Copernicus Atmosphere Monitoring Service (CAMS) - peľová predpoveď

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PROGRAMME OF THE EUROPEAN UNION

IMPLEMENTED BY ECMWF

SLOVENSKÝ HYDROMETEOROLOGICKÝ ÚSTAV

Modelovanie transportu

- emisie, transport, difúzia, usadzovanie a transformácia látok v atmosfére

Emisie peľu

- Fenologický model - uvoľňovanie peľu - teplota, slnečné žiarenie, pokryvnosť druhov

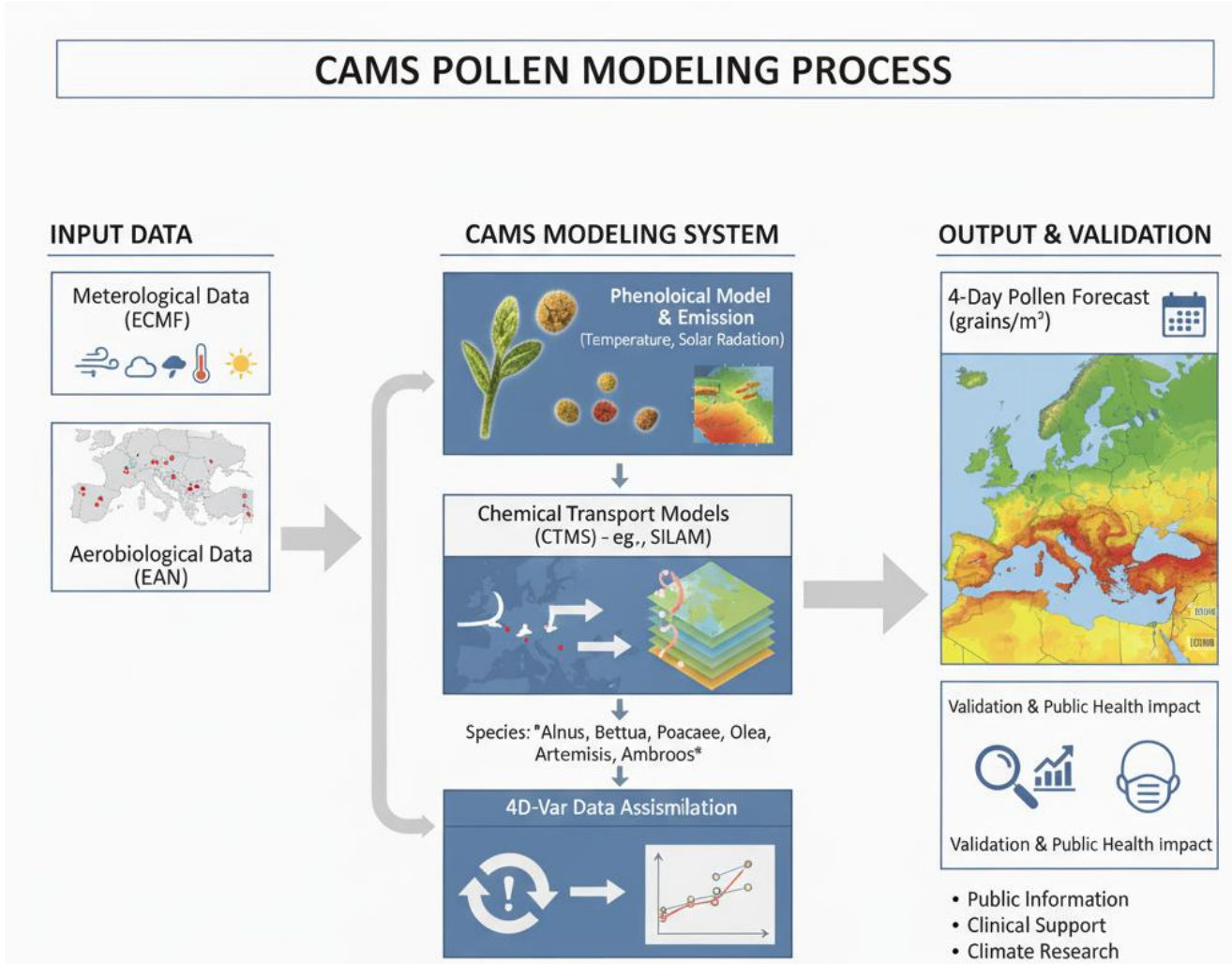
Dáta a asimilácia údajov

- ECMWF,
- aerobiologické dáta (napr. European Aeroallergen Network – EAN)

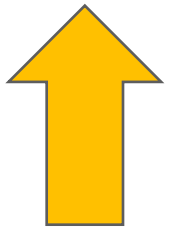
➔

Výstup

- Hodinové predpovede koncentrácií peľu (zrná/m^3)



