



# Milestone M41 (M7.6)

## RI-URBANS science meeting



**RI-URBANS**

**Research Infrastructures Services Reinforcing Air  
Quality Monitoring Capacities in European Urban &  
Industrial Areas (GA n. 101036245)**

**By  
CSIC**



***16<sup>th</sup> November 2022***

### Milestone M41 (M7.6): RI-URBANS Science Meeting

Authors: Alicia Arroyo, Marta Monge and Xavier Querol (CSIC)

<b>Work package (WP)</b>	WP7: Communication, dissemination and exploitation
<b>Milestone</b>	M41 (M7.6)
<b>Lead beneficiary</b>	CSIC
<b>Means of verification</b>	Meeting hold
<b>Estimated delivery deadline</b>	M14 (30/11/2022)
<b>Actual delivery deadline</b>	16/11/2022
<b>Version</b>	Final
<b>Reviewed by</b>	WP7 leaders
<b>Accepted by</b>	RI-URBANS Project Coordination Team
<b>Comments</b>	This document provides a short description of the scope, venue, agenda, contents, participants and format of the First RI-URBANS's Scientific Meeting hold, in a hybrid format, in Barcelona, Spain on 19-20 October 2022

## Table of Contents

1. ABOUT THIS DOCUMENT.....	1
2. SCOPE .....	1
3. DATES, VENUE OF THE MEETING AND FORMAT .....	2
4. AGENDA.....	2
5. ATTENDEES .....	5
6. SUMMARY OF THE OUTPUTS .....	8

## 1. About this document

This document provides a short description of the scope, venue, agenda, contents, participants and format of the First RI-URBANS's Scientific Meeting hold, in a hybrid format, in Barcelona, Spain on 19-20 October 2022, which was proposed as one of the milestones of WP7 (Communication, dissemination and exploitation). Thus, this milestone M41 (M7.6) addresses task T7.2 on targeted tools for dissemination, communication and exploitation actions. The main goals of T7.2 are: (i) implementing a portfolio of outreach resources that will enable RI-URBANS outreach towards specific key stakeholders and users (D7.4), including possible joint outreach material with the PAUL project; (ii) ensure the active participation and representation of RI-URBANS to relevant events especially to those for stakeholders and agencies listed in WP6; (iii) organization of science meetings, project meetings, the stakeholders workshop devised in WP6, and support in the dissemination of training sessions to foster the uptake of RI-URBANS outputs (see milestones), including possible join events with the PAUL project; (iv) track and record RI-URBANS communication, dissemination and exploitation. M41 (M7.6) arises from the goal (iii) and was originally planned on month 11, but changes in the amendment of August 2022 to month 14.

This is a public document, available in the RI-URBANS website (<https://riurbans.eu/work-package-7/#milestones-wp7>). The document will be distributed to all RI-URBANS Partners for their use and submitted also to European Commission as the RI-URBANS milestone M41 (M7.6).

## 2. Scope

**RI-URBANS** aims at demonstrating 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 (PNC) 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 NH<sub>3</sub>). The **scope of the RI-URBANS 1<sup>st</sup> Science Meeting** was 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, and 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 1<sup>st</sup> 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 NH<sub>3</sub>. 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.

### **3. Dates, venue of the meeting and format**

The RI-URBANS 1<sup>st</sup> Science Meeting was carried out on 19-20 October 2022, with both face-to-face (in Barcelona, Spain) and online formats.

The venue was the Barcelona's Natural History Museum (see Figure 1; Museu de Ciències Naturals de Barcelona, Plaça Leonardo da Vinci, 4-5. 08019, Barcelona).



**Figure 1:** Venue of the 1<sup>st</sup> RI-URBANS's Science Meeting.

### **4. Agenda**

The agenda of the meeting with the indication of the online presentation and onsite presentation (when no indication is given) is shown below.

#### **19<sup>th</sup> October 2022 (Day 1)**

<b>09:00-09:30</b> Reception and registration 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) ([online](#))

### 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) ([online](#))

### 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** (Angeliki Karanasiou)

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 (online), Doina Nicolae & Lucia Mona (online))

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) ([online](#))

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

**20<sup>th</sup> October 2022 (Day 2)**

**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) ([online](#))
- 12:20 - 12:40 **Pollution hot spots** (Arnoud Apituley)
- 12:40 - 13:00 **ICOS-Cities Pilots** (Andreas Christen) ([online](#))
- 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 1<sup>st</sup> Science Meeting

### 5. Attendees

We had 84 attendees onsite (i.e. face-to-face participation) from 33 organisations, and 66 attendees online from other 49 organisations. In total we had 150 attendees from 65 different organisations. Below are listed the affiliations of the attendees. Following the RI-URBANS ethics team recommendations, we do not provide publicly the names of attendees.

