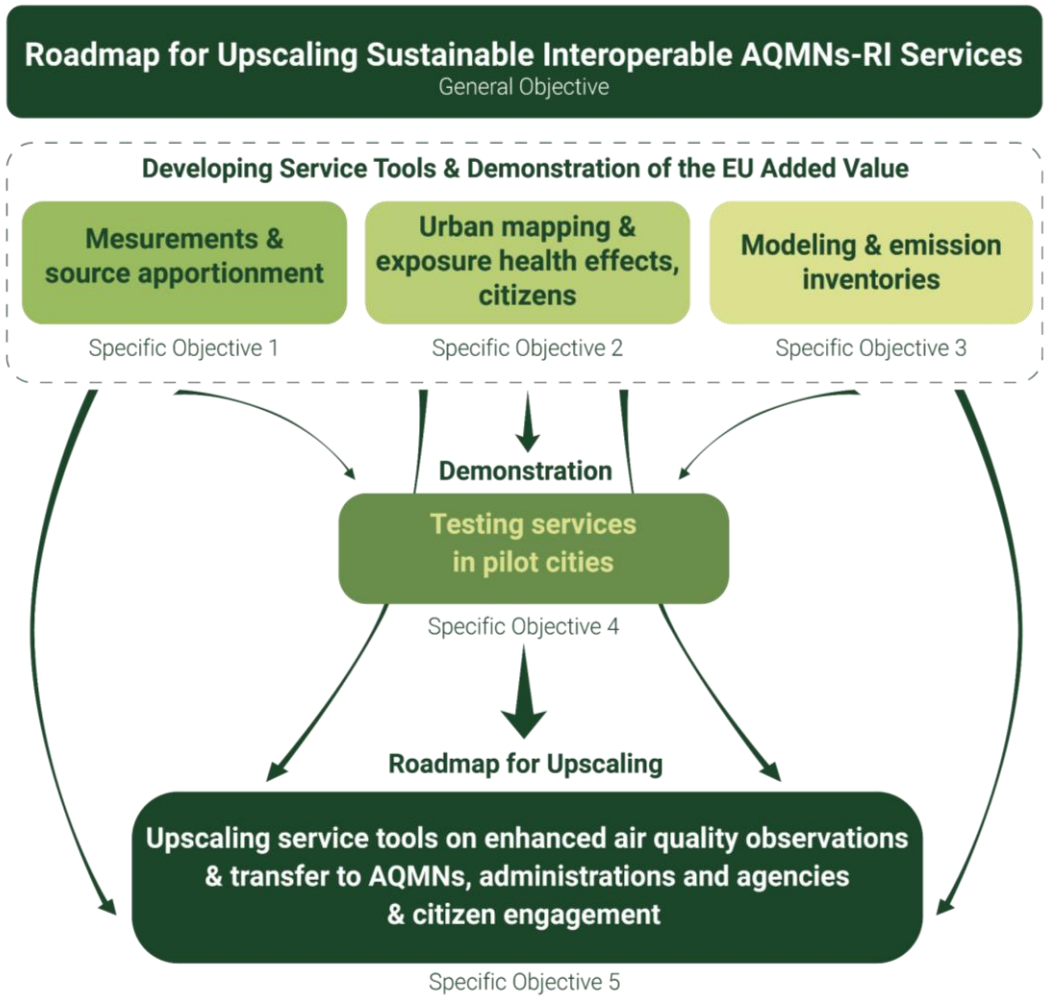
WP6: Stakeholders engagement strategies

Xavier Querol & Katriina Kyllönen

WP6: Stakeholders engagement strategies



WP6 Co-design

WP6 Guidance documents Stakeholder

WP6: Objectives

Obtaining an efficient engagement of stakeholders to achieve the overall objectives on implementing the Service Tools (STs). A coherent set of actions to encourage the uptake of STs, methods and practices will be applied.

Duration M1-M48

WP leaders: Xavier Querol, CSIC & Katriina Kyllönen, FMI

Participants: CSIC, FMI, CNR, UU, VITO, UOB, NOA, INERIS, CNRS, UHEL

- Maximise involvement of local, regional and national administrations for selecting novel AQ metrics, implementing and interpreting pilot studies, and being receptors of the deliverables and reports.
- Providing guidance for engaging citizens for measurements and increasing awareness on the novel AQ metrics.
- Involving EC administrations and AQ and AQ-Health agencies, such as EMEP-UNECE, EEA, WHO, WMO and Copernicus along the process to communicate progress, participate in the discussions and workshops, and visiting them to communicate the outputs.

WP6: Tasks

- **T6.1 Stakeholders engagement for maximising impact of RI-URBANS (M02-M48)**

Lead: Rosa M. Petracca Altieri CNR; Katriina Kyllönen, FMI; Xavier Querol CSIC, Participants: UHEL, CNRS, NOA, UOB, UU, VITO, FZJ

- **T6.2. Roadmap for citizen engagement and sustainable implementation (M12-M40)**

Lead: Martine van Poppel, VITO; Gerard Hoek UU, Participants: UoB, CSIC, UHEL, NOA, INOE, CNR

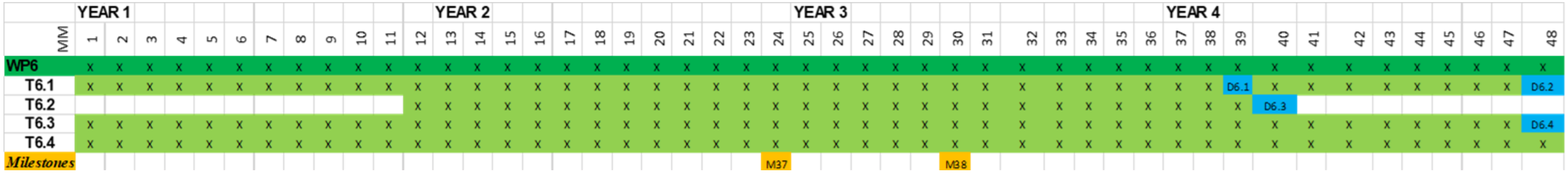
- **T6.3. Interaction with EC bodies and agencies on AQ and AQ-health (M02-M48)**

Lead: Xavier Querol, CSIC; Katriina Kyllönen, FMI, Tuukka Petäjä (UHEL), Participants: CNR, UOB, UU, INERIS

- **T6.4. Interaction with SMEs for AQ instrumentation & management (M02-M48)**

Lead: Andrés Alastuey, CSIC; Tuukka Petäjä, UHEL, Participants: INOE, FMI.