Fenológia + distribučné mapy



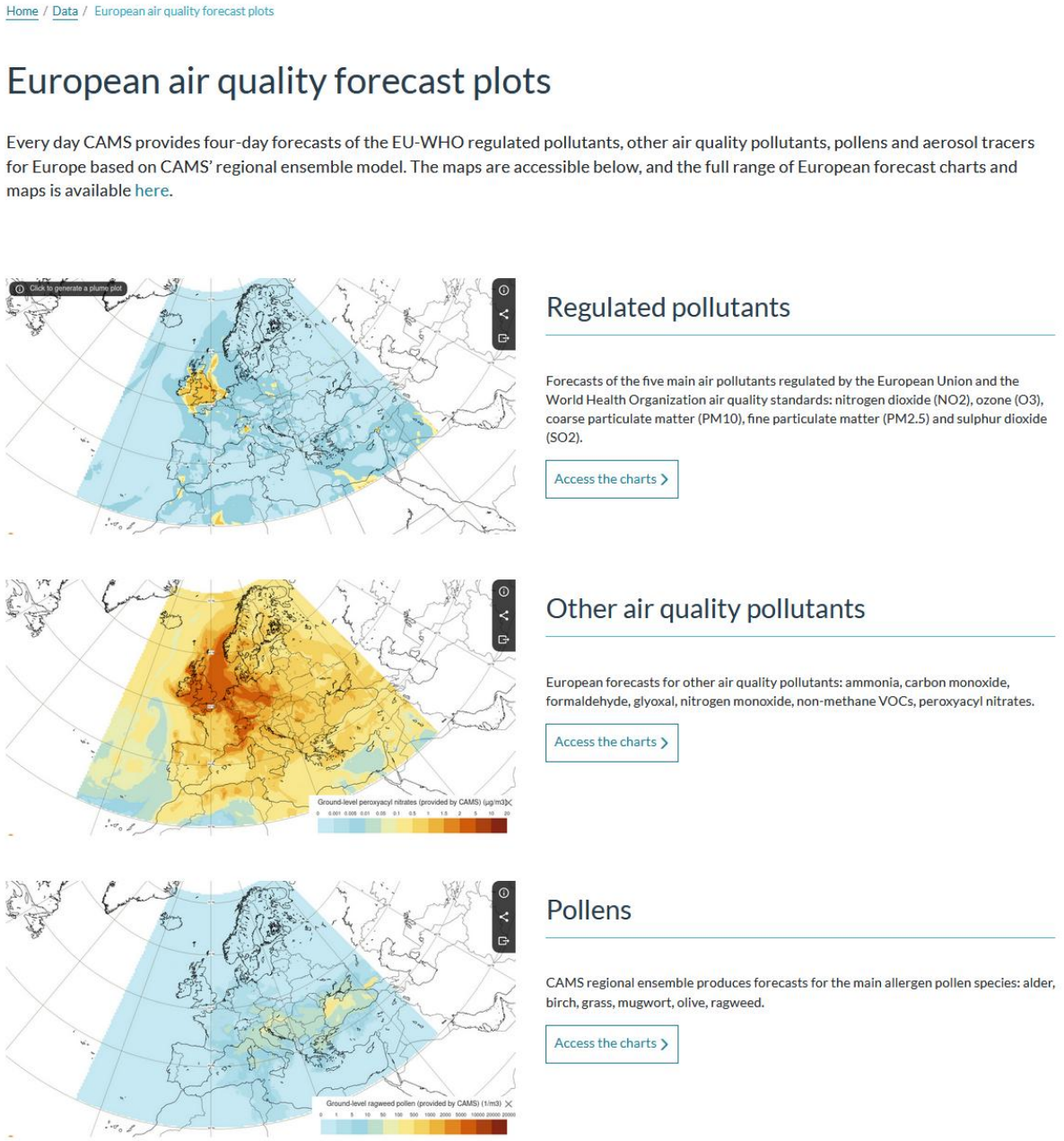
- Dve základné informácie určujúce koncentrácie peľu

- **Fenologická schéma založená na tepelnom súčte** (*Heat Sum/Growing Degree Days*), ktorá určuje presný začiatok a koniec peľovej sezóny pre rôzne druhy
- Kalibrácia na historické aerobiologické pozorovania

- CAMS – 4 dňové peľové predpovede
- Pele: jelša (*Alnus*), breza (*Betula*), trávy (*Poaceae*), olivovník (*Olea*), palina (*Artemisia*) a ambrózia (*Ambrosia*)
- CAMS - súbor 11 modelov – CHIMERE, DEHM, EMEP, EURAD-IM, GEM-AQ, LOTOS-EUROS, MATCH, MINNI, MOCAGE, MONARCH, SILAM

CAMS -výstupy

- atmosphere.copernicus.eu
- Europe/Pollens



European air quality hourly forecast of pollens

Base time
Sun 28 Sep 2025 00 UTC

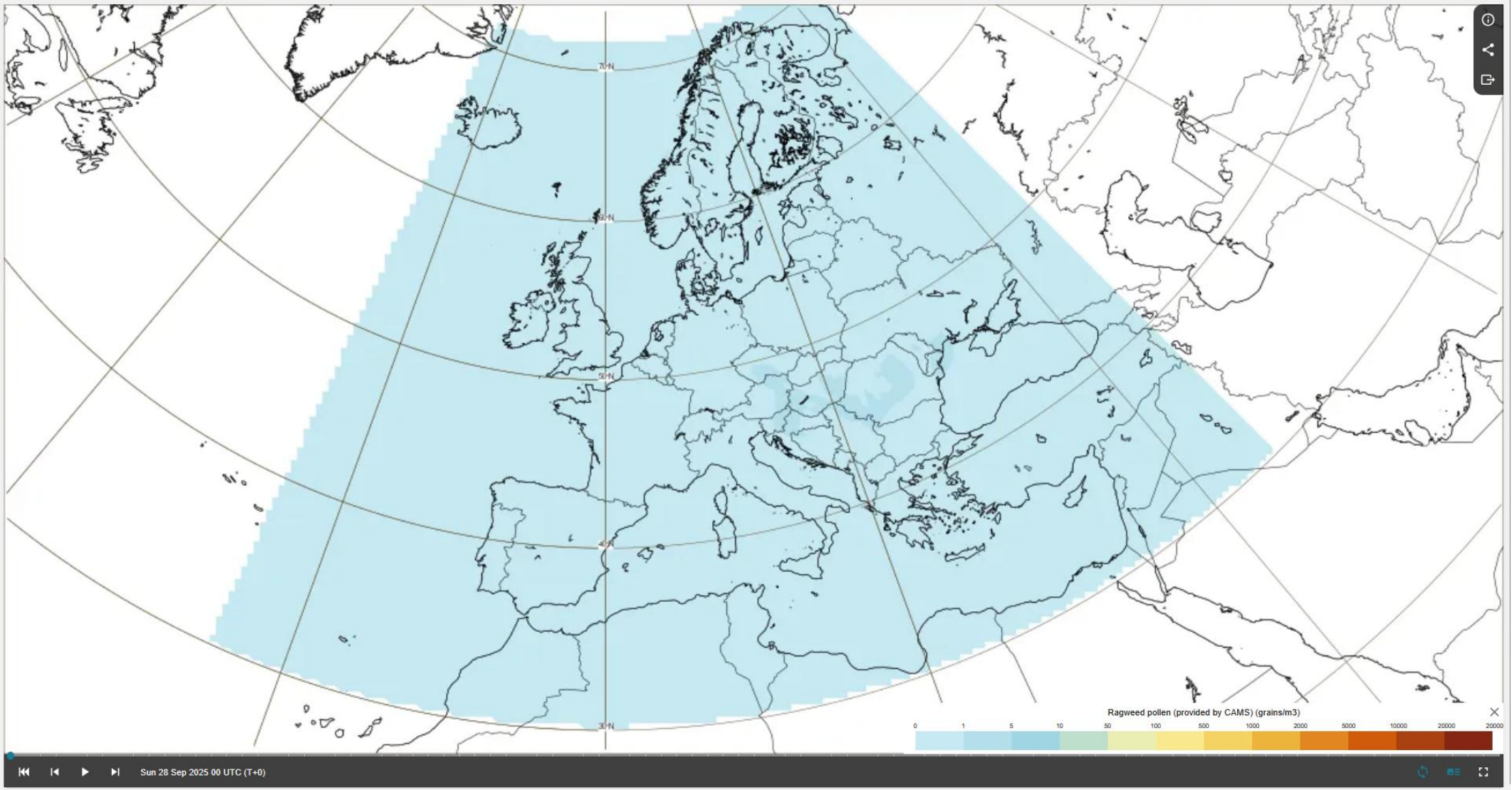
Valid time
Sun 28 Sep 2025 00 UTC (T+0)

