



Copernicus Atmosphere Monitoring Service (CAMS) - peľová predpoveď

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PROGRAMME OF
THE EUROPEAN UNION



IMPLEMENTED BY



SLOVENSKÝ HYDROMETEOROLOGICKÝ ÚSTAV

Modelovanie transportu

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

Emisie peľu

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

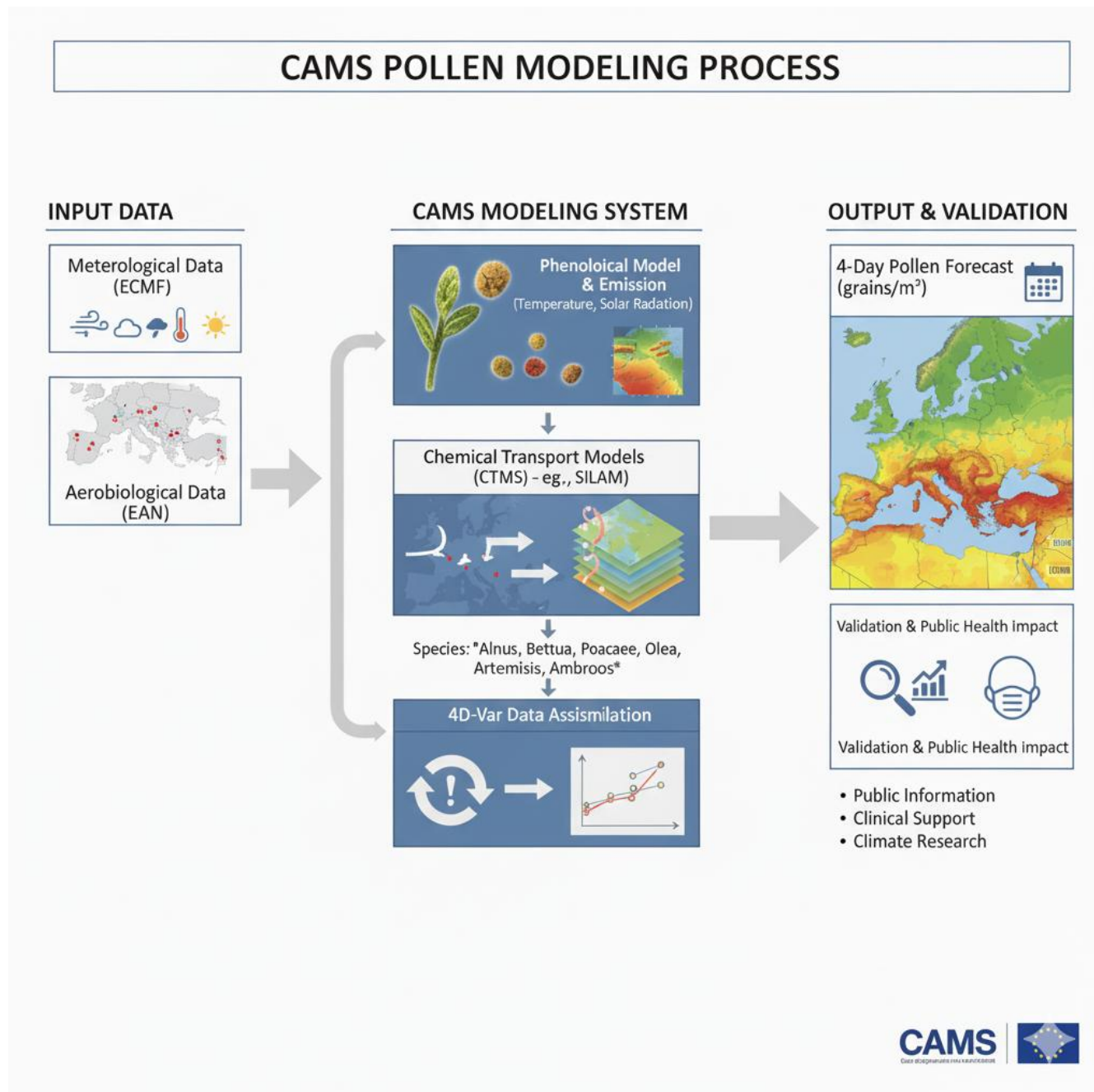
Dáta a asimilácia údajov

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



Výstup

- Hodinové predpovede koncentrácií peľu (zrná/m³)



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*), trávvy (*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

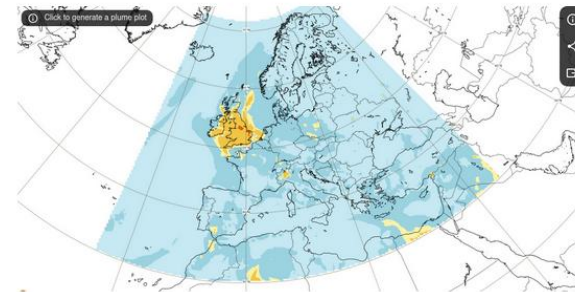
- atmosphere.copernicus.eu
- Europe/Pollens



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European air quality forecast plots

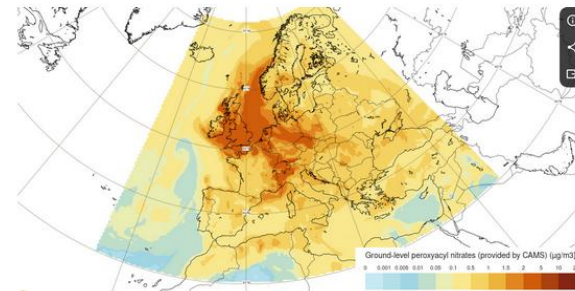
Every day CAMS provides four-day forecasts of the EU-WHO regulated pollutants, other air quality pollutants, pollens and aerosol tracers for Europe based on CAMS' regional ensemble model. The maps are accessible below, and the full range of European forecast charts and maps is available [here](#).



Regulated pollutants

Forecasts of the five main air pollutants regulated by the European Union and the World Health Organization air quality standards: nitrogen dioxide (NO₂), ozone (O₃), coarse particulate matter (PM₁₀), fine particulate matter (PM_{2.5}) and sulphur dioxide (SO₂).

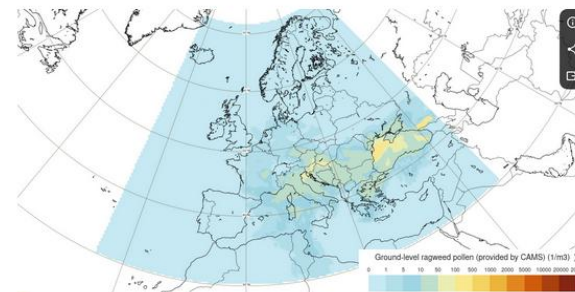
[Access the charts >](#)



Other air quality pollutants

European forecasts for other air quality pollutants: ammonia, carbon monoxide, formaldehyde, glyoxal, nitrogen monoxide, non-methane VOCs, peroxyacyl nitrates.

[Access the charts >](#)



Pollens

CAMS regional ensemble produces forecasts for the main allergen pollen species: alder, birch, grass, mugwort, olive, ragweed.

[Access the charts >](#)

