Figure S1 Concentrations of NH$_3$ obtained from DELTA and passive samplers, LOTOS-EUROS, and the QCL in μg N m$^{-3}$. NH$_3$ of the QCL and LOTOS-EUROS was averaged to the exposition period of the long-term sampling methods. Colors of the passive samplers indicate different exposition heights.

Figure S2 Differences in concentration between DELTA and LOTOS-EUROS for NO$_x$, NH$_3$, HNO$_3$, NH$_4^+$, and NO$_3^-$ in μg N m$^{-3}$ depicted as boxplots (box frame = 25 % to 75 % interquartile range (IQR), bold line = median, whisker = 1.5*IQR)). Colors indicate different N$_r$ compounds. Negative difference indicates overestimation by LOTOS-EUROS, positive difference underestimation.
Figure S3 LOTOS-EUROS concentrations of NO\textsubscript{x}, NH\textsubscript{3}, HNO\textsubscript{3}, NH\textsubscript{4}\textsuperscript{+}, and NO\textsubscript{3}\textsuperscript{-} in μg N m\textsuperscript{-3} for each season ((a), (b), (c), (d)) and the entire period (e) depicted as boxplots (box frame = 25 % to 75 % interquartile range (IQR), bold line = median, whisker = 1.5*IQR). Colors indicate different N\textsubscript{r} compounds. Numbers above whiskers show the relative contributions of each compound to ΣN\textsubscript{r} for the respective period. Values based on the average concentrations.
Figure S4 Deposition velocities of DEPAC-1D (purple) and LOTOS-EUROS (red) for NH$_3$, NO$_2$, NH$_4^+$, NO$_3^-$, NO, and HNO$_3$ in cm s$^{-1}$ as monthly boxplots (box frame = 25% to 75% interquartile range (IQR), bold line = median, whisker = 1.5*IQR).
Figure S5 Fluxes of DEPAC-1D (purple) and LOTOS-EUROS (red) for NH$_3$, NO$_2$, NH$_4^+$, NO$_3^-$, NO, and HNO$_3$ in ng N m$^{-2}$ s$^{-1}$ as monthly boxplots (box frame = 25% to 75% interquartile range (IQR), bold line = median, whisker = 1.5*IQR).
Figure S6 Comparison of LOTOS-EUROS (red) and measured (black) input data smoothed with a 30-day running average is applied to the input data for better visibility. The latter is applied to time series shown in the first row. In the second row, scatter plots of input data on half-hourly basis are shown for each input variable. Linear regressions are shown as black, solid lines, black, dashed lines represent 1:1 lines.
Figure S7 Mean diurnal cycles of $\Sigma N$ fluxes for DEPAC-1D (purple), LOTOS-EUROS with the actual land-use weighting (red), and TRANC (black) in ng N m$^{-3}$ s$^{-1}$ exemplarily shown for the year 2017. Shaded areas represent the standard error of the mean.
Figure S8 Difference between NH₃ concentration and its compensation point in μg N m⁻³ depicted as monthly boxplot for the entire measurement campaign (a). In panel (b), the distribution of the NH₃ compensation point is shown. Bin size is 0.05 μg N m⁻³.