

Figure S1. Comparison of modelled  $PM_{2.5}$  (27 km resolution) with measurements at Harwell (UK) in January 2006.

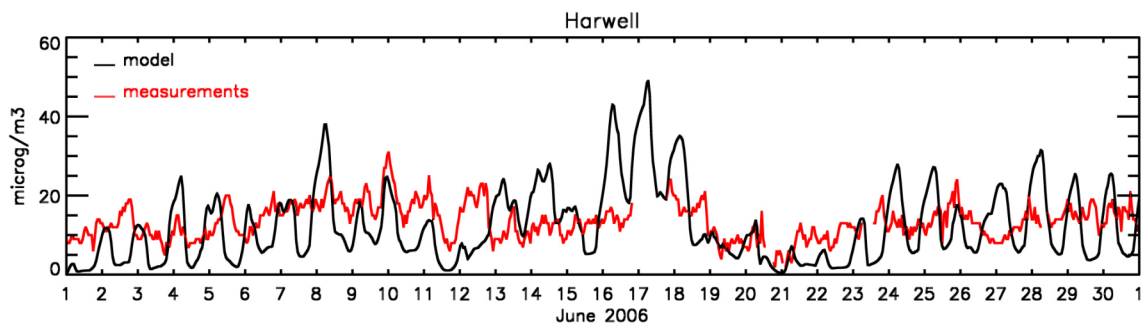


Figure S2. Comparison of modelled  $PM_{2.5}$  (27 km resolution) with measurements at Harwell (UK) in June 2006.

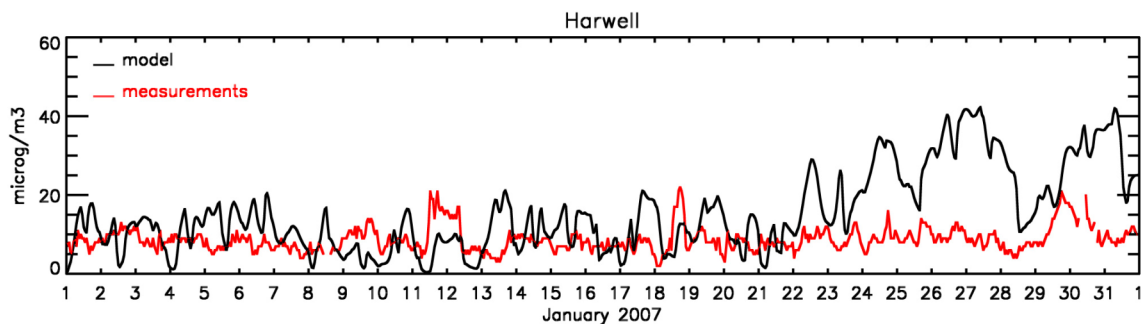


Figure S3. Comparison of modelled  $PM_{2.5}$  (27 km resolution) with measurements at Harwell (UK) in January 2007.