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

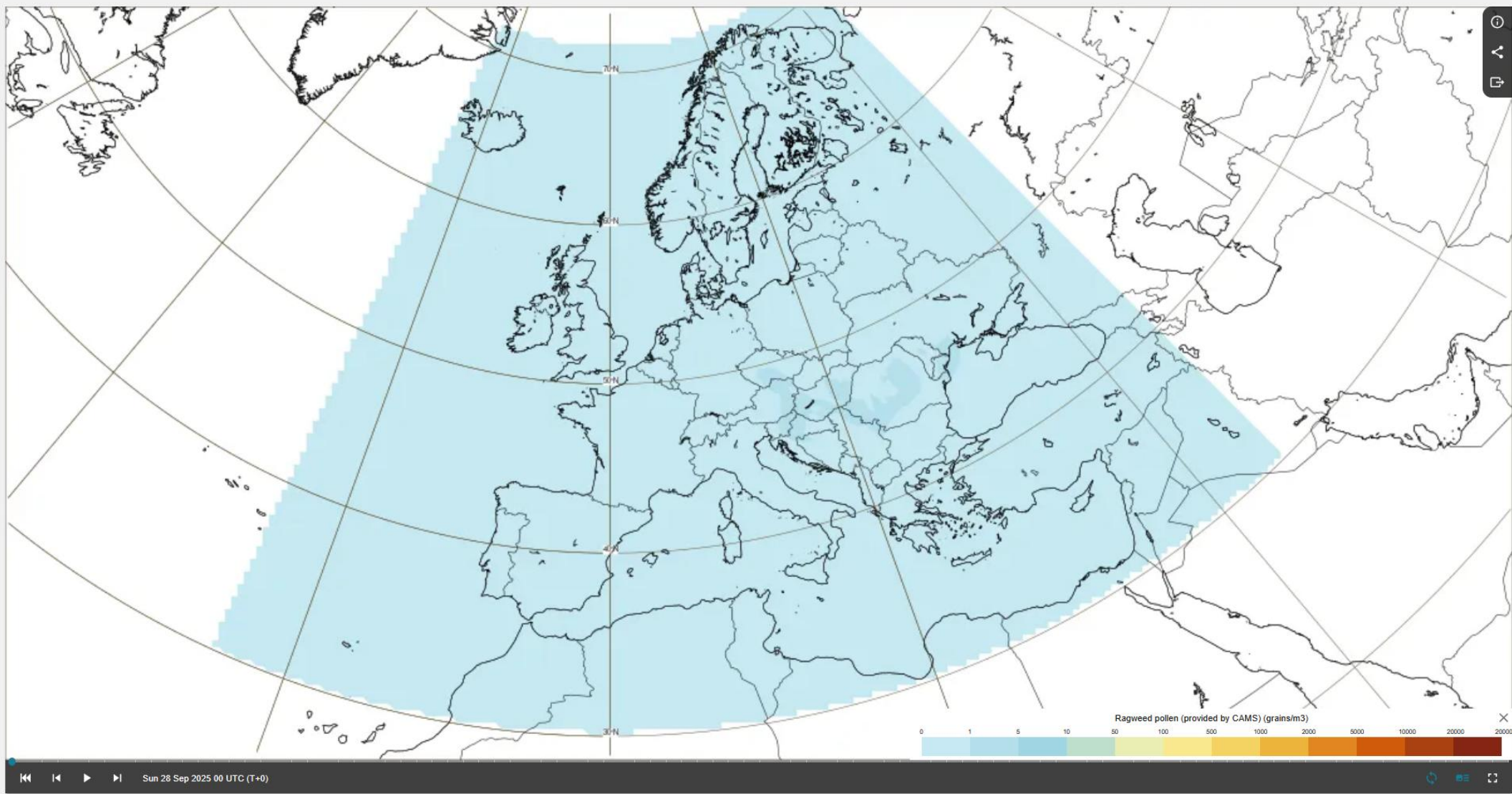
Ensemble median



Height level

Surface



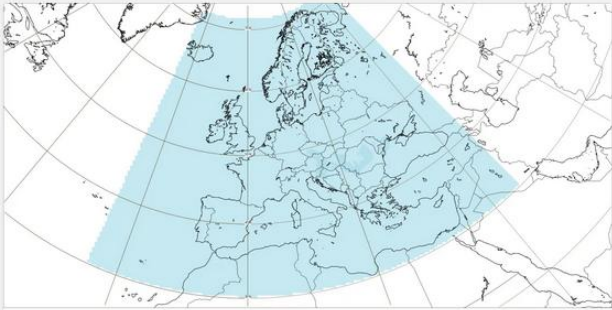


CAMS European hourly forecast of pollens

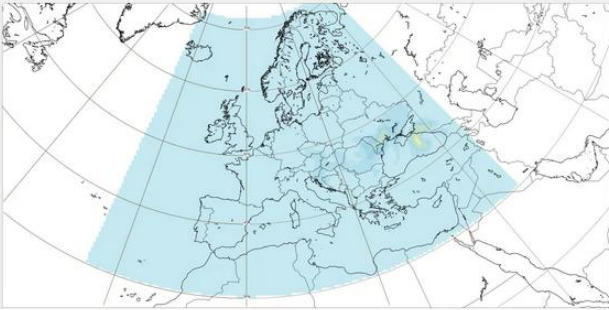
[Home](#) / [CAMS air quality forecasts](#) / [European air quality hourly forecast of pollens](#) / [Overview](#)

