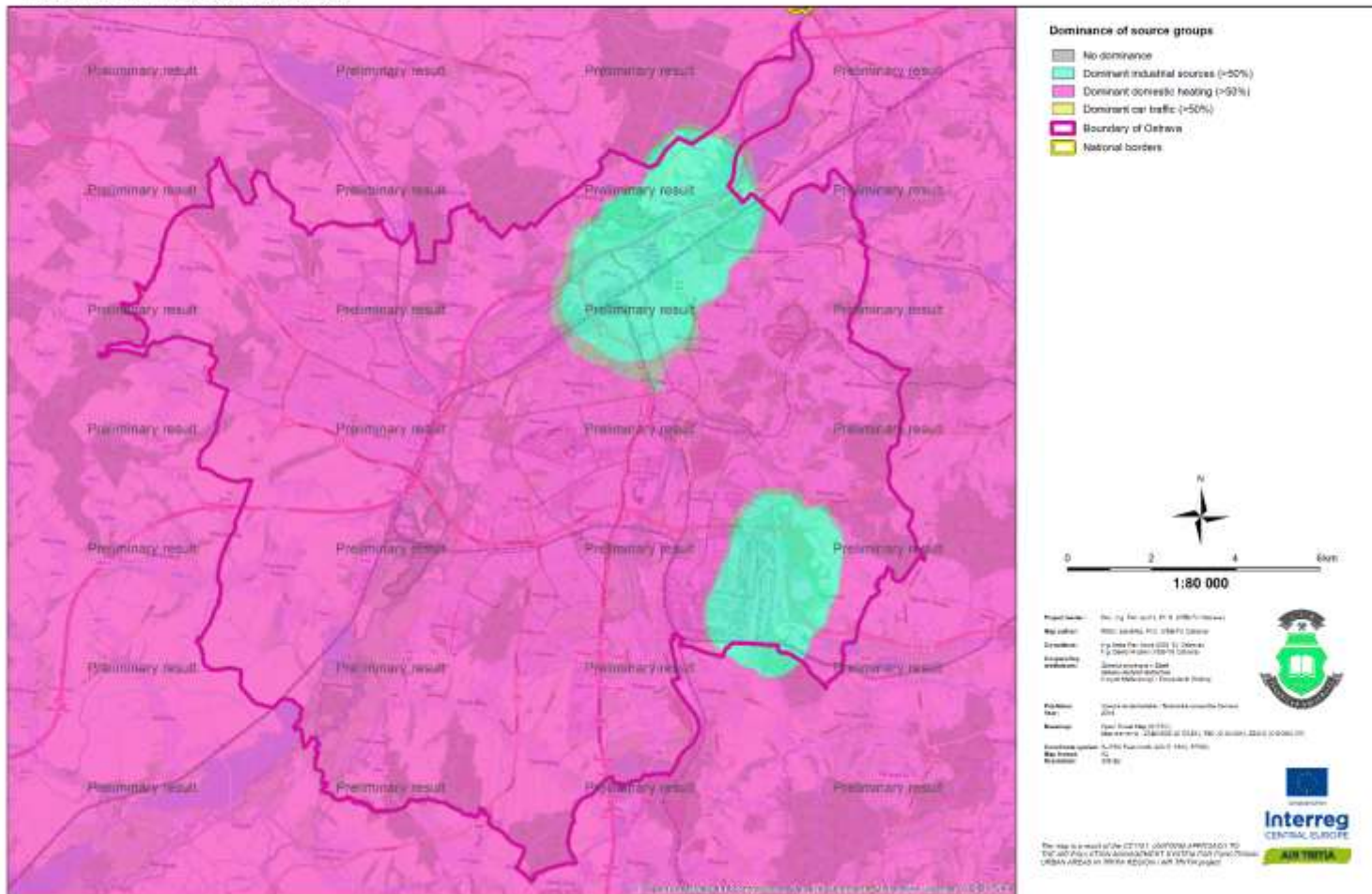
AVERAGE ANNUAL CONCENTRATION OF B(A)P IN OSTRAVA

Total concentration, model SYMOS'97 with correction by pollution monitoring, year 2015