WP6: Timing



September 2020	Start writing the proposal as URBACTRIS
December 2020	Changed to RI-URBANS
January 2021	RI-URBANS submitted (with UFP-PNSD, BC, OC, NH3, Chem Esp, VOCs,….)
May 2021	Invitation for negotiation
October 2021	RI-URBANS started
October 2021	C. Nagl (writing team of base documents for the revision of the NAAQD) contacted us requesting info on the new pollutants, and we sent him the GA
October 2022	The draft of the NAAQD, and in the base documents RI-URBANS was mentioned (inside ACTRIS) as a source of information for new pollutants.
Oct-Mar 2022	ACTRIS-RI-URBANS feedback to the NAAQD discussions
Jan-Sept 2023	& Jan-Sept 2025 Interactions with AQUILA, EEA, EMEP
November 2024	Published NAAQD 2024/1881
December 2024	NAAQD in force
Oct 2023-May 2025	Providing feedback for the document on measurements by DG ENV-EC
May 2025	Document supporting measurements from DG ENV-EC, contains 29 references to RI-URBANS STs

Thanks to partners & project officer for being flexible!!!!

We advanced some key Ds and Ms to supply information to the process. Finishing some of these as in the original grant would have reduced 90% the impact

WP6: Task 6.1

- **T6.1 Stakeholders engagement for maximising impact of RI-URBANS (M02-M48)**

Lead: Rosa M. Petracca Altieri CNR; Katriina Kyllönen, FMI; Xavier Querol CSIC

Participants: CSIC, UHEL, CNRS, NOA, UOB, UU, VITO, FZJ

Transferring the results and STs to local, regional and national AQMN stakeholders by elaborating information packages, to be presented in on-site visits and in a specific workshop. Summary booklet for dissemination by WP7.

WP6: Task 6.1

Number	Authors	Reviewers
Protocols for the measurement of novel AQ pollutants		
ST1	Meritxell García-Marlès (CSIC), Pedro Trecehera (CSIC), Xiansheng Liu (CSIC), (CNRS), Tuukka Petäjä (UHEL), Roy Harrison (UoB), Phillip Hopke (Clarckson University), Alfred Wiedensohler (TROPOS), Andrés Alastuey (CSIC) & Xavier Querol (CSIC)	Karri Saarnio (FMI), Elli Suhonen (FMI), Oliver Bischof (TSI), Carsten Kykal (TSI), Sebastian Schmitt (TSI), Torsten Tritscher (TSI), Joonas Vanhanen (Airmodus), Aki Pajunoja (Airmodus), Imre Salma (ELTE), Katrianne Lehtipalo (UHEL), Christoph Hüglin (EMPA)
ST2	Marjan Savadkoohi (CSIC), Marco Pandolfi (CSIC), Andres Alastuey (CSIC), Tuukka Petäjä (UHEL), Jean Philippe Putaud (JRC), Olivier Favez (INERIS), Xavier Querol (CSIC)	Hilkka Timonen (FMI), Karri Saarnio (FMI), Katriina Kyllönen (FMI), Elli Suhonen (FMI), Christoph Hüglin (EMPA)
ST3	Andrés Alastuey (CSIC), Xiansheng Liu (CSIC), Barend L. Van Drooge (CSIC), Clara Jaén (CSIC), Marta Via (CSIC), Benjamin Chazeau (AMU/PSI), Anja Tremper (ICL), Manos Manousakas (PSI), André S.H. Prevot (PSI), Jean-Eudes Petit (CNRS), Jean-Philipe Putaud (EC-JRC), Olivier Favez (INERIS), Xavier Querol (CSIC)	Hilkka Timonen (FMI), Katriina Kyllönen (FMI), Elli Suhonen (FMI), Falk Mothes (TROPOS), Anja Tremper (ICL), Gang Chen (ICL), Hasna Chebaicheb (INERIS)
ST4	Pamela Dominutti (CNRS), Jean-Luc Jaffrezo (CNRS), Roy Harrison (UoB), Xavier Querol (CSIC) & Gaëlle Uzu (CNRS)	Katriina Kyllönen (FMI), Elli Suhonen (FMI), Tuukka Petäjä (UHEL)
ST5	Thérèse Salameh (IMT Nord Europe) with the collaboration of Xiansheng Liu and Xavier Querol (CSIC)	Katriina Kyllönen (FMI), Jean-Philippe Putaud (JRC), Heidi Hellén (FMI), Elli Suhonen (FMI)
ST6	Marsailidh M. Twigg (CEH), Katriina Kyllönen (FMI), Ulla Makkonen (FMI), Xiansheng Liu (CSIC), Xavier Querol (CSIC)	Wenche Aas (EMEP), Jean Philippe Putaud (JRC)
Methodologies for vertical profiles of pollutants and meteorology		
ST7	Simone Kotthaus (CNRS), Melania Van Hove (CNRS), Martial Haeffelin (CNRS), Francesca Barnaba (CNR), Annachiara Bellini (CNR, now at ARPA VdA), Lucia Mona (CNR)	Xavier Querol (CSIC), Ewan O'Connor (FMI), Adolfo Comerón (UPC), Iwona Stachlewska (UW), Arnoud Apituley (KNMI)
ST8	Lucia Mona (CNR), Doina Nicolae (INOE), Francesca Barnaba (CNR), Annachiara Bellini (CNR, now ARPA Val d'Aosta) Simone Kotthaus (CNRS), Martial Haeffelin (CNRS)	Xavier Querol (CSIC), Ewan O'Connor (FMI), Adolfo Comerón (UPC), Iwona Stachlewska (UW), Arnoud Apituley (KNMI), Andreas Petzold (Jülich)
ST9	Hannah Clark (IAGOS-CNR), Christoph Mahnke (ZJ), Andreas Petzold (FZJ)	Xavier Querol (CSIC), Christoph Gerbig (MPI-BGC)