Overview

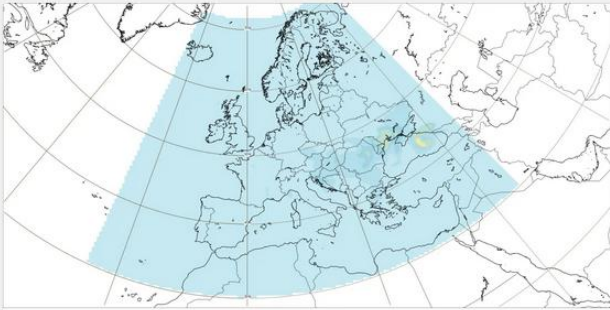
Dimension: Model



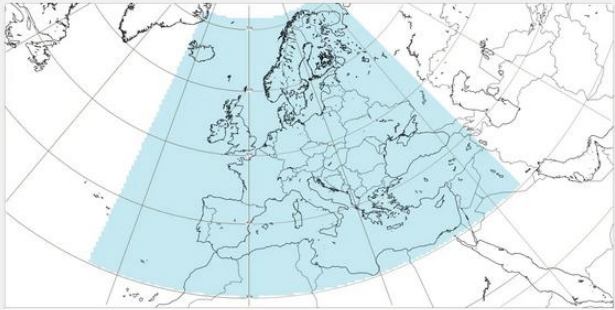
Ensemble median



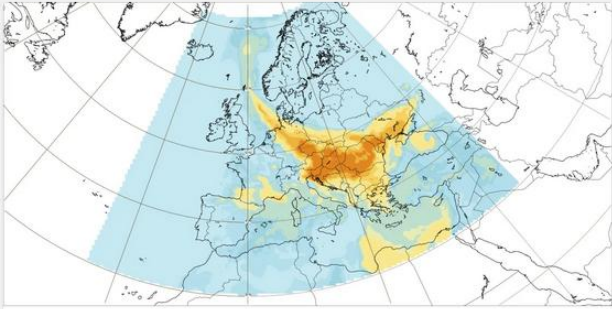
CHIMERE



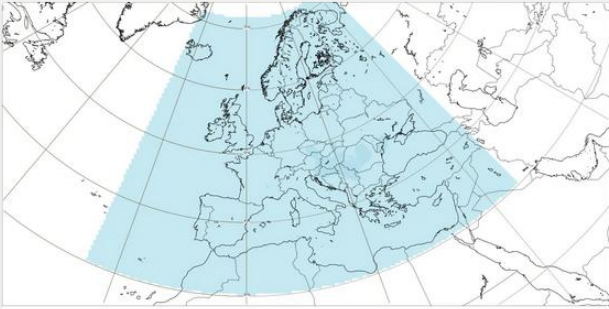
DEHM



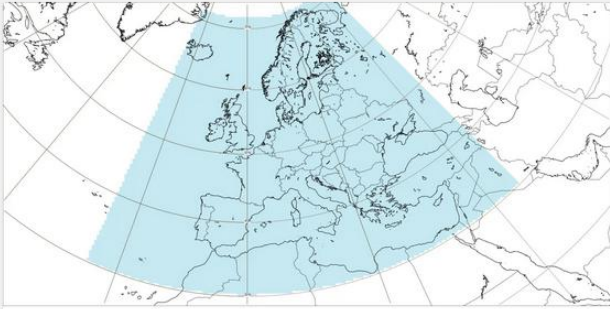
EMEP



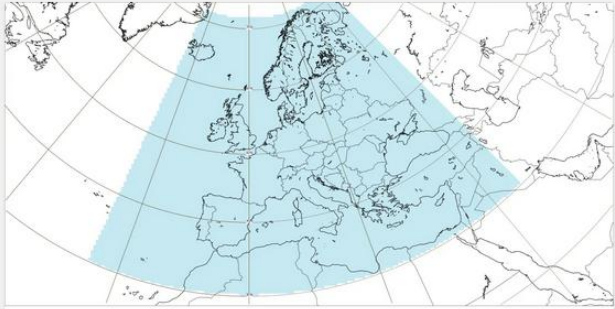
EURAD-IM



GEM-AQ



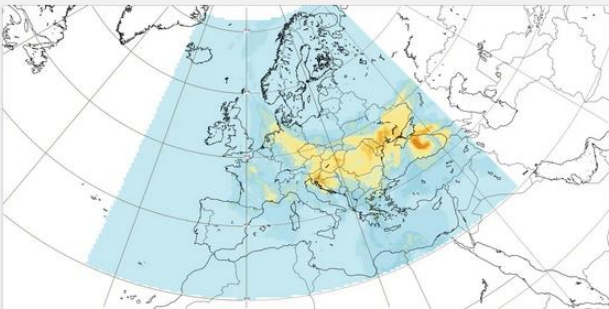
LOTOS-EUROS



MATCH



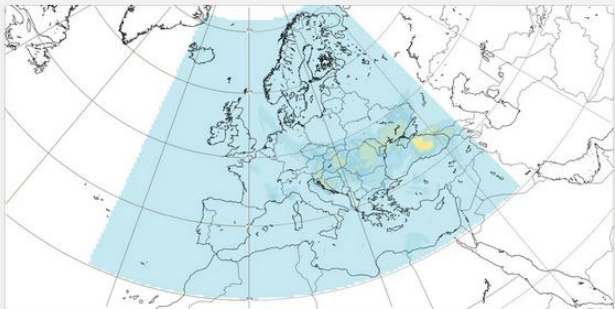
MINNI



MOCAGE



MONARCH

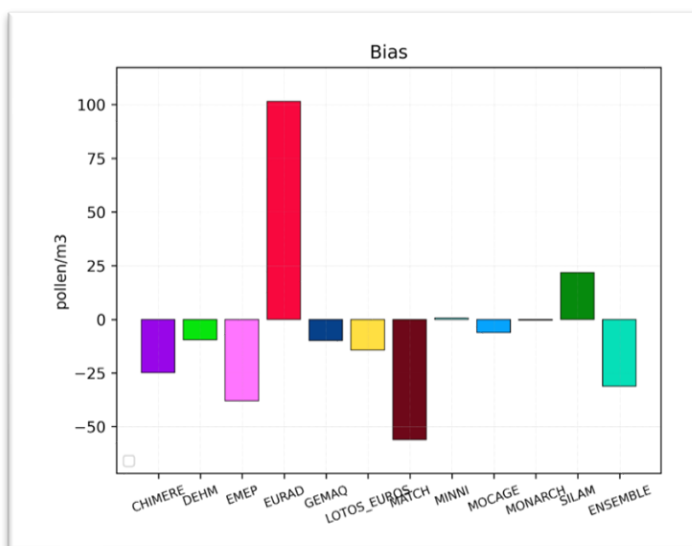


SILAM

Porovnanie modelov s pozorovaniami

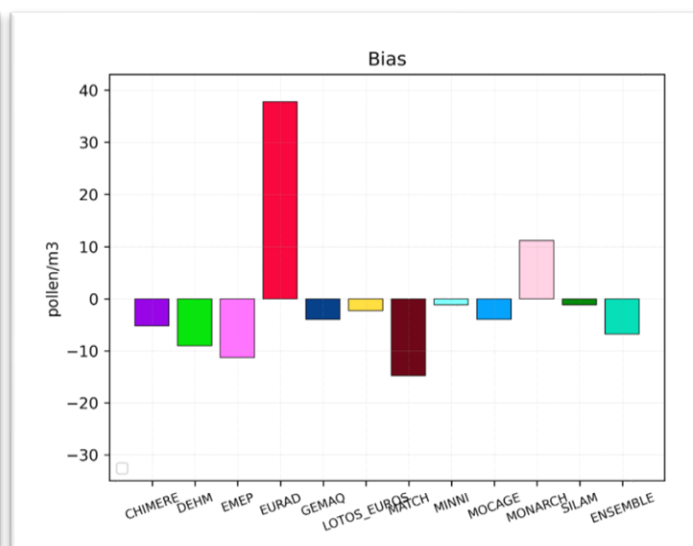
Priemerná odchýlka (MB) meria priemerný rozdiel medzi pozorovaniami a predpoveďami modelu. Cieľom je byť čo najbližšie k **0**. Jednotky odchýlky: **peľ/m³**

Breza



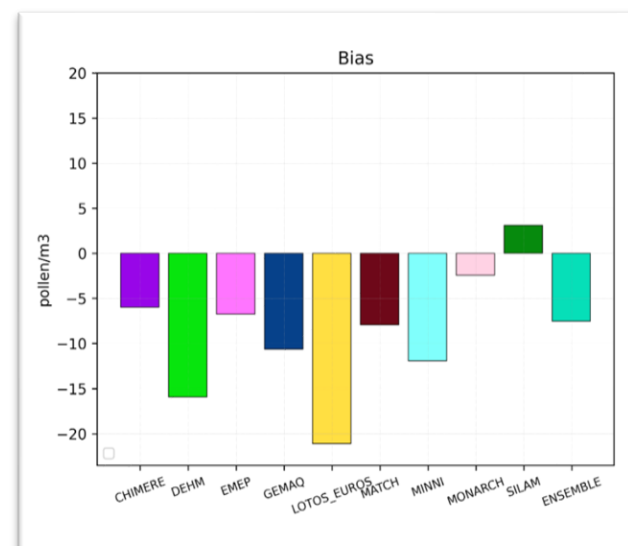
Priemerná koncentrácia - **60**
peľových zrn/m³

Trávy



Priemerná koncentrácia -
15 peľových zrn/m³

Ambrózia



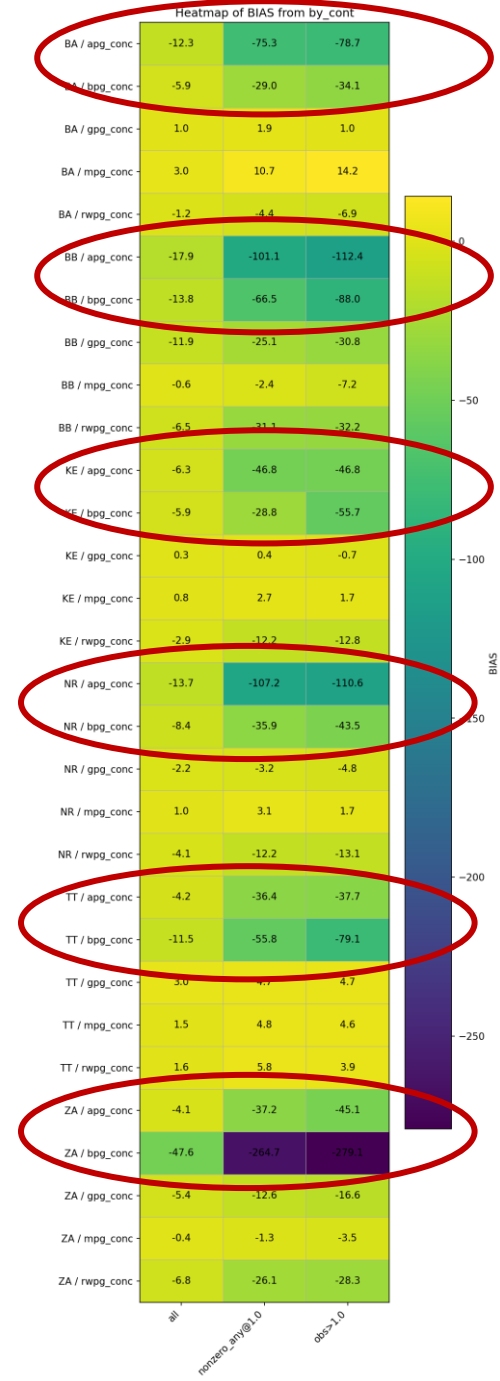
Priemerná koncentrácia - **21 peľových**
zrn/m³

