



## **The use of satellite remote sensing of trace gases and aerosols to study megacities within CITYZEN**

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The urbanisation of human population has led to the growth of megacities and large conurbations in both the developed and more recently the developing world. Within the CITYZEN research project, the observations of nadir sounding instrumentation on satellite platforms in low earth orbit have been used to study selected tropospheric trace gases and aerosol. Specifically the early morning platform set of measurements from GOME-1 on ERS-2, SCIAMACHY on ENVISAT and GOME-2 on Metop A for trace gases and the SeaWiFS and MERIS on ENVISAT for aerosol have been used. The resultant tropospheric data products for trace gases and aerosol column amounts above selected megacities and conurbations around the globe and their changes have been investigated during the last 15 years. In this presentation a summary of the different results and our understanding of their significance will be presented.