

FAIRMODE pilot MAŁOPOLSKA / POLAND

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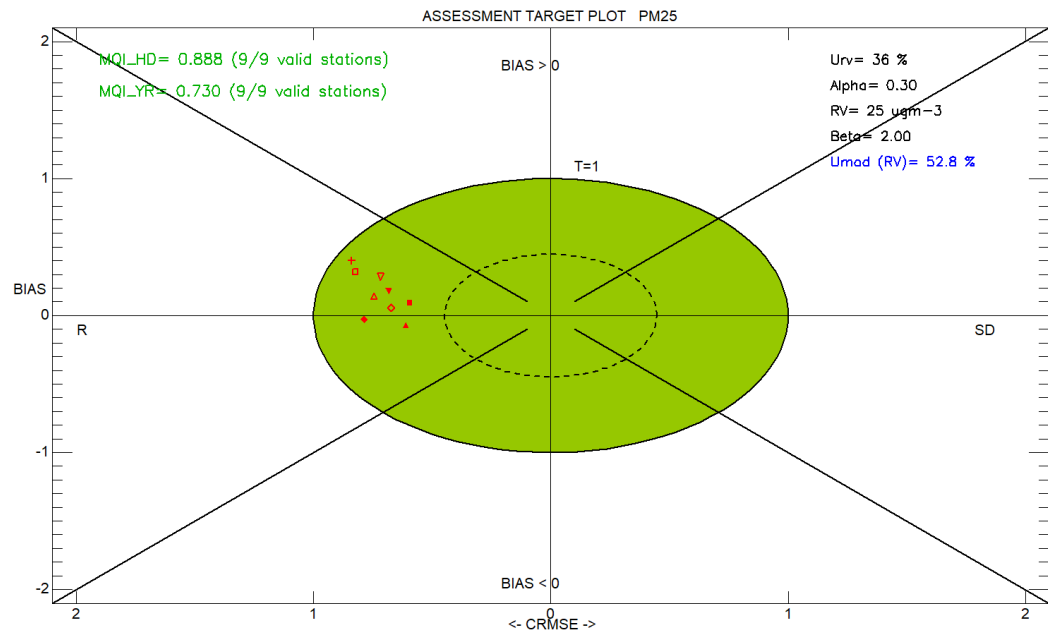
Air quality plans preparation

- In the Malopolska Region major problems relate to PM10 and PM2.5 concentrations.

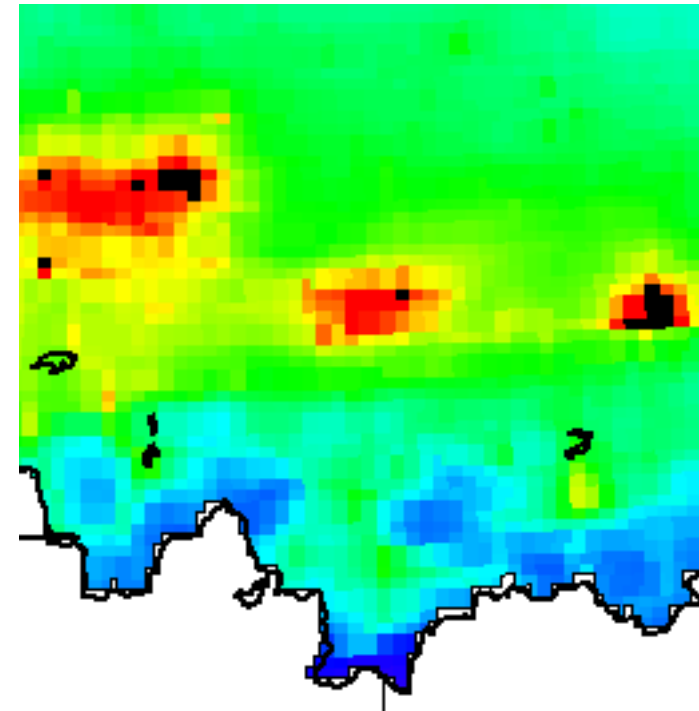
Malopolska Region – apart from the PilotRegion exercise is involved in many other projects such as Life-IP or previously prepared AQP. Answers to following questions refer to activities planned in the scope of the Pilot Exercise only

- **How do you identify the main sources of pollution in/to your domain?**
 - In terms of activity sectors – assessment is based on scenario analysis (several scenarios so far at 10km)
 - In terms of geographical sources – this is planned in the future on the country scale (impact of voivodships)
- **Which tool/approach do you use to identify sources? Are you aware of differences between “source apportionment” and “planning” approaches?**
 - Emission reduction scenarios
- **Do you perform any kind of “validation” of your results?**
 - Evaluation of the base run against observations to present the reliability of the model
 - Emission balance analysis