Number	Authors	Reviewers
Methodologies for source apportionment receptor modelling		
ST10	Fulvio Amato (CSIC), Marta Via (CSIC), Mannos Manousakas (PSI), Benjamin Chazeau (AMU), Gang Chen (ICL), Barend L. van Drooge (CSIC), Jean-Luc Jaffrezo (University of Grenoble, UGA), Olivier Favez (INERIS), Cristina Colombi (ARPA Lombardia), Eleonora Cuccia (ARPA Lombardia), Guido Lanzani (ARPA Lombardia), André S.H. Prevot (PSI), Andrés Alastuey (CSIC) & Xavier Querol (CSIC)	J. Eudes Petit (CNRS), Katriina Kyllönen (FMI), Hilkka Timonen (FMI), Anja Tremper (ICL), Elli Suhonen (FMI)
ST11	*BC:* Marjan Savadkoohi (CSIC), Marco Pandolfi (CSIC), Olivier Favez (INERIS), Mohamed Gherras (INERIS), Andres Alastuey (CSIC), Tuukka Petäjä (UHEL), Xavier Querol (CSIC) *UFP:* Meritxell Garcia-Marlès (CSIC), Phil Hopke (University of Clarkson), Roy Harrison (UoB), Andres Alastuey (CSIC), Tuukka Petäjä (UHEL), Xavier Querol (CSIC) *OP of PM:* Gaëlle Uzu (IGE), Kaspar Daellenbach (PSI), Vy Dinh Ngoc Thuy (IGE), Andre Prevot (PSI), Jean-Luc Jaffrezo (IGE)	Xavier Querol (CSIC), Katriina Kyllönen (FMI), Imre Salma (ELTE), Olivier Favez (INERIS), Hilkka Timonen (FMI), Heidi Hellén (FMI), Elli Suhonen (FMI)
Methodologies for urban mapping of novel air quality pollutants		
ST12	Karine Sartelet (ENPC), Jian Zhong (University of Birmingham, UoB), Eleni Athanasopoulou (NOA), Lya Lugon (ENPC), Soo-Jin Park (ENPC), Roy Harrison (University of Birmingham, UoB)	Augustin Colette (INERIS), Elli Suhonen (FMI)
ST13	Gerard Hoek (Utrecht University, UU), Jules Kerckhoffs (Utrecht University, UU), Martine van Poppel (Flemish Institute for Technological Research, VITO), Jelle Hofman (Flemish Institute for Technological Research, VITO), Roy Harrison (University of Birmingham, UoB), Sef van den Elshout (DCMR Environmental Protection Agency)	Tuukka Petäjä (UHEL), Xavier Querol (CSIC), Elli Suhonen (FMI)
Methodologies for evaluating the health effects of novel AQ pollutants		
ST14	Vanessa Nogueira dos Santos, Ioar Rivas, Xavier Basagaña (ISGlobal)	Roy Harrison (UoB), Gerard Hoek (UU), Xavier Querol (CSIC), Elli Suhonen (FMI)
Obtaining emission inventories for novel AQ pollutants		
ST15	Jeroen Kuenen (TNO), Eleni Athanasopoulou (NOA), Marc Guevara (BSC	Augustin Colette (INERIS), Maria Kanakidou (FORTH), Elli Suhonen (FMI)
Modelling methodologies for novel AQ pollutants		
ST16	Evangelia Siouti (FORTH), Karine Sartelet (ENPC), Elena Poulikidi (FORTH), David Patoulias (FORTH), Lya Lugon (ENPC), and Spyros N. Pandis (FORTH)	Augustin Colette (INERIS), Maria Kanakidou (FORTH), Elli Suhonen (FMI), Martijn Schaap (TNO), Xavier Querol (CSIC)

