

The city of Prague: major air quality problems, needs and priorities for a better information and forecast system

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Main city data

Population of 1.290.846 inhabitants,

Population density: 2517citizens/1 km²

area 496 km²,



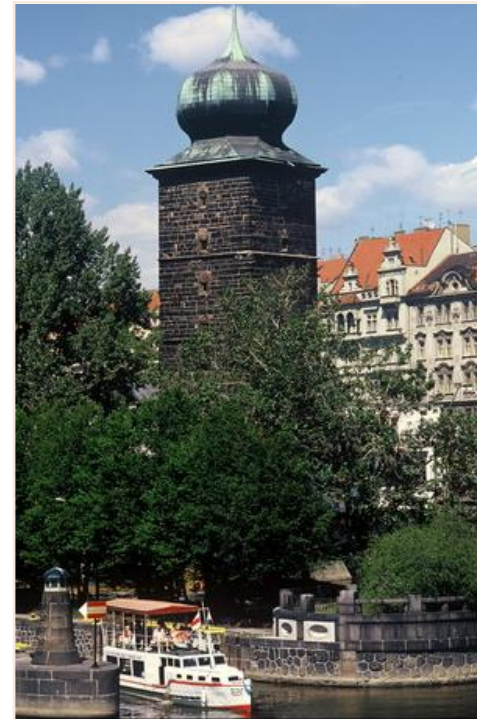
Prague

Centre of region and Capital of the Czech Republic

**Seat of extensive economic activity
(services, transport, energy),**

Intersection of transportation routes

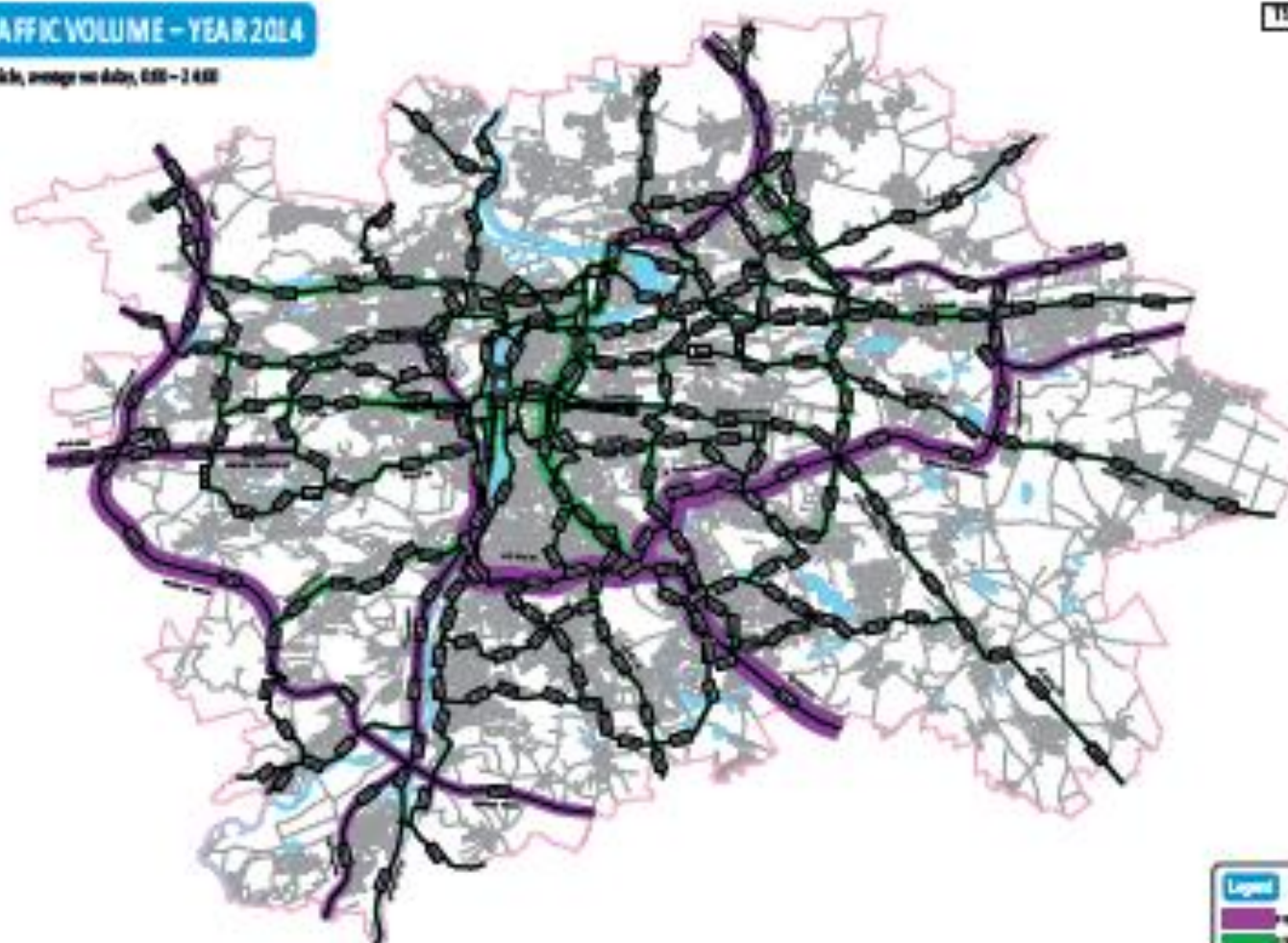
**Mobility and very high degree of car ownership
(548 passenger automobiles per 1000 inhabitants,
700 vehicles per 1000 inhabitants)**