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Future projections and measures

- How do you project in the future the current concentrations? Do you perform 'business as usual' scenarios for the future? Using which tools?
- How do you select additional measures to be applied? How do you evaluate impacts and costs of additional measures?
- The estimation of future emissions in Poland is not done in a coherent way, yet. There are separate strategies prepared by different ministries, not coordinated at the central level and not well reported.
- An attempt has been made to summarize activities/emissions projections in the scope of **NATIONAL AIR POLLUTION CONTROL PROGRAMME (IN THE CONTEXT OF THE NEC DIRECTIVE)**
- There are plans for some changes to the legislation (first step – reporting on activities and projections)



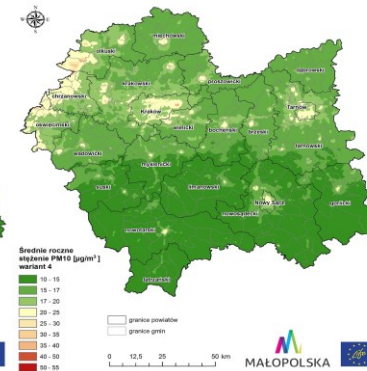
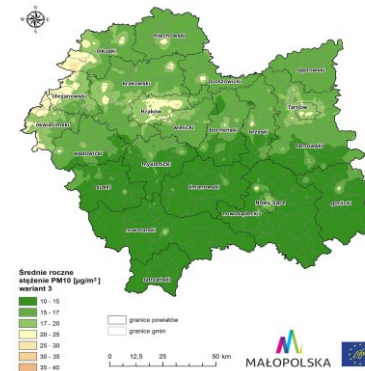
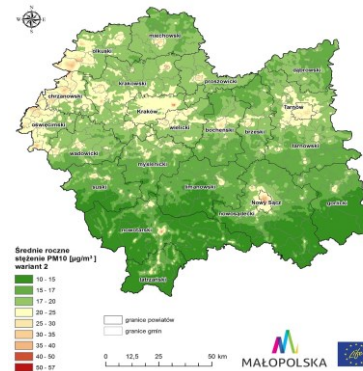
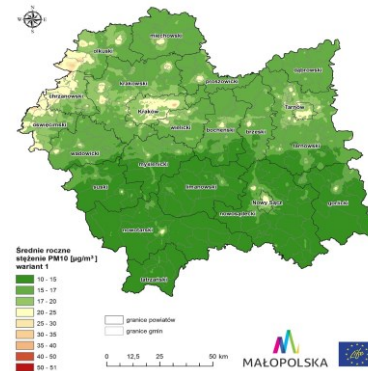
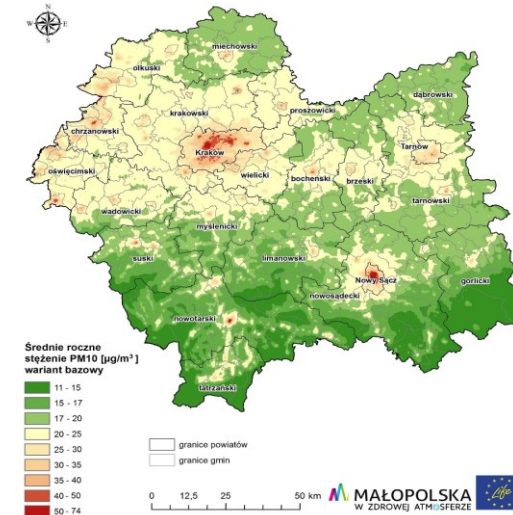
Uncertainty and governance

- **Do you evaluate uncertainties of your results? How?**
 - Up to now AQP were prepared and treated separately without evaluation at the national level
 - Changes in the legislation concerning AQP are being prepared (evaluation at the national level)
 - In the case of exceedances over a large part of the country – there is a requirement in the current legislation to prepare a National Air Quality Plan
- **Do you coordinate the air quality plan with other policies? i.e. National air pollution control programmes (NEC directive)? Covenant of Mayors? Mobility plans?**
 - Simulation for NEC reduction showed significant contribution from transboundary transport AQP not coordinated with other policies (up to now), relatively weak impact on exceedances
 - **NATIONAL AIR POLLUTION CONTROL PROGRAMMES – BASED ON POLICIES AND AQP**



