Supporting satellite atmospheric data products — introducing BAQUNIN

What

The Boundary-layer Air Quality analysis Using Network of INstruments (BAQUNIN) is a supersite of **ground-based active and passive remote sensing instruments** across various locations in the Rome area

Objectives

BAQUNIN aims to support the calibration and validation (Cal/Val) of satellite atmospheric data products in urban areas, as well as to create high quality datasets on urban environments. It helps sustain the maintenance and operation of ground-based instruments for satellite Cal/Val and also stimulates research in urban atmospheric boundary layer science

Where

BAQUNIN encompasses three measurement observation sites in the Rome area:

- Urban: Rome city centre
- Semi-rural: A flat environment about 13 km southeast of Rome
- Rural: Tiber valley area, about 26 km northeast of Rome

Who

While instigated by ESA, BAQUNIN is a collaboration of research institutes and organisations from across Europe

esa

EARTHNET

Atmospheric Chemistry

O_3 SO_2
CO_2 H_2O
CH_4 HCHO
N_2O

Aerosols

Continental smoke
Fire smoke
Saharan dust
Marine
Urban

Meteorological Parameters

Clouds
Wind
Turbulence
Solar irradiance
Surface pressure
Atmospheric fields

Additional information and data access:

baqunin.eu/

International Networks:

- EVDC
- AERONET
- EUBREWNET
- PGN
- SKYNET
- COCCON

References:

Iannarelli et al. "*The Boundary Layer Air Quality Analysis Using Network of Instruments (BAQUNIN) Supersite for Atmospheric Research and Validation over Rome Area*"

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