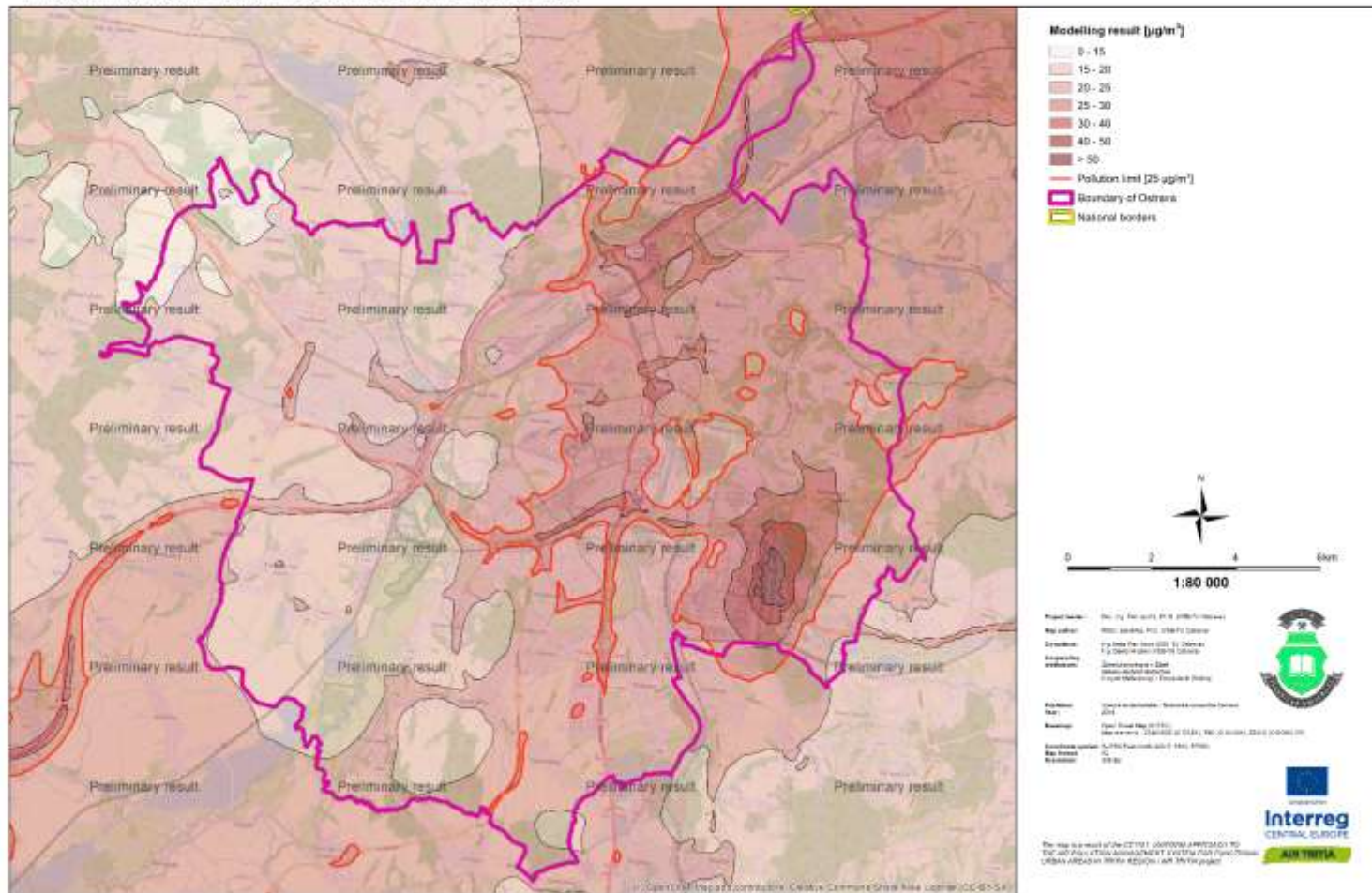
DOMINANCE BY SOURCE GROUPS FOR B(A)P IN OSTRAVA