84 participants attended the meeting onsite (i.e. face-to-face attendees) from:

1. AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS, CSIC (Spain)
2. HELSINGIN YLIOPISTO, UHEL (Finland)
3. CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE, CNRS, (France)
4. CONSIGLIO NAZIONALE DELLE RICERCHE, CNR (Italy)
5. ILMATIETEEN LAITOS, FMI (Finland)
6. THE UNIVERSITY OF BIRMINGHAM, UoB (United Kingdom)
7. IDRYMA TECHNOLOGIAS KAI EREVNAS, FORTH (Greece)
8. PAUL SCHERRER INSTITUT, PSI (Switzerland)
9. KONINKLIJK NEDERLANDS METEOROLOGISCH INSTITUUT, KNMI (The Netherlands)
10. VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V., VITO (Belgium)
11. FORSCHUNGSZENTRUM JULICH GMBH, FZJ (Germany)
12. NILU STIFTELSEN NORSK INSTITUTT FORLUFTFORSKNING, NILU (Norway)
13. FUNDACION PRIVADA INSTITUTO DE SALUD GLOBAL BARCELONA, ISGLOBAL (Spain)
14. INSTITUT NATIONAL DE L ENVIRONNEMENT ET DES RISQUES, INERIS (France)
15. IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY AND MEDICINE, ICL (United Kingdom)
16. INSTITUT MINES-TELECOM, IMT (France)
17. ETHNIKO ASTEROSKOPEIO ATHINON, NOA (Greece)
18. NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK, TNO (The Netherlands)
19. BARCELONA SUPERCOMPUTING CENTER-CENTRO NACIONAL DE SUPERCOMPUTACION, BSC (Spain)
20. INSTITUTUL NATIONAL DE CERCETARE DEZVOLTARE PENTRU OPTOELECTRONICA INOE 2000, INOE (Romania)
21. AIX-MARSEILLE UNIVERSITY, CNRS-LCE (France)
22. ARPA LOMBARDIA (Italy)



23. MINISTRY OF CLIMATE ACTION, FOOD AND RURAL AGENDA, GENERALITAT DE CATALUNYA (Spain)
24. PALAS GMBH (Germany)
25. ARPA VALLE D'AOSTA (Italy)
26. INSTITUTE OF NUCLEAR SCIENCES (Serbia)
27. DEPARTMENT OF TERRITORY AND SUSTAINABILITY, GENERALITAT OF CATALONIA (Spain)
28. ACTRIS (Aerosol, Clouds and Trace Gases Research Infrastructure)
29. IAGOS (In-service Aircraft for a Global Observing System)
30. ICOS (Integrated Carbon Observation System)
31. CLARKSON UNIVERSITY (USA)
32. WORLD HEALTH ORGANIZATION - REGIONAL OFFICE FOR EUROPE, EUROPEAN CENTRE FOR ENVIRONMENT AND HEALTH, WHO ECEH (Germany)
33. DELFT UNIVERSITY OF TECHNOLOGY (The Netherlands)

66 participants attended the meeting online from:

1. DG. ENV, EUROPEAN COMMISSION (Belgium)
2. WORLD METEOROLOGICAL ORGANIZATION, WMO (Switzerland)
3. UNIVERSITY OF HUELVA (Spain)
4. HELSINGIN YLIOPISTO, UHEL (Finland)
5. INSTITUT NATIONAL DE L ENVIRONNEMENT ET DES RISQUES, INERIS (France)
6. AIRPARIF (France)
7. SUSTAINABLE CHEMISTRY RESEARCH CENTER (CIQSO), University of Huelva (Spain)
8. PAUL SCHERRER INSTITUT, PSI (Switzerland)
9. IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY AND MEDICINE, ICL (United Kingdom)
10. EUROPEAN COMMISSION- JOINT RESEARCH CENTRE - ISPRA (Italy)
11. CIEMAT (Spain)
12. FUNDACION PRIVADA INSTITUTO DE SALUD GLOBAL BARCELONA, ISGLOBAL (Spain)
13. EIDGENOSSISCHE MATERIALPRUFUNGS- UND FORSCHUNGSANSTALT, EMPA (Switzerland)
14. AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS, CSIC (Spain)
15. METEOROLOGISK INSTITUTT, METNO (Norway)
16. ETHNIKO ASTEROSKOPEIO ATHINON, NOA (Greece)
17. ARPA VALLE D'AOSTA (Italy)
18. INSTITUTO DI SCIENZE DELL'ATMOSFERA E DEL CLIMA (ISAC) CONSIGLIO NAZIONALE DELLE RICERCHE (CNR) (Italy)
19. THE UNIVERSITY OF BIRMINGHAM, UoB (United Kingdom)
20. UNIVERSITEIT UTRECHT, UU (The Netherlands)
21. UNIVERSITY OF GRANADA (Spain)
22. ARPA LOMBARDIA (Italy)
23. HELSINKI REGION ENVIRONMENTAL SERVICES AUTHORITY HSY (Finland)
24. INSTITUT MINES-TELECOM, IMT (France)
25. UNIVERSITY OF CORDOBA (Argentina)
26. MEDDE (France)
27. ITALIAN NATIONAL AGENCY FOR NEW TECHNOLOGIES, ENERGY AND SUSTAINABLE ECONOMIC DEVELOPMENT, ENEA (Italy)
28. EÖTVÖS UNIVERSITY, INSTITUTE OF CHEMISTRY (Hungary)
29. MINISTERIO PARA LA TRANSICIÓN ECOLÓGICA Y EL RETO DEMOGRÁFICO (Spain)
30. WWEA (AWEL) (Switzerland)
31. CARTIF (Spain)

32. LEIBNIZ INSTITUT FUER TROPOSPHAERENFORSCHUNG e.V., TROPOS (Germany)
33. UNIVERSITY OF ATHENS (Greece)
34. NATIONAL CENTER FOR SCIENTIFIC RESEARCH "DEMOKRITOS" (Greece)
35. UNIVERSITY OF BOLOGNA (Italy)
36. UNIVERSITY OF A CORUÑA (Spain)
37. IDRYMA TECHNOLOGIAS KAI EREVNAS, FORTH (Greece)
38. CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE, CNRS (France)
39. INSTITUT PIERRE-SIMON LAPLACE, IPSL (France)
40. SLB-ANALYS ENVIRONMENT AND HEALTH ADMINISTRATION, CITY OF STOCKHOLM (Sweden)
41. ILMATIETEEEN LAITOS, FMI (Finland)
42. SUBDIRECCIÓN GENERAL DE AIRE LIMPIO Y SOSTENIBILIDAD INDUSTRIAL (Spain)
43. ISTANBUL UNIVERSITY-CERRAHPAŞA (Turkey)
44. COCCOSPHERE (Spain)
45. NILU STIFTELSEN NORSK INSTITUTT FORLUFTFORSKNING, NILU (Norway)
46. UNIVERSITY OF FREIBURG (Germany)
47. ACTRIS (Aerosol, Clouds and Trace Gases Research Infrastructure)
48. IAGOS (In-service Aircraft for a Global Observing System)
49. ICOS (Integrated Carbon Observation System)

These included also delegates from the 26 RI-URBANS Beneficiaries (including an associated one, and also speakers from WHO, DG ENV from the EC, the Air Quality Reference Laboratories Network (AQUILA), 3 members of the RI-URBANS Scientific Advisory Board (5 members), 1 from WMO. We had in addition stakeholders from organizations linked with the air quality monitoring competences:

- ARPA LOMBARDIA (Italy)
- MINISTRY OF CLIMATE ACTION, FOOD AND RURAL AGENDA, GENERALITAT DE CATALUNYA (Spain)
- PALAS GMBH (Germany)
- ARPA VALLE D'AOSTA (Italy)
- DEPARTMENT OF TERRITORY AND SUSTAINABILITY, GENERALITAT OF CATALONIA (Spain)
- ACTRIS
- AIRPARIF (France)
- EIDGENOSSISCHE MATERIALPRUFUNGS- UND FORSCHUNGSANSTALT, EMPA (Switzerland)
- HELSINKI REGION ENVIRONMENTAL SERVICES AUTHORITY HSY (Finland)
- SLB-ANALYS ENVIRONMENT AND HEALTH ADMINISTRATION, CITY OF STOCKHOLM (Sweden)
- SUBDIRECCIÓN GENERAL DE AIRE LIMPIO Y SOSTENIBILIDAD INDUSTRIAL (Spain)
- MINISTERIO PARA LA TRANSICIÓN ECOLÓGICA Y EL RETO DEMOGRÁFICO (Spain)

