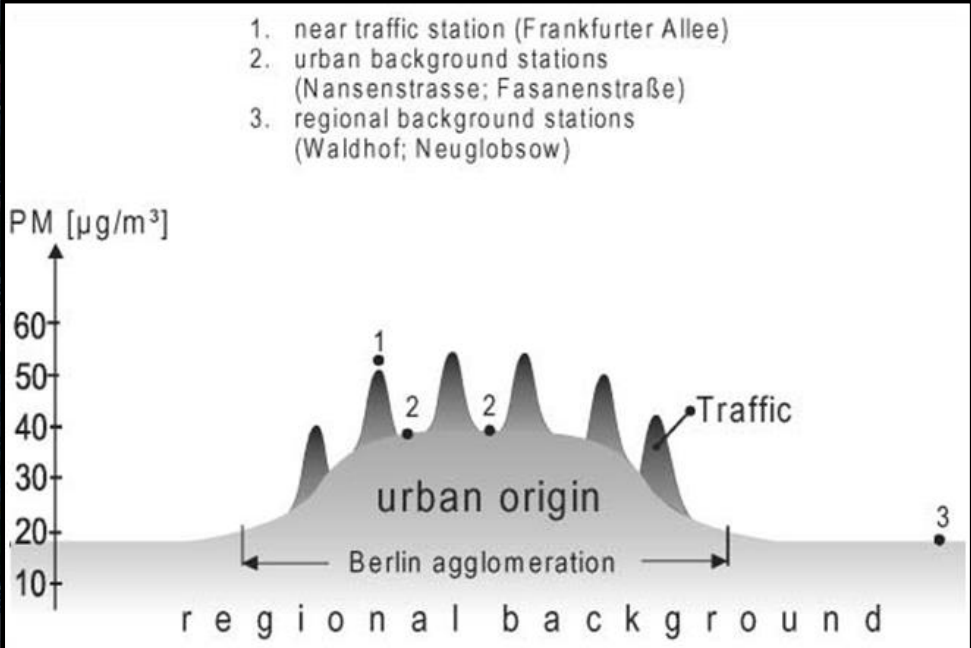
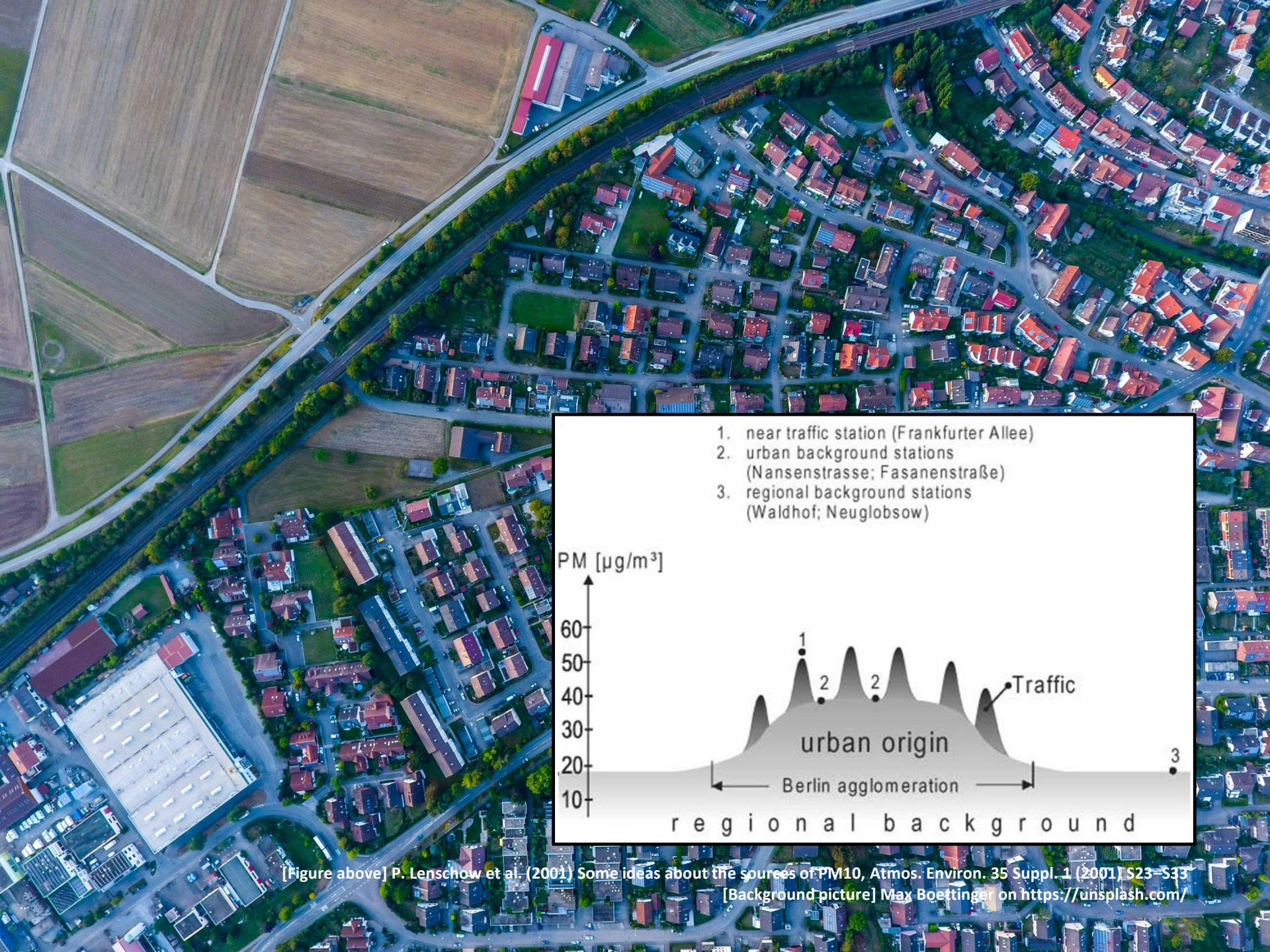