Najväčšie odchýlky na všetkých staniciach RÚVZ BB

CAMS Ensemble vs aerobiologické stanice



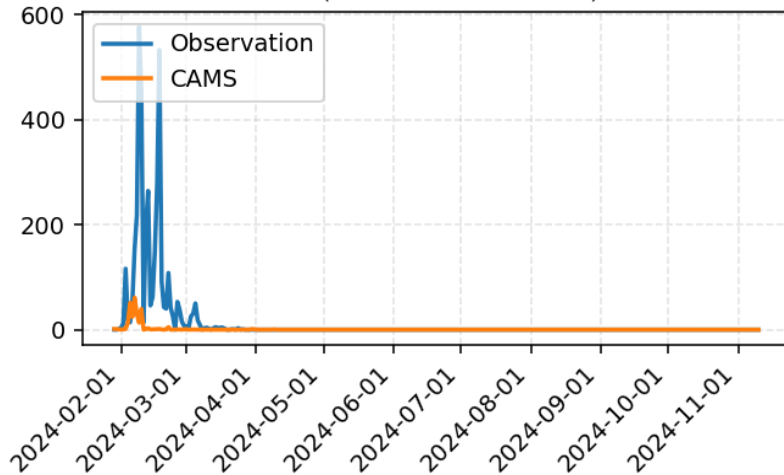
Jelša, breza



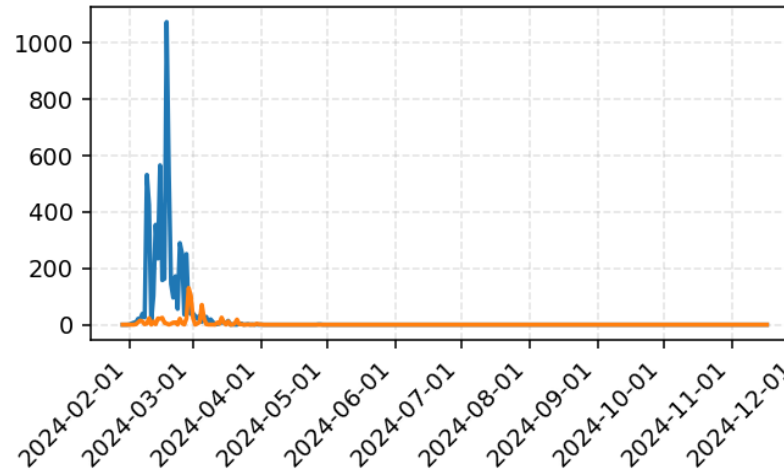
Porovnanie CAMS a nameraných koncentrácií

Alnus (Jelša) — All Cities

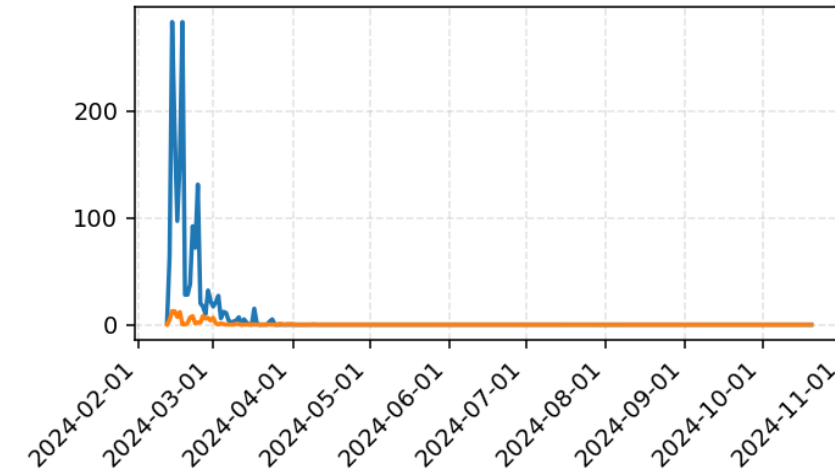
BA ($r=0.42 \cdot \text{RMSE}=61.08$)



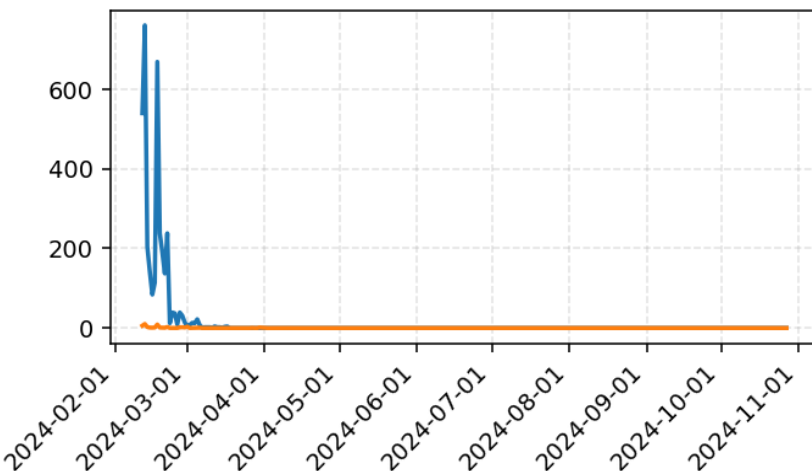
BB ($r=0.18 \cdot \text{RMSE}=95.12$)



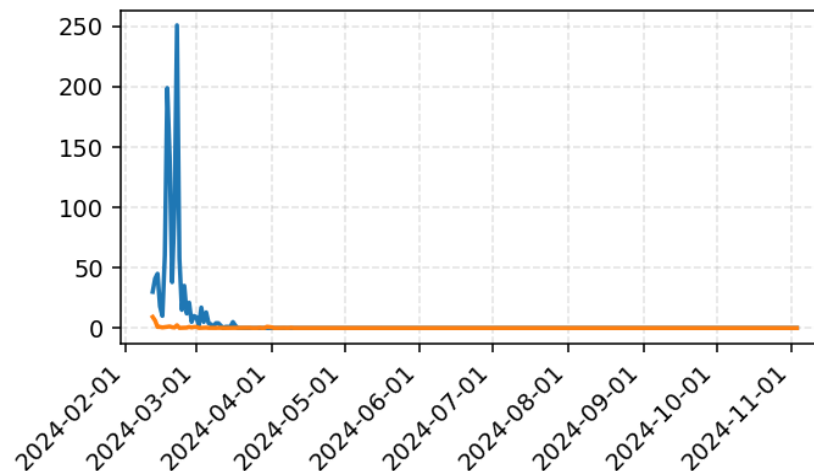
KE ($r=0.70 \cdot \text{RMSE}=31.32$)



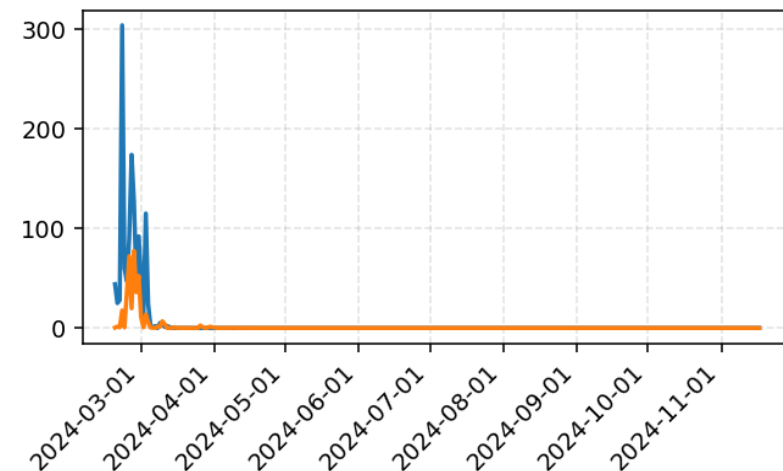
NR ($r=0.94 \cdot \text{RMSE}=77.05$)



TT ($r=0.36 \cdot \text{RMSE}=23.39$)



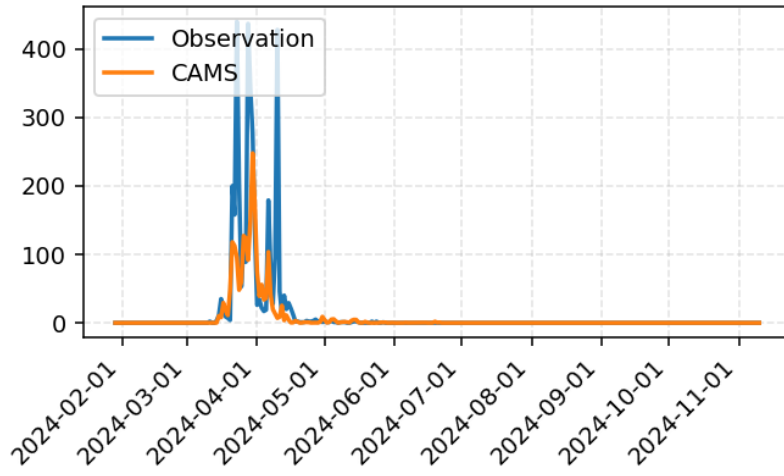
ZA ($r=0.62 \cdot \text{RMSE}=24.43$)



