

# New Technology in Gas Analysis



# A presentation of the **Biogas Analyzer Line for CIB (Consorzio Italiano Biogas) – Ecomondo 2022**

***Biogas/Biomethane/LNG Presentation***

ETG Risorse e Tecnologia SRL

***Products for every analysis needed***

Tel: +39 011 19270890 | [www.etgrisorse.com](http://www.etgrisorse.com)

10/11/2022

- ETG designs and manufactures advanced and innovative gas analyzers for Industrial market, Universities and R&D Institutes
- Advanced technology and Innovative solutions
- Complete project management
- Planning, startup and service
- Made in Italy

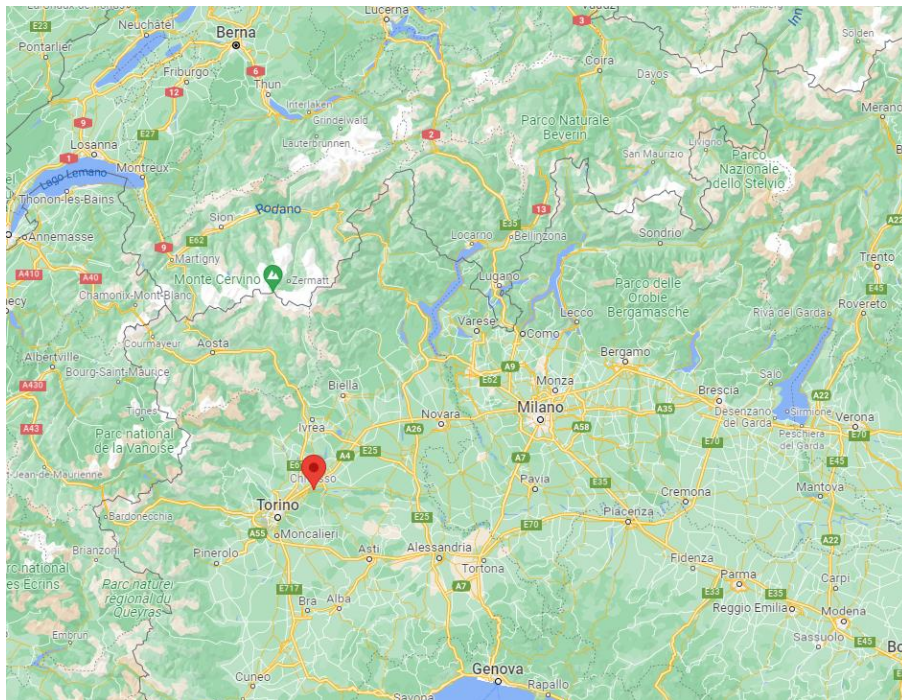
Since its foundation in 1995, ETG Risorse & Tecnologia has been dedicated to the study, development, manufacturing and supply of advanced on-line gas analyzers, using superior technology, quality, and service. From single analyzers to turnkey systems, ETG Risorse & Tecnologia can monitor pollutants beyond the regulation standards, with a full line of NDIR, NDUV, TDLAS, FTIR and other technologies for Stack & Process monitoring and ambient gas analyzers.

ETG solutions are designed to meet the needs of a wide range of applications, in the following industries: refining, chemical & petrochemical, industrial gas production, power generation, pharmaceutical and cement. Combine this with a global support network with local capability, comprehensive maintenance contracts, commissioning and training packages, you know that you can rely on ETG as your reliable gas analysis partner.

## ETG Headquarter Chivasso (Turin)



New location  
New laboratories  
Bigger production area  
( $> 400 \text{ m}^2$ )



- Gas calibrators
- Gas analyzers
- Analyzers line for Biogas, Biomethane, LNG and Syngas Plants
- FTIR analyzers
- $\text{NH}_3$ ,  $\text{HCl}$ ,  $\text{CO}_2$  and  $\text{CH}_4$  TDL analyzers
- Sampling system (Permeation probe SPP100)
- Special products for semiconductor industry
- Complete analysis systems for CEM
- Certified Naval Products for emissions monitoring
- Drone GHG Monitoring



