Figure S1: Timeseries display mean values of all stations in the respective region and the mean value of each model in this region in the grid cells of the stations.
Figure S2: Time series with daily mean values of NO₂ for 2015 in panel “west”. (a) = CAMx, (b) = CHIMERE, (c) = CMAQ, (d) = EMEP, (e) = LOTOS-EUROS. Dashed grey line = measured data, colored lines = modelled data, grey line = modelled ship contribution. Correlation between modelled and measured data for hourly total emission data for 2015: CAMx: R = 0.23, CHIMERE: R = 0.25, CMAQ: R = 0.2, EMEP: R = 0.23, LOTOS-EUROS: R = 0.26.
Figure S3: Time series with daily mean values of O₃ for 2015 in panel “west”. (a) = CAMx, (b) = CHIMERE, (c) = CMAQ, (d) = EMEP, (e) = LOTOS-EUROS. Dashed grey line = measured data, colored lines = modelled data, grey line = modelled ship contribution. Correlation between modelled and measured data for hourly total emission data for 2015: CAMx R = 0.57, CHIMERE R = 0.60, CMAQ: R = 0.58, EMEP: R = 0.23, LOTOS-EUROS: R = 0.65.
Figure S4: Time series with daily mean values of NO₂ for 2015 in panel “south”. (a) = CAMx, (b) = CHIMERE, (c) = CMAQ, (d) = EMEP, (e) = LOTOS-EUROS. Dashed grey line = measured data, colored lines = modelled data, grey line = modelled ship contribution. Correlation between modelled and measured data for hourly total emission data for 2015: CAMx: \( R = 0.20 \), CHIMERE: \( R = 0.26 \), CMAQ: \( R = 0.15 \), EMEP: \( R = 0.24 \), LOTOS-EUROS: \( R = 0.22 \).
Figure S5: Time series with daily mean values of O₃ for 2015 in panel “south”. (a) = CAMx, (b) = CHIMERE, (c) = CMAQ, (d) = EMEP, (e) = LOTOS-EUROS. Dashed grey line = measured data, colored lines = modelled data, grey line = modelled ship contribution. Correlation between modelled and measured data for hourly total emission data for 2015: CAMx: R = 0.47, CHIMERE: R = 0.56, CMAQ: R = 0.44, EMEP: R = 0.52, LOTOS-EUROS: R = 0.53.

Shipₐ = 0.6 µg/m³  Ship_r = 0.6 %
Shipₐ = 5.2 µg/m³  Ship_r = 5.8 %
Shipₐ = 1.0 µg/m³  Ship_r = 1.0 %
Shipₐ = 4.7 µg/m³  Ship_r = 4.8 %
Shipₐ = 4.4 µg/m³  Ship_r = 5.9 %
Shipₐ = 4.4 µg/m³  Ship_r = 5.9 %
Figure S6: Time series with daily mean values of NO₂ for 2015 in panel “east”. (a) = CAMx, (b) = CHIMERE, (c) = CMAQ, (d) = EMEP, (e) = LOTOS-EUROS. Dashed grey line = measured data, colored lines = modelled data, grey line = modelled ship contribution. Correlation between modelled and measured data for hourly total emission data for 2015:
CAMx: R = 0.16, CHIMERE: R = 0.22, CMAQ: R = 0.22, EMEP: R = 0.27, LOTOS-EUROS: R = 0.23.
Figure S7: Time series with daily mean values of O₃ for 2015 in panel “east”. (a) = CAMx, (b) = CHIMERE, (c) = CMAQ, (d) = EMEP, (e) = LOTOS-EUROS. Dashed grey line = measured data, colored lines = modelled data, grey line = modelled ship contribution. Correlation between modelled and measured data for hourly total emission data for 2015: CAMx: R = 0.35, CHIMERE: R = 0.46, CMAQ: R = 0.37, EMEP: R = 0.47, LOTOS-EUROS: R = 0.53.
Figure S8: Time series with daily mean values of NO$_2$ for 2015 in panel “north”. (a) = CAMx, (b) = CHIMERE, (c) = CMAQ, (d) = EMEP, (e) = LOTOS-EUROS. Dashed grey line = measured data, colored lines = modelled data, grey line = modelled ship contribution. Correlation between modelled and measured data for hourly total emission data for 2015: CAMx: $R = 0.27$, CHIMERE: $R = 0.27$, CMAQ: $R = 0.34$, EMEP: $R = 0.36$, LOTOS-EUROS: $R = 0.26$. 

Ship$_a$ = 1.4 µg/m$^3$ Ship$_r$ = 15.3 %
Ship$_a$ = 0.7 µg/m$^3$ Ship$_r$ = 10.0 %
Ship$_a$ = 0.4 µg/m$^3$ Ship$_r$ = 5.1 %
Ship$_a$ = 0.7 µg/m$^3$ Ship$_r$ = 9.8 %
Ship$_a$ = 0.6 µg/m$^3$ Ship$_r$ = 18.5 %
Ship$_a$ = 0.5 µg/m$^3$ Ship$_r$ = 17.3 %
Ship$_a$ (z) = 0.5 µg/m$^3$ Ship$_r$ (z) = 17.3 %
Figure S9: Time series with daily mean values of O₃ for 2015 in panel “north”. (a) = CAMx, (b) = CHIMERE, (c) = CMAQ, (d) = EMEP, (e) = LOTOS-EUROS. Dashed grey line = measured data, colored lines = modelled data, grey line = modelled ship contribution. Correlation between modelled and measured data for hourly total emission data for 2015: CAMx: R = 0.62, CHIMERE: R = 0.70, CMAQ: R = 0.64, EMEP: R = 0.70, LOTOS-EUROS: R = 0.66.