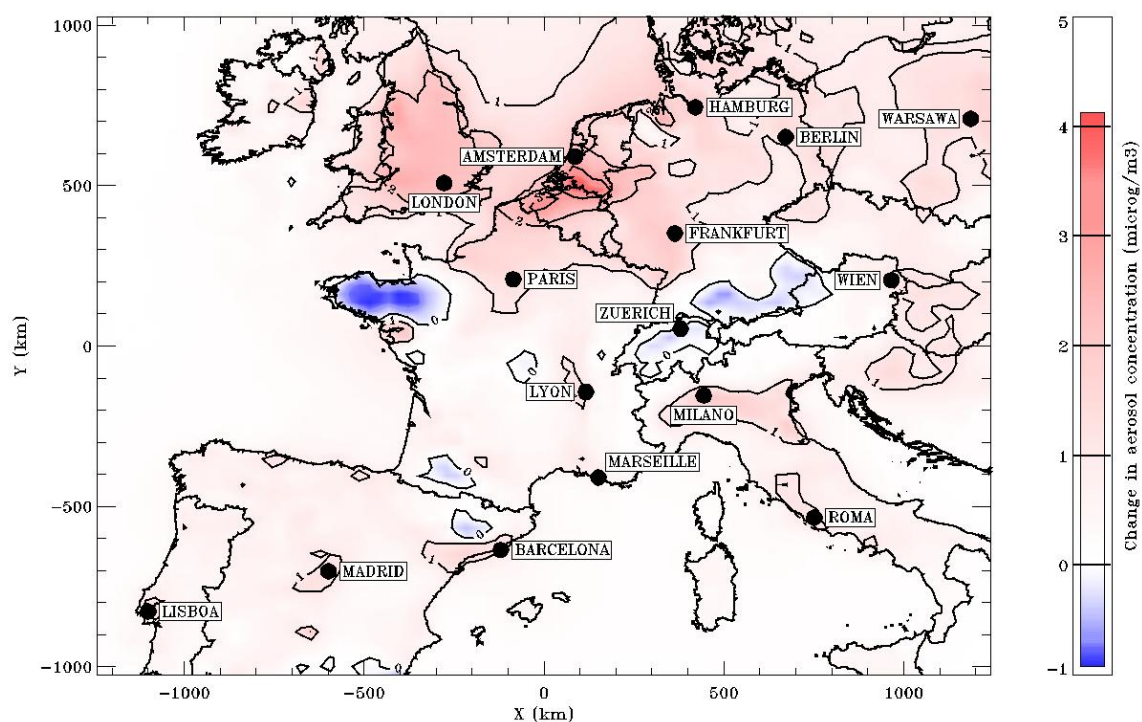


Figure S4. Difference in monthly average aerosol concentration ( $\mu\text{g m}^{-3}$ ) between two simulations with a 15% emission reduction of either  $\text{NO}_x$  or  $\text{NH}_3$  in January 2006 for the European domain. Aerosol formation is more sensitive to  $\text{NO}_x$  emissions in blue regions and more sensitive to  $\text{NH}_3$  emissions in red regions.

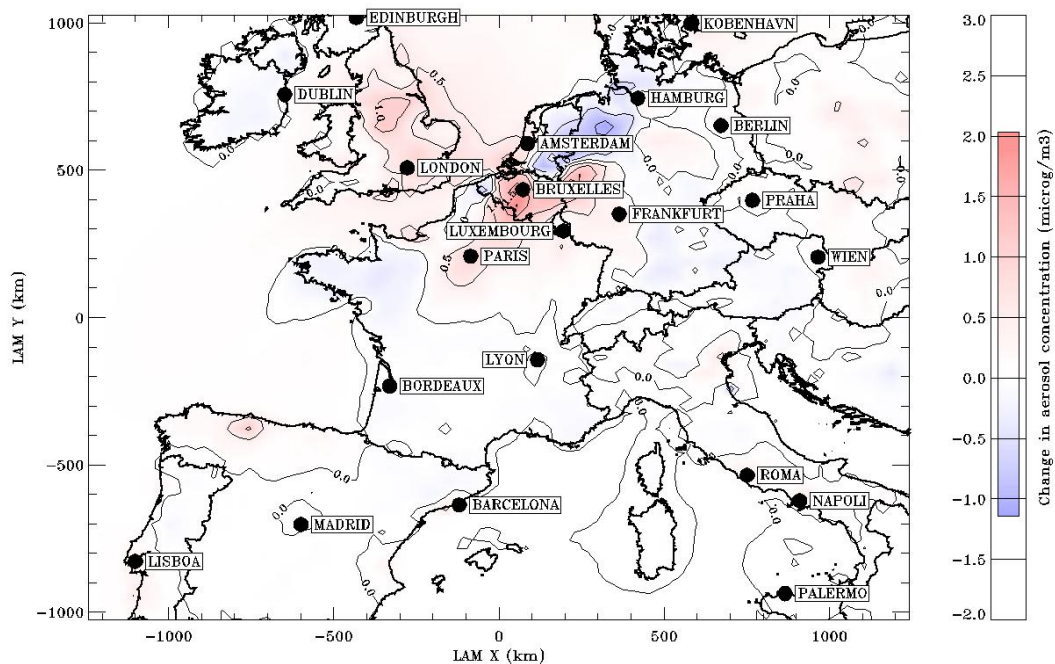


Figure S5. Difference in monthly average aerosol concentration ( $\mu\text{g m}^{-3}$ ) between two simulations with a 15% emission reduction of either  $\text{NO}_x$  or  $\text{NH}_3$  in June 2006 for the European domain. Aerosol formation is more sensitive to  $\text{NO}_x$  emissions in blue regions and more sensitive to  $\text{NH}_3$  emissions in red regions.