TRAFFIC VOLUME – YEAR 2014

All vehicles, average per day, 05:00 – 21:00

15K/10K



Legend

Expressways

Trunk

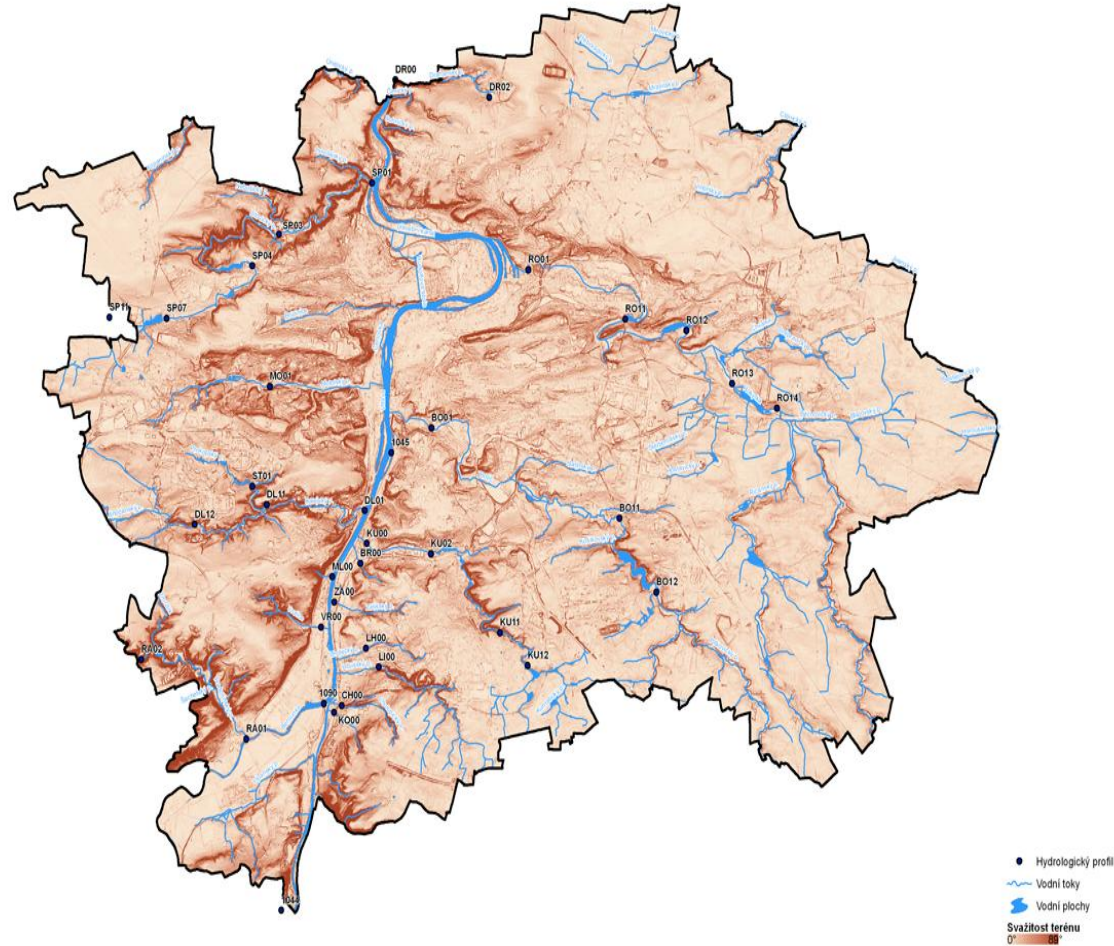
Specific topography of Prague

location along Vltava river,

valley
with a complicated
morphology
along its tributaries

inversions in autumns and
winters

HYDROLOGICKÁ SÍŤ, SVAŽITOST TERÉNU



URM 2011

Air quality state