WP6: Task 6.1

The 16 RI-URBANS' ST & the booklet

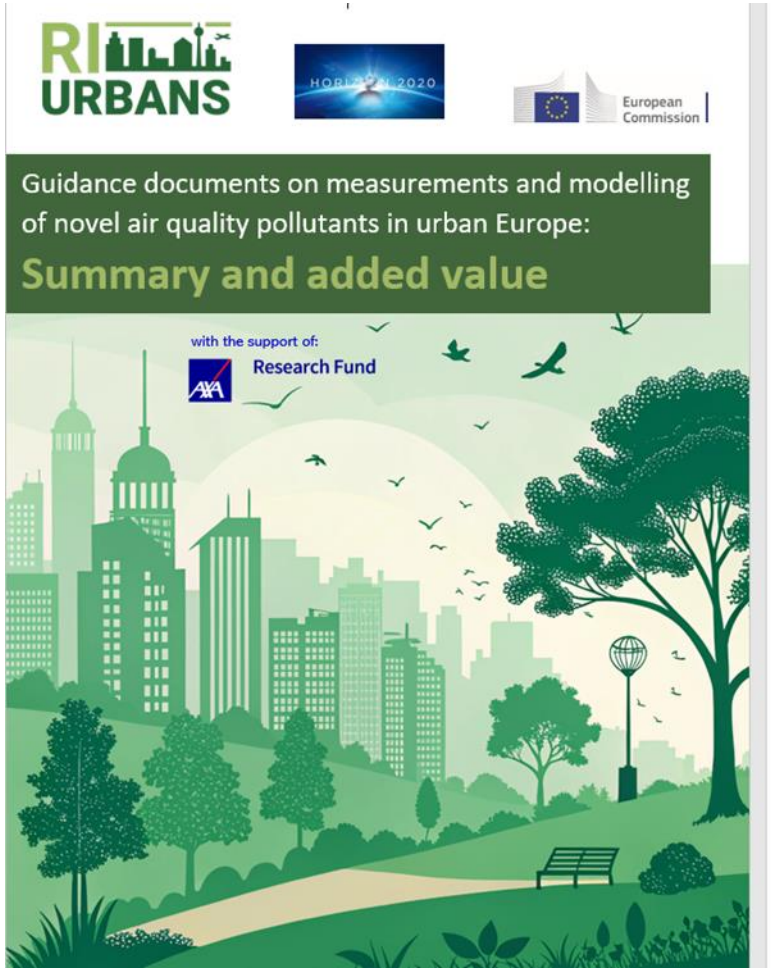
D46 (D6.1): Information packages for local, regional and national AQ administrations (CSIC-FMI, R/PU in M36)

https://riurbans.eu/project/#service-tools

WP6: Task 6.1

The RI-URBANS' booklet

D55 (D7.6): RI-URBANS booklet summarising information packages from WPs 5-6 (CSIC, FMI, UHEL, ACTRIS ERIC, DEC)



Editors: Xavier Querol (CSIC), Fulvio Amato (CSIC), Andrés Alastuey (CSIC), Tuukka Petäjä (UHEL), Katriina Kyllönen (FMI), Rosa Petrocca (CNR)

Authors & Reviewers: See Table 2.2.

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Research Infrastructures Services Reinforcing Air Quality Monitoring Capacities in European Urban & Industrial AreaS (RI-URBANS)

RI-URBANS (http://www.RIURBANS.eu) is supported by the European Commission under the Horizon 2020 – Research and Innovation Framework Programme, H2020-GD-2020,

Grant Agreement number: 10103624

WP6: Task 6.1

The RI-URBANS' booklet

D55 (D7.6): RI-URBANS booklet summarising information packages from WPs 5-6 (CSIC, FMI, UHEL, ACTRIS ERIC, DEC)

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WP6: Task 6.1

Already in the 2004/107/EC directive that is now merged to 2024/2881

Article 10 & Annex VII

Table 1 - Pollutants to be measured at supersites at urban [background] locations

Pollutant	Type of measurement
PM_{10}, $PM_{2.5}$, UFP, BC	Fixed measurements
NO_2, O_3	Fixed measurements
SO_2, CO	Fixed or indicative measurements
Size distribution of UFP	Fixed or indicative measurements
Benzo(a)pyrene, other polycyclic aromatic hydrocarbons (PAH) as relevant (1)	Fixed or indicative measurements
Total deposition (2) of benzo(a)pyrene, and other polycyclic aromatic hydrocarbons (PAH) as relevant	Fixed or indicative measurements
Arsenic, cadmium, lead, and nickel	Fixed or indicative measurements
Total deposition (2) of arsenic, cadmium, lead, nickel and mercury	Fixed or indicative measurements
Benzene	Fixed or indicative measurements
Chemical composition of $PM_{2.5}$ in accordance with Section 1 of Annex VII	Fixed or indicative measurements

Table 2 - Pollutants to be measured at supersites at rural background locations

Pollutant	Type of measurement
PM_{10}, $PM_{2.5}$, UFP, BC	Fixed measurements
NO_2, O_3 and ammonia (NH_3)	Fixed measurements
SO_2, CO	Fixed or indicative measurements
Total deposition of benzo(a)pyrene and other polycyclic aromatic hydrocarbons (PAH) as relevant	Fixed or indicative measurements
Total deposition of arsenic, cadmium, lead, nickel and mercury	Fixed or indicative measurements
Benzo(a)pyrene, other polycyclic aromatic hydrocarbons (PAH) as relevant (1)	Fixed or indicative measurements
Arsenic, cadmium, lead, and nickel	Fixed or indicative measurements
Chemical composition of $PM_{2.5}$ in accordance with Section 1 of Annex VII	Fixed or indicative measurements
Total gaseous mercury	Fixed or indicative measurements

(1) benzo(a)pyrene and the other polycyclic aromatic hydrocarbons referred to in Article 9(8)

Table 3 - Pollutants recommended to be measured at supersites at urban and rural locations if not covered by the requirements of Tables 1 and 2

Pollutant	Type of measurement
Size distribution of UFP	Fixed or indicative measurements
Particulate matter oxidative potential	Fixed or indicative measurements
Total deposition of benzo(a)pyrene and other polycyclic aromatic hydrocarbons (PAH) as relevant	Indicative measurements
Ammonia (NH3)	Fixed or indicative measurements
Levoglucosan to be measured as part of the chemical composition of PM2.5	Fixed or indicative measurements
Total gaseous mercury	Fixed or indicative measurements
Particulate and gaseous divalent mercury	Fixed or indicative measurements
Nitric acid	Fixed or indicative measurements

Not considered in RI-URBANS

In many cases following WHO (2021) recommendations, in others support assessing policies

