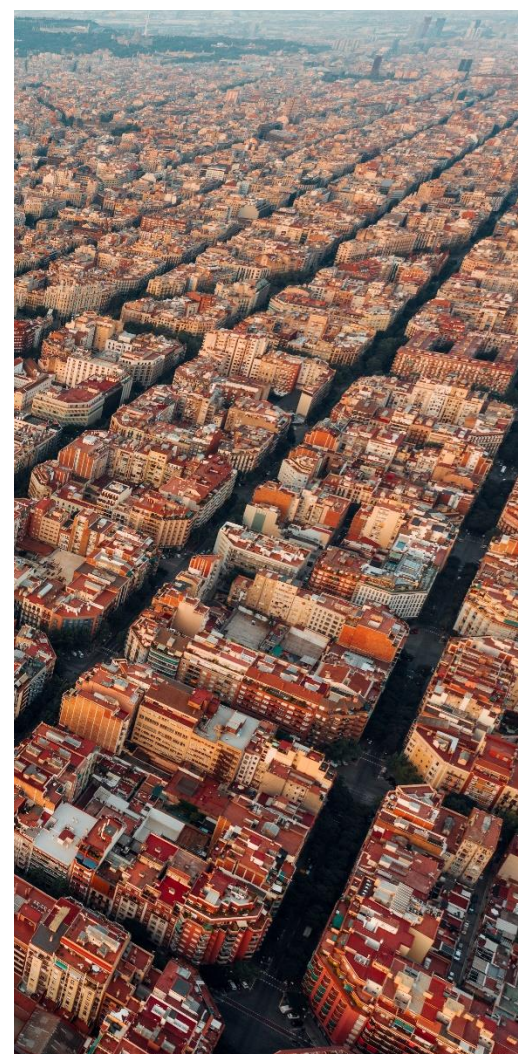


RI URBANS

1st SCIENCE MEETING

19-20 October, 2022
Barcelona, Spain & online



SCOPE

RI-URBANS is an EC-Horizon-2020 funded project (grant agreement 101036245) to demonstrate how Service Tools (STs) from atmospheric Research Infrastructures (RIs) can be adapted and enhanced to provide advanced air quality (AQ) measurements in European cities and industrial, harbour, airport and road traffic hotspots, as well as areas with significant levels of air pollution and associated health effects. RI-URBANS combines advanced scientific knowledge and innovative technical work to develop pilot STs that will enhance the capacity of the AQMNs to provide the necessary observations to evaluate, predict and abate urban air pollution. The project is directly connected with ACTRIS and ICOS in terms of use of STs, networking supersites and data management. RI-URBANS focuses on human exposure to outdoor ambient ultrafine particles (UFP, particle number concentrations and particle size distribution, PSD), atmospheric particulate matter (PM, in mass concentration) in terms of their sizes and constituents, as well as their gaseous precursors (including VOCs and NH₃).

The **scope of the RI-URBANS 1st Science Meeting** is in the following major topics of the project:

- **Data compilation and analysis of the advanced AQ parameters** for which pilots are testing the specific STs. First design of scientific papers resulting for the analysis of different AQ parameters.
- Analysis of **health outcomes, city mapping, citizen involvement, pollution, hotspots**.
- First results on **emission inventories and modelling**.
- Evaluation and discussion on progress of the **5 major pilots** devoted to demonstration of STs.
- Progress of **upscaling actions**.

At the same time, a major goal of the 1st Science Meeting is to **involve AQ policy stakeholders in the interpretations and discussions** of the project results, as well as pilots and applications of the STs.

Data compilation for urban areas is in progress for UFP-PSD, equivalent black carbon (eBC), offline and online PM speciation, VOCs and NH₃. Presentations on these datasets and preliminary results will be delivered, as well as on reviews of source apportionment for these pollutants in urban Europe, and on the deduced health effects.

The 5 RI-URBANS pilots focus on the demonstration of the following STs:

- P1: Near-real-time PM source apportionment.
- P2: Near real time UFP-PSD.
- P3: Mapping, 3D, mobile measurements and citizen science.
- P4: Health effects of advanced AQ parameters and source contributions.
- P5: AQ in and from urban hotspots (traffic, airports, industry, harbours).