AQ Improvement Plan for Malopolska

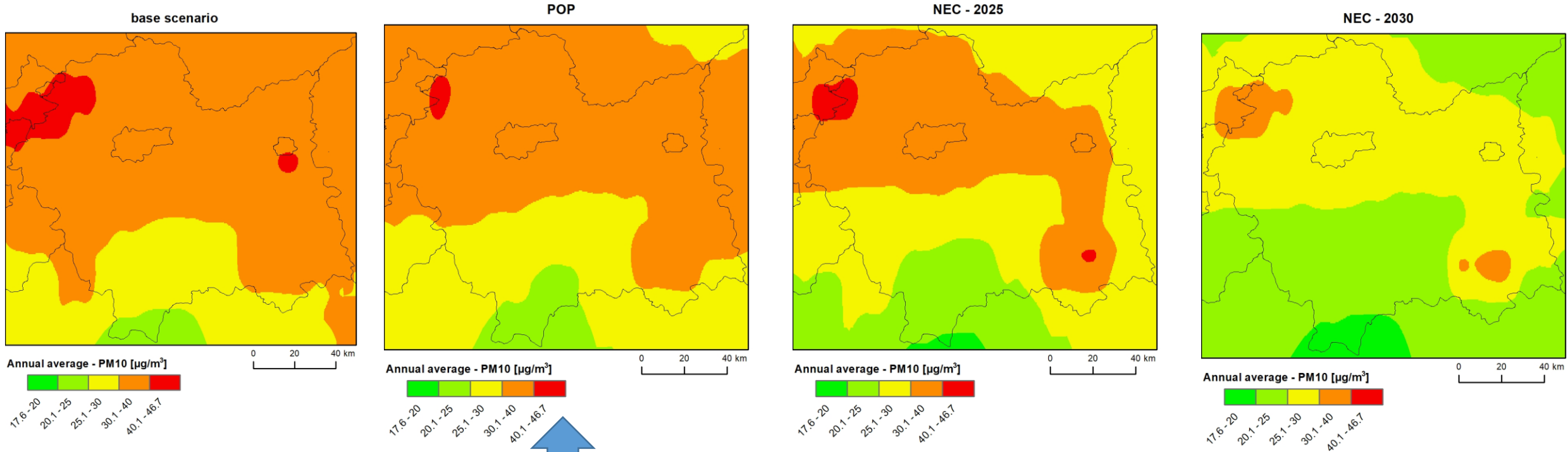
- Atmoterm S.A.
- 5 scenarios (2023)
- CALPUFF model



But ... how about contribution from sources from surrounding regions ?