WP6: Task 6.1

SPANISH MINISTRY OF ENVIRONMENT SUPPORTED THE TRANSLATION INTO SPANISH

https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/temas/atmosfera-y-calidad-del-aire/documentacion-oficial.html

Guías RI - URBANS

Guías RI URBANS - Resumen y valor añadido

Guía RI URBANS ST1 - Partículas Ultrafinas - Distribución del tamaño

Guía RI URBANS ST2 - Determinación de Black Carbon

Guía RI URBANS ST3 - Especiación de PM en tiempo real y en laboratorio

Guía RI URBANS ST4 - Potencial oxidativo de las partículas

Guía RI URBANS ST5 - Compuestos orgánicos volátiles

Guía RI URBANS ST6 - Amoníaco

WP6: Task 6.1 Co-design and dissemination

- 1st Stakeholder Meeting (May 2022, 57 attendees) remote.
- 2nd Stakeholder Meeting for Poland, Warsaw on February 2023 hybrid.
- 3rd Stakeholder Meeting (with ACTRIS, AQUILA and EMEP) to discuss recommendations sent to DG ENV-EC for the review of the NAQD. Remote.
- Webinar on Instruments and Protocols to Measure Advanced Air Quality Parameters (January 2024) with the AQUILA community. Remote
- Two meetings on 4th and 22nd October 2024 the guidance for STs in an AQ stakeholder webinar organised by ATMO-ACESS-RI-URBANS.
- RI-URBANS in the 6th Knowledge & Citizens WG meeting (November 2024), organised online by the Green Deal Projects Support Office.
- 16th April 2025, RI-URBANS webinar to present 16 published guidance, remote
- 7th Knowledge and Citizens Working Group meetings (22nd April 2025), organised online by the Green Deal Projects Support Office.
- 30th April 2025 1000 printed copies of the summary report of the 16 STs that have been distributed among stakeholders. AXA Research Fund supported the costs.
- In 7th-8th April 2025 a large event was organise in Italy. Hybrid.
- 24th-25th April 2025, RI-URBANS STs presented to the Ministry for Ecological Transition and the managers of the AQMNs of Spain. Face-to face.
- Presentations to stakeholders in Poland. Hybrid.
- Presentations to stakeholders in Romania. Hybrid.
- Presentations to stakeholders in Slovenia. Hybrid.
- Presentations to stakeholders in Finland (6 in-person or hybrid meetings reaching AQMNs, authorities, Ministry, scientists, standardisation body)
- Nordic-Baltic National Reference Laboratories Meeting, Reykjavik, Iceland, 20th and 21st May 2025. Face to face.
- 30th May 2025 Jornada “La nueva Directiva Europea de Calidad del Aire” (face-to-face) Ecologistas en Acción (NGO), Madrid (link to the video).
- Translation to Spanish ST1 to ST6 and the booklet (link), January-July 2025.
- Presentation of the 16 Service Tools to national NRLs in the annual AQUILA meeting (face-to-face, 23-24 Sep 2025)

Did you gave national presentations for your stakeholders. Please send it to us to be included?

WP6: Task 6.2

- **T6.2. Roadmap for citizen engagement (M12-M40)**

Lead: Martine van Poppel, VITO; Gerard Hoek UU

Participants: UoB, CSIC, UHEL, NOA, INOE, CNR

To develop a roadmap for citizen participation in AQ monitoring based on best practices from WP2 and lessons learned in the pilot WP4.

Guidance on how developed concepts can be integrated in a sustainable way in AQMNs and engagement strategies that can be used by AQMNs.

WP6: Task 6.2

D48 (D6.3): Roadmap for citizen engagement for AQ monitoring (VITO, R/PU)

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WP6: Task 6.2

D48 (D6.3): Roadmap for citizen engagement for AQ monitoring (VITO, R/PU)