ETG 6500



ETG MCA100



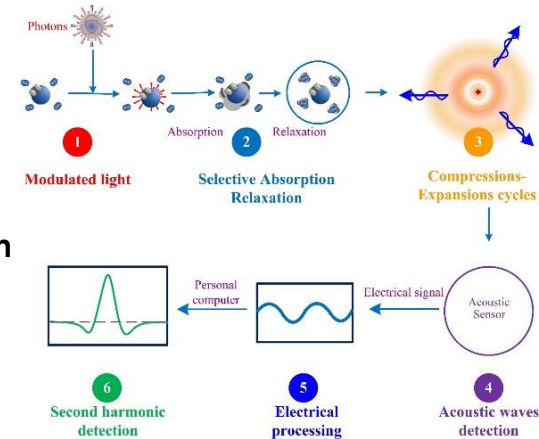
ETG MCA100 BIO P

# BIOGAS, BIOMETHANE and LNG Analyzers

- Analysis of CO<sub>2</sub>, CH<sub>4</sub>, O<sub>2</sub>, H<sub>2</sub>S
- NDIR technology for CO<sub>2</sub> and CH<sub>4</sub>
- Automatic air purge for prolonging the life of H<sub>2</sub>S cells
- Arm Processor
- Touch Screen display
- Ethernet and USB Remoting
- Analog & Digital Signals Output
- Low cost ownership
- 19 " Rack mounted, wall mounted or portable version
- Modbus, Profibus, Ethernet, WiFi (optional)
- Automatic calibration
- Data downloading to SD Card or USB flash drive

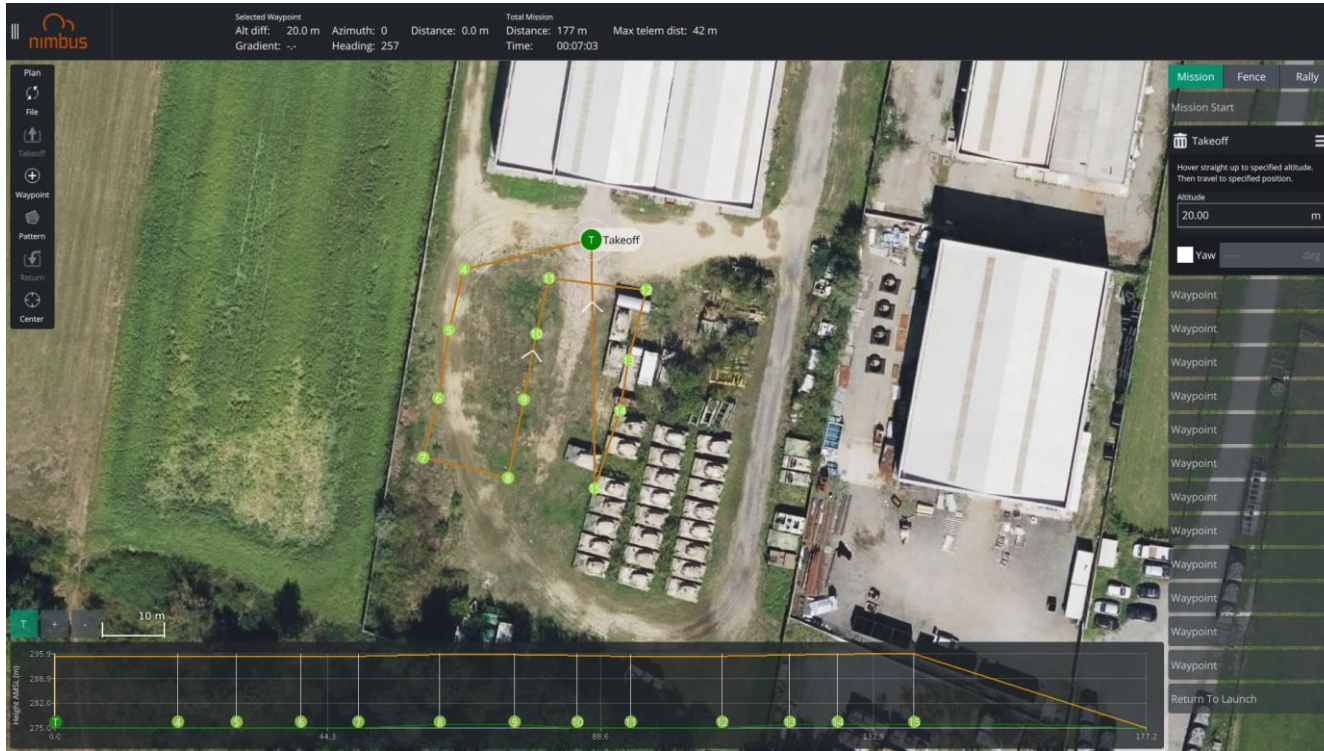
- CH<sub>4</sub> range 0-100%
- CO<sub>2</sub> range 0-100% (special range for Liquefaction 0-1% or lower)
- O<sub>2</sub> range 0-25%
- H<sub>2</sub>S range 0-20/50/100/200/500/2000/5000/10000 using ECD technology
- H<sub>2</sub>S range 0-50/100/500/2000/5000/10000 using NDUV technology
- Multipoint analysis

