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Experiences with the Deltatool for forecast and feedbacks, IEP-NRI, Poland

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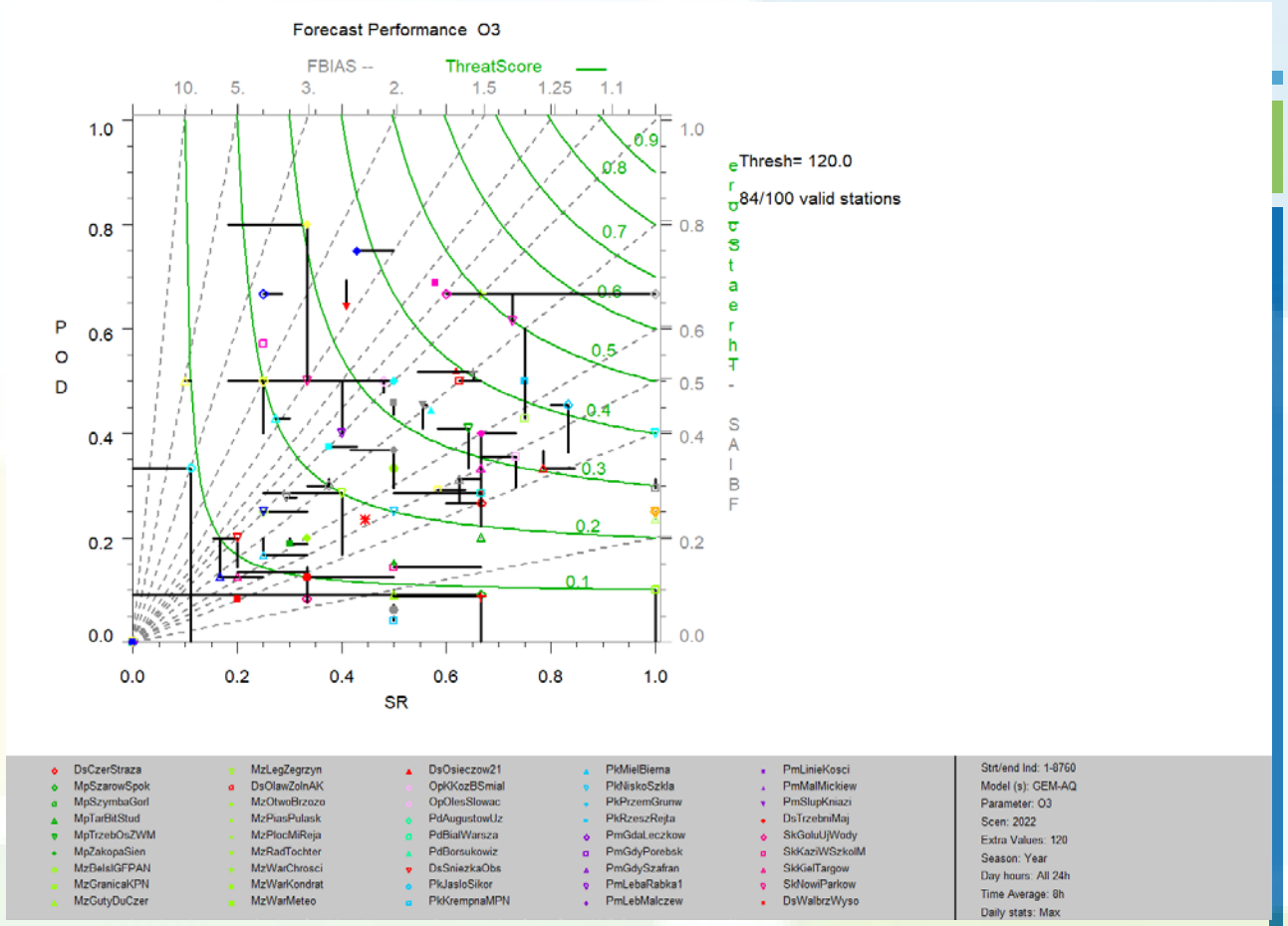
05.10.2023