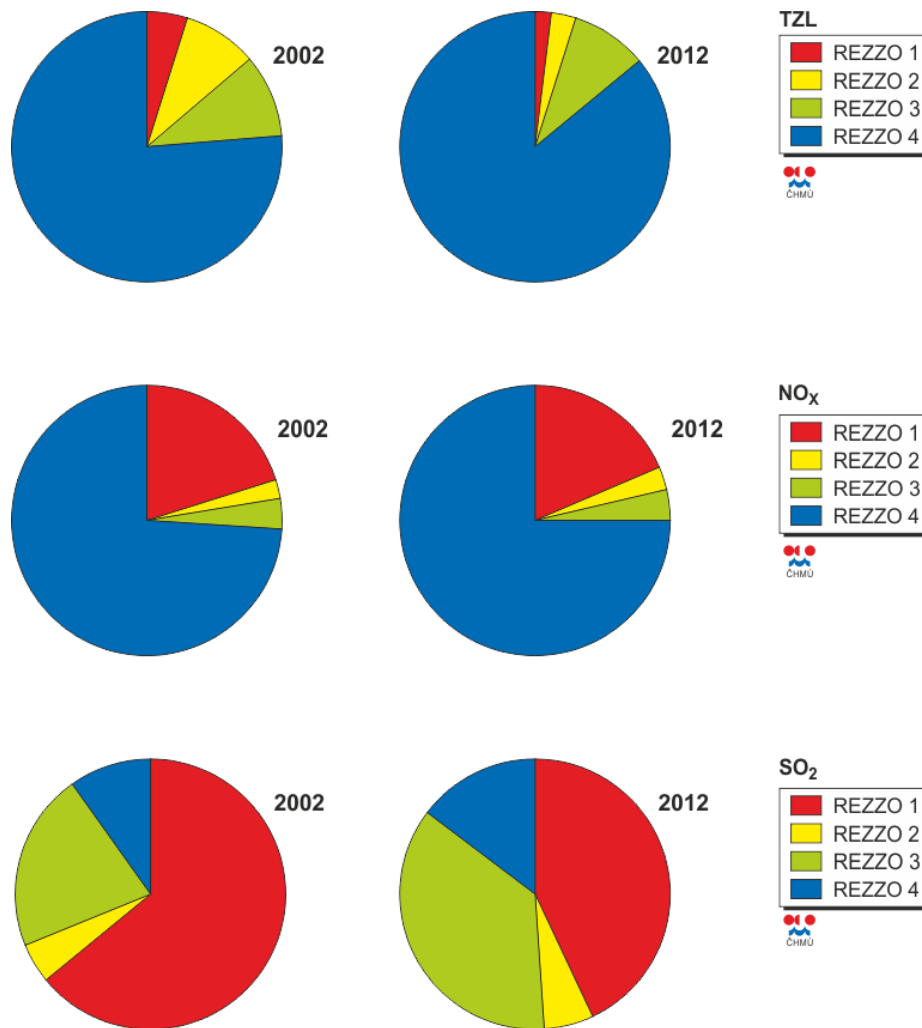
NO₂: exceedance of limits on city centre, along road transport corridors"

PM: PM10 limits for max hourly concentration exceeded over city

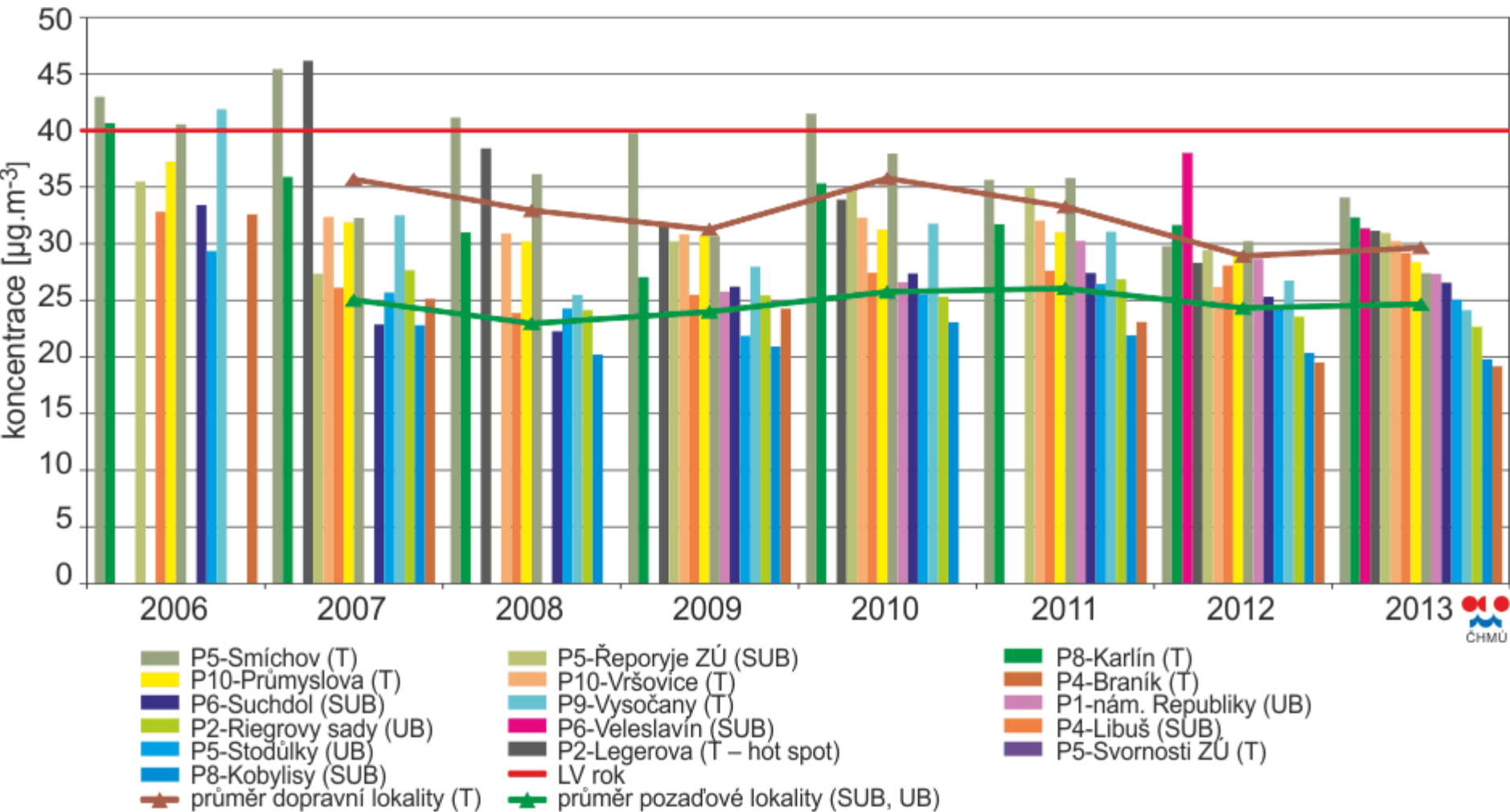
O₃ precursors: NO_x, CO (traffic) , anthropogenic VOCs (fugitive emissions), biogenic VOCs (e.g isoprene), but relative contributions to elevated O₃ not yet fully understood for Prague

