

ECOSYSTEM STATION

Name:	Lison (IT-Lsn)
Location (lat-long):	Po Valley, 45.7405 – 12.7503, 1 m a.s.l.
Environment:	Mediterranean agroecosystem (vineyard)
Operational history:	2014 – present.
Scientific purpose:	Understanding the role of agroecosystem on GHG budget and the impact of climate change on agriculture.
Station description:	<p>The site is located in a flat commercial vineyard (33 ha) in Lison di Portogruaro (Venice), NE Italy. The climate is temperate, with mean annual temperature of 13 °C and average total annual precipitation of about 1080 mm. The station, established in 2014, has been continuously monitoring CO₂, H₂O and sensible heat fluxes, together with ancillary meteorological variables and biometric measurements. The vineyard was planted in 2001, the space between rows is 2.2 m and plant spacing is 0.9 m, resulting in a planting density of about 5000 plant/ha. Vines are hedgerow trained, with rows oriented to 35 to 215° from North. The floor below plants is weeded on a strip of about 0.7 m wide, while the rest of the alley is usually covered with spontaneous herbaceous vegetation. Vine bud break generally takes place in April and full development is reached towards the end of June, with canopy height topped at 2 m.</p>
Measured ICOS core parameters:	CO ₂ , H ₂ O and sensible heat fluxes; Incoming and outgoing SW and LW radiations; Air temperature and RH; Barometric pressure; Precipitation; Soil heat flux density; Soil temperature profile; Soil water content profile; Water table depth.
Measured ICOS desirable param.:	Leaf Area Index; Biomass growth
Responsible organization:	University of Padova – DAFNAE
Principal investigator:	Andrea Pitacco (andrea.pitacco@unipd.it)
Data manager:	Franco Meggio (franco.meggio@unipd.it), Nadia Vendrame, Luca Tezza
Funding:	University of Padova

IT-Lsn tower (previous setup).



View of the fetch in the prevailing wind direction



Canopy structure after bud break.



Canopy structure at full development.