***An Antilope* to measure PM_{2.5} and NO₂ concentrations in Antwerp and in Wallonia**

F. Lenartz, D. Muck, N. Fernémont, V. Broun & S. Guichaux



[Figure above] P. Lenschow et al. (2001) Some ideas about the sources of PM₁₀, Atmos. Environ. 35 Suppl. 1 (2001) S23–S33
[Background picture] Max Boettinger on <https://unsplash.com/>



Technical specifications

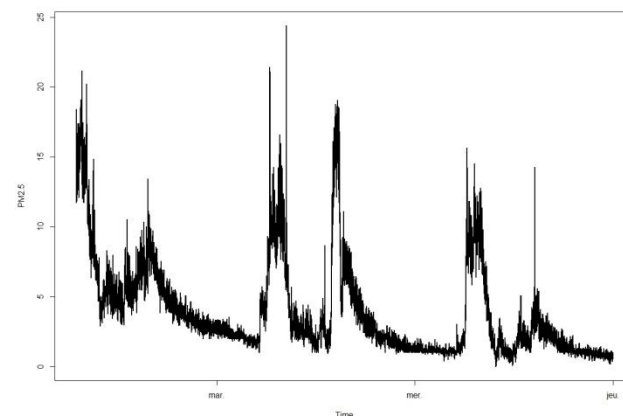
Parameters

- Temperature
- Relative humidity
- Atmospheric pressure
- $PM_{2.5}$
- NO
- NO_2
- O_3
- Location
- Acceleration