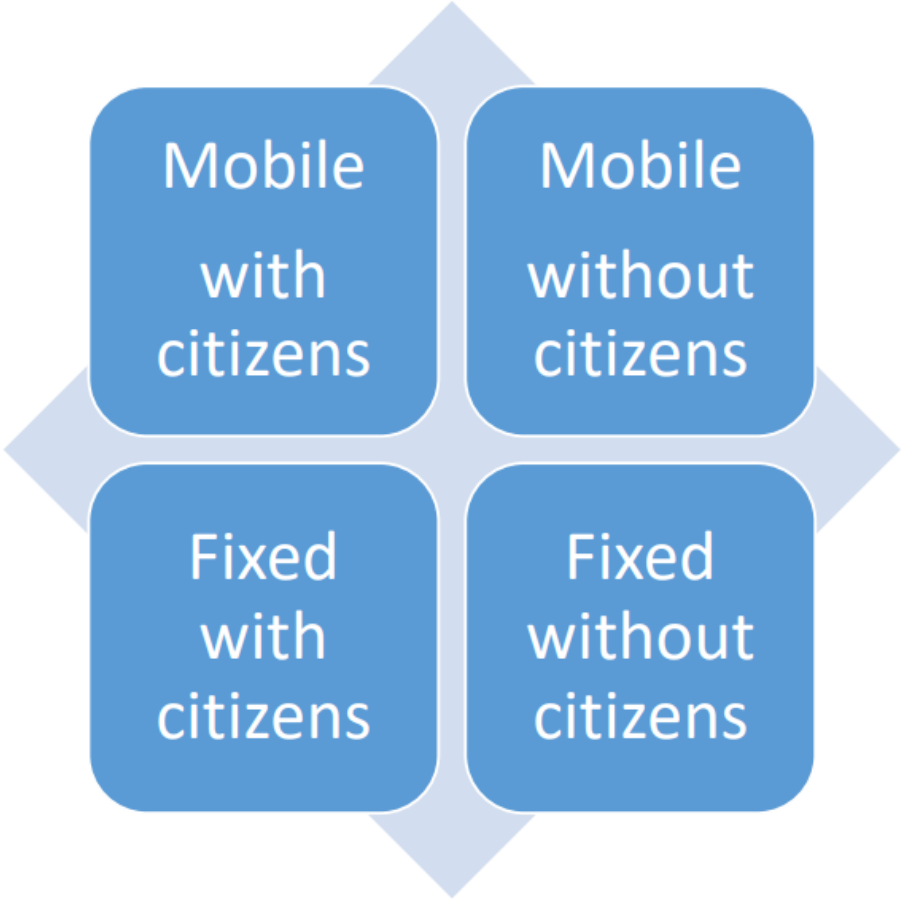


Figure 1. *Schematic overview of different approaches for collecting data for high-resolution exposure mapping.*

WP6: Task 6.3

- **T6.3. Interaction with EC bodies and agencies on AQ and AQ-health (M02-M48)**

Lead: Xavier Querol, CSIC; Katriina Kyllönen, FMI

Participants: CNR, UOB, UU, INERIS

Key policy bodies, such as DG-ENV, Mission Board of Neutral-Climate Cities, and European and international agencies (such as EEA, UNECE-EMEP, WHO, WMO, the Copernicus Program) are approached to show the European added value of RI-URBANS STs. Actions involve, among others, informing and liaising with key stakeholders in dedicated meetings or existing forums, using the information packages produced.

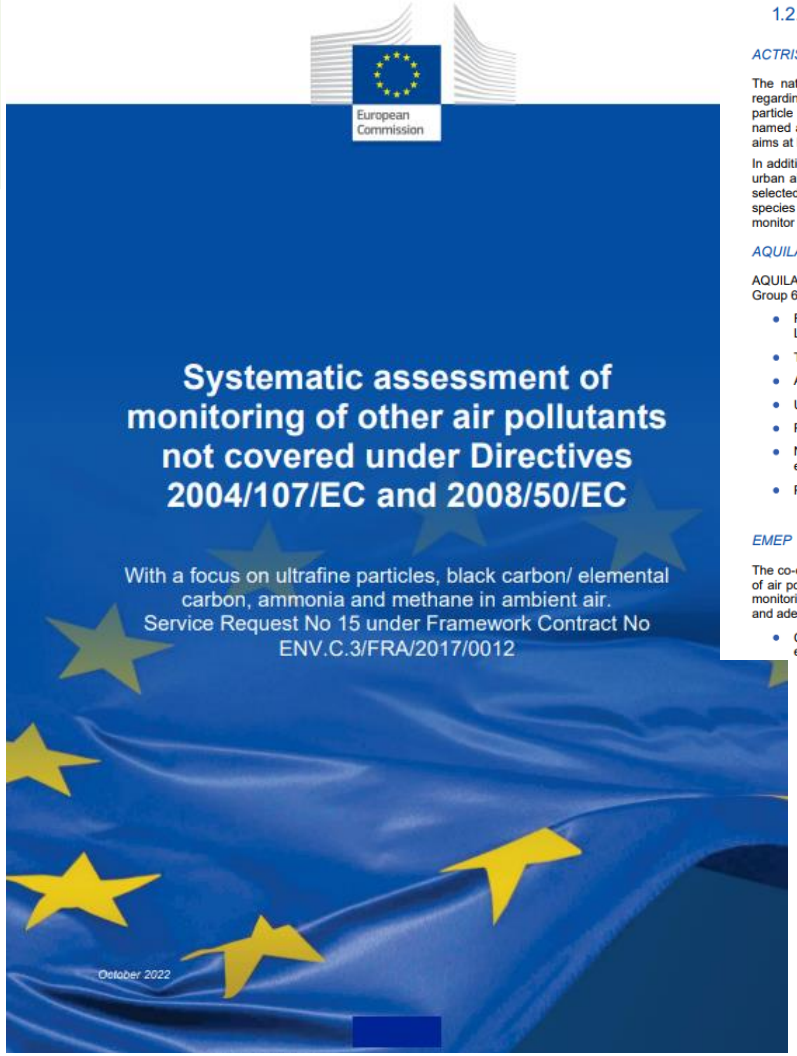
- **D47 (D6.2):** In-situ presentation of the information packages and stakeholder workshop (CNR, R/PU in M48).
- **D49 (D6.4):** European added value of implementing the RI-URBANS strategy (CSIC, R/PU in M48).

WP6: Task 6.3

- Presentation to EC-DG-ENV, JRC and EEA staff, December 2021, remote.
- GA sent for information on STs of advanced AQ parameters were supplied to C. Nagl working for the review of the NAQD.
- Most of these AQ measurement STs are included in the EC proposal of the NAQD, which was released on October 26, 2022.
- November 2002- March 2023 in collaboration with ACTRIS, EMEP, AQUILA sent recommendations for this NAQD (https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12677-Air-quality-revision-of-EU-rules/F3387367_en).
- 4th December 2023 co-organised with the Green Deal (GD) Support Office (GD-SO) the Webinar Clearing the Air: Research Findings on New Additions to the NAQD..
- March-September 2024 interactions with the RICARDO-driven consortium to report on STs. As a aconsequence, the final DG ENV report on monitoring to support the implementations of the NAQD was made publicly available on May 2025, and contains 29 references to RI-URBANS STs for recommending implementing the measurements of Article 10 of the NAQD-2024/2881.
- 5th May 2025, RI-URBANS STs were presented in the Task Force for Monitoring and Modelling of EMEP (UN-ECE) (face to face), Postdam (link).
- 20th May 2025, Health outcomes of the exposure to the novel RI-URBANS pollutants presented at WHO in the 28th Joint Convention/WHO TFH-LRTAP (link).
- 18th June 2025 RI-URBANS results were presented in DG ENV Headquarters (face-to-face), with the participation of EEA. AQUILA, JRC staff, Brussels.
- 16th September 2025 RI-URBANS presented in the General EMEP-UNECE meeting at UN-Geneva (face-to-face)
- 17th September RI-URBANS presented in the WHO Headquarters at Geneva (face-to-face).
- 19th September RI-URBANS results presented for EEA Headquarters (webinar).
- 2025, every 3-month meet ACTRIS-EEA-AQUILA-RI-URBANS on DM. Remote.

