



PICARRO

Providing Solutions to the
World's Most Challenging
Environmental Questions

Supporting Science Since 2002



GHG



Trace Gases



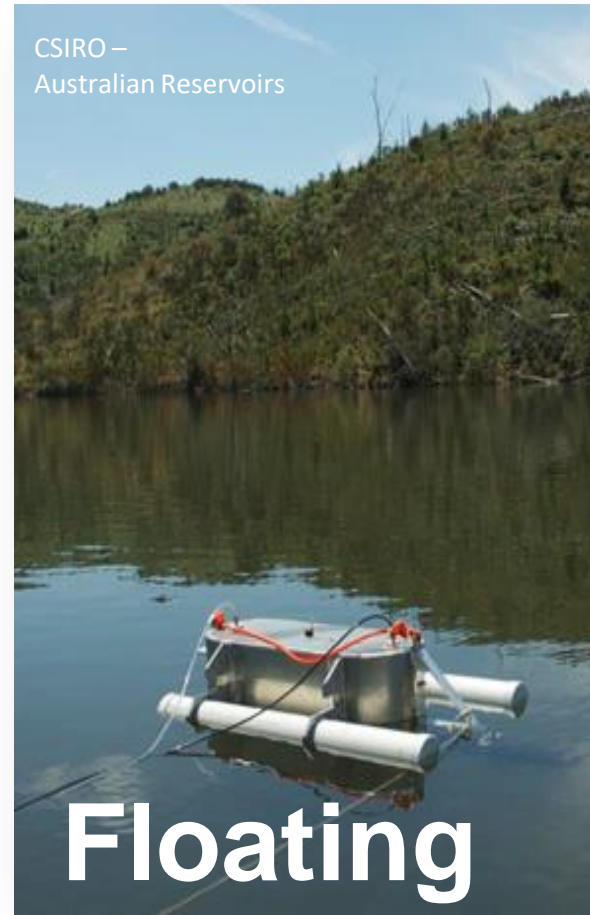
Stable Isotopes

WHO ARE WE?

- Over 45 patents owned by Picarro or exclusively licensed from Stanford University
- Global HQ, including R&D and manufacturing
- Thousands of Picarro instruments in 60+ countries world-wide



Flexible Research Options



Get out of the lab

...wherever your research takes you.

Cities



Ships



Laboratory



Forests



Winter



Deserts



Aircrafts



Mountains



Towers



Mules



Glaciers



Unravel the cycle of stable isotopes in soil



Completing the GHG budget

High-precision, real-time measurements of atmospheric nitrous oxide (N₂O)



Eco-system Fluxes

Ensuring annual CH_4 emissions & N_2O effluxes are correctly measured, including during inundation.



Soil Biology and Biochemistry

Characterize the properties of soils using a suite of isotopic analyzers and peripherals.

SEE PEER REVIEWED LITERATURE:

“Precise and accurate $\delta^{13}\text{C}$ analysis of rock samples using Flash Combustion–Cavity Ring Down Laser Spectroscopy”

David Balslev-Clausen,^{ab} Tais W. Dahl,^{ac} Nabil Saadd and Minik T. Rosinga - University of Copenhagen DENMARK*



Navigate the ocean

Air/sea gas exchange measurements



Arctic Water and Carbon Isotope Cycles from the USCG Icebreaker Healy:
Chukchi Sea, Alaska July 2016