Practical use of Deltatool application for forecast

- Mainly internal – identification of problematic regions, stations with worst/best scores
- Contribution to Fairmode discussion, development of unified tool and methods
- For now it could be too early to use delta tool in forecast mode in reporting



Plots – tests and analysis - internal

Useful and understandable:

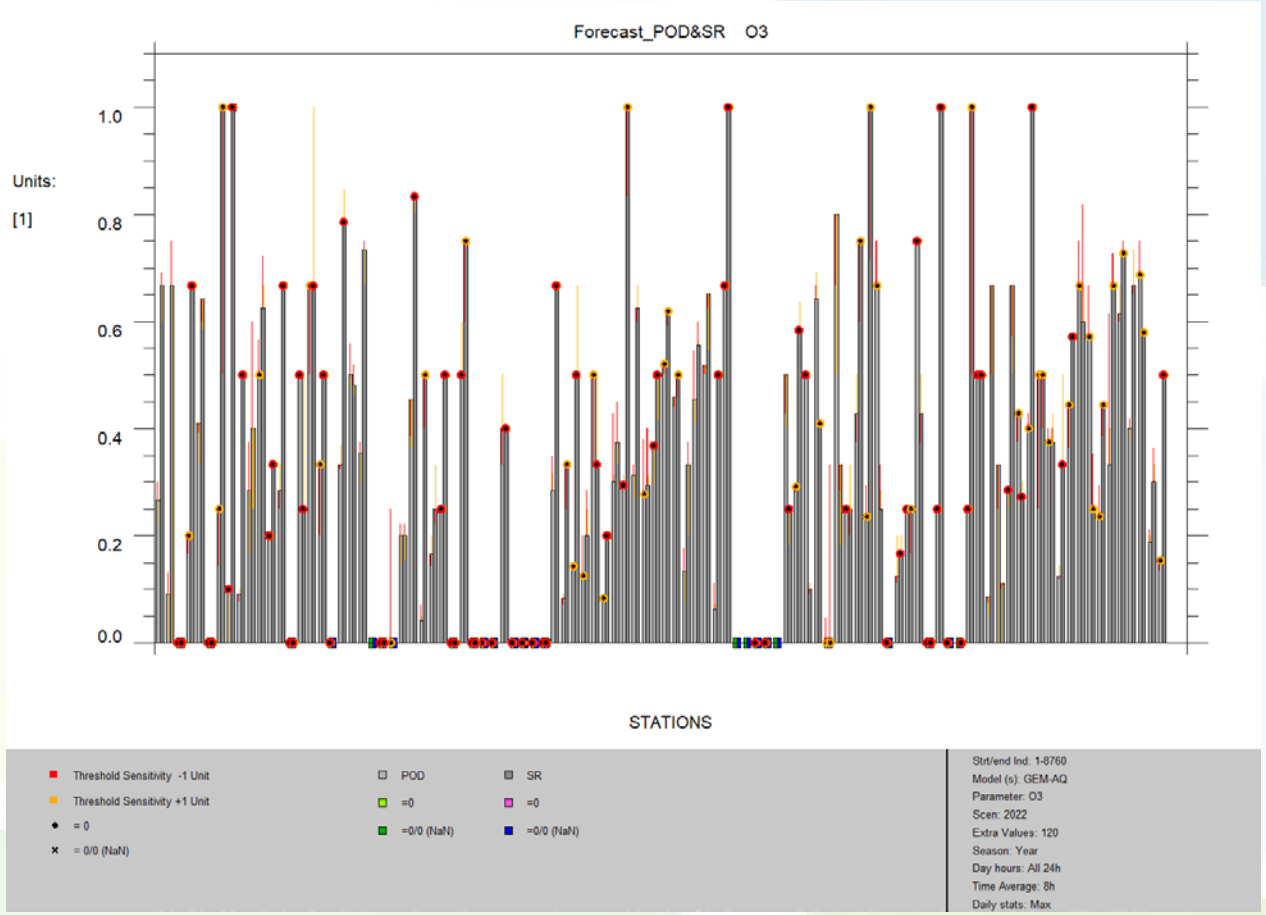
- Barplots for forecast – POD, SR
- Target, MPI
- Summary plot and csv file