Model SYMOS'97, annual concentration, year 2015



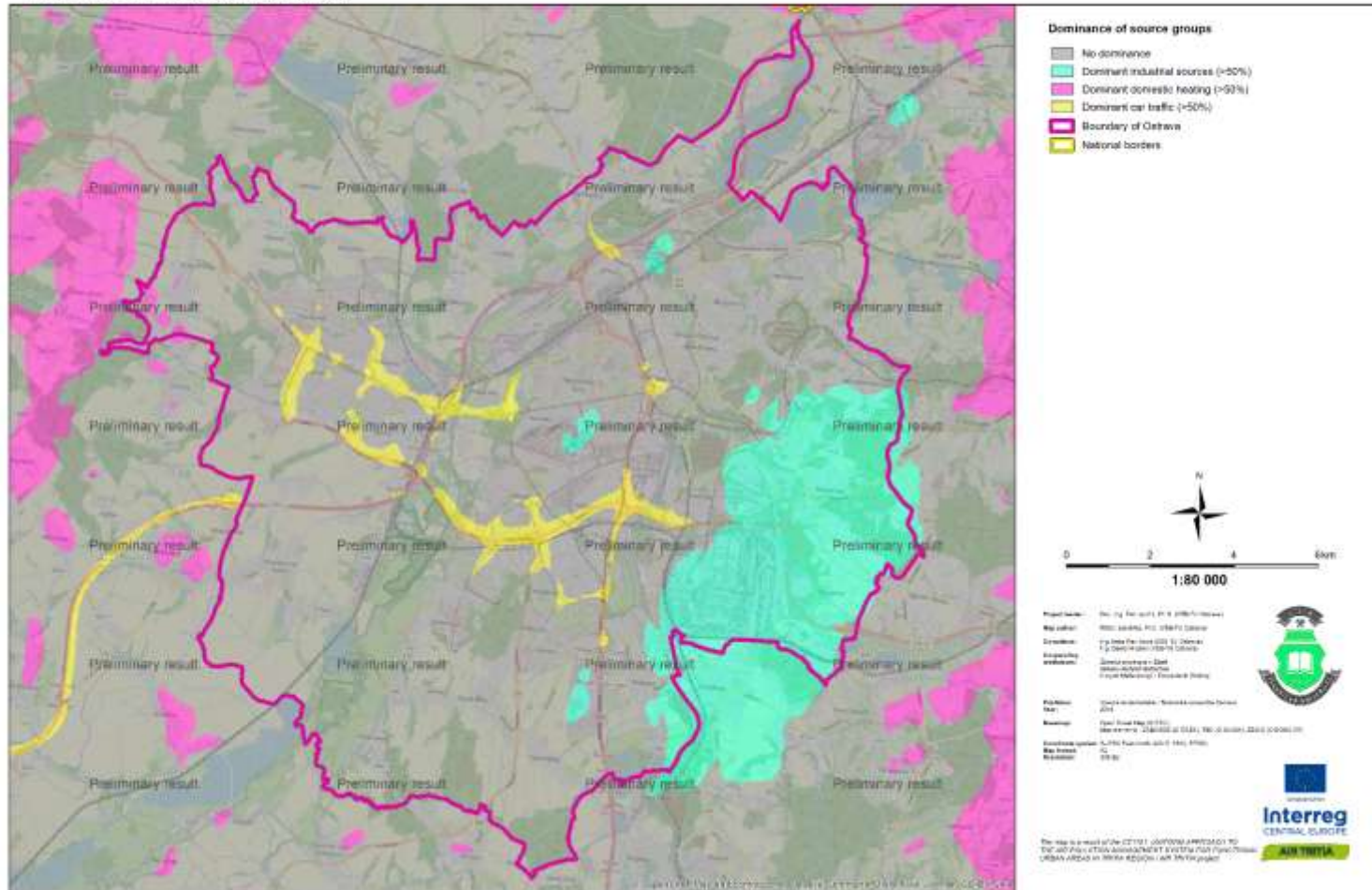
AVERAGE ANNUAL CONCENTRATION OF PM_{2.5} IN OSTRAVA

Total concentration, model SYMOS'97 with correction by pollution monitoring, year 2015



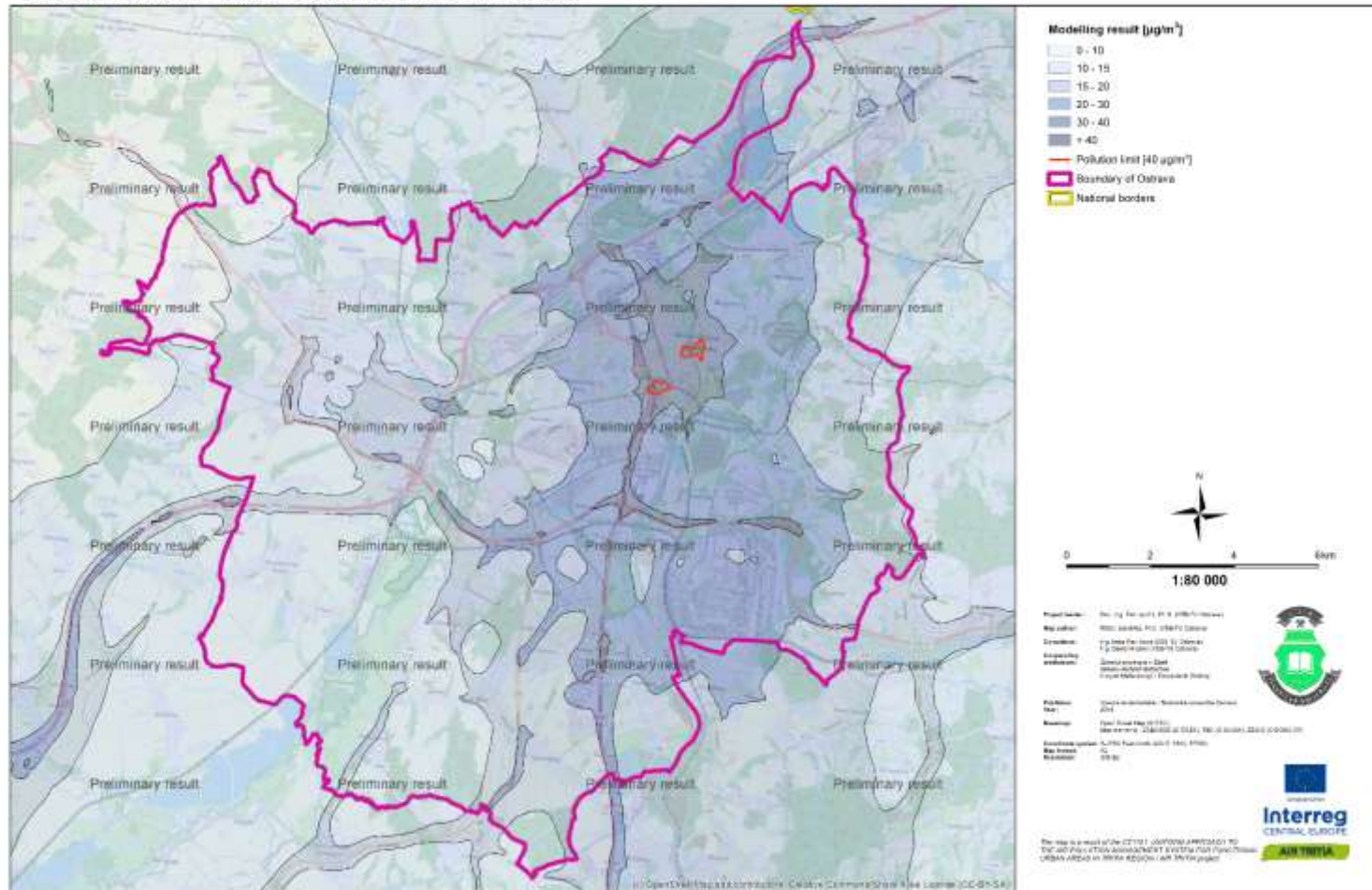
DOMINANCE BY SOURCE GROUPS FOR PM_{2.5} IN OSTRAVA

Model SYMOS'97, annual concentration, year 2015



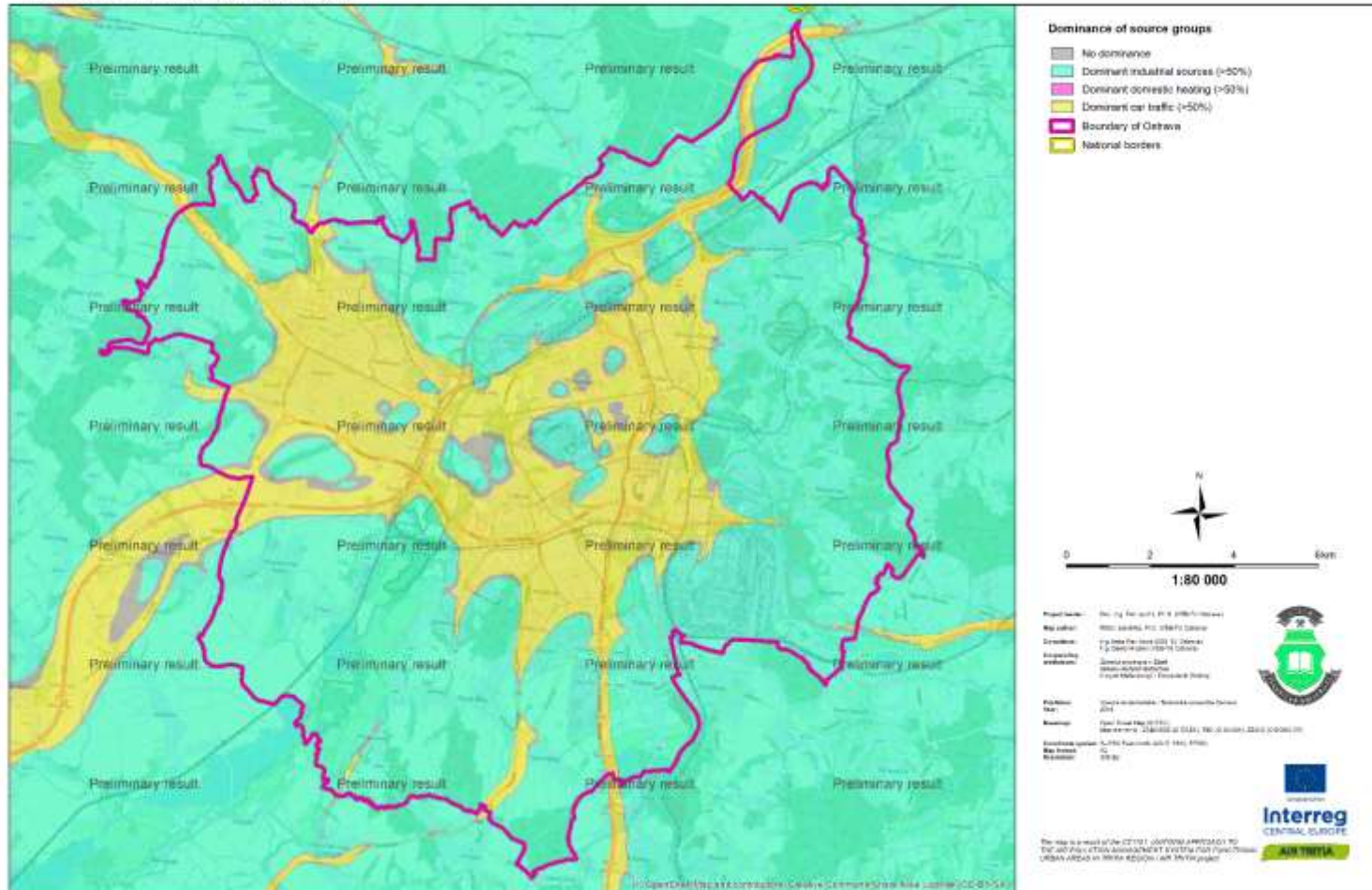
AVERAGE ANNUAL CONCENTRATION OF NO₂ IN OSTRAVA

Total concentration, model SYMOS'97 with correction by pollution monitoring, year 2015



DOMINANCE BY SOURCE GROUPS FOR NO₂ IN OSTRAVA

Model SYMOS'97, annual concentration, year 2015



- Jsou k dispozici první výsledky
- Dokončuje se online mapová aplikace pro zobrazování výsledků
- Systém je připravený pro hodnocení variant a scénářů
- Kotlíkové dotace v Polsku



AIR TRITIA - GIS PŘI HODNOCENÍ KVALITY OVZDUŠÍ V ROZSÁHLÉ OBLASTI



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