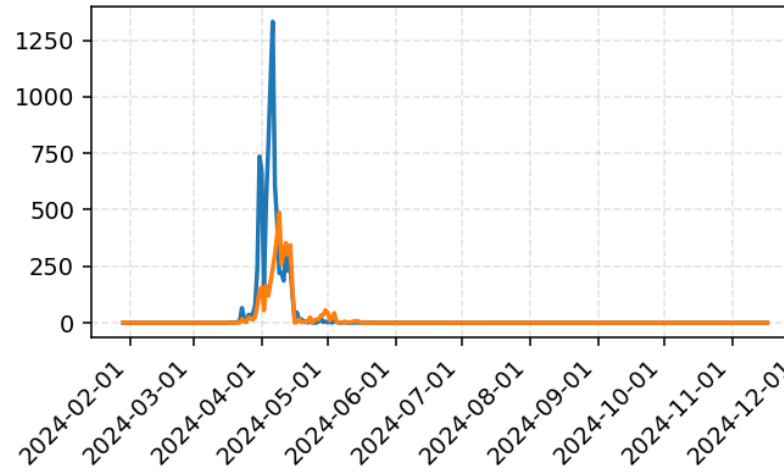
Porovnanie CAMS a nameraných koncentrácií

Betula (Breza) — All Cities

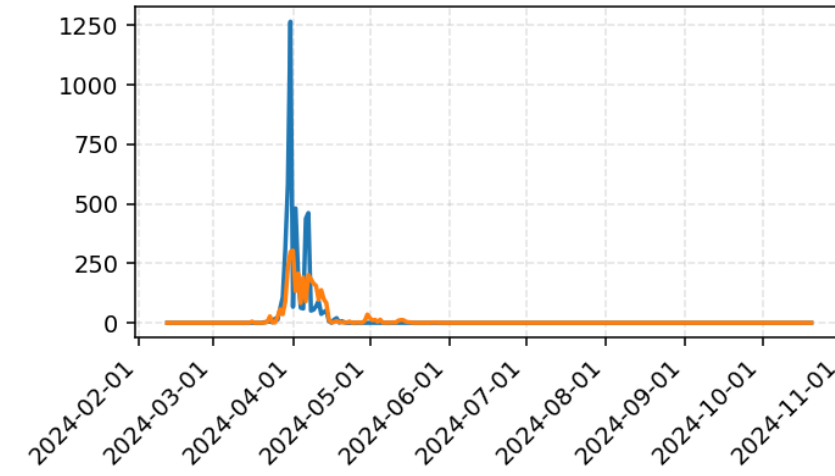
BA ($r=0.71$ · $RMSE=42.36$)



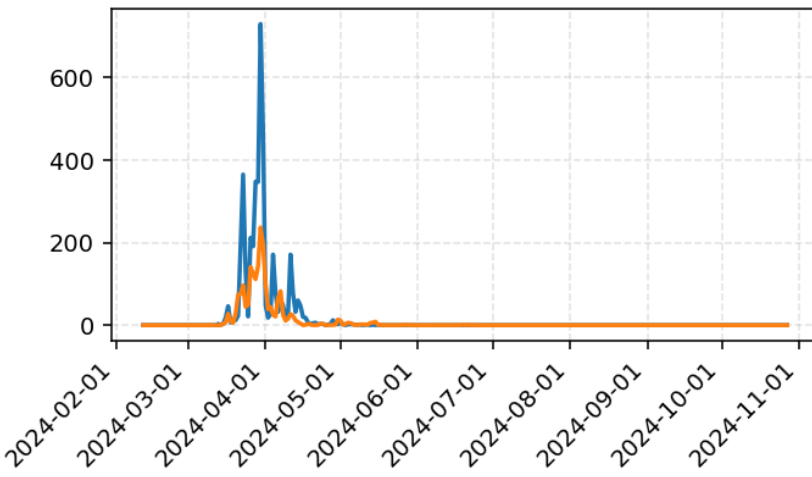
BB ($r=0.67$ · $RMSE=107.97$)



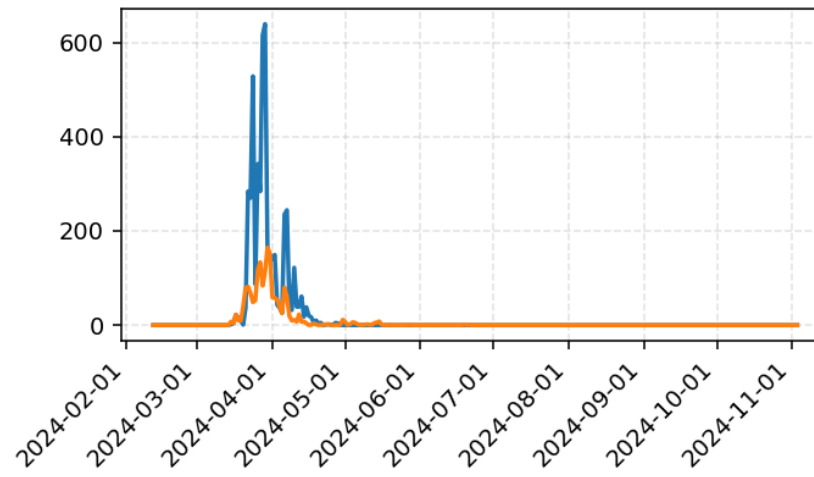
KE ($r=0.71$ · $RMSE=78.53$)



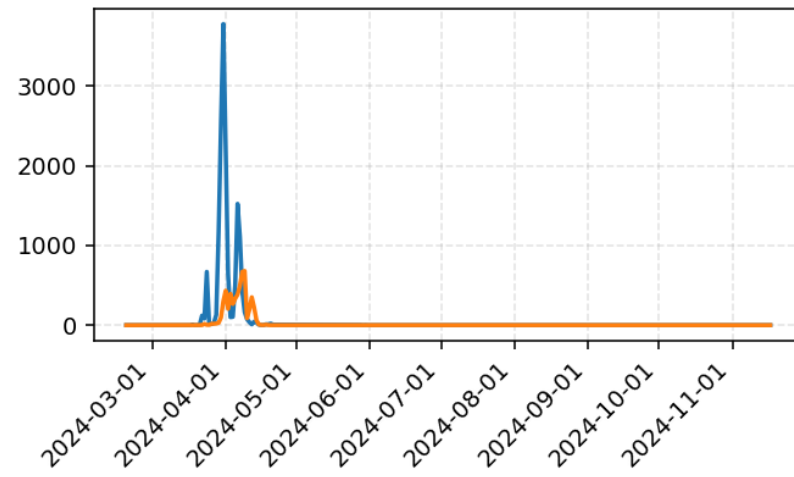
NR ($r=0.91$ · $RMSE=47.34$)



TT ($r=0.76$ · $RMSE=62.58$)



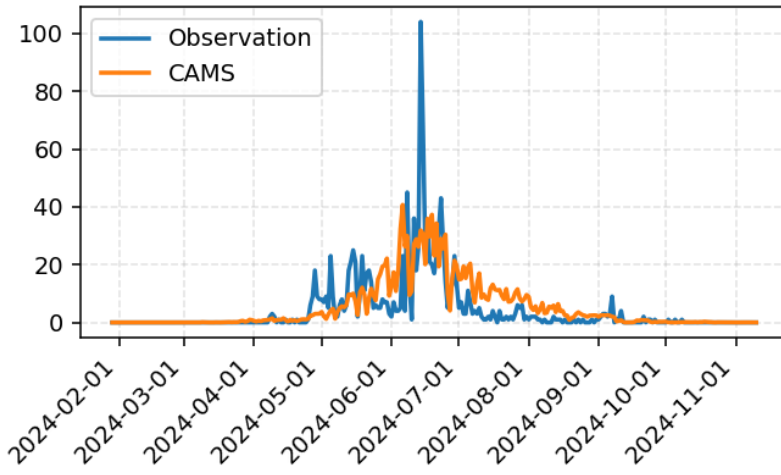
ZA ($r=0.49$ · $RMSE=343.34$)



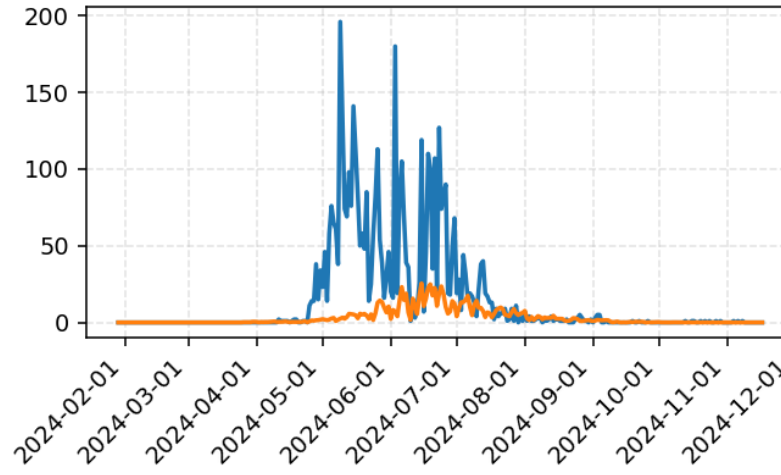
Porovnanie CAMS a nameraných koncentrácií