WP6: Task 6.3

29 references to RI-URBANS



1.2. International organisations

ACTRIS

The national focal points (NFP) of the ACTRIS[14] network were asked for information regarding additional pollutants to be monitored and their priorities. In their replies UFP, particle number size distribution (PNSD), aerosol composition (including BC/EC) were named as pollutants which are of interest to ACTRIS and for which the ACTRIS network aims at harmonising monitoring.

In addition, contact was established to the project RI-URBANS[15], which aims at innovative urban air quality service tools, complementing existing air quality monitoring networks in selected cities, and providing innovative tools to better quantify the impact of atmospheric species most harmful to human health. Next to this, the importance was highlighted to monitor biogenic VOC as ozone precursor by an ACTRIS NFP.

AQUILA

AQUILA[16] is the European Network of National Air Quality Reference Laboratories. Working Group 6 under AQUILA currently discusses additional pollutants as well, which include:

- Fine combustion particles (Black Carbon, Elemental Carbon, Organic Carbon, Levoglucosan) at urban sites
- Tracer for non-exhaust emissions of traffic, esp. metals such as Mn
- Ammonia (NH_3) in areas where critical loads for eutrophication are largely exceeded
- Ultrafine particles (UFP) and size distribution at urban super-sites
- Particulate matter oxidative potential (urban sites under research projects)
- Nitro-PAH (mainly from diesel engines, in areas where high concentrations are expected)
- Pesticides (in areas where high concentrations are expected)

EMEP

The co-operative programme for monitoring and evaluation of the long-range transmission of air pollutants in Europe (EMEP)[17] under the UNECE Air Convention[18] has developed a monitoring strategy[19], which covers a large set of pollutants that should provide consistent and adequate observational data supporting the EMEP objectives. These include *inter alia*:

- Concentrations and deposition fluxes to assess exposure and impacts on health, ecosystems, vegetation, materials;

https://op.europa.eu/en/publication-detail/-/publication/1c9b2b51-54dd-11ed-92ed-01aa75ed71a1/language-en

5.7. Relevant guidance documents and references

The technical support provided in this document refers to the instructions provided in Standard Methods and Technical Specifications published by the European Committee for Standardization (CEN). These Standard Methods and Technical Specifications are available for purchase from National Standards Institutes. Other relevant guidance documents are also included at the end of the section, including the EMEP Manual, RI-URBANS guidance document ST3 and GMOS SOP that are available online.

https://op.europa.eu/en/publication-detail/-/publication/8ddd9bca-3464-11f0-8a44-01aa75ed71a1/language-en

WP6: Tasks (4/4)

- **T6.4. Interaction with SMEs for AQ instrumentation & management (M02-M48)**

Lead: Andrés Alastuey, CSIC; Tuukka Petäjä, UHEL

Participants: INOE, FMI.

To approach SMEs providing instrumentation for the advanced AQ observations, smart and low-cost sensors, maintenance of AQMNs and modelling, in the case of the 9 cities of the 5 pilots, to offer collaboration, offering the results of RI-URBANS to improve their modelling tools.

WP6: Task 6.4

- Interactions with SMEs related with AQ instrumentation and management.

i) AEROSOL doo company collaborates in WPs 1-4 with CSIC. Supplied Aethalometers for measuring absorption at different size fractions (PM1, PM10 and coarse PM) at BCN sites. They provided a new AE36 prototype for testing. They have also provided a TCA for online determination of total carbon (TC). Combination of these measurements with other online operational instruments (ACSM, AE, OCEC) is of high interest for SA and NRT-SA.

ii) AIRMODUS Ltd supplied a new CPC for measurements in HEL, where UHEL and FMI have the RI-URBANS supersite involved in pilots from WP4. AIRMODUS collaborates in measurements of UFP in Helsinki.

iv) Distributed Sensing Technologies LLC, supplied Observair sensors and Aethlabs micro-aethalometers (AE51, MA200 and MA350) are being tested in an urban environment (HEL supersite) where UHEL and FMI evaluate the data.

v) An AQmesh instrument for application in AQ measurements provided by INOESY has been tested at the supersite location along with standard instruments and deployed in the pilot on measurements around hotspots.

vi) UHEL hosted AIRMODUS, GRIMM and TSI to explore sampling ambient aerosol with the new instruments.

vii) RI-URBANS was involved in a large inter-comparison study to test the performance of Partector2PRO by NANEOS, to evaluate if mid-cost instruments might yield solid data on PNSD.

WP6: Deliverables & milestones

- **D46 (D6.1):** Information packages for local, regional and national AQ administrations (CSIC-FMI, R/PU in M36 moved to M39).
- **D47 (D6.2):** In-situ presentation of the information packages and stakeholder workshop (CNR, R/PU in M48).
- **D48 (D6.3):** Roadmap for citizen engagement for AQ monitoring (VITO, R/PU in M40).
- **D49 (D6.4):** European added value of implementing the RI-URBANS strategy (CSIC, R/PU in M48).
- **M37 (M6.1):** Establish contacts with AQ-competent administrations and private companies to maximise the RI-URBANS impacts (FMI in M24).
- **M38 (M6.2):** Establish contact with EU and international agencies on AQ and AQ-health (CSIC in M30).