Parameter
Ragweed pollen

Area
Europe

Model
Ensemble median

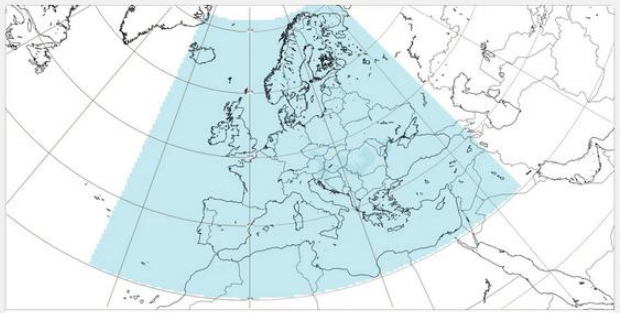
Height level
Surface



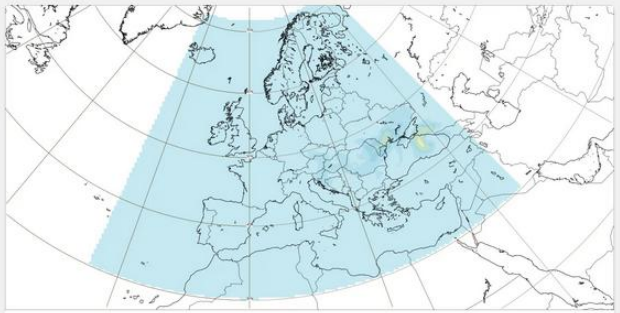
CAMS European hourly forecast of pollens