- **H<sub>2</sub>S** measured with **NDUV** technology no maintenance, no need for replacement
- **New TDL laser Photoacoustic technology** for H<sub>2</sub>O (0-20 ppm) and (CO<sub>2</sub> 0-100 ppm)
- Bidirectional Protocol Monitoring using PROFIBUS, PROFINET, MODBUS etc...
- **O<sub>2</sub>** measured using **paramagnetic** technology
- **VOC** measurement using **FTIR**
- **Siloxane** measurement using **FTIR**
- **Food grade CO<sub>2</sub> analysis** from Biogas source using **FTIR/proprietary solution**
- **NH<sub>3</sub>** measurement using **TDLAS** or **FTIR**
- **Drone** emission **monitoring for GHG** evaluation

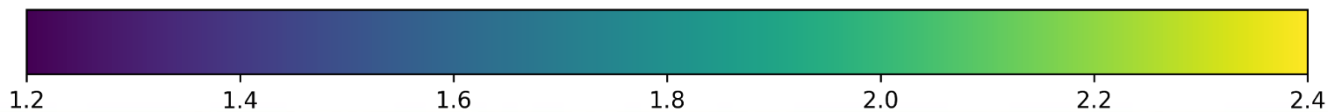
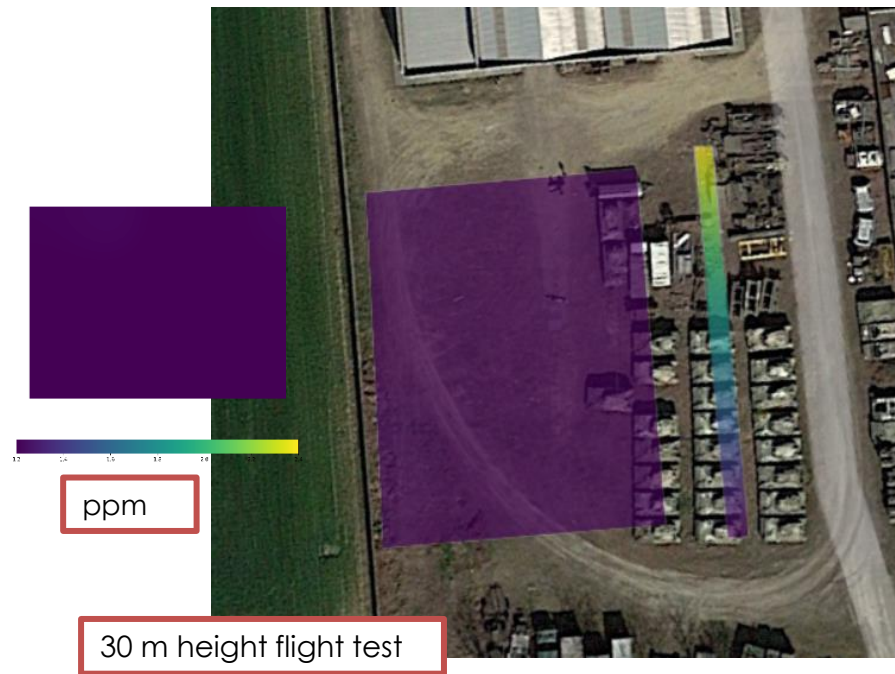