Poaceae (Trávy) — All Cities

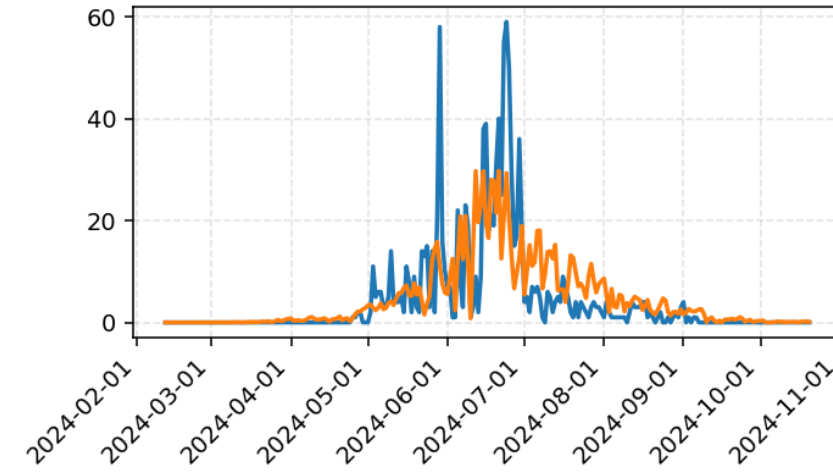
BA ($r=0.70$ · $RMSE=7.46$)



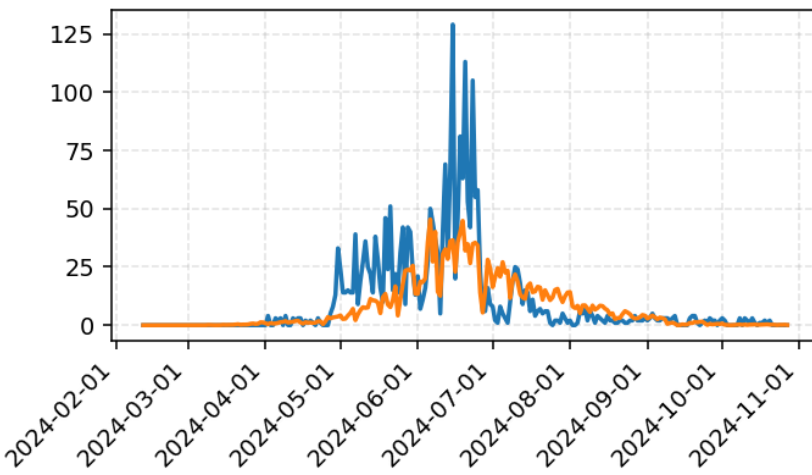
BB ($r=0.59$ · $RMSE=31.12$)



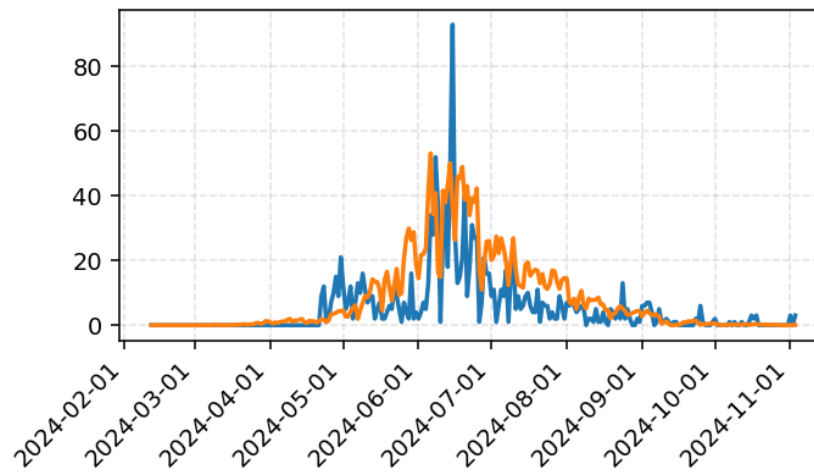
KE ($r=0.71$ · $RMSE=6.75$)



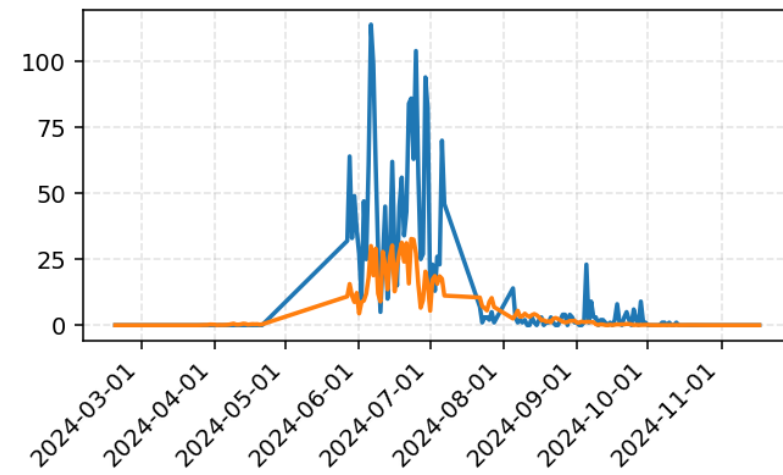
NR ($r=0.75$ · $RMSE=13.03$)



TT ($r=0.71$ · $RMSE=8.92$)



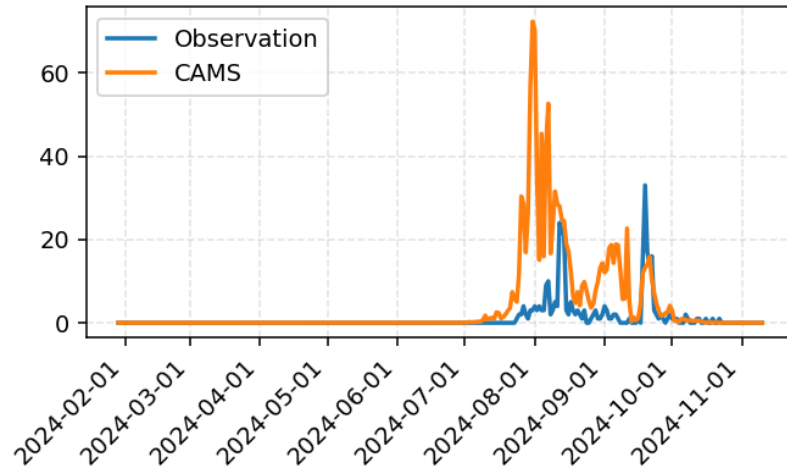
ZA ($r=0.84$ · $RMSE=16.50$)



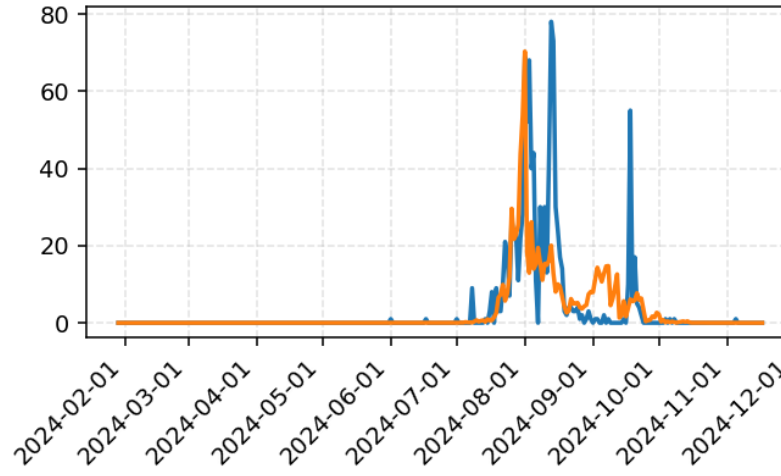
Porovnanie CAMS a nameraných koncentrácií