Overview

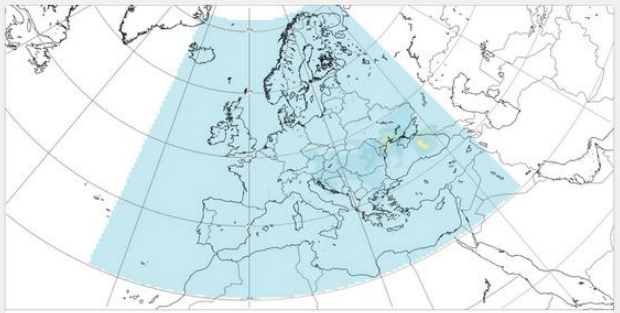
Dimension: Model



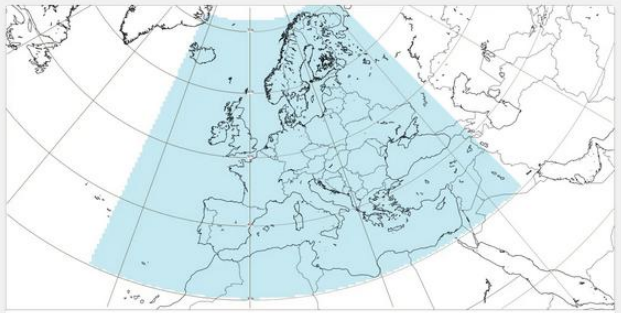
Ensemble median



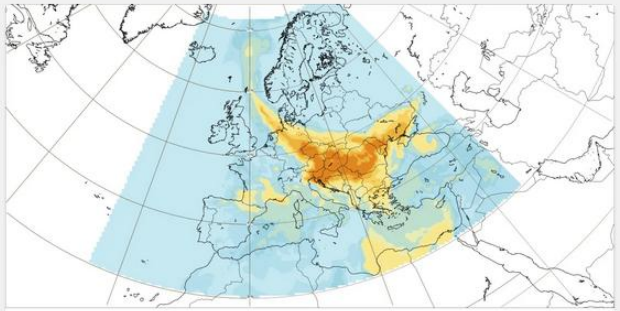
CHIMERE



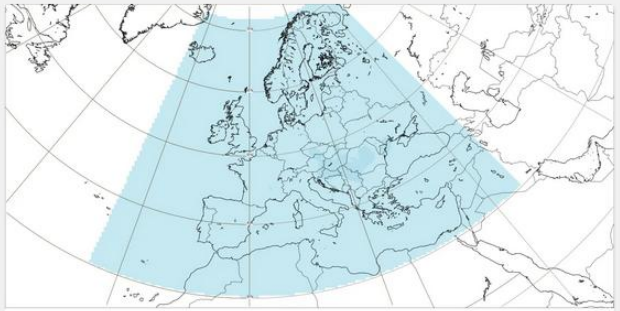
DEHM



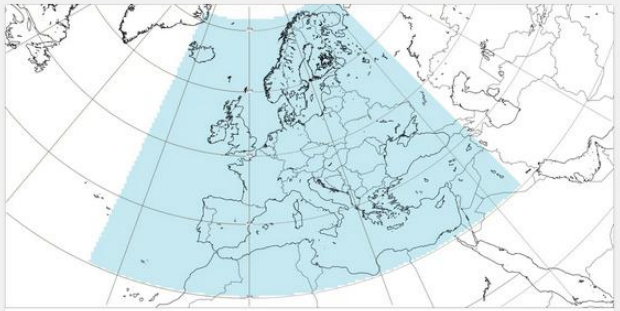
EMEP



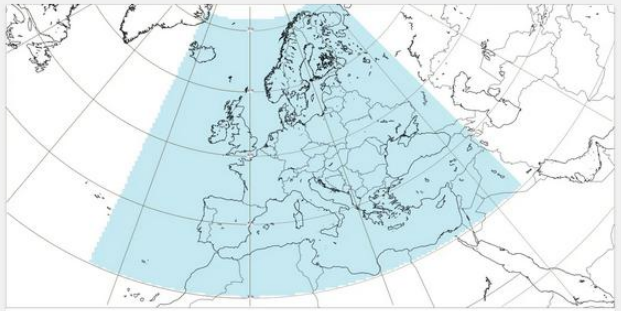
EURAD-IM



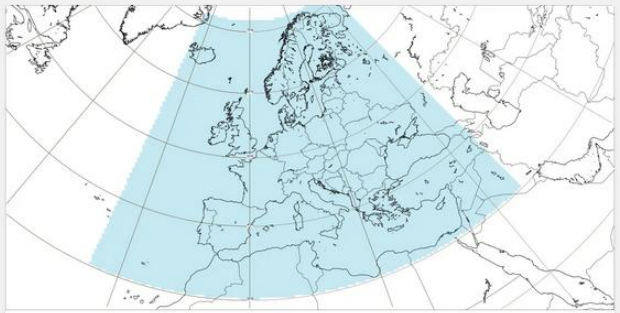
GEM-AQ



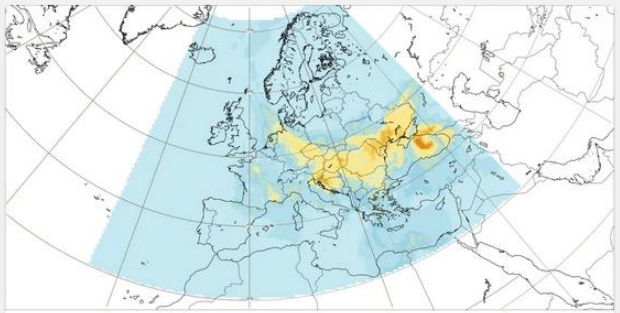
LOTOS-EUROS



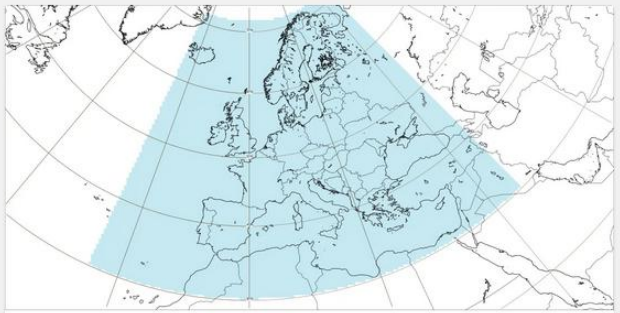
MATCH



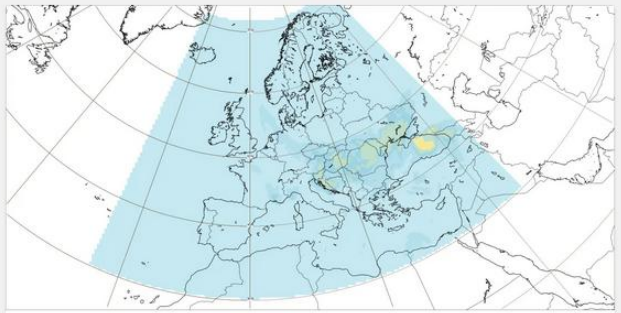
MINNI



MOCAGE



MONARCH

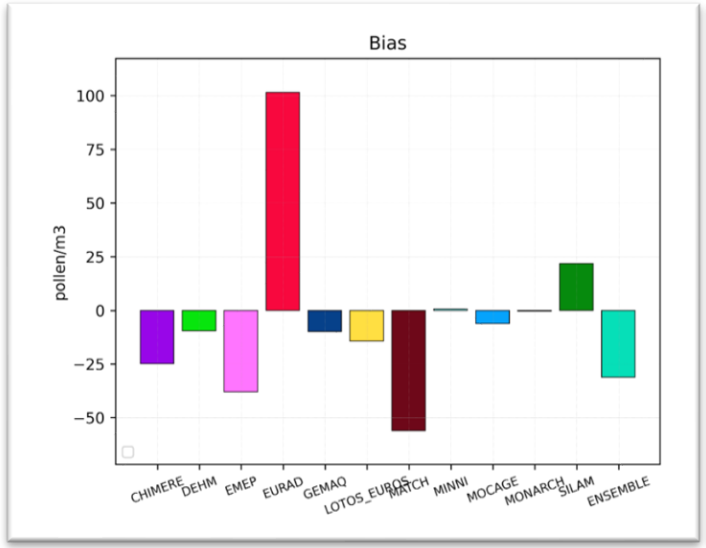


SILAM

Porovnanie modelov s pozorovaniami

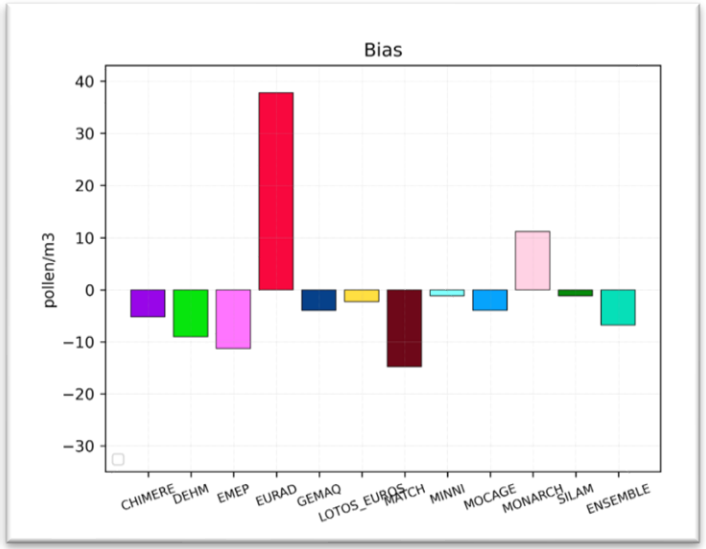
Priemerná odchýlka (MB) meria priemerný rozdiel medzi pozorovaniami a predpoveďami modelu. Cieľom je byť čo najbližšie k **0**. Jednotky odchýlky: **peľ/m³**

