



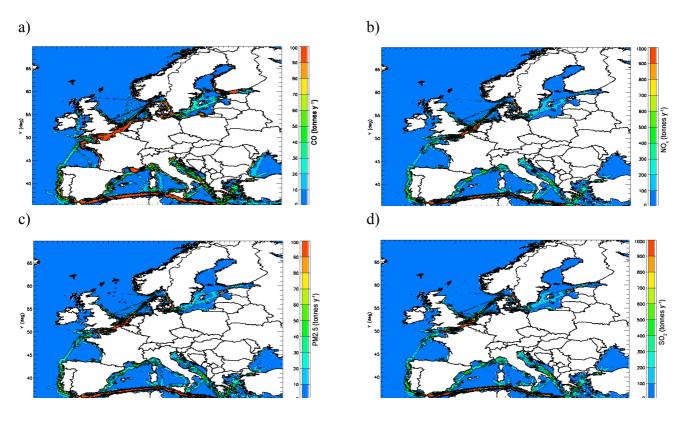
## Supplement of

## Contribution of ship emissions to the concentration and deposition of air pollutants in Europe

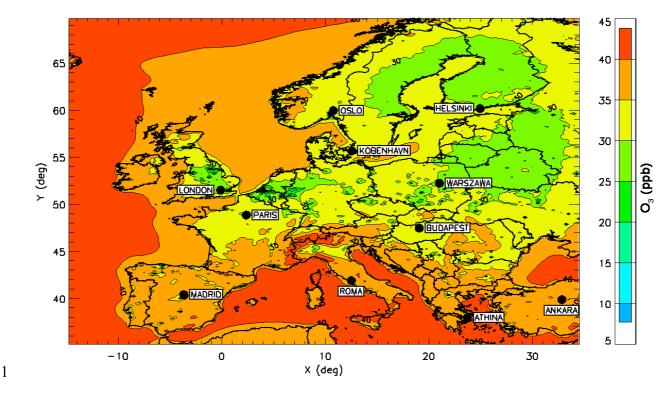
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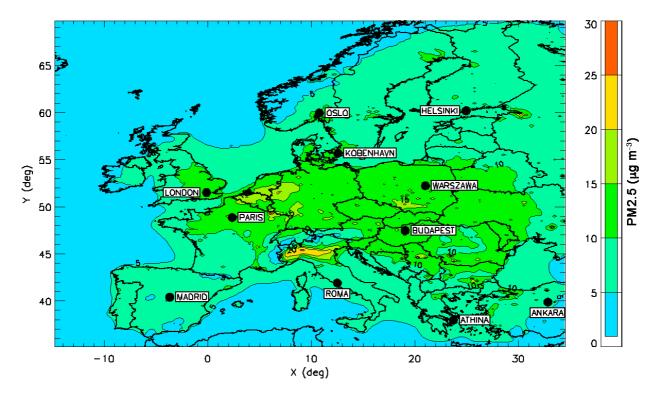
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3 Fig. S1. Annual ship emissions in 2006 a) CO, b)  $NO_x$ , c)  $PM_{2.5}$ , d)  $SO_2$  (tonnes y<sup>-1</sup>)



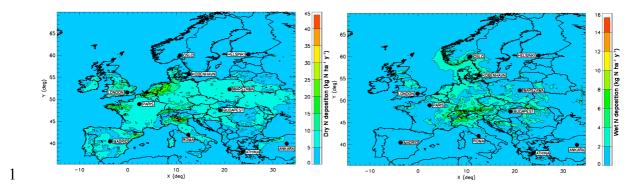
2 Fig. S2. Annual mean surface O<sub>3</sub> mixing ratio (ppb) in 2006 (without ships).



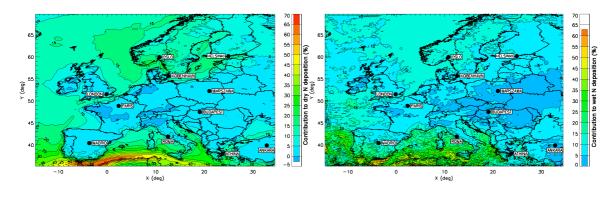


4 Fig. S3. Annual mean  $PM_{2.5}$  concentration ( $\mu g m^{-3}$ ) in 2006 (without ships).

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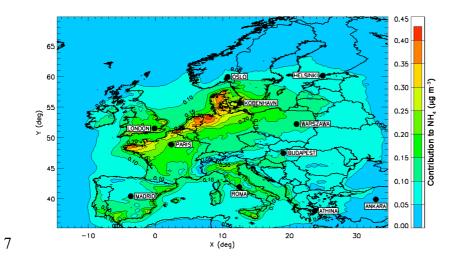
2 Fig. S4. Dry (left) and wet (right) nitrogen deposition (kg N ha<sup>-1</sup> y<sup>-1</sup>) in 2006 (without ships).



4 Fig. S5. Contribution of ship emissions to dry (left) and wet (right) nitrogen deposition in
5 2006 (%).

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8 Fig. S6. Contribution of ship emissions to  $NH_4$  in 2006 (µg m<sup>-3</sup>).

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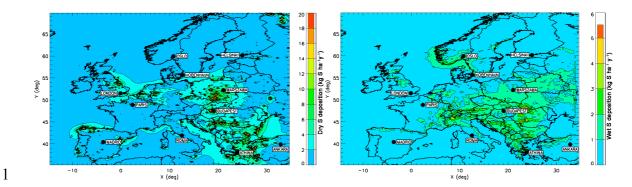
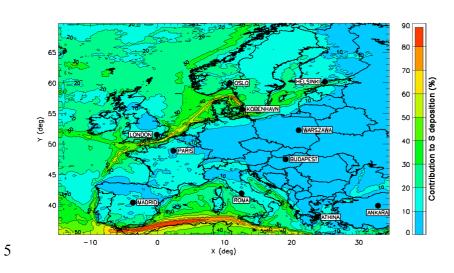


Fig. S7. Dry (left) and wet (right) S deposition (kg S ha<sup>-1</sup> y<sup>-1</sup>) in 2006 (without ships). Note
that the actual scale for dry deposition (left) is ten times higher.

4



6 Fig. S8. Contribution of ship emissions to S deposition in 2006 (%).

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