Supplementary Material: Aerosol optical properties over Europe: an evaluation of the AQMEII Phase 3 simulations against satellite observations

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Figure S1. Number of occurrences in the AOD retrievals.

Figure S2. Number of occurrences in the AE retrievals.

Figure S3. AOD evaluation results of the whole year (2010). Columns from left to right: MBE, MAE and Determination coefficient. First row: satellite values; and from second row to the bottom: FI1_HTAP, FI1_MACC, ES1_MACC, IT1_MACC, IT2_M-ARI, IT2_M-ARI+ACI and ENSEMBLE.

Figure S4. Idem as S3 but for the AE evaluation results. From second row to the bottom: FI1_HTAP, ES1_MACC, IT1_MACC, IT2_M-ARI+ACI and ENSEMBLE.

Figure S5. The MBE results of standard deviation of AOD at 550nm satellite values vs. simulations. Columns from left to right, temporal mean of: whole year (2010), winter (JFM), spring (AMJ), summer (JAS) and autumn (OND). First row: satellite values; and from second row to the bottom, the MBE values of: FI1_HTAP, FI1_MACC, ES1_MACC, IT1_MACC, IT2_M-ARI, IT2_M-ARI+ACI and ENSEMBLE.

Figure S6. Idem as S5 but for the MAE results.

Figure S7. The MBE results of standard deviation of AE between 550 and 860nm satellite values vs. simulations. Columns from left to right, temporal mean of: whole year (2010), winter (JFM), spring (AMJ), summer (JAS) and autumn (OND). First row: satellite values; and from second row to the bottom, the MBE values of: FI1_HTAP, ES1_MACC, IT1_MACC, IT2_M-ARI+ACI and ENSEMBLE.

Figure S8. Idem as S7 but for the MAE results.

Figure S9. Figure from Im et al. (2015): Standard annual PM_{2.5} emissions in Europe and North America overlaid with monitoring stations in the sub-regions (the red circles show EU1/NA1, yellow diamonds show EU2/NA2 and green squares show EU3/NA3)

References

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