Useful but hard to explain:

- Forecast performance, normalized performance

Less useful, still interesting:

- Barplot Accuracy
- Forecast AQI



Stakeholders usefulness

Understandable:

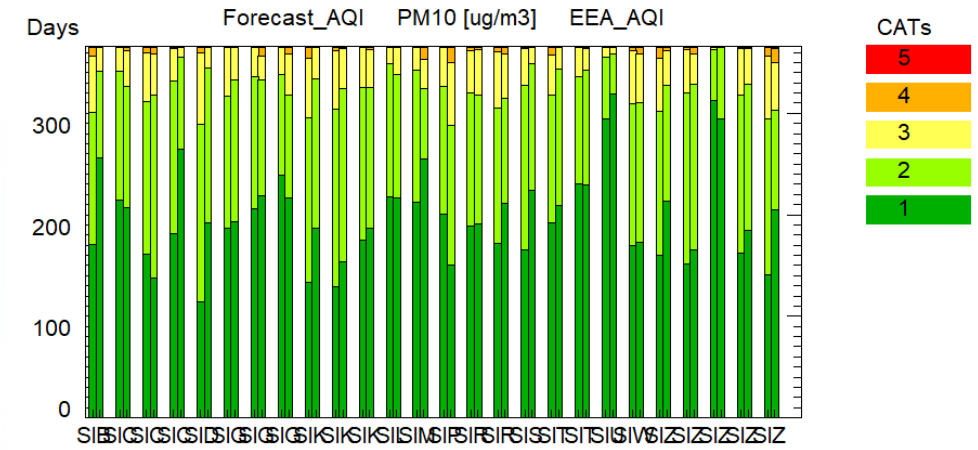
- Forecast AQI
- Target

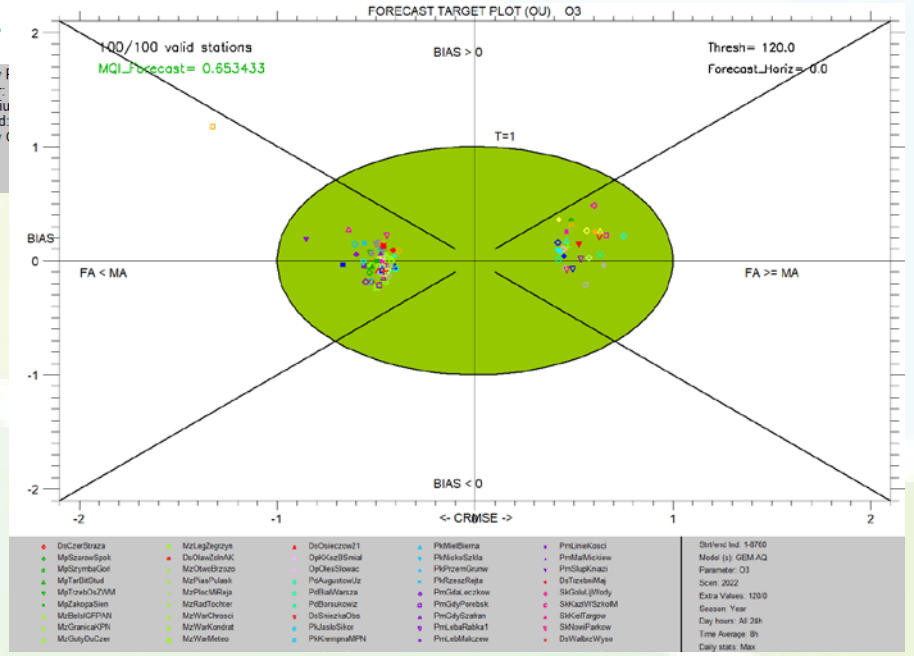
Undesrtandable after some guidance:

- Barplots

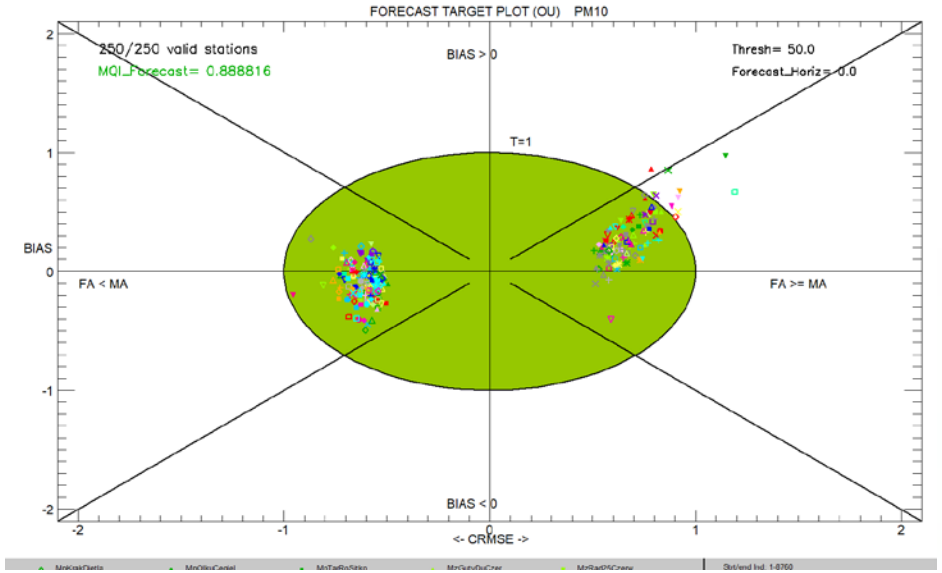
Black Magic:

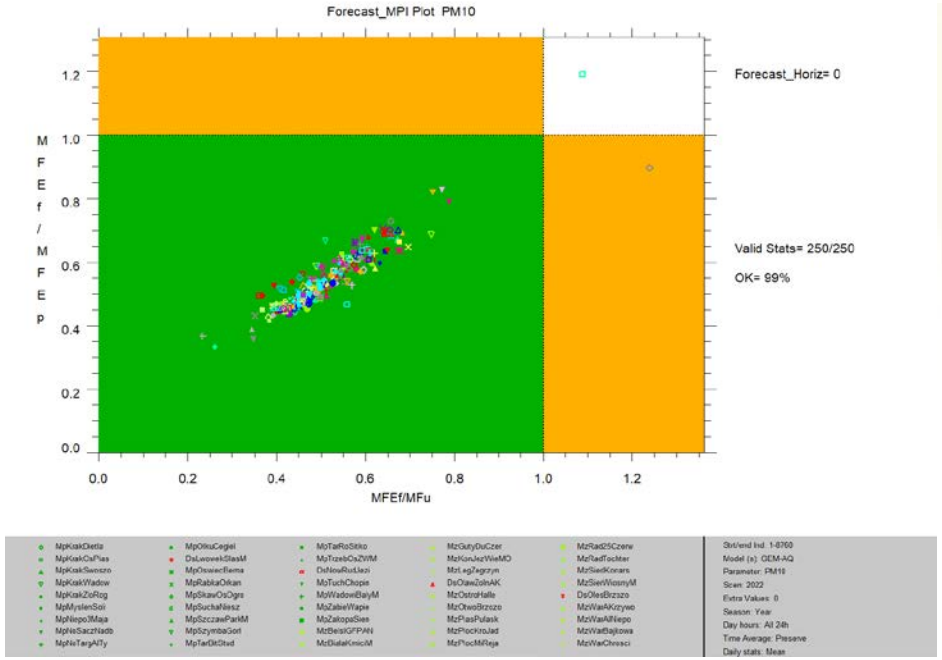
- Forecast performance plots

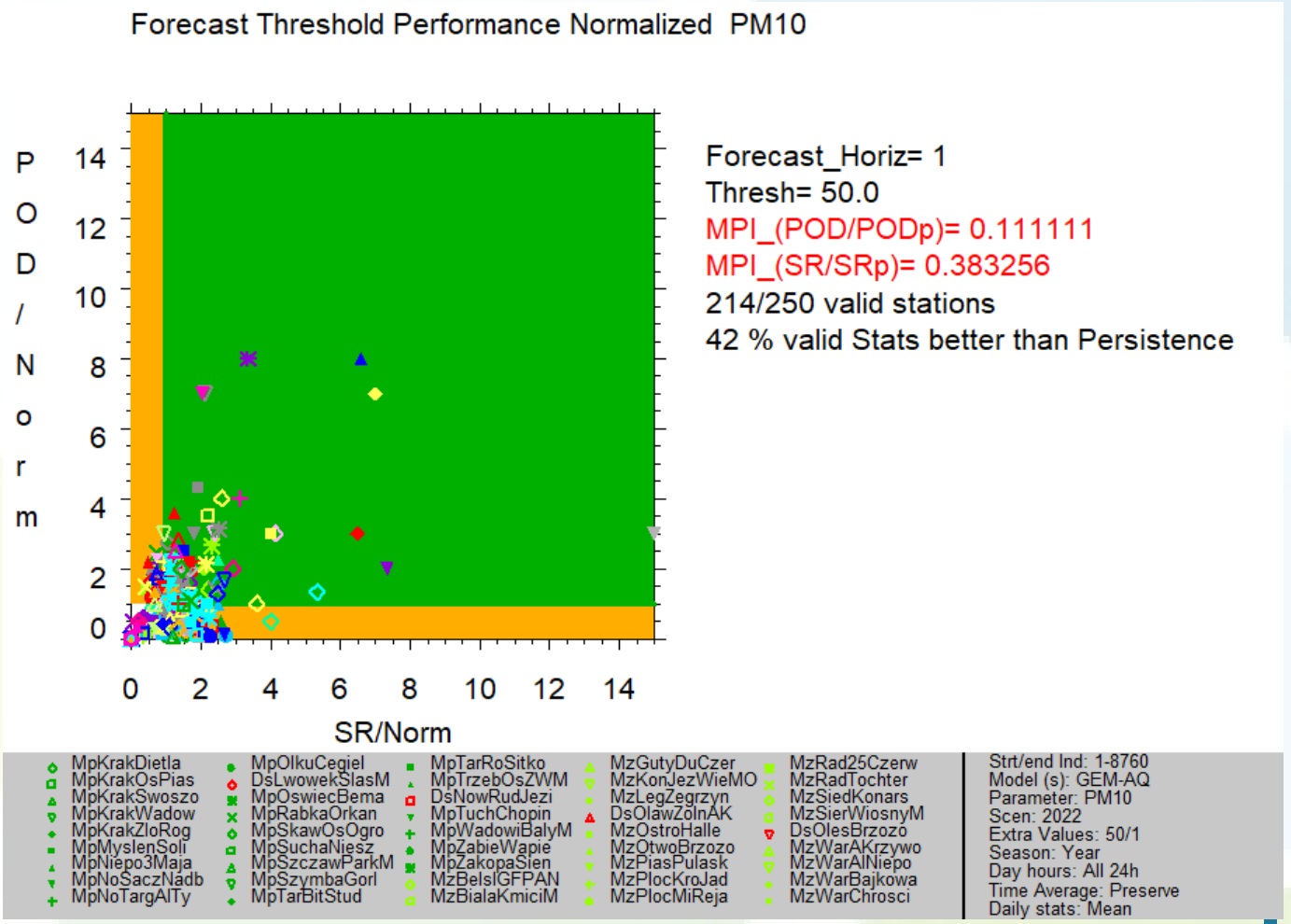




Good model – bad episode predictibility ?