Breza



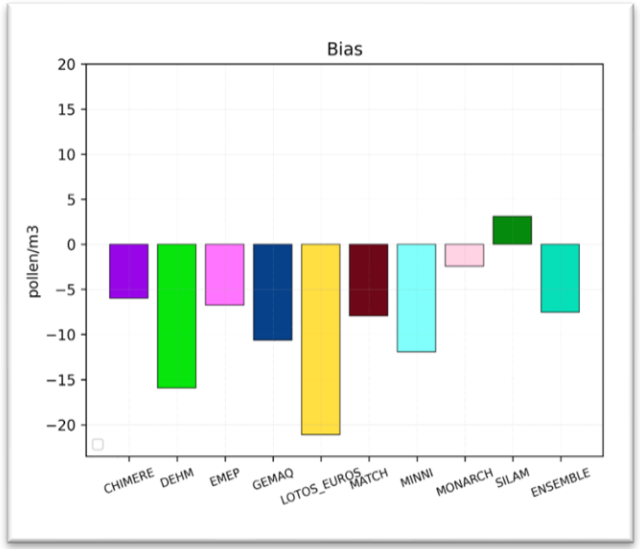
Priemerná koncentrácia - **60 peľových zŕn/m³**

Trávy



Priemerná koncentrácia - **15 peľových zŕn/m³**

Ambrózia



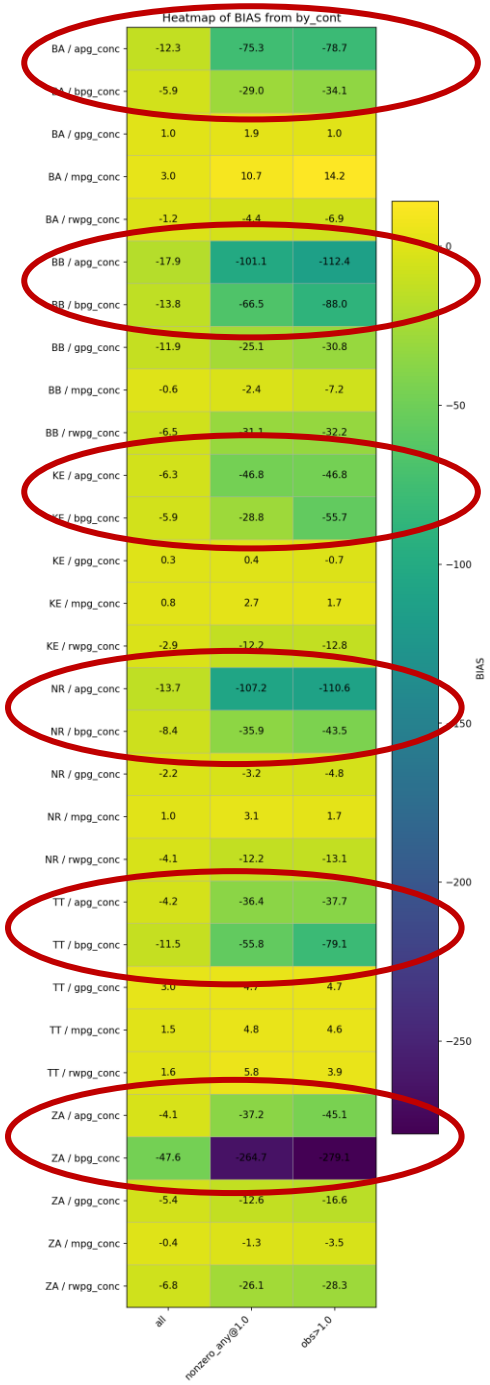
Priemerná koncentrácia - **21 peľových zŕn/m³**

Finnish Meteorological Institute (FMI). (2024). Annual report on the evaluation of the CAMS Regional pollen production (daily forecasts) January 2022 - October 2022. Vydané: Finnish Meteorological Institute. [February 26, 2024].

