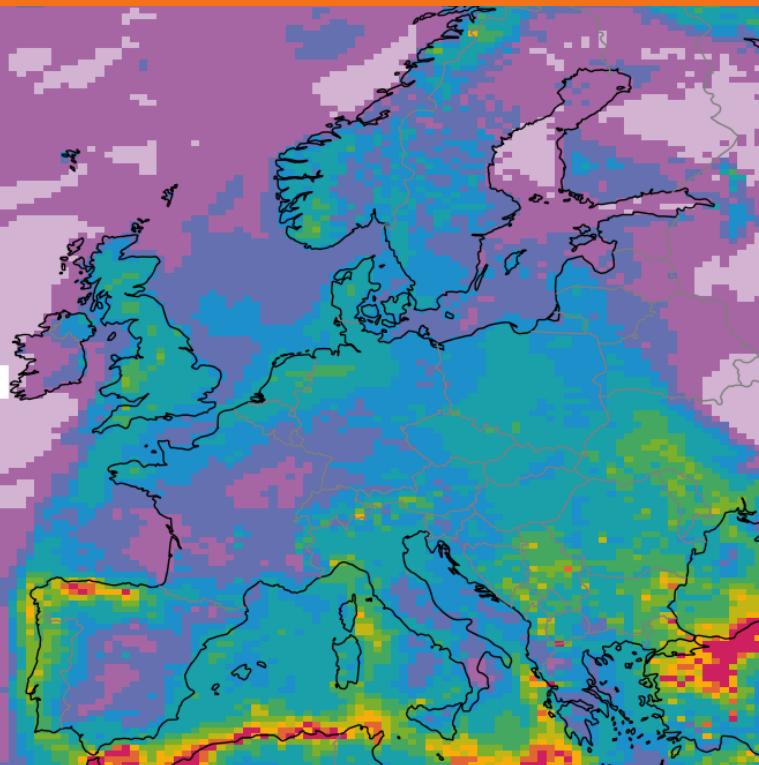


# LOTOS - EUROS workshop

Air quality modeling and emissions

28 & 29 January 2026  
Utrecht



## Wednesday 28 January

Venue: Aristo Meeting Plaza Utrecht

8:30 - 9:00 Registration and coffee

### Welcome to LOTOS-EUROS Workshop 2026

9:00 - 9:15 Welcome

Host Tyler Wizenberg (TNO)



9:15 - 9:45 Model developments: applications and ambitions

Opening speaker  
Astrid Manders (TNO)



### LOTOS-EUROS new developments

9:45 - 10:05 LOTOS EUROS Lite, making work easy: A new tool for students, civil servants or scientist active in other fields

Bas Henzing (TNO)

10:05 - 10:25 European scale emission inventories for LOTOS-EUROS and work towards higher resolution over specific areas

Jeroen Kuenen (TNO)

10:25 - 10:55 Coffee break

### Source apportionment & UFP

10:55 - 11:15 Alternative fuel uptake in shipping and air quality in present and 2030

Opening speaker  
Jessie Zhang (TNO)



11:15 - 11:35 Modelling Ultrafine Particle in LOTOS-EUROS

Quinten Bohte (TNO)

11:35 - 11:55 Source Apportionment in Protected Nature Area's in The Netherlands

Hannah Jonas (TNO)

11:55 - 13:00 Lunch break

### Reactive Nitrogen modelling and deposition

13:00 - 13:30 Model intercomparison for nitrogen deposition in the Netherlands and recent developments in LOTOS-EUROS

Opening speaker  
Martijn Schaap (TNO)



13:30 - 13:50 Improving deposition modelling in the Mediterranean using remote sensing vegetation parameters

André Barreirinha  
(University of Aveiro | UAVR)

13:50 - 14:10 Validation of NH3 exchange models across multiple ecosystems

Tycho Jongenelen  
(Leiden University | RIVM | TNO)

14:10 - 14:30 Dynamic Land-Use Parametrisation and Its Impact on Ammonia Deposition in LOTOS-EUROS

Mahmoud Ahmed (TU Delft)

14:30 - 14:50 Evaluation of Simulated Vertical NO2 Profiles over the North Sea Using LOTOS-EUROS with Two Meteorological Forcings (HARMONIE and ECMWF) with Aircraft NO2 profiles

Andrés Yarce Botero  
(Barcelona Supercomputing Center)

**14:10 - 14:30** On the added value of manure transport data for the development of a dynamic agricultural emission timer  
Matteo Urzi (FU Berlin)

**15:10 - 15:40** Break

### LOTOS-EUROS applications and Observations

**15:40 - 16:00** The 2023 Measuring NH3 with Remote Sensing (MARS) Campaign at Cabauw in the Netherlands  
Opening speaker  
Enrico Dammers (TNO)



**16:00 - 16:20** LOTOS EUROS HCHO simulations against ground- and satellite-based remote sensing observations  
MariLiza Koukouli (Laboratory of Atmospheric Physics, Aristotle University of Thessaloniki, Greece)

**16:20 - 16:40** Modelling the impact of harvesting activities on particulate matter levels in Germany  
Ilona Jäkel (FU Berlin)

**16:40 - 17:00** WRF vs ECMWF Part II: In depth analysis and comparison of different meteorological drivers  
Michael Russo (University of Aveiro, Portugal)

**17:00 - 17:20** OPALE: Optical Properties of Aerosols in LOTOS-EUROS  
Kaylee Elliott (VU and TNO)

**17:20 - 17:45** Wrap-up

**18:30** Dinner

## Thursday 29 January

Venue: TNO Utrecht Auditorium

**9:00 - 9:10** Quick introduction

### Data assimilation and Machine learning

**9:10 - 9:30** Inverse modelling of N2O emissions  
Opening speaker  
Arjo Segers (TNO)



**9:30 - 9:50** Aerosol Emission Estimation by Assimilating Ground and Satellite Observations over Europe  
Babitha George (Vrije Universiteit Amsterdam)

**9:50 - 10:10** Using an offline ensemble Kalman filter with in situ and satellite measurements to estimate ammonia emissions in the Netherlands  
Simeng Li (Leiden University & TNO)

**10:10 - 10:30** Zeeman: Surrogate Model Driven Data Assimilation for Atmospheric Chemistry  
Jimmy Pang (TU Delft)

**10:30 - 10:45** Coffee break

### LOTOS-EUROS and local modelling

**10:45 - 11:05** Modeling high resolution ammonia concentrations from animal houses using a local plume model  
Opening speaker Jerry Ge (TNO)



**11:05 - 11:25** Offline coupling of LOTOS-EUROS and DALES for atmospheric composition tracers in open-boundary setups  
Arseniy Doyennel (IHS)

**11:25 - 12:10** Discussion in break-out sessions

**12:10 - 12:30** Wrap-up and closure

## Register?

Sign up for the event by clicking this [hyperlink](#).

## Locations

### Wednesday 28 January

Aristo Meeting Plaza  
Hoog Catharijne  
Godebaldkwartier 357  
NL-3511 DT Utrecht

### Thursday 29 January

TNO Utrecht  
Auditorium  
Princetonlaan 6-8  
NL-3584 CB Utrecht