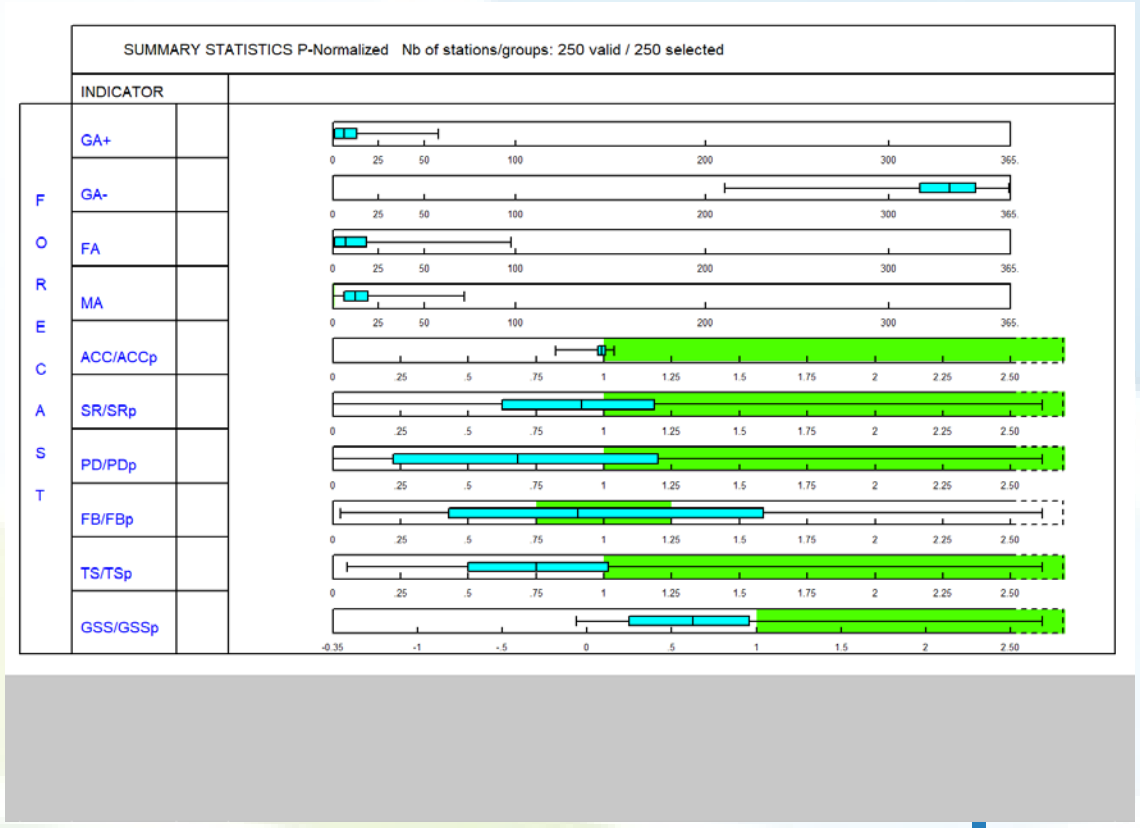




How to interpret/explain this to stakeholders/authorities?
What could be our goal/statement here?

Conclusions

- Delta tool forecast plots and indicators are usefull for users, and have a big potential as a source for evaluation diagnostic
- Some of the plots could be beneficiary for stakeholders, some of the plots are rather too complicated in this case
- Have we come to the point to approve that used methodologies and indicators are „fit for the purpose” of evaluating air quality forecasts?
- If so, how we can proceed with the intepretation of all plots? What can we say when the model is „good”, but episode predictibility is not so well?
- What could be the target for episodes predictiblity? Is model have to be better than persistance for all stations?



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Thank You!

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