Artemisia (Palina) — All Cities

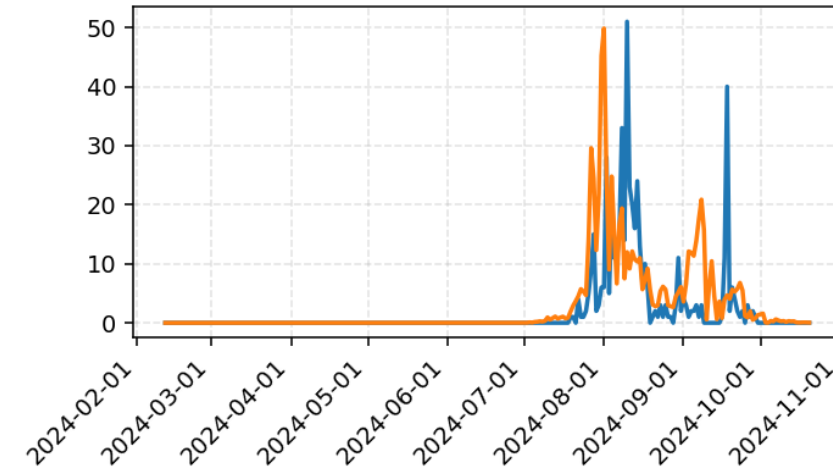
BA ($r=0.46$ · $RMSE=9.61$)



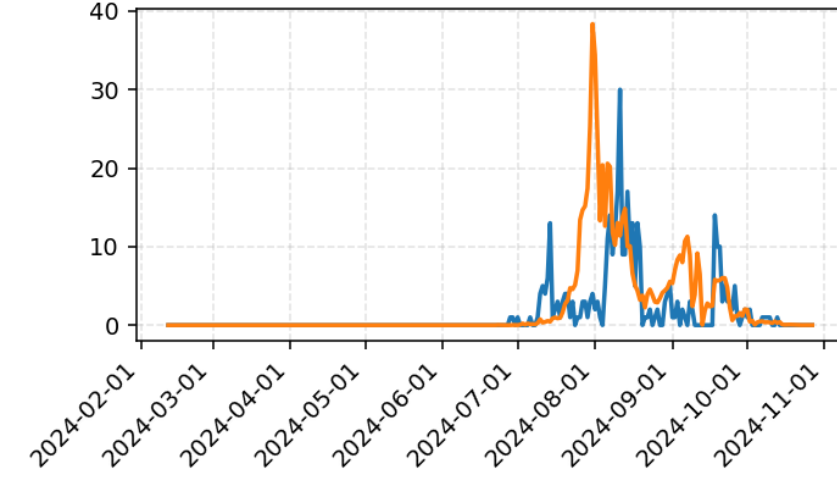
BB ($r=0.67$ · $RMSE=8.40$)



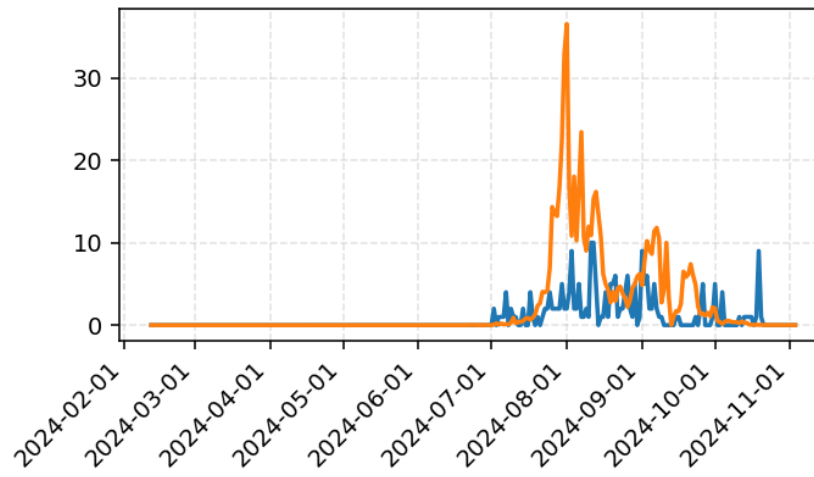
KE ($r=0.51$ · $RMSE=6.28$)



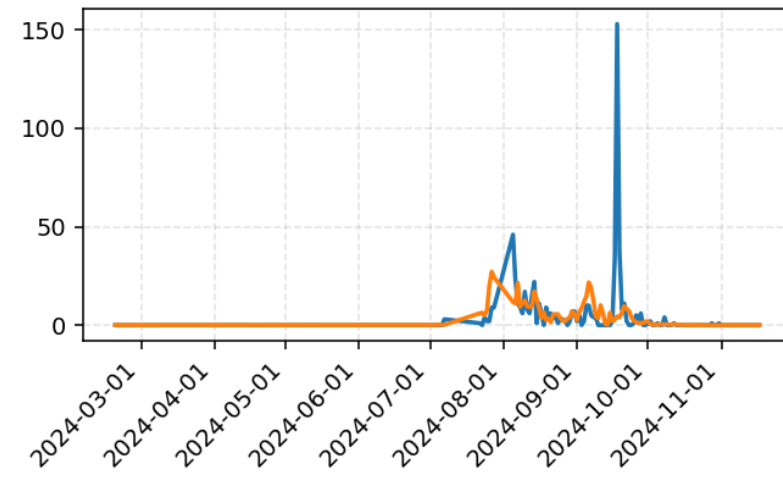
NR ($r=0.46$ · $RMSE=4.98$)



TT ($r=0.47$ · $RMSE=4.76$)



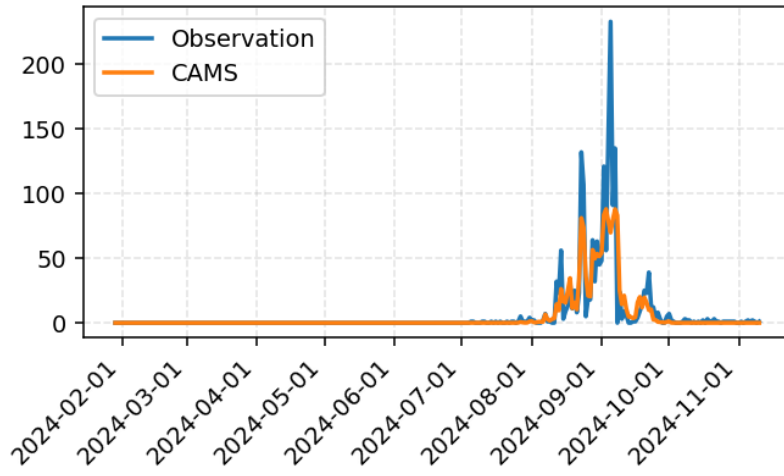
ZA ($r=0.27$ · $RMSE=11.35$)



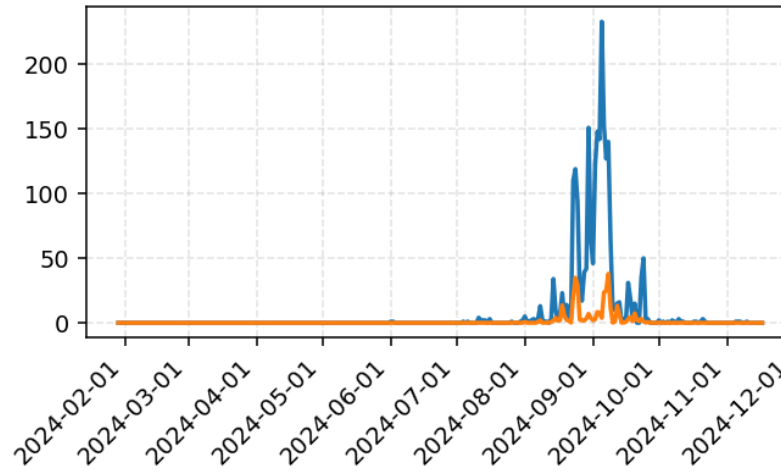
Porovnanie CAMS a nameraných koncentrácií

Ambrosia (Ambrozia) — All Cities

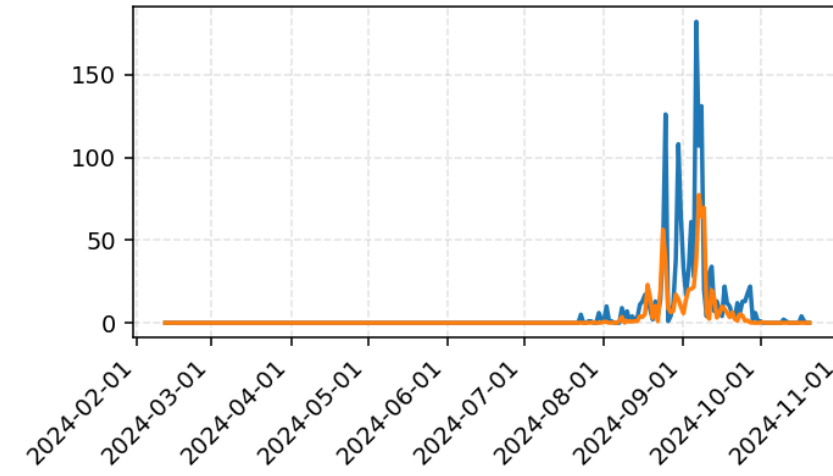
BA ($r=0.84$ · $RMSE=13.45$)



