Supplement information

Figure S1: Bar plots of monthly mean NH_3 total columns derived from IASI (panel a), total precipitation (panel b) and skin temperature (panel c) derived from ECMWF from March to August, plotted in different colors for the different years of measurements from 2008 to 2017.

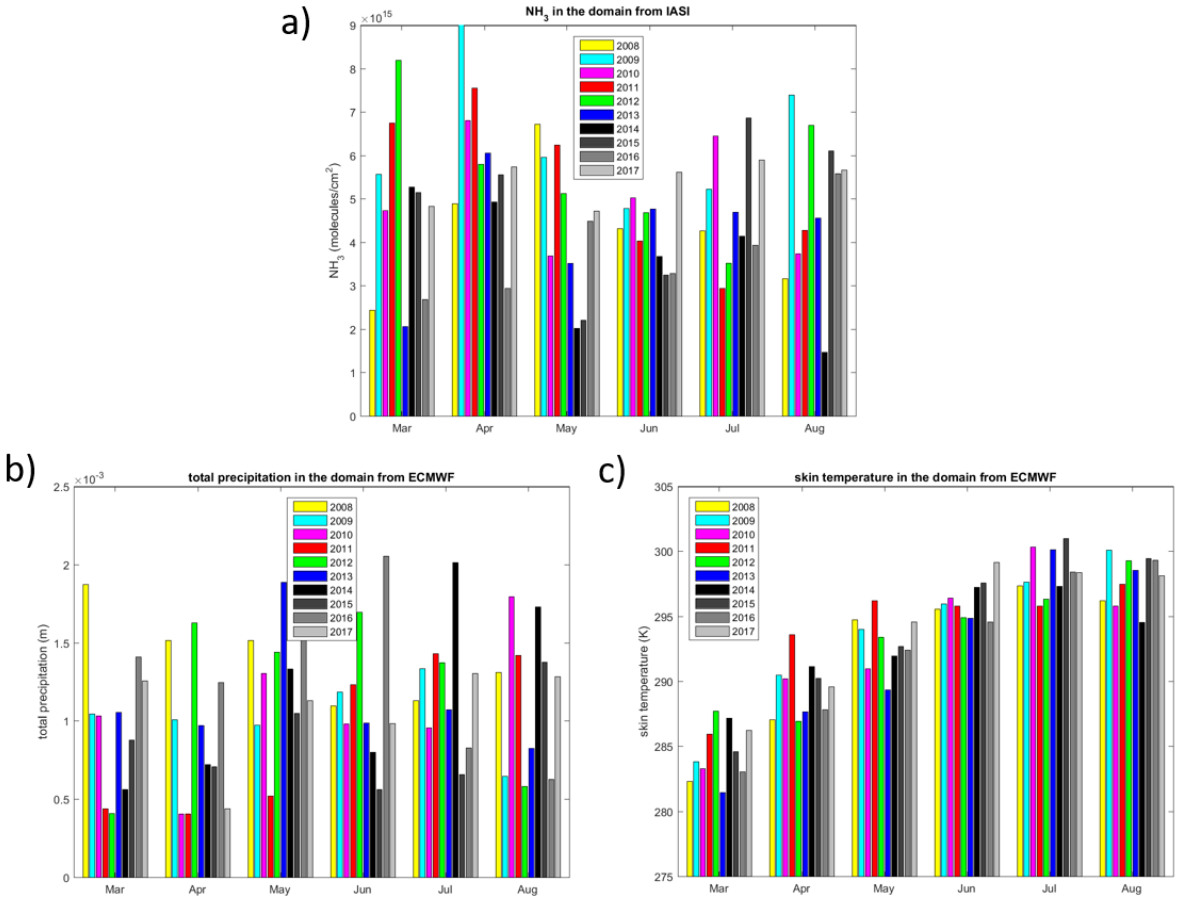

Figure S2: Difference (model - observations) between the standardized NH_3 columns derived from the satellite instruments (IASI - left panels, and CrIS - right panels) and the corresponding NH_3 columns derived from the CHIMERE model for March-April 2014 and 2015.

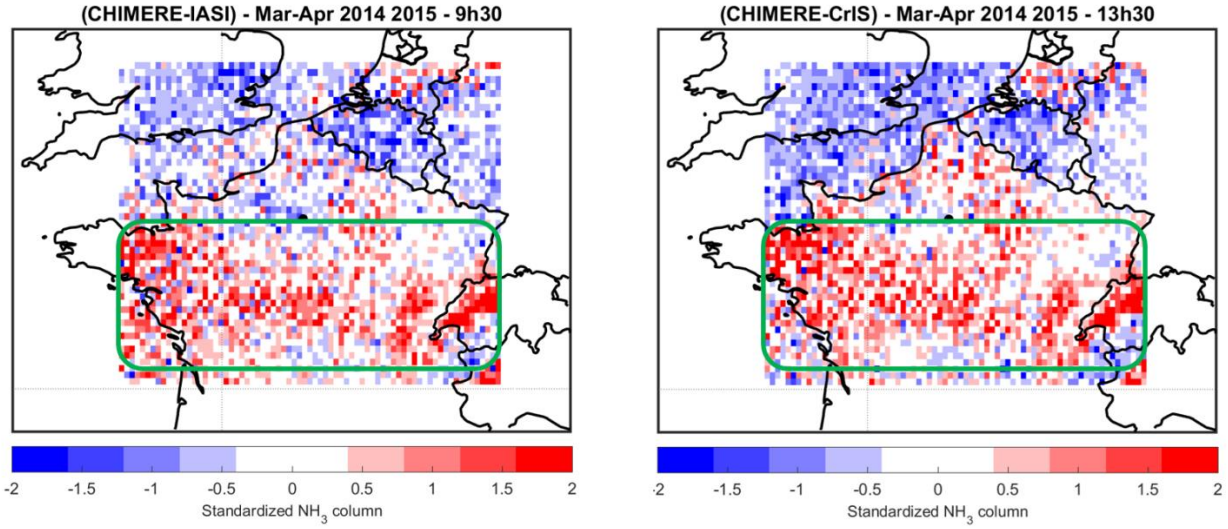
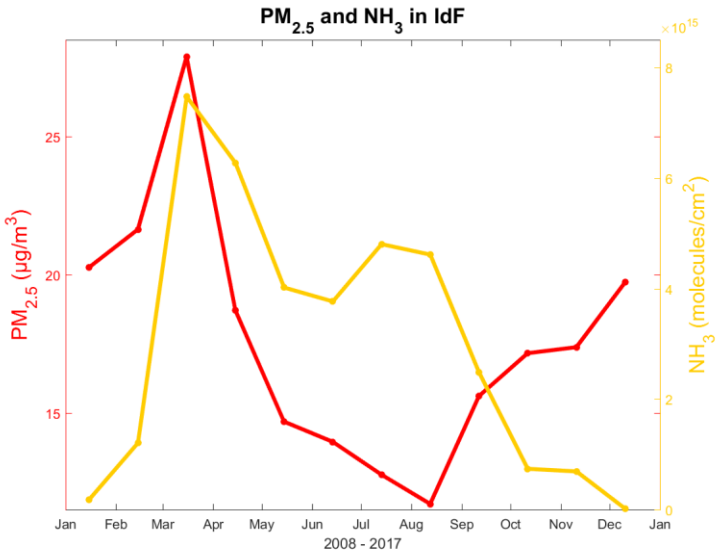
Figure S3: 10-years of monthly mean concentrations of NH_3 total columns derived from IASI in orange and $PM_{2.5}$ derived from the Airparif network in red from 2008 to 2017.