B. How to compare overlapped NO_2 ground and tropospheric concentrations of each FUA?

B. 1) Join the results from A. 16) with the shapefile of monitoring stations of EEA Air Quality e-Reporting (e.g. with information of X & Y coordinates, annual mean NO_2 surface concentrations) using *Joins and Relates* → *Join Data*, and check *Sum* under *How do you want the attributes to be summarized?*

B. 2) Open the attribute table of the results form B. 1) and examine the column *Sum_Count_*, select all the rows having a *Sum_Count_* value higher than 0, and export them to a separate vector layer. This is the layer of annual mean tropospheric NO_2 columns overlapped with monitoring stations (i.e. the cells overlapped with at least 1 monitoring stations).

B. 3) Use a programming language (e.g. Python) to group the results of B. 2) by FUA names and calculate the mean of annual mean NO_2 columns of each FUA.

B. 4) Use a programming language (e.g. Python) to group the layer of monitoring stations by FUA names and calculate the mean of annual mean NO_2 ground concentrations of each FUA (no need to perform any spatial analysis in this step as each station must be covered by 1 cell of the NO_2 columns).

B. 5) Compare B. 3) and B 4) by regression.