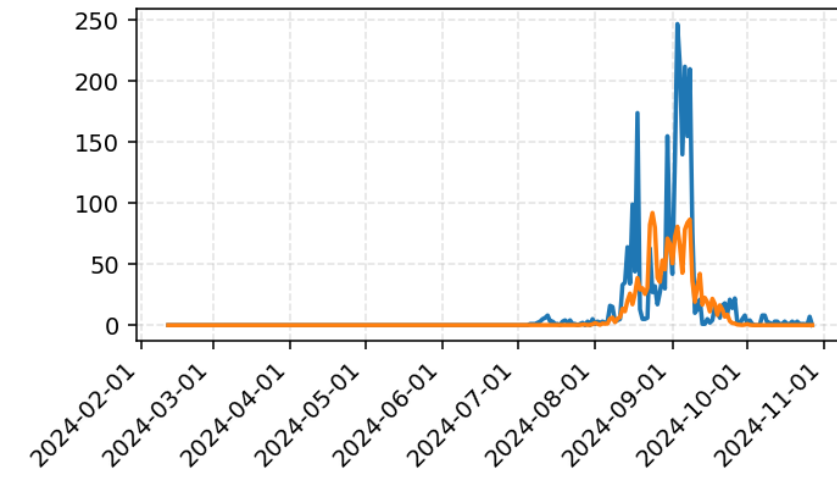
BB ($r=0.71$ · $RMSE=26.11$)



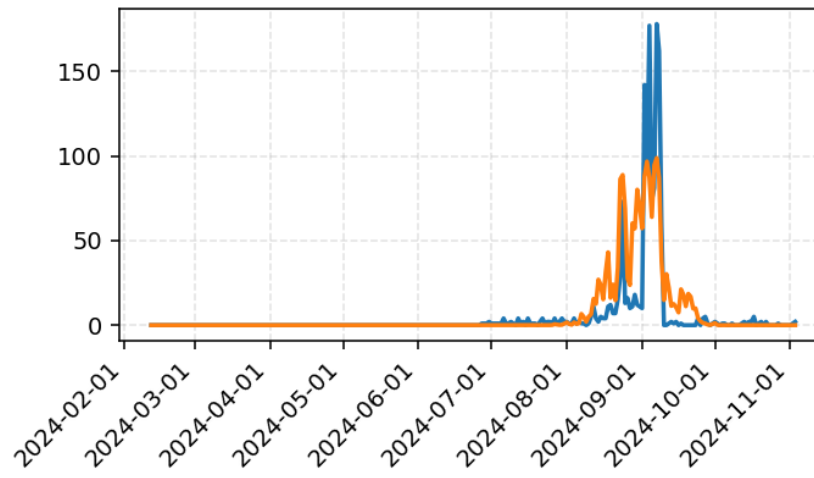
KE ($r=0.75$ · $RMSE=14.70$)



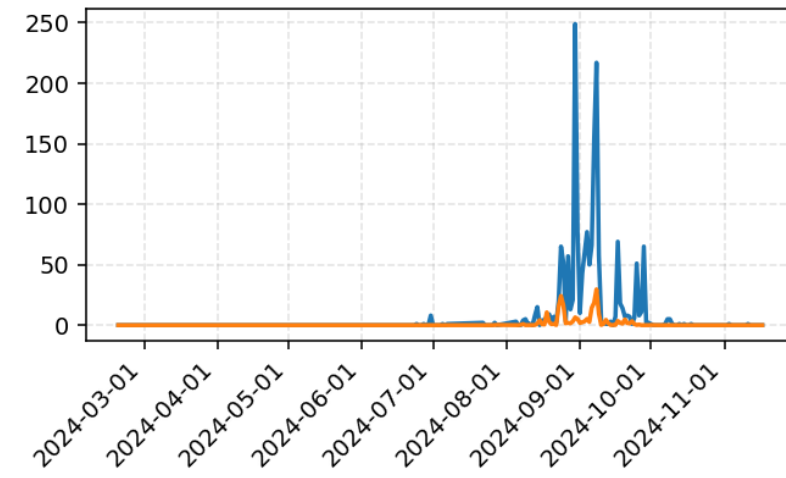
NR ($r=0.80$ · $RMSE=24.25$)



TT ($r=0.79$ · $RMSE=14.06$)



ZA ($r=0.71$ · $RMSE=26.63$)



Kde nájdete predpoveď na SHMÚ?



SLOVENSKÝ HYDROMETEOROLOGICKÝ ÚSTAV

WWWTEST



MINISTERSTVO
ŽIVOTNÉHO PROSTREDIA
SLOVENSKEJ REPUBLIKY

O SHMÚ

Produkty SHMÚ

Projekty SHMÚ

Kontakt

zadajte hľadaný text...

Hľadať

SHMÚ vydal meteorologické výstrahy - 1. stupeň



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[← návrat späť](#)

Modelové peľové predpovede

Ambrózia

Breza

Jelša

Lipnicovité trávy

Palina

Dátum predpovede:

4.11.2025

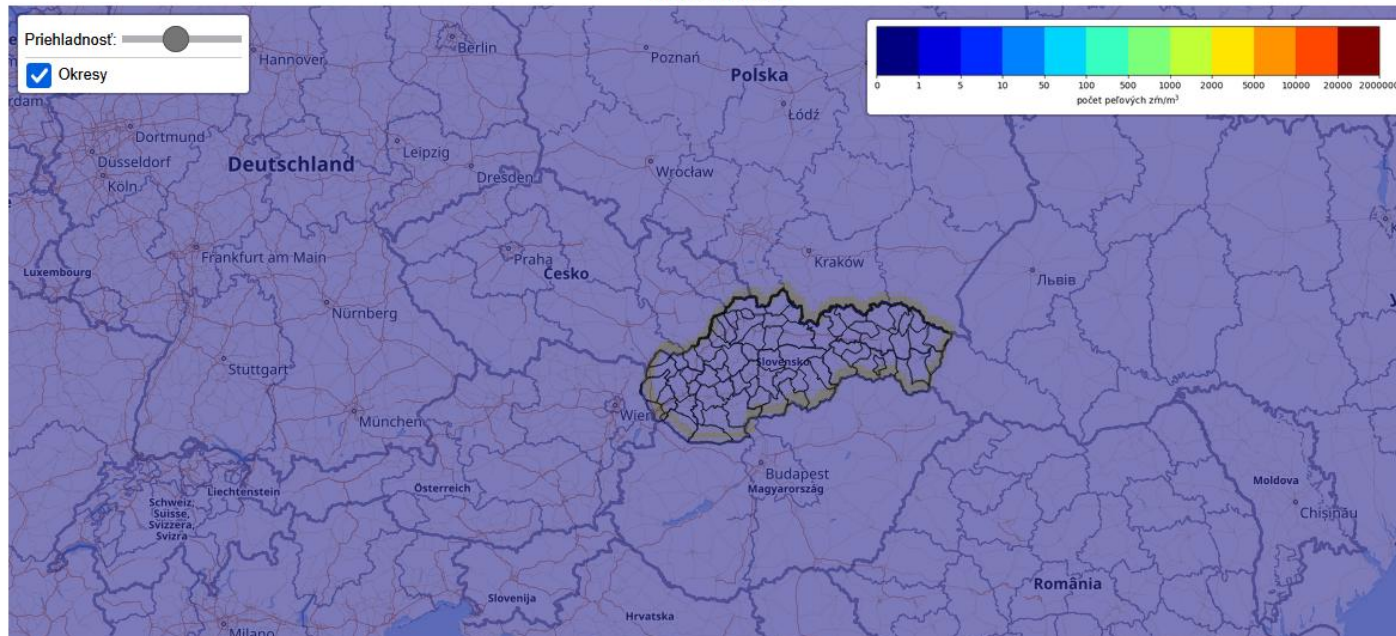
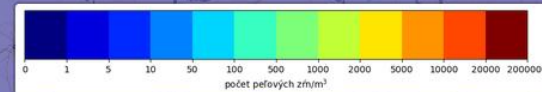
Rýchlosť animácie:

Čas: Lokálny

04.11.2025 02:00

Priehľadnosť:

☒ Okresy



Ďakujem za pozornosť