Urban metabolism



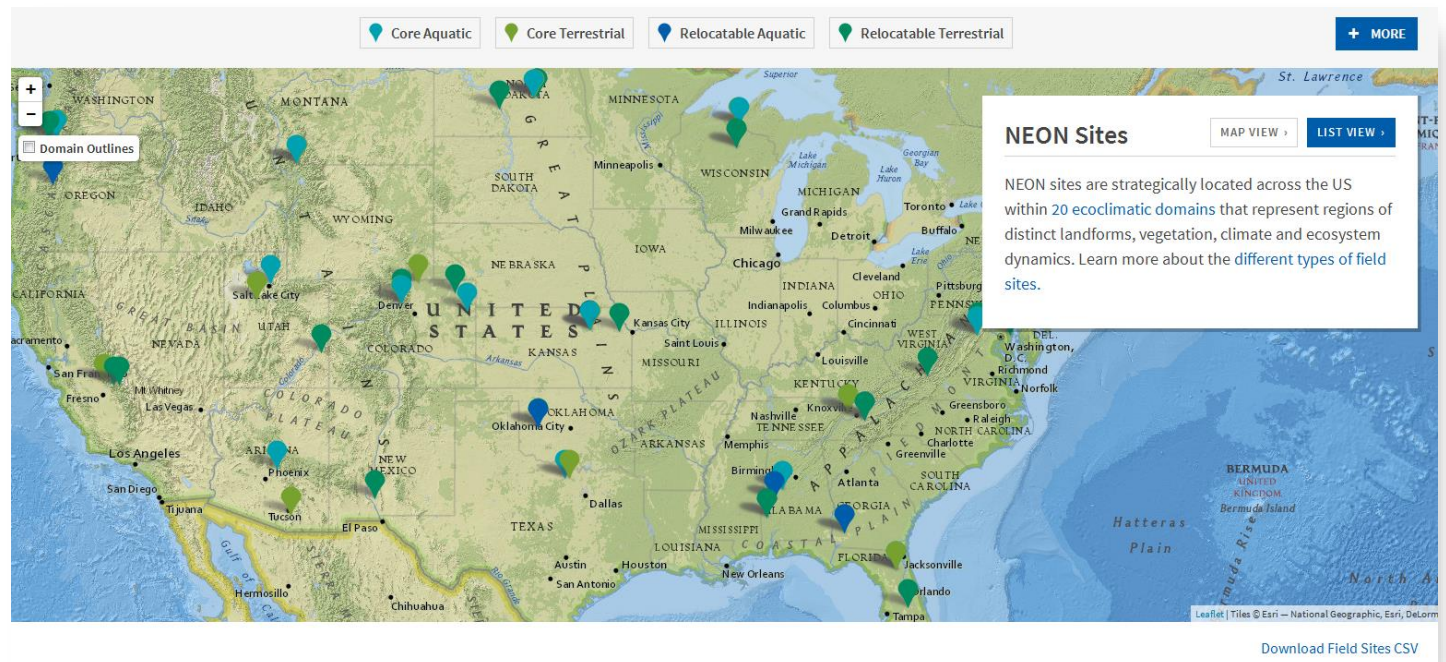
Isotopic source attribution in cities



Simultaneously measure ^{13}C of both CO_2 and CH_4

Ecological Forecasting

Open Source National Network of Iso-Water & Iso-Carbon instruments



Ultra-high sensitivity

Characterizing sources and sinks
of oxygen (O_2 and $\delta^{18}O$)



Fast data, fast monitoring

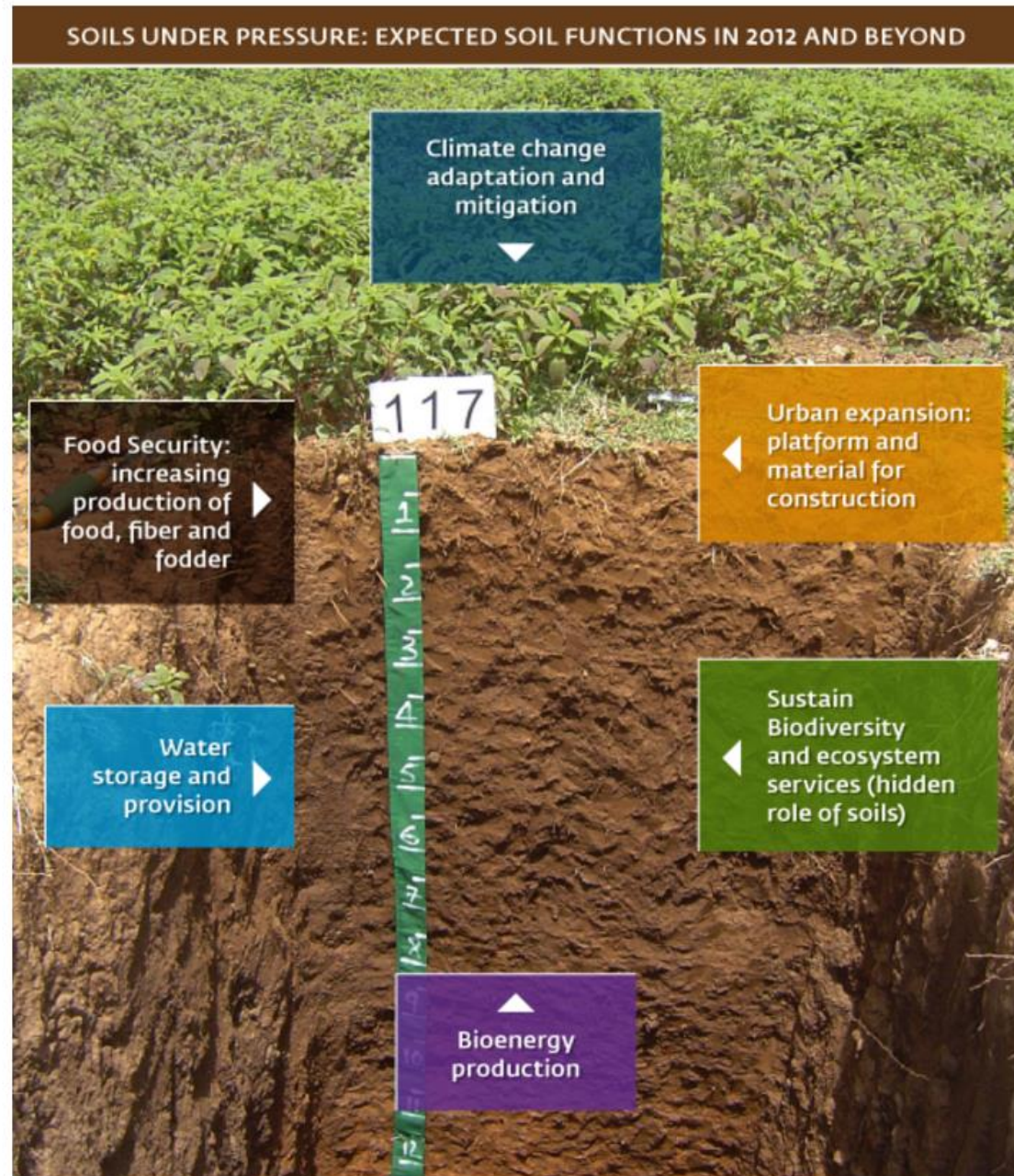
Keeping up with the Eddy Covariance



Global Soil Partnerships

International Atomic Energy Agency / Food and Agriculture Organization

Sustainable use of fertilizers in agriculture is one of the most efficient climate change mitigation steps towards a reduction of GHG emissions and global warming.



Monitoring Emissions of Hazardous Air Pollutants?

H_2S , HCl , HF , and $\text{C}_2\text{H}_4\text{O}$ (EtO)



Multi-species and Isotopic Measurement Systems

L2140-i Isotopic Water Analyzer
for $\delta^{18}\text{O}$, $\delta^{17}\text{O}$ and δD



G2201-i for $\delta^{13}\text{C}$ in CO_2 and CH_4

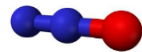


Evaluating Ecosystem Emissions of Greenhouse Gases?

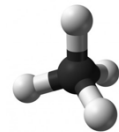
Measure critical GHG with one analyzer, simultaneously and continuously in the field

Species and measurement precision:

N_2O : < 5 ppb



CH_4 : < 5 ppb



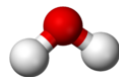
CO_2 : < 200 ppb



NH_3 : < 1 ppb



H_2O : < 100 ppm



Picarro G2508 Analyzer



Picarro G2201-*i* for $\delta^{13}\text{C}$ in CO_2 and CH_4

- World's only analyzer providing simultaneous $\delta^{13}\text{C}$ in CO_2 and CH_4 measurements
- Excellent precision at a fraction of the operating cost of IRMS



Picarro GasScouter™

- **Simultaneously measures CO₂, CH₄, and H₂O concentrations**
- Startup time < 5 minutes
- **Lightweight (~11Kg)** for true portability in the field
- **Low power (25W)** and Built-in Battery offers up to **8 hours of continuous measurement**



Multi-species and Isotopic Measurement Systems



Used by leading organizations across the globe



ASK OUR BOOTH STAFF HOW TO GET STARTED