Interactive comment on “Particle number concentrations over Europe in 2030: the role of emissions and new particle formation” by L. Ahlm et al.

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Why was the year 2030 specifically chosen? Would not a year-to-year trend up to say 2030 be more informative? Do the authors seriously envisage submitting a follow-up paper in 18-20 years time to indicate whether their predictions were within reasonable agreement with reality or not?! That may seem a pedantic question but unless it happens, what true value are such distant predictions?

I’m sure that the model is state-of-the-art but with all the inherent assumptions and uncertainties and presumably untreated factors (i.e. secondary inorganic particle formation, background scavenging and the effects of a whole host of organics and other species not treated which may participate in particle formation and growth) can the predictions of such a singular and specific parameter as total particle number over Europe realistically be claimed to be valid? In reality, this parameter must be highly variable from day-to-day – does the model capture such innate variability?

Interactive comment on Atmos. Chem. Phys. Discuss., 13, 8769, 2013.