And also representatives from RI-URBANS Associated Collaborators, delegates from cities supplying data to RI-URBANS and upscaling the STs, such as:

- AIX-MARSEILLE UNIVERSITY, CNRS-LCE (France)
- ARPA LOMBARDIA (Italy)
- INSTITUTE OF NUCLEAR SCIENCES (Serbia)
- UNIVERSITY OF HUELVA (Spain)
- SUSTAINABLE CHEMISTRY RESEARCH CENTER (CIQSO), University of Huelva (Spain)
- CIEMAT (Spain)
- ARPA VALLE D'AOSTA (Italy)
- UNIVERSITY OF GRANADA (Spain)

- HELSINKI REGION ENVIRONMENTAL SERVICES AUTHORITY HSY (Finland)
- UNIVERSITY OF CORDOBA (Argentina)
- EÖTVÖS UNIVERSITY, INSTITUTE OF CHEMISTRY (Hungary)
- UNIVERSITY OF BOLOGNA (Italy)
- UNIVERSITY OF A CORUÑA (Spain)
- SLB-ANALYS ENVIRONMENT AND HEALTH ADMINISTRATION, CITY OF STOCKHOLM (Sweden)
- ISTANBUL UNIVERSITY-CERRAHPAŞA (Turkey)

Moreover, we have numerous attendees from the large ESFRIs that will receive data with harmonise measurements beyond the RI-URBANS lifetime.

- ACTRIS
- IAGOS
- ICOS

Figure 2 shows a photograph of the face-to-face attendees at the end of the meeting and several other details.

## 6. Summary of the outputs

We had a first morning for outreach with stakeholders, followed by sessions of discussions on the results and needs of the different tasks of WP1 to WP5, with a final session at the end of the meeting to wrap up the outputs of the meeting. The pdfs of the presentations are openly available at <https://riurbans.eu/results/#presentations>.

During its first year, RI-URBANS has reached several milestones that were highlighted during the meeting:

- Compilation of existing urban datasets on advance air pollutants, such as ultrafine particles-PNSD, BC, online and offline PM speciation, NH<sub>3</sub>, and VOCs.
- Interpretation of these datasets to show the application for air quality management started and it is very advanced for ultrafine particles and BC (close to submit results for publication).
- Generation of the most updated European inventory of anthropogenic emissions that include ultrafine particles and non-exhaust vehicle particulate matter emissions (link).
- All city pilots are designed and most of them are already operating (link). Others will start in 2023, as planned.
- Several cities, such as Budapest, Marseille, Mülheim, Langen, Dresden, Leipzig, Lille, and London, which are not officially part of the project, are providing data to RI-URBANS
- Strategies to submit data of the advanced air quality datasets to ACTRIS-EBAS is devised and ready to be implemented.

The project is directly connected with ACTRIS (Aerosol, Clouds and Trace Gases Research Infrastructure) and ICOS (Integrated Carbon Observation System) in terms of the use of service tools, networking supersites, and data management, and a fluent dialogue is established with them.

Several challenges were also put forward during the meeting. One of them is achieving that air quality monitoring networks apply the service tools developed in RI-URBANS, most of them coming from ACTRIS.

Another challenge is to make the data flow smoothly from all air quality stations toward ACTRIS. RI-URBANS already compiled data on advanced measurements from many stations, but there are some left behind. Efforts should be made to make these harmonised and data public in ACTRIS-EBAS.



From left to right: RI-URBANS coordinators Tuukka Petäjä and Xavier Querol, explaining the RI-URBANS project report; Spyros Pandis (FORTH), Xavier Querol (CSIC) and Román Pérez Velasco (WHO); Tuukka Petäjä (UHEL) and Mar Viana (CSIC); Matine van Poppel (VITO), Stephan de Roode (Delft University of Technology) and Arnoud Apituley (KNMI).



From left to right: Spyros Pandis (FORTH), Xavier Querol (CSIC) and Román Pérez Velasco (WHO); Tuukka Petäjä (UHEL) and Mar Viana (CSIC); Matine van Poppel (VITO), Stephan de Roode (Delft University of Technology) and Arnoud Apituley (KNMI).

**Figure 2:** Face-to-face attendees at the end of the meeting and several other details.