Concerning AQ policy stakeholders, we intend to invite experts from DG-ENV, DG-SANTE, EEA, EMEP, WMO, WHO and representatives of the cities, regions and countries involved in the pilot studies and others with potential interest in the STs.

VENUE

The RI-URBANS 1ST Science Meeting will be celebrated on **19-20 October 2022** in both face-to-face in **Barcelona**, Spain, and online formats.

The venue will be the **Barcelona's Natural History Museum** (Museu de Ciències Naturals de Barcelona, Plaça Leonardo da Vinci, 4-5. 08019, Barcelona)

[Link to Google Maps](#)



How to arrive?

- **Underground**
L4 (yellow line). Maresme-Forum station (Rambla Prim exit)
- **Tram**
T4. Maresme-Forum stop
- **Bus**
 - H16 (direction Fòrum Campus Besòs), "Pg Taulat-Diagonal Mar" stop
 - B20, (direction Santa Coloma de Gramenet), "Av. Diagonal - Rambla de Prim" stop
- **Car**
The nearest car parkings are located in the Forum building (public parking BSM) and Diagonal Mar Shopping Centre.
- **Bike**
 - Bicing (Barcelona bicycle sharing system) nearest stations: 160-Av. Eduard Maristany, 1-Forum
 - The Museum has free bicycle parking (30 bikes) next to the entrance.

[The use of face mask is mandatory on the public transport](#)

PROGRAMME

19th October 2022 (Day 1)

Meeting link from 09:00 h

[Day 1 - LINK](#)

Timing refers to CEST

09:00-09:30 Reception of delegates (for onsite participants), welcome and technical information
Alicia Arroyo and Marta Monge (CSIC)

BACKGROUND SESSIONS

09:30-10:00 RI-URBANS progress report

Tuukka Petäjä (UHEL) and Xavier Querol (CSIC)

10:00-10:15 WHO Air Quality Guidelines and new air quality parameters

Roman Perez Velasco (WHO)

10:15-10:30 The revision of the Ambient Air Quality Directives

Michael Klinkenberg (DG. ENV, European Commission)

10:30-10:45 Role of RI-URBANS in ACTRIS

Paolo Laj (ACTRIS)

10:45-11:00 The AQUILA Network input to the EU air policy revision

Annette Borowiack (AQUILA-JRC, European Commission)

11:00-11:15 Source apportionment of UFP-PSD

Phil Hopke (Clarkson University, Rochester University)

11:15-11:30 Health effects of air borne particulates

Ioar Rivas (ISGlobal)

11:30-12:00 Coffee break + Poster session

PROGRESS OF RI-URBANS' WPs

12:00-13:00 WP1

12.00 – 12.05 **Welcome** (Andre Prevot & Andrés Alastuey)

12.05 – 12.25 **T1.1: PNSD/PNC** (Xavier Querol)

12.25 – 12.40 **T1.1: eBC / Absorption** (Marjan Savadkoobi)

12.40 – 12.50 **T1.1: Chemistry offline** (Angeliki Karanasiou)

12.50 – 13.00 **T1.1: Chemistry online** (Kaspar Daellenbach)

13:00-14:00 Lunch

PROGRESS OF RI-URBANS' WPs

14:00-15:45 WP1 (continuation)

14.00 – 14.15 **T1.1: VOCs/NH3** (Thérèse Salameh)

14.15 – 14.25 **T1.2: Centralized source apportionment study on PMx** (Fulvio Amato)

14.25 – 14.45 **T1.2: Service tool for NRT source apportionment of carbonaceous matter** (Olivier Favez)

14.45 – 15.15 **T1.3: Developing products and methods for AQ from profiling observations**
(Arnoud Apituley, Simone Kotthaus, Doina Nicolae & Lucia Mona)

15.15 – 15.45 **T1.4 & Discussion** (Andre Prevot & Andrés Alastuey)

PROGRESS OF RI-URBANS' WPs

15:45-16:30 WP2

- 15.45 – 16.10 Progress of task 2.1 **Health effects** (Ioar Rivas)
- 16.10 – 16.30 Progress of task 2.2 **Oxidative potential** (Gaelle Uzu)