Najväčšie odchýlky na všetkých staniciach RÚVZ BB

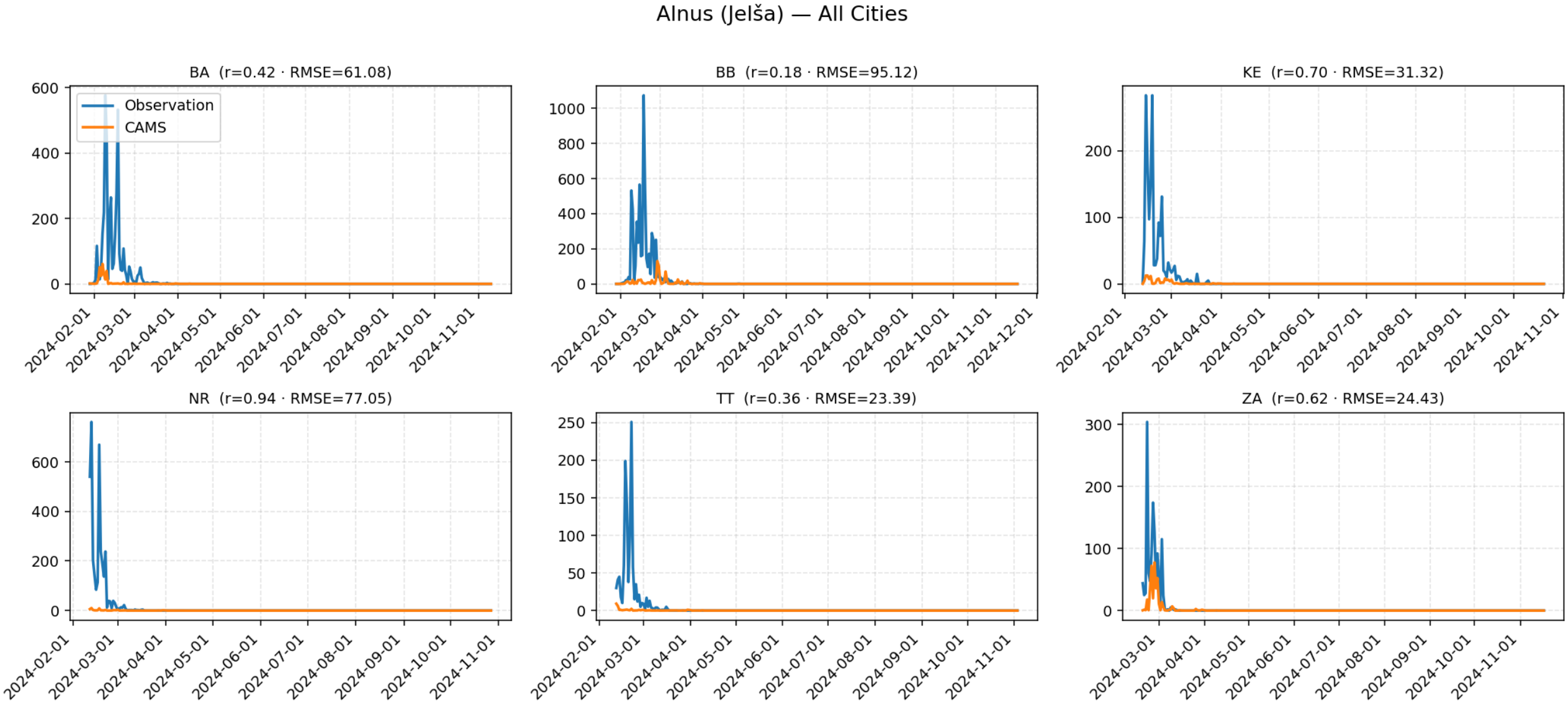
CAMS Ensemble vs aerobiologické stanice

Jelša, breza

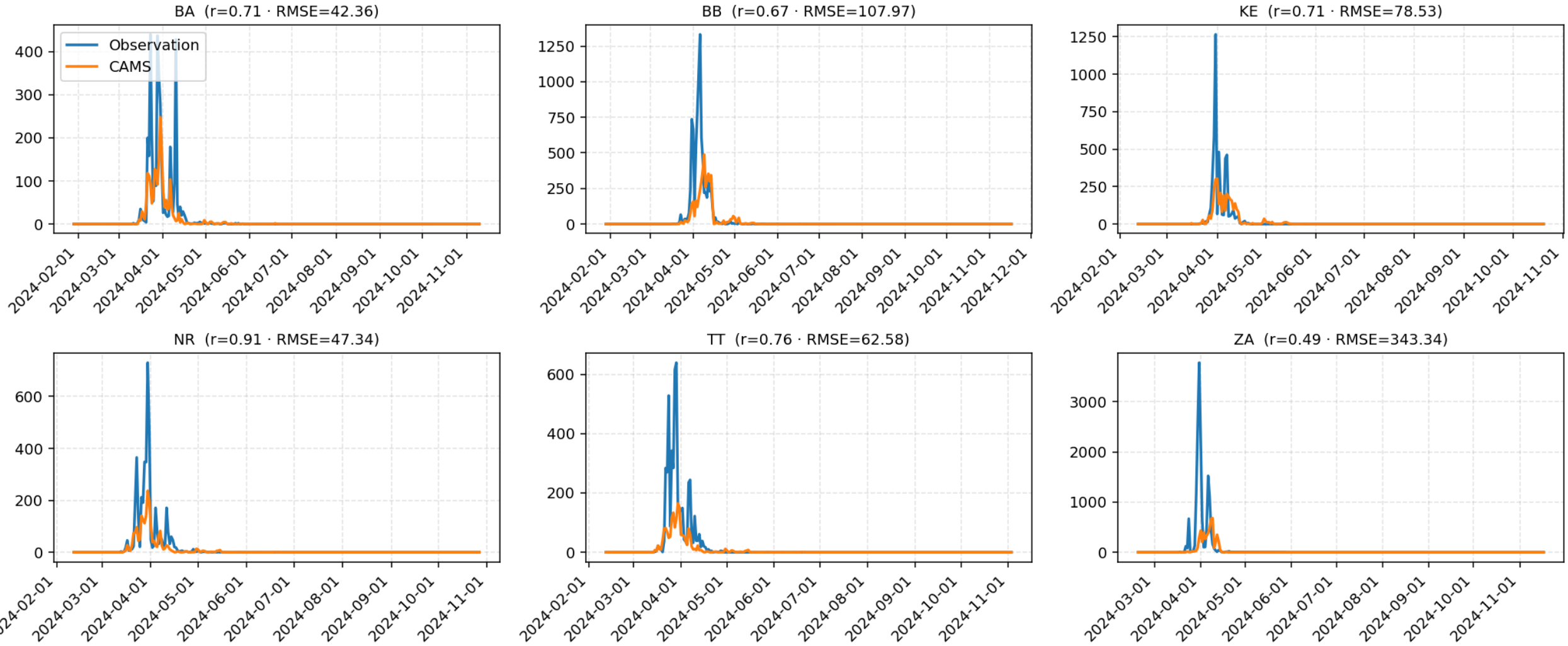


REGIONÁLNY ÚRAD VEREJNÉHO ZDRAVOTNÍCTVA SO SÍDLOM V BANSKEJ BYSTRICI

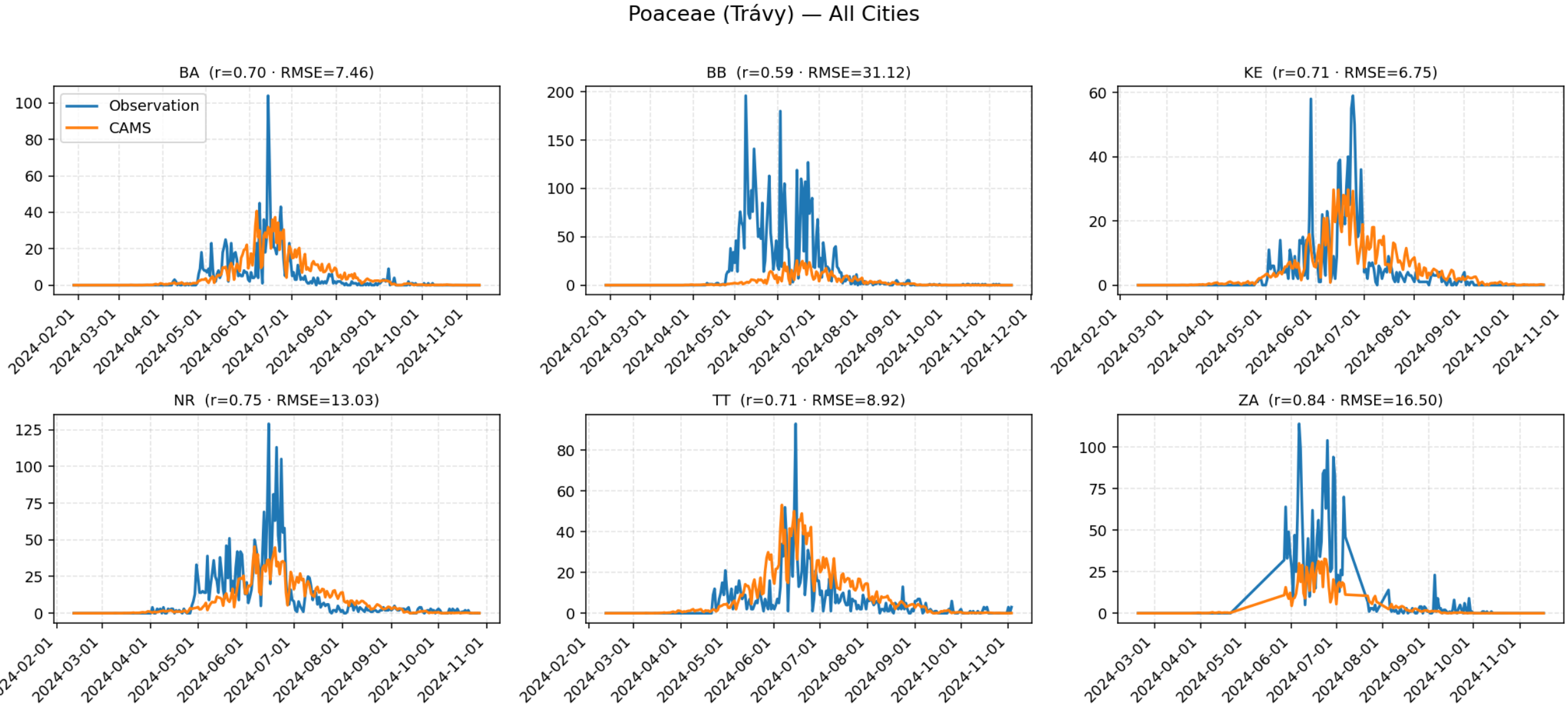
Porovnanie CAMS a nameraných koncentrácií