AQP – country scale based on emission reduction assumptions



Based on AQP prepared for all voivdships
No reduction in EU assumed

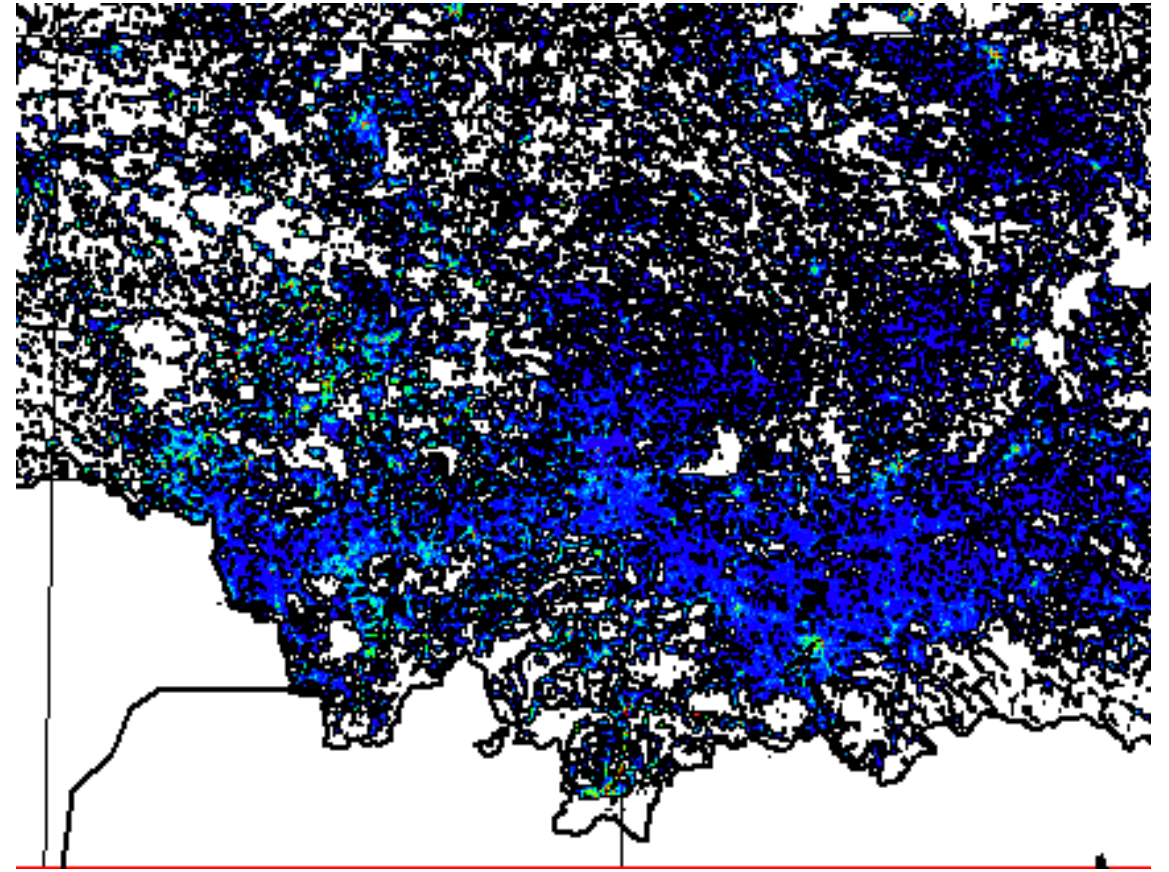
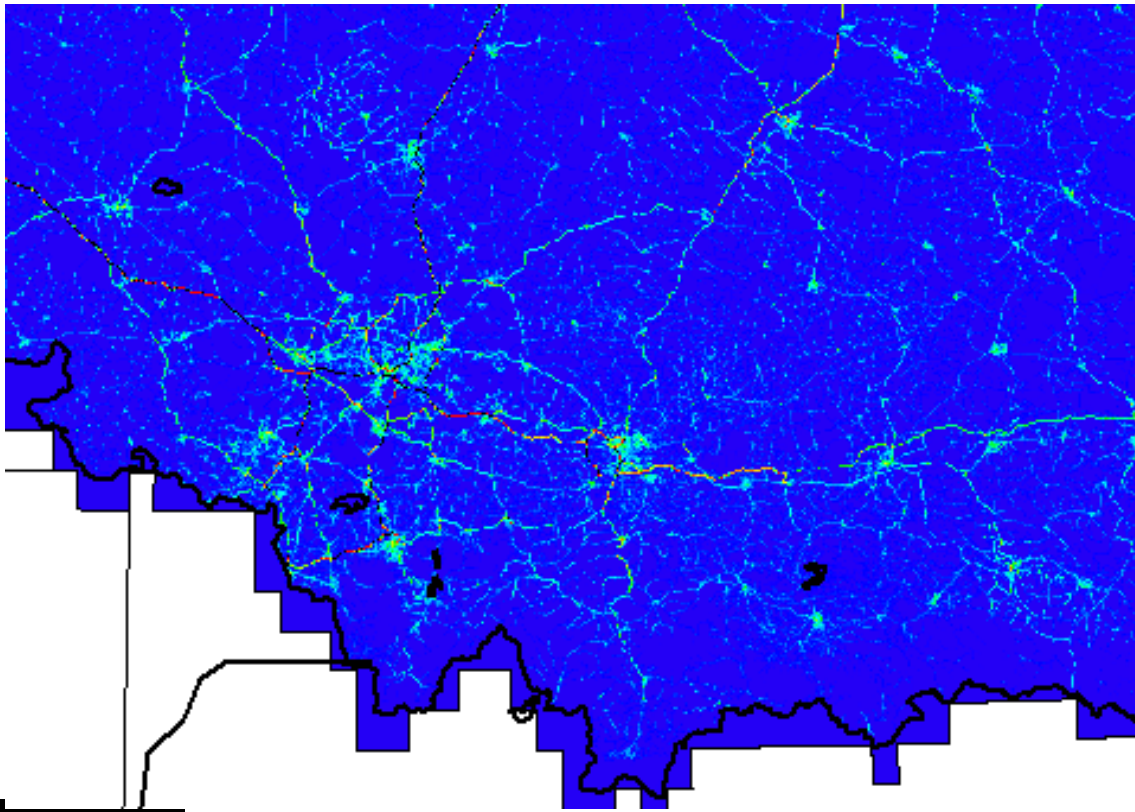


FAIRMODE tools

- Are you aware / are you using the source apportionment (SA) and planning FAIRMODE tools/resources?
 - DeltaSA tool → NO
 - SPECIEUROPE database → NO
 - Dynamic indicators in the delta tool → NO
 - SHERPA → PLANNED
- If yes, explain how
 - Sensitivity scenarios will be calculated to run SHERPA
- If no, explain why
 - Receptor oriented approach → spatial distribution of sources too complex in the region



Emission pattern (S7 and S2 without industry and agriculture)



Summary

- Legislation changes related to AQ modelling
 - Centralised approach for the assessment and national AQP – already in place
 - AQP – in preparation
- Pilot exercise for Malopolska → lessons learned for the country scale analysis
- New high resolution BU emission inventory – ongoing calculations for 2018 assessment → starting point for further analysis with SA and planning tools