16:30-16:45 Coffee break + Poster session

PROGRESS OF RI-URBANS' WPs

16:45-17:30 WP2 (continuation)

- 16.45 – 17.10 Progress of task 2.3 **Urban mapping** (Martine Van Poppel)
- 17.10 – 17.15 Planning of task 2.4 **Synergy support** (Teresa Moreno)
- 17.15 – 17.30 **Any other business** (Gerard Hoek)

17:30-18:30 Steering Committee (WPs' Leaders, Data Manager, Innovation Manager & Risk manager)

20:30 Dinner at **Citrus Restaurant** (Pg. de Gràcia, 44. 08007, Barcelona.)

20th October 2022 (Day 2)

Meeting link from 09:00 h

[Day 2 - Link](#)

PROGRESS OF RI-URBANS' WPs

09:00-10:30 WP3

- 09:00-09:10 **WP3 Overview** (Maria Kanakidou)
- 09:10-09:30 **T3.1: Urban dispersion: street scale and vertical structure** (Marc Guevara)
- 09:30-09:50 **T3.2: Emissions: UFP, downscaling, top-down and bottom-up** (Jeroen Kuenen)
- 09:50-10:10 **T3.3: Regional modelling (OP, UFP, BC, VOC)** (Augustin Colette / Spyros Pandis)
- 10:10-10:30 **General discussion and outlook for T3.4 and T3.5** (Augustin Colette)

PROGRESS OF RI-URBANS' WPs

10:30-11:30 WP4 Welcome (Teresa Moreno / Tuukka Petäjä)

- 10:30 - 10:50 **Aerosol source apportionment** (Jean-Eudes Petit / Hilikka Timonen)
- 10:50 - 11:10 **Aerosol number size distribution** (Katrianne Lehtipalo / [David Beddows](#))
- 11:10 - 11:30 **Novel health indicators** (Andres Alastuey / [Kaspar Daellenbach](#))

11:30-12:00 Coffee break + Poster session

PROGRESS OF RI-URBANS' WPs

12:00-13:30 WP4 (continuation)

12:00 - 12:20 **Urban mapping** (Karine Sartelet / Gerard Hoek)

12:20 - 12:40 **Pollution hot spots** (Arnaud Apituley)

12:40 - 13:00 **ICOS-Cities Pilots** (Andreas Christen)

13:00 - 13:30 **Discussion on the WP 4 next steps** (Tuukka Petäjä / Teresa Moreno)

13:30-14:30 Lunch

PROGRESS OF RI-URBANS' WPs

14:30-16:00 WP5

14:30 - 14:40 **Introduction to landscape analysis and the development of the Data management Plan (DMP)** (Richard O Rud, ACTRIS/NILU)

14:40 - 14:50 **Introduction to ACTRIS Data Centre and IAGOS Data Centre** (Cathrine Lund Myhre, ACTRIS/NILU & Damien Boulanger, IAGOS, CNRS)

14:50 - 15:00 **ATMO-ACCESS project and tools and services available for RI-URBANS** (Cathrine Lund Myhre, ACTRIS/NILU)

Introduction to Data Curation within RI-URBANS

15:00 - 15:20 **Data delivery to ACTRIS In-Situ – brief introduction to tools and methods including links to ACTRIS topic centres** (Markus Fiebig, ACTRIS/NILU)

15:20 - 15:30 **Data delivery to ACTRIS ARES – brief introduction to tools and methods including links to ACTRIS topic centre** (Lucia Mona ACTRIS/CNR)

15:30 - 15:40 **Data delivery to ACTRIS CLU – brief introduction to tools and methods including links to ACTRIS topic centre** (Ewan O'Connor, ACTRIS FMI)

15:40 - 15:55 **Data delivery to IAGOS – brief introduction to tools and methods** (Damien Boulanger IAGOS/CNRS)

15:55 – 16:00 **Plans for online data curation workshop 16th November for station operators** (Markus Fiebig, ACTRIS/NILU and Damien Boulanger, IAGOS/CNRS)

16:00-17:00 Wrap up of Day 2 & Joint final discussion

End of the Science Meeting