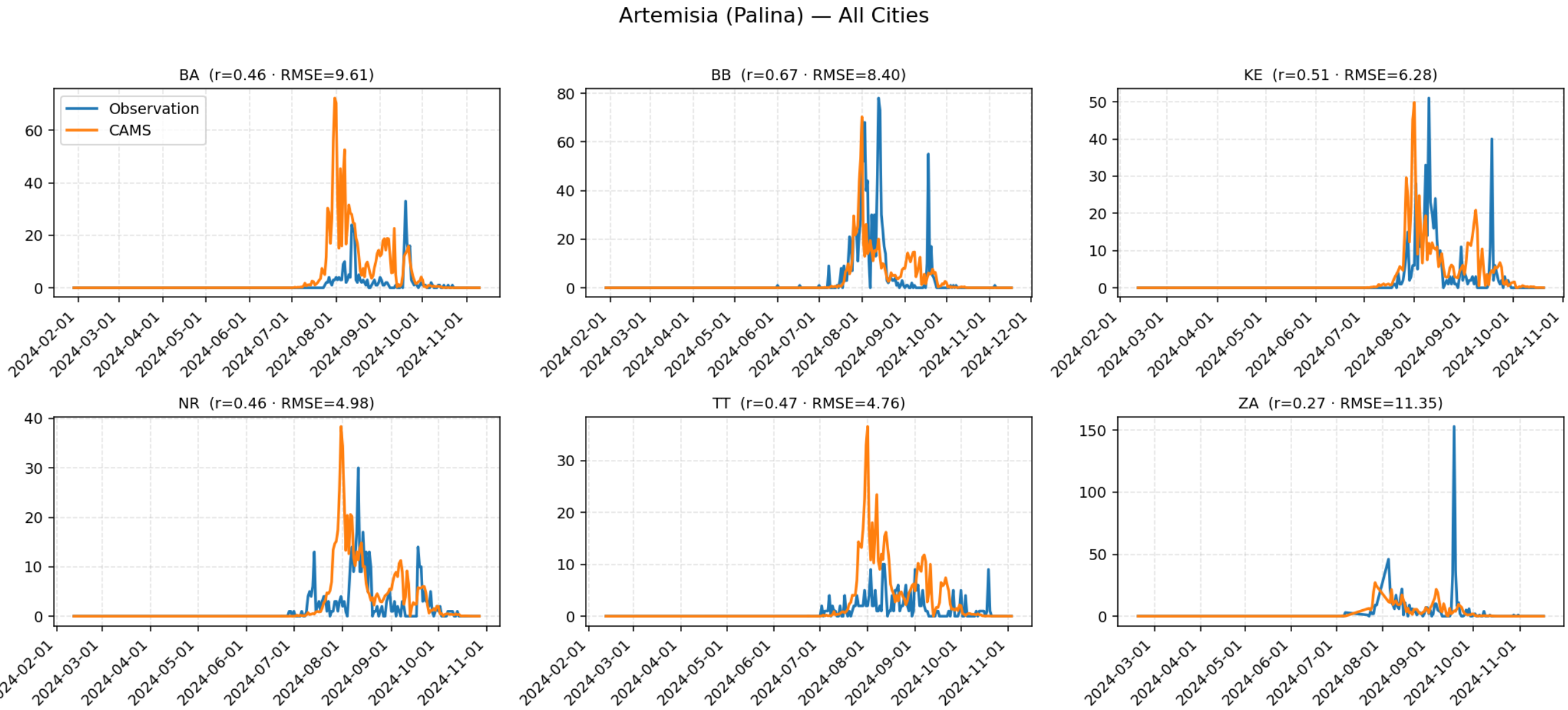
Porovnanie CAMS a nameraných koncentrácií



