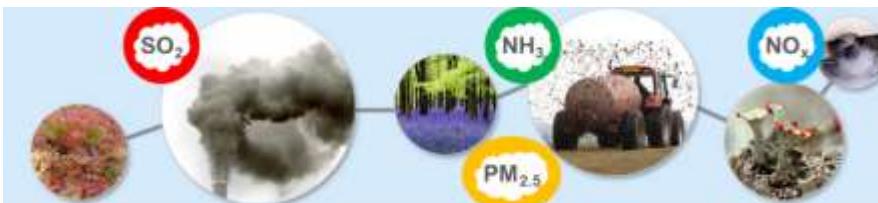


# DELTA-Mi: Miniaturised air sampling system with sensors

## SCOPING STUDY

To develop a compact, off-grid low-cost **DELTA-Mi** air sampling system for reactive gases and aerosols

## WHY?



Biodiversity loss

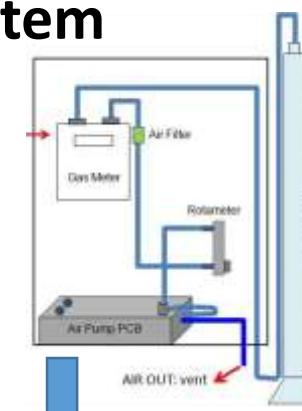
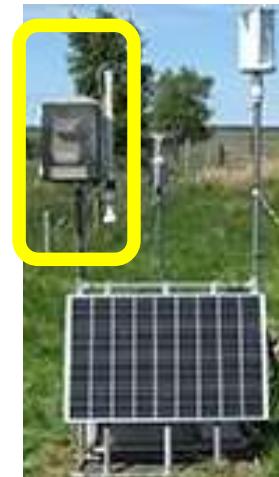
Human health

Climate change

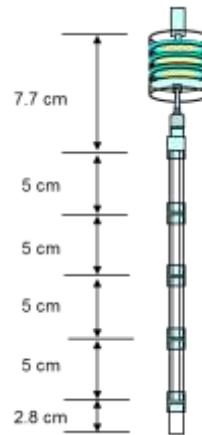
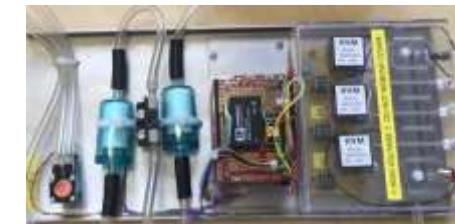
## BECAUSE

- Enable wider use, particularly low resource countries
- Increase measurement data
- Support clean air policies

## DELTA® System



DELTA-Mi



Mini-ANnular  
DENuder (MANDE)  
sampling trains

Gases:  $\text{NH}_3$ ,  $\text{HNO}_3$ ,  $\text{SO}_2$   
Aerosols:  $\text{NH}_4^+$ ,  $\text{NO}_3^-$ ,  
 $\text{SO}_4^{2-}$ ,  $\text{Cl}^-$ , base cations

“UAV-ready sensor”

- Flow sensing and telemetry
- Sensors: T, RH, P

## Collaborations

UKCEH

STFC

U. Coventry

## Expertise

Trace gas/aerosol research, method development

Miniaturisation, sensors (UAV sensor), spectroscopy

Sensor applications