



Agricultural GHG
emissions:
measurement &
monitoring

23 May 2023



scientific equipment for climate
research, industrial measurements
and air quality analysis

INTRO



scientific equipment for climate research, industrial measurements & air quality analysis



PICARRO



eosense



AIRLUX



IONICON



UGT
The Solutionists

When and why?

- Established in 2021
- Previously worked at Picarro (7 years)
- Provide full solution on product and service level

Where?

- United Kingdom & Ireland
(collaboration with Amiston for Picarro products)
- BeNeLux (Belgium, The Netherlands and Luxembourg)
- Nordics (Norway, Sweden, Finland, Denmark)



eosense

gas monitoring instruments &
automatic soil flux chambers

PRODUCTS SOLD

eosense



Automated Soil Flux Chamber



eosAC



eosAC-LO



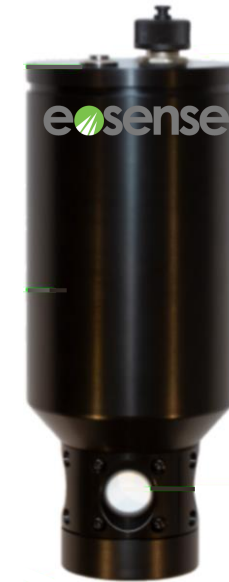
eosAC-LT

Recirculating multiplexer



eosMX

Soil CO₂ Flux Sensor



eosFD

eosAC AUTOMATED SOIL FLUX CHAMBER

eosense

THE DUTCH
SCIENTIST

Key features

- Designed for long-term, continuous deployment
- Low power, automated opening and closing
- Easy integration with ABB-LGR, Gaset and Picarro gas analyzers
- Up to 16 chambers can be connected to an analyzer via the eosMX
- Multiplexer not required for single chamber set up
- Data processing & flux calculation software included



eosAC-LT/LO AUTO. SOIL FLUX CHAMBER

eosense

THE DUTCH
SCIENTIST

Key features

- Designed for long-term, continuous deployment
- Large chamber footprint (diameter 52 cm)
- Transparent or opaque versions available
- Auxiliary sensor options
- Easy integration with ABB-LGR, Gaset and Picarro gas analyzers
- Up to 16 chambers can be connected to an analyzer via the eosMX
- Data processing & flux calculation software included



SNEAK PREVIEW

eosense



Scientific equipment for climate research, industrial measurements & air quality analysis

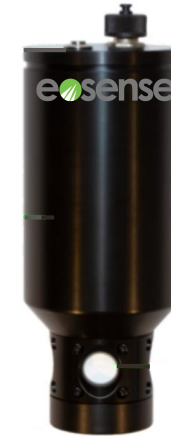
eosFD SOIL CO₂ FLUX SENSOR

eosense

THE DUTCH
SCIENTIST

Key features

- Forced Diffusion technology to measure soil gas flux directly with no external moving parts
- zero spatial constraints; deploy an array that spans meters to kilometers of spatial coverage
- high temporal resolution
- weather proof with built-in datalogger (frequency: 5 min. to 24 hours)
- light weight (1.6 kg) and low power consumption (peak < 3.7 W ; average < 1.6 W)



APPLICATIONS (I)

eosense



◀ Greenhouse gas emissions from agriculture plots



◀ Net Ecosystem Exchange (NEE) and soil respiration

Long term soil treatment plot manipulation study ▶



APPLICATIONS (II)



◀ Emissions from vegetation



▲ Chambers on crates with long collars measuring flooded agriculture soils



◀ Tree stem respiration

Chambers on garbage cans with soil

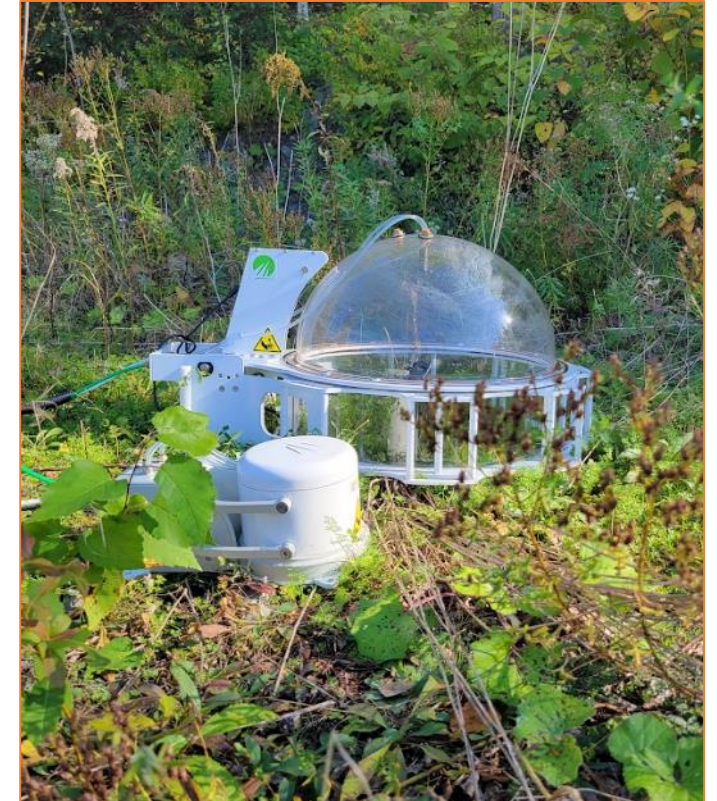
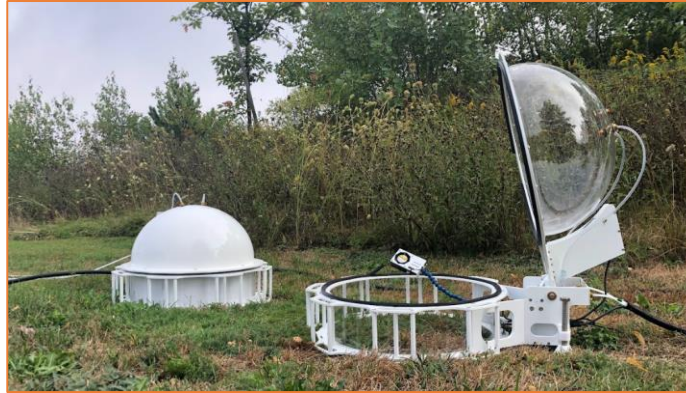


KEY DIFFERENTIATORS

eosense

THE DUTCH
SCIENTIST

- Flexible chamber designs
 - transparent and opaque options
 - chamber footprint size options
 - chamber height extension options
- Compatible with leading gas analyzers
- Data processing software included





**THE DUTCH
SCIENTIST**