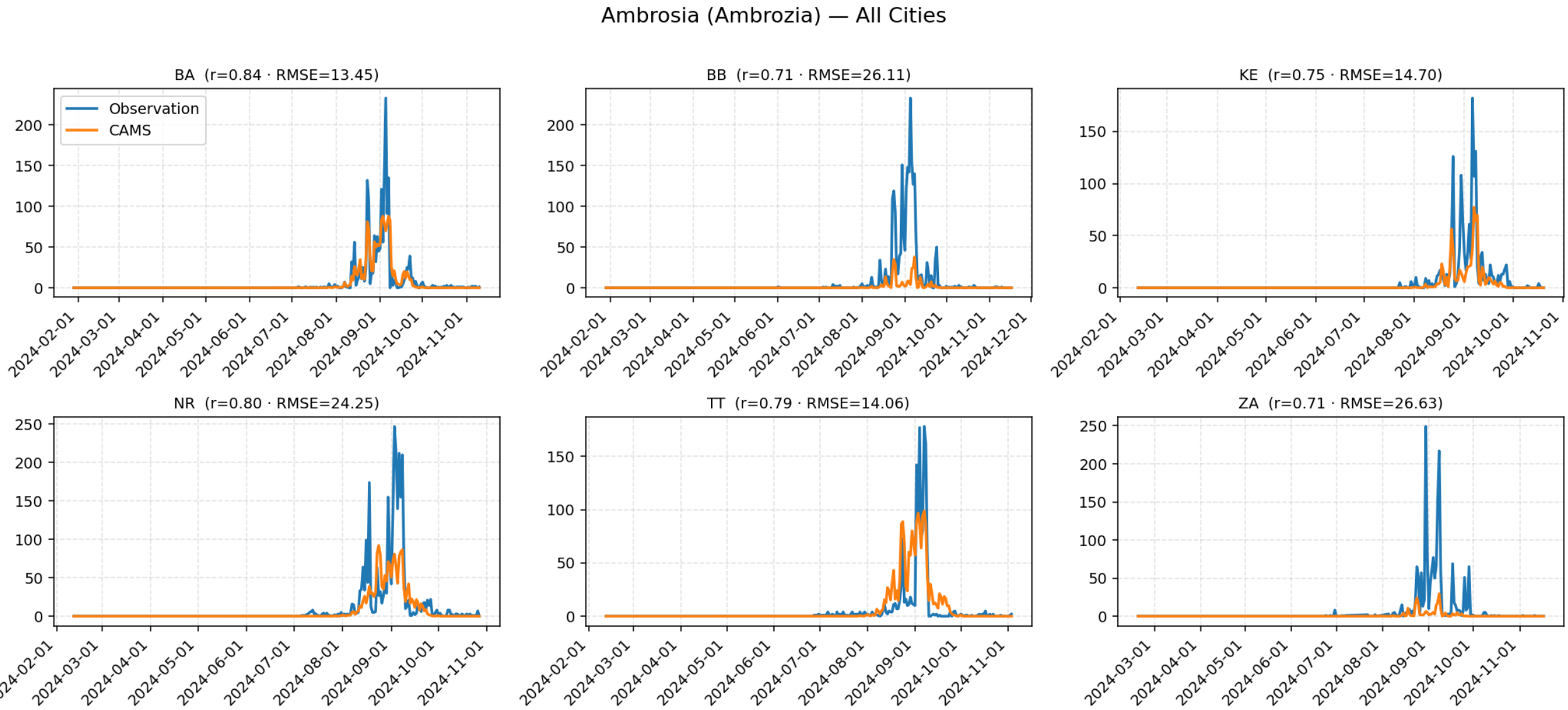
Porovnanie CAMS a nameraných koncentrácií



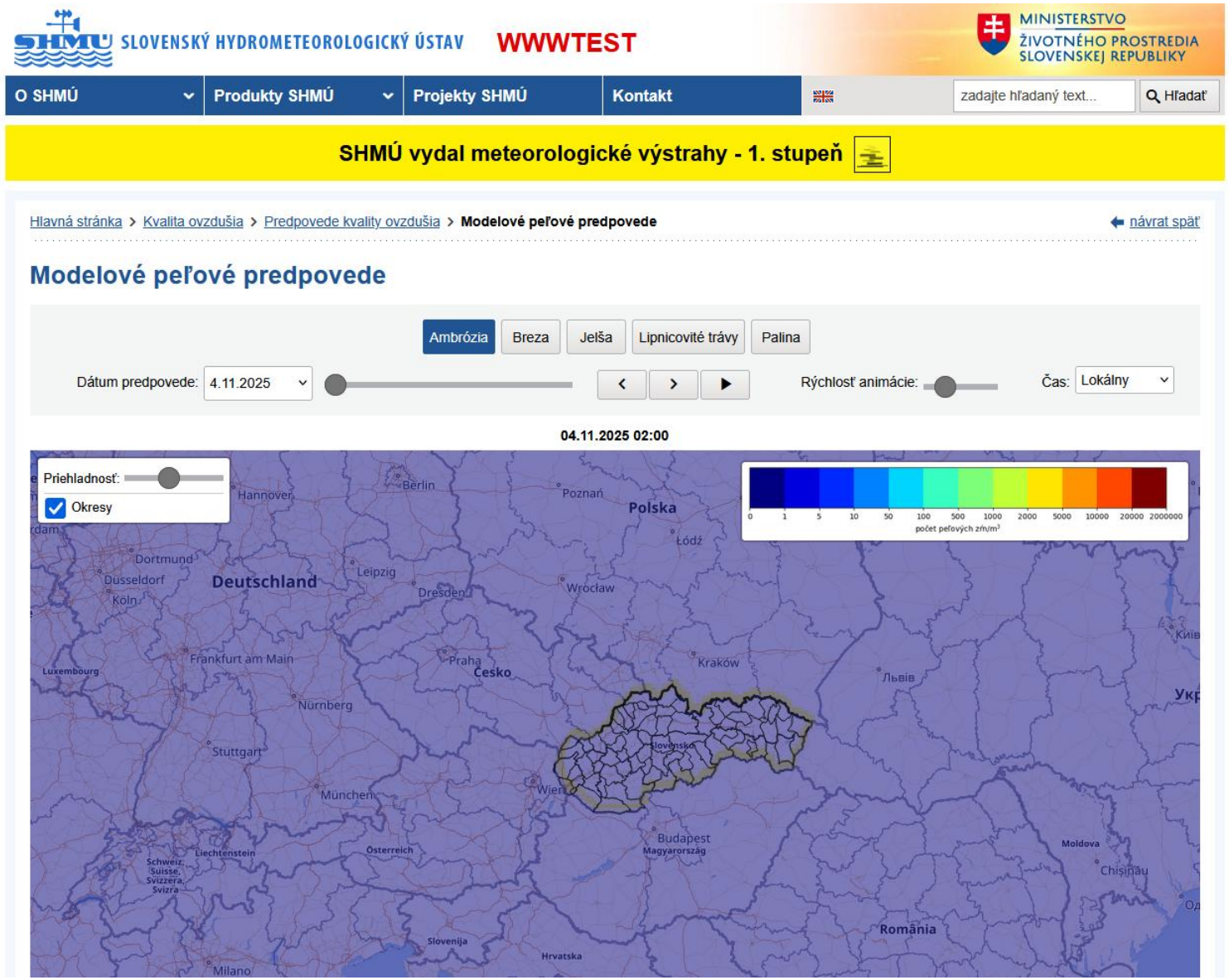
Porovnanie CAMS a nameraných koncentrácií



Porovnanie CAMS a nameraných koncentrácií



Kde nájdete predpoveď na SHMÚ?




Ďakujem za pozornosť
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