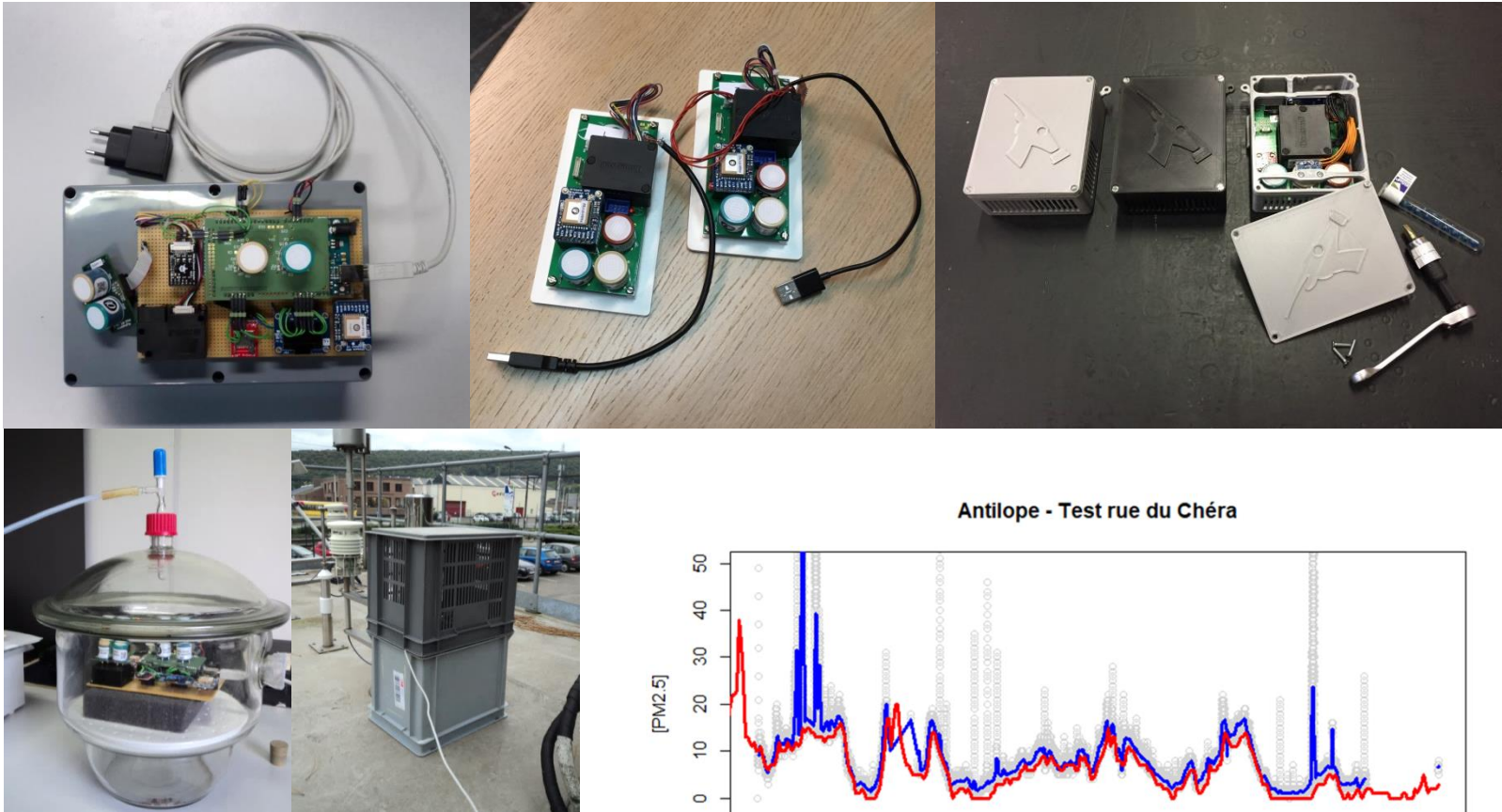
[Optionally : PM_{10} , CO, CO_2 , NH_3 , SO_2 , CH_4 , TVOC, \vec{E} , \vec{B} , LAeq, heart rate, etc.]

Other constraints

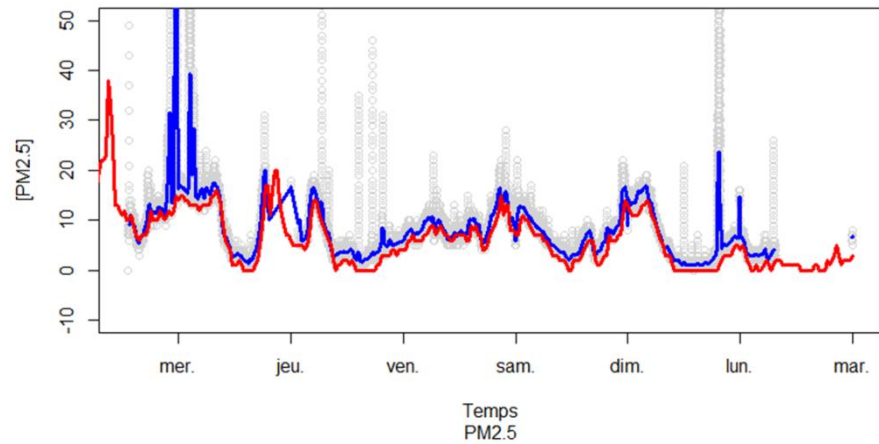
- Portable
- Low-cost
- High measurement and recording rates
- CSV-like output
- Battery capacity of at least 2h
- Mains supply



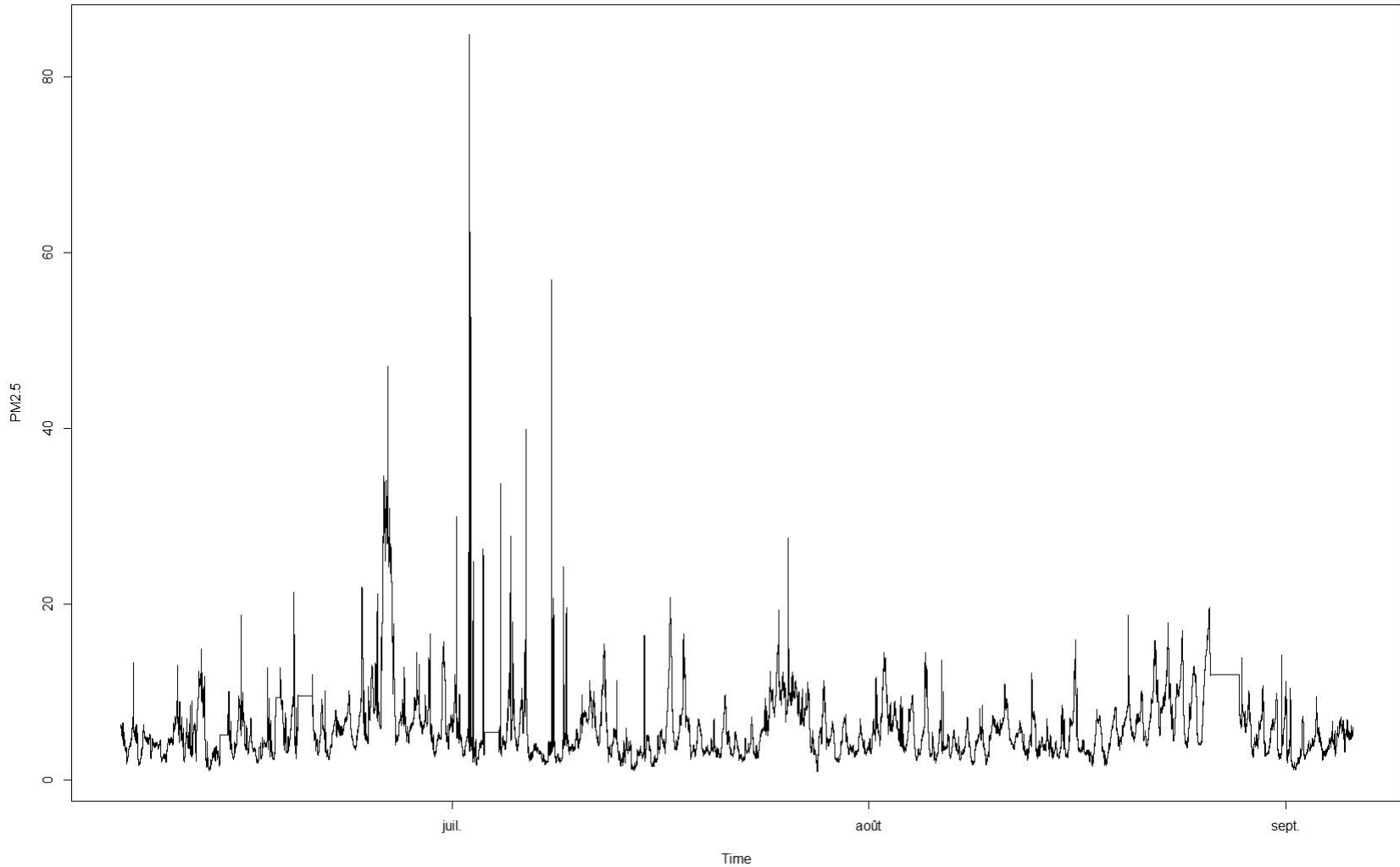
Birth and growth of an antelope



Antelope - Test rue du Chéra

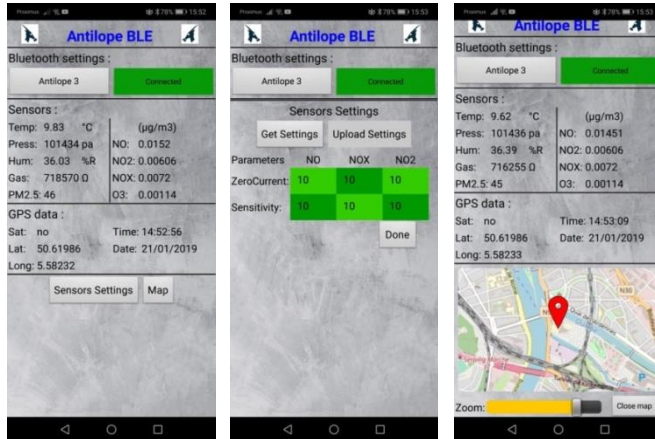


Long-term measurement campaign

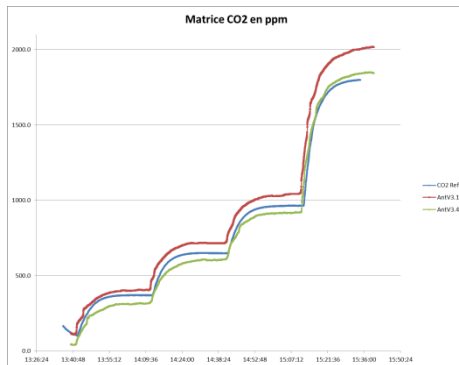


Latest developments and future projects

Bluetooth module and communication with an Android app



CO2 sensor



« Microcapteurs » project

One mini-station in every wallonian municipality and a denser network for the cities of Eupen and Namur



Comparative campaign in Wallonia

Estimating the impact of different electronics and casing with similar sensors