- **Unforeseen deliverable (D6.1b):** Recommendations for DG ENCV & AQUILA from RI-URBANS & ACTRIS to for implementing advanced AQ parameters in the new EU AQ Directive (M17)

WP6: Other issues: Stakeholders involved along the project

824 contacts

EU-27		Other European	
Austria	5	Andorra	2
Belgium	11	Norway	16
Bulgaria	1	Serbia	9
Croatia	6	Switzerland	14
Cyprus	10	Ukraine	1
Czech Republic	1	United Kingdom	19
Denmark	1	**Other National**	
Estonia	1	Australia	1
Finland	13	Canada	1
France	36	Chile	1
Germany	25	Ghana	1
Greece	24	Korea	1
Hungary	5	Peru	1
Ireland	2	Turkey	3
Italy	206	**International Bodies**	
Latvia	2	EC	15
Lithuania	3	UNECE	1
Luxemburg	3	EEA	3
Malta	1	EEB	1
Poland	59	WHO	6
Portugal	11	WMO	3
Romania	13	**Private companies**	113
Slovakia	1		
Slovenia	7		
Spain	141		
Sweden	11		
The Netherlands	20		

	Organisation
Andorra	Andorra Research & Innovation Govern Andorra
Australia	Queensland University of
Austria	Environment Agency Austria The Planet Calls
Belgium	CONCAWE Fleming Environment Agency GD-SO Interegional Environment Agency VITO
Bulgaria	Academy Sciences ACTRIS
Canada	University of Waterloo
Chile	Servicio de Evaluación Ambiental
Croatia	Air Quality Measurement Division, Institute for Medical Res & Occup IMROH
Cyprus	Ministry of Labour, Welfare and The Cyprus Institute
Czech R.	CHMI CZE Czech
Denmark	Aarus University
EC	DG Environment EC Official at European European Environmental Bureau European Research Executive Joint Research Centre Mobility Unit, DG Internal Market,
EEA	European Environment Agency
Estonia	National reference laboratory
Finland	Finnish Environment Institute Helsinki Region Environ Services HOPE project University of Helsinki
France	ADEME Agency for Ecological Transition AIRPARIF CEREA, Ecole des Ponts ParisTech CNRS CNRS/IGE/IRD (France) DGEC, Ministère Environnement France Nature Environnement Ile de France INERIS Air – Climat – Énergies Institut Mines-Télécom, IMT LCE, Aix Marseille Univ., CNRS LCSQA French Reference Ministère de la Transition Université Clermont Auvergne University Lille, LOA
Germany	DWD (German Meteorological FZJ German Environment Agency LANUV NRW, Germany Medical advisor Saxon State Office for Env, Agr TROPOS University Duseldorf, HHU
Ghana	Kwame Nkrumah University of
Greece	Athens City Centre of Research & Technology Dep Environ Health, National FORTH GD Sustainable Development & Ministry of Environment and National Observatory of Athens National Public Health NCSR DEMOKRITOS Region of Attica
Hungary	Hungarian Meteorological Service Institute of Chemistry, Budapest
Ireland	Environmental Protection Agency Irish Meteorological Service
Italy	Agenvia Mobilita AT ARPA Campania ARPA Emilia-Romagna ARPA FVG ARPA Lazio ARPA Lombardia ARPA Marche ARPA Molise ARPA Piemonte ARPA Puglia ARPA Sardegna ARPA Sicilia ARPA Toscana ARPA Trento ARPA VdA ARPA Veneto ARPAB Agenzia Regionale Arta Abruzzo AST Ancona – Dipartimento di ATS ATS of Milan ATS Val Padana Province of Trento – EPA Autorità di Sistema Portuale del City of Pioltello Consorzio LaMMA CUFAA ENEA Enna "Kore" University EPA Bolzano-Italy Forum dell'aria IBE-CNR ICP-CNR IMAA-CNR Instituto Superiore di Sanita ISAC-CNR ISPRA Legambiente Mantua Provincial Administration Marche Region Milano Smart Park Ministero Istruzione e Merito
Italy (cont.)	Ministry for the Environment Ministry Health Municipality of Verona Politecnico di Milano Politecnico di Torino Provincia di Bergamo Provincia di Lecco Regione utónoma della Sardegna Regione utónoma Fiuli Venezia Regione Campania Regione Emilia Romagna Regione Friuli-Venezia Giulia Regione Lombardia Regione Marche Regione Umbria SARPOM Sicily – Regional Department of Università degli Studi Milano- Università del Piemonte Orientale Università di Tor Vergata Roma University Federico II, Napoli University of Bologna University of Genova University of L'Aquila University of Milan University of Modena University of Naples "Parthenope" University of Perugia University of Pisa University of Trieste University School for Advanced
Korea	Korea University
Latvia	Latvian Environ, Geol &d Met
Lithuania	Center for Physical Sciences and FTMC
Luxemburg	Administration Environnement
Malta	Ambient Quality ERA
Norway	NILU
Peru	Wals Peru SA
Poland	AGH University of Science and Bydgoszcz City Climate Committee, Sejmik Śląski Earth Observation Dep, Polish Environmental Monitoring European Clean Air Centre Inspectorate of Environmental Institute for Territorial Institute of Environmental Institute of Environmental Institute of Geophysics ACTRIS- Institute of Meteorology and Water Instytut Podstaw Inżynierii Lublin City National Air Quality Reference, Office of Air Protection and Politechnika Warszawska Stanisław Staszic University of Sci
Poland (cont.)	Strategic Research Infrastructure University of Life Sciences, ACTRIS- University of Opole University of