# Automatic Mission at Nimbus Facility



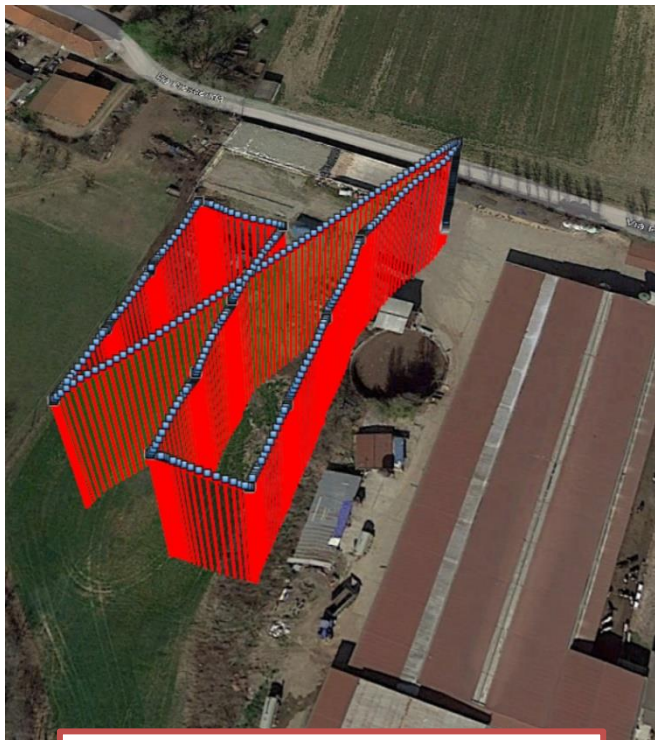
# Inspection test at Nimbus Facility



# Inspection of a cattle farm



# Test at a cattle farm

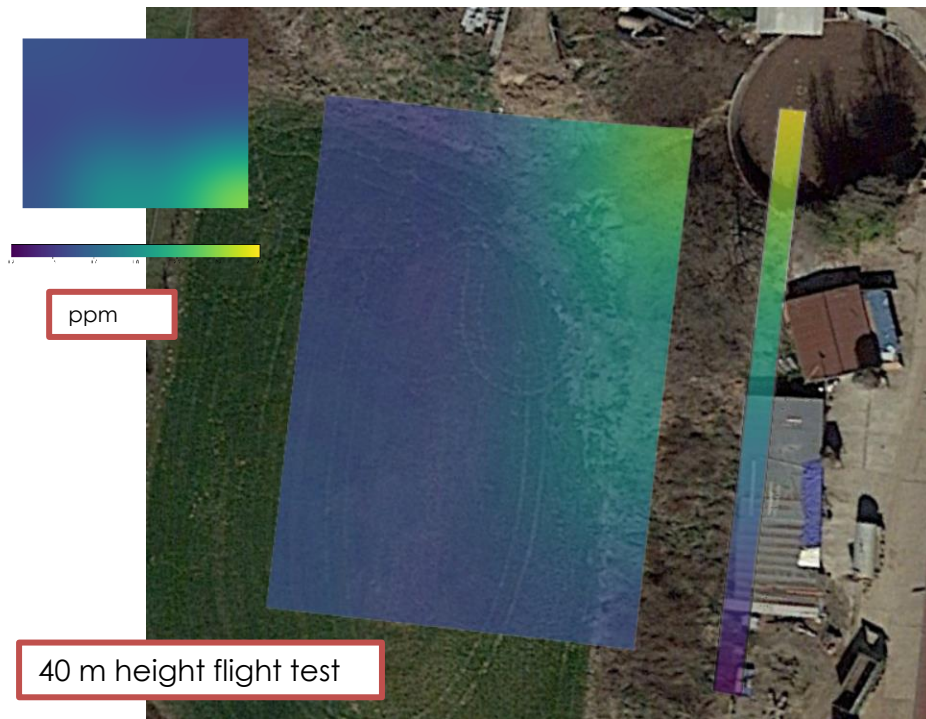
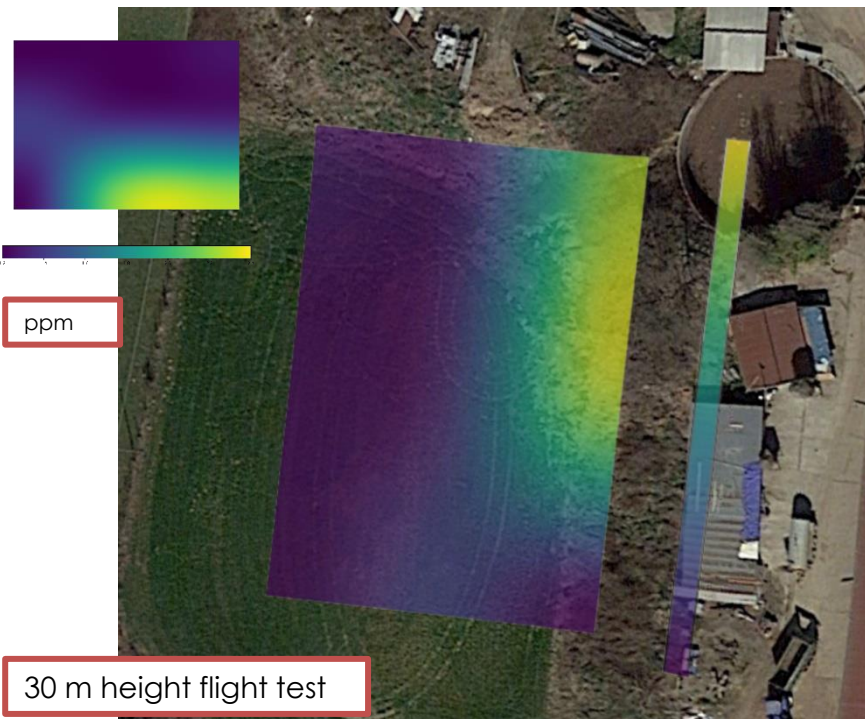