After a significant improvement in 1990-1997, trend is oscillating or negative, mainly due to the traffic emissions

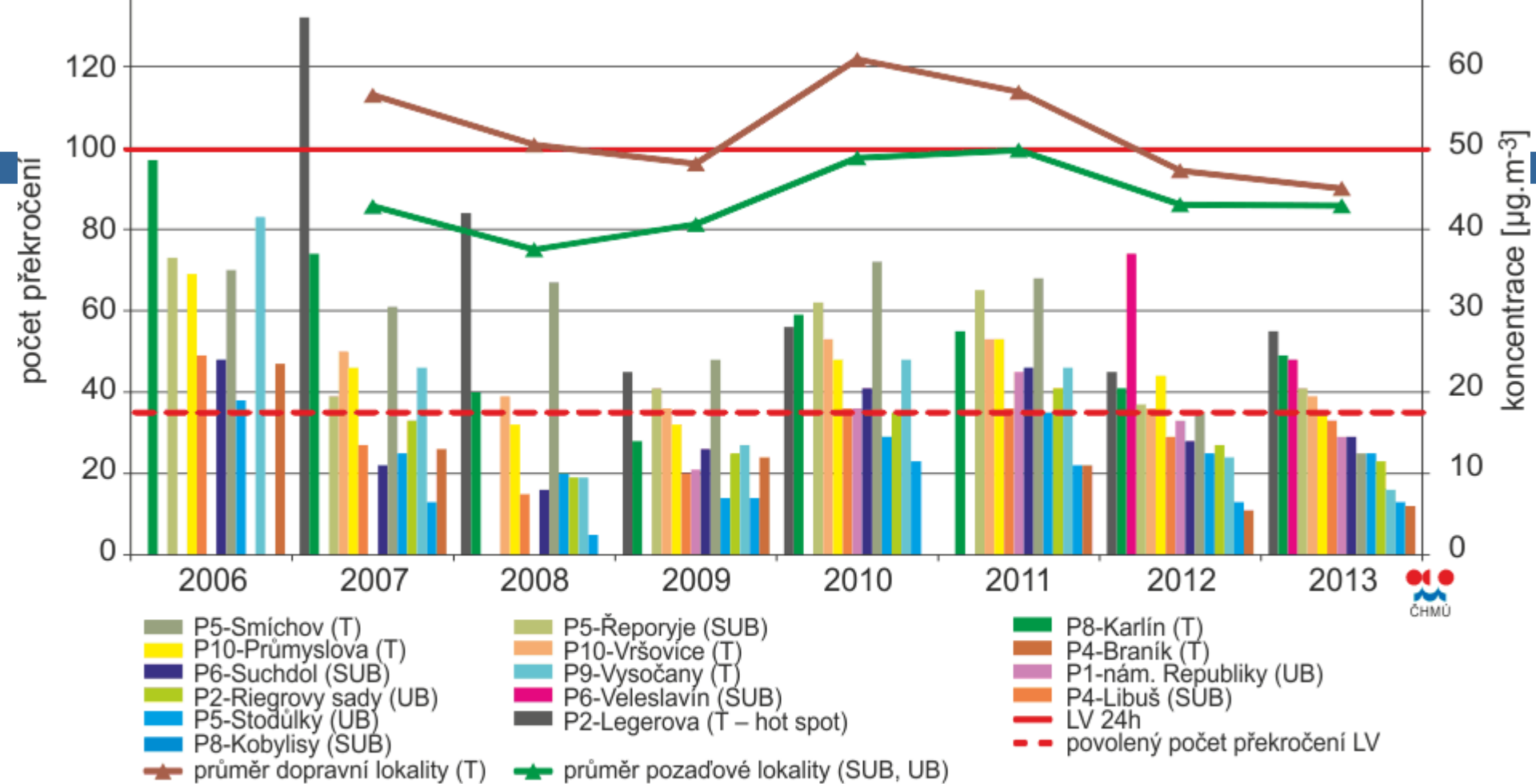
Emissions in Prague



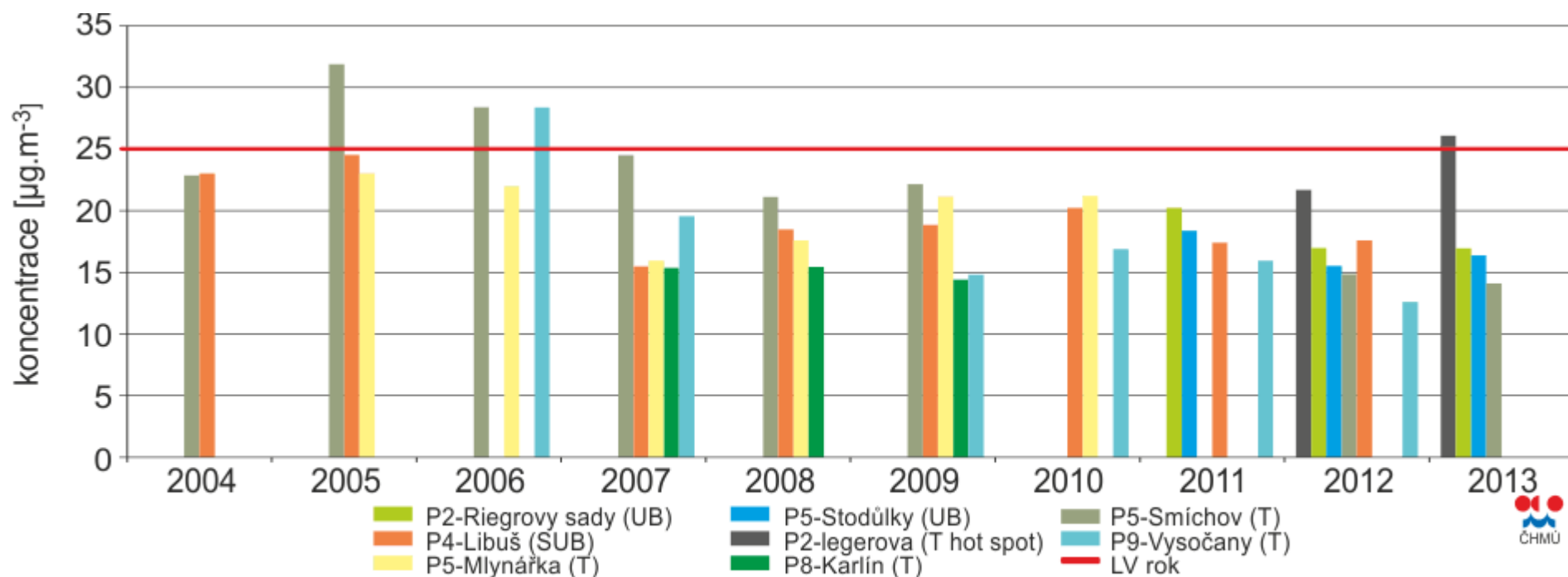
Obr. V.1.11 Emise vybraných znečišťujících látek v členění dle REZZO v aglomeraci Praha



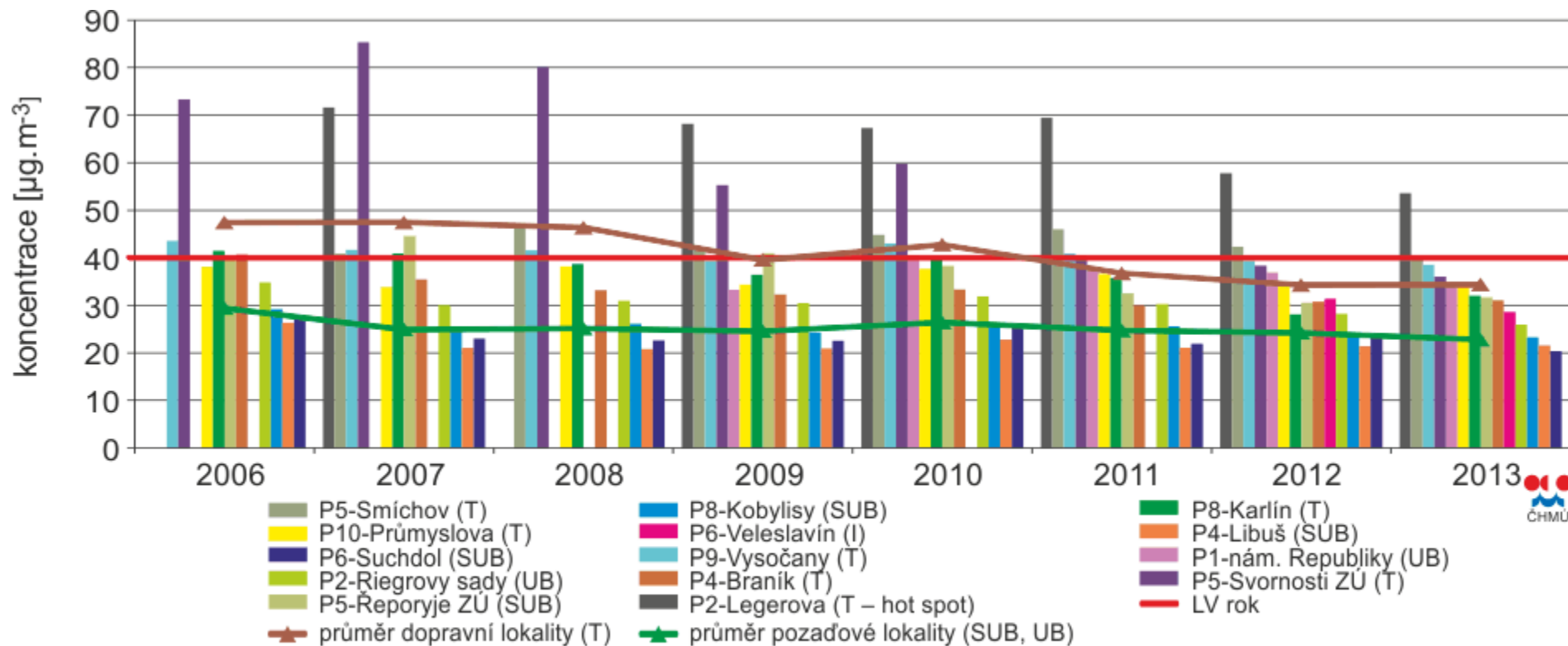
Obr. V.1.2 Průměrné roční koncentrace PM_{10} na vybraných lokalitách a na jednotlivých typech stanic, aglomerace Praha, 2006–2013



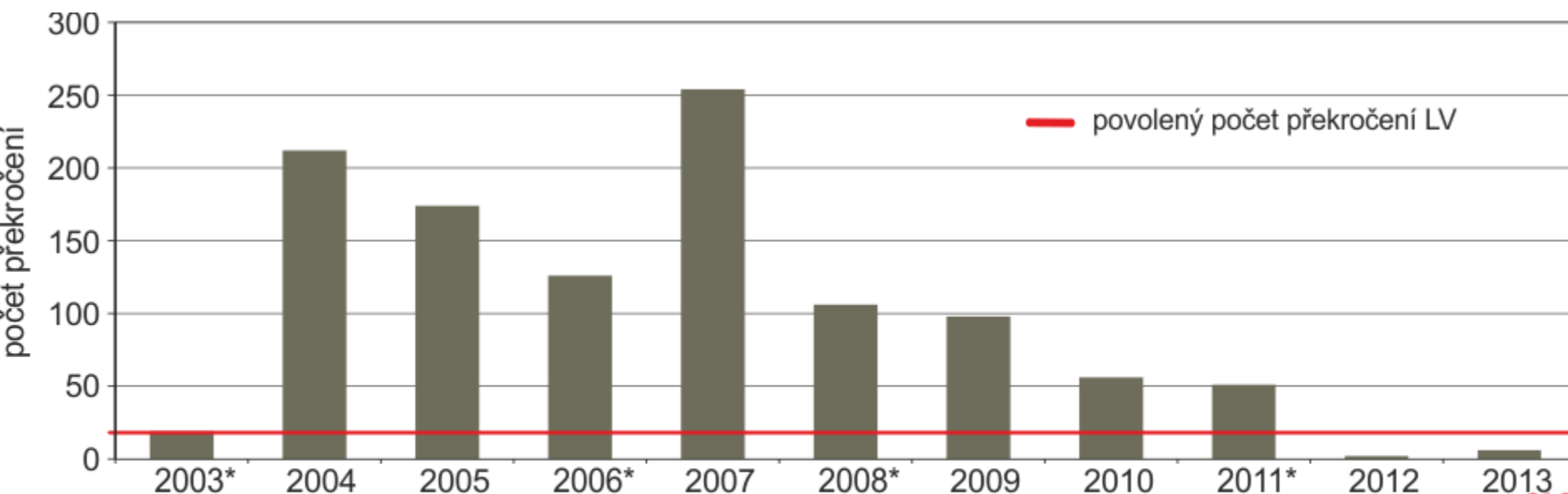
Obr. V.1.1 Počet překročení 24hod. hodnoty imisního limitu PM_{10} na vybraných lokalitách a 36. nejvyšší 24h koncentrace PM_{10} na jednotlivých typech stanic, aglomerace Praha, 2006–2013



Obr. V.1.4 Průměrné roční koncentrace $\text{PM}_{2,5}$, aglomerace Praha, 2004–2013

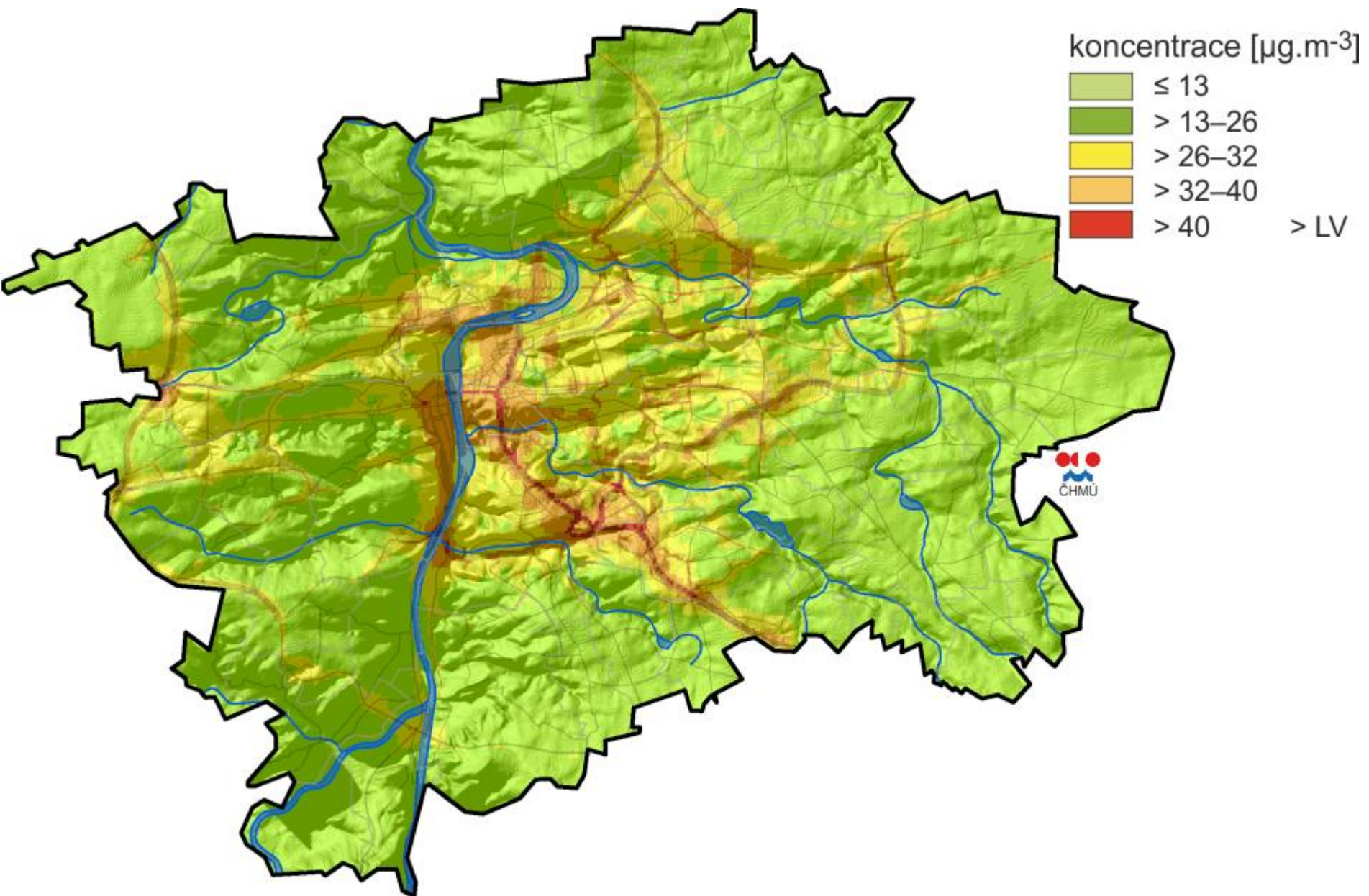


Obr. V.1.6 Průměrné roční koncentrace NO₂ na vybraných lokalitách a na jednotlivých typech stanic, aglomerace Praha, 2006–2013

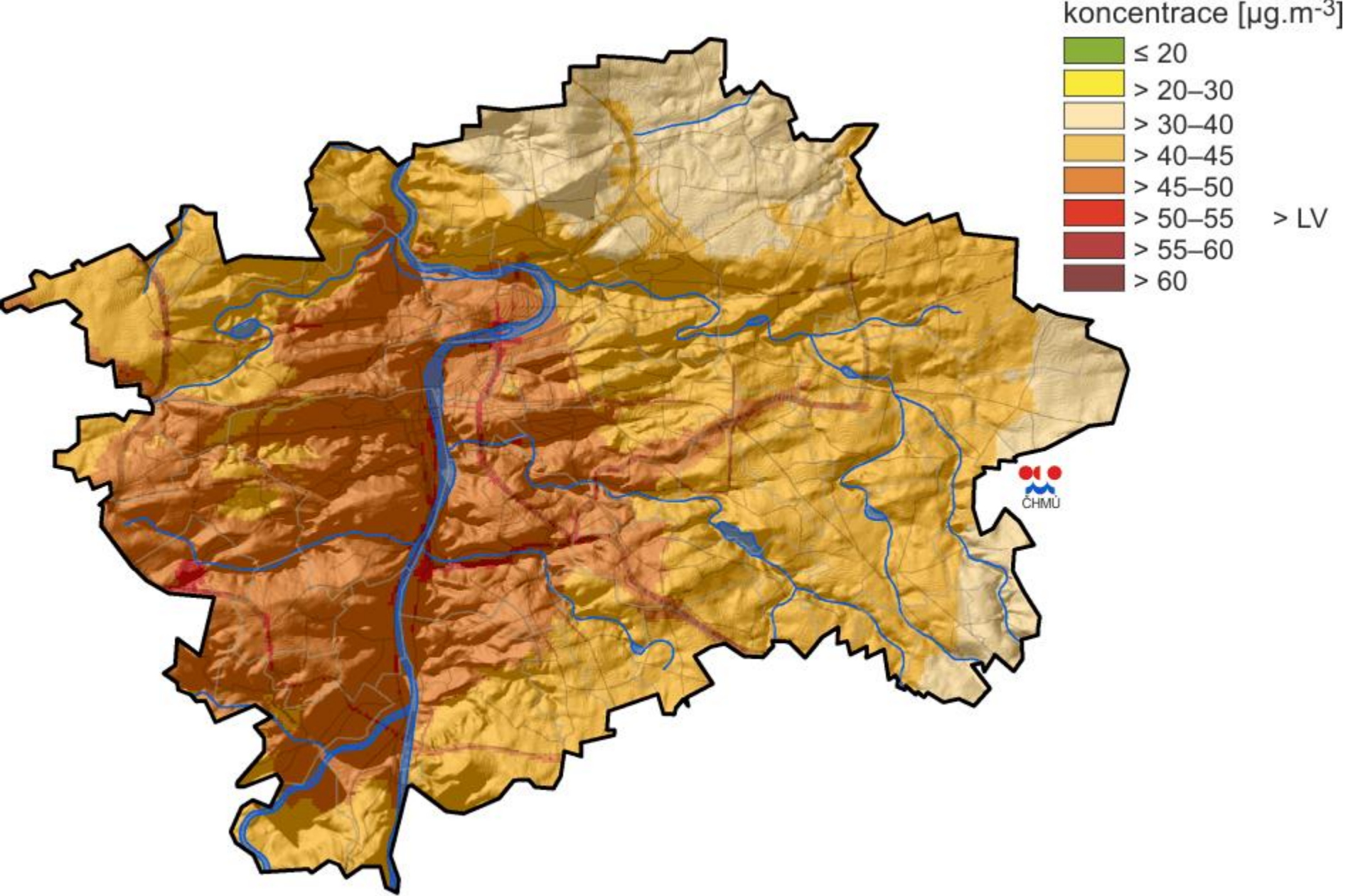


* v tomto roce nebyl na stanici splněn požadavek na minimální počet platných dat; lze ale předpokládat, že počet překročení byl vyšší než povolený

Obr. V.1.5 Počty překročení hodnoty hodinového imisního limitu NO₂ na dopravní stanici Praha 2-Legerova (hot spot), aglomerace Praha, 2003–2013



Obr. V.1.9 Pole roční koncentrace NO_2 , aglomerace Praha, 2013

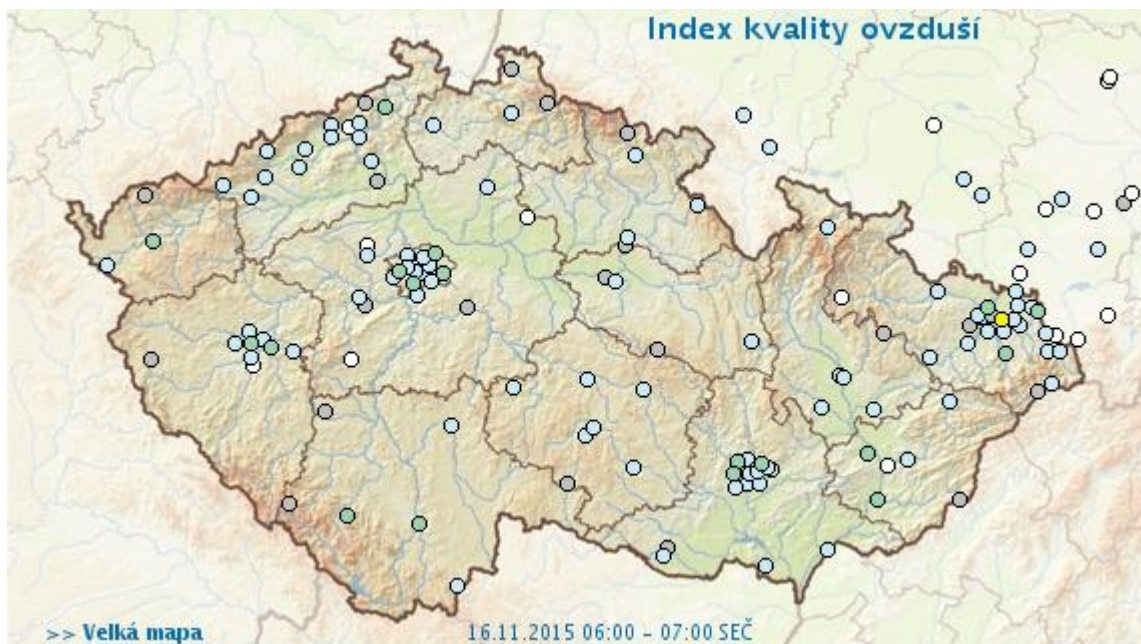


Obr. V.1.10 Pole 36. nejvyšší 24hod. koncentrace PM_{10} , aglomerace Praha, 2013

Information for public by phone and website



IPR
PRAHA



ObsAIRveYB Road Show in Prague

- **Presentation of new ideas for public AQ information**
- **Experience sharing**
- **Discussion about the possibilities for cooperation**
- **New common personalized approach to AQ information for citizens of Prague?**



Děkuji za pozornost