Drone path 30 m height flight test

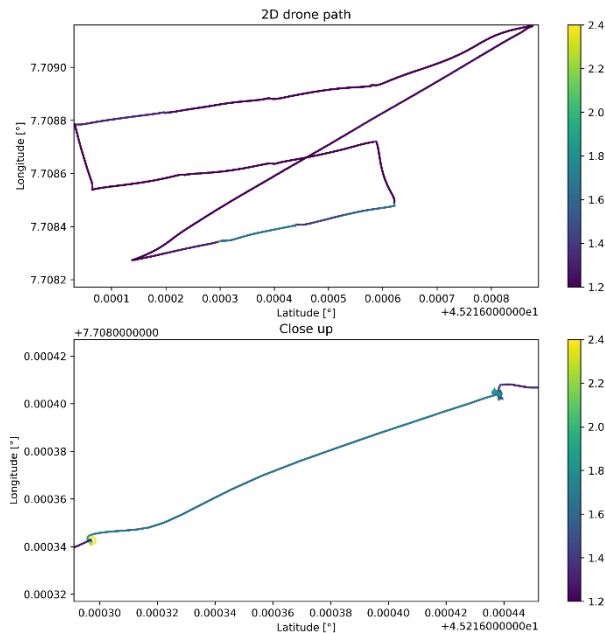


Drone path 40 m height flight test

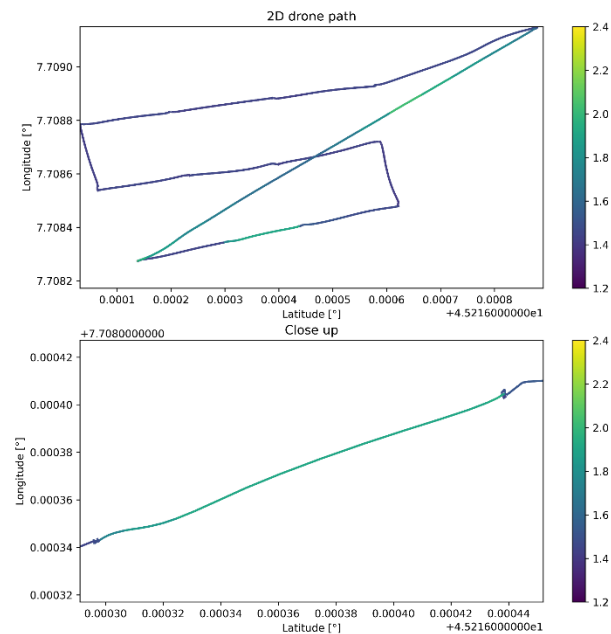
# Test at a cattle farm



# Test at a cattle farm



Drone path 30 m height  
flight test



Drone path 40 m height  
flight test



## Services

- Startup
- Maintenance
- Service
- Personnel Training
- Customized applications





Thank you  
**For your attention**

Any questions?

**CIB - Ecomondo 2022**

ETG Risorse e Tecnologia SRL

**Products for every analysis needed**

Tel: +39 011 19270890 | [www.etgrisorse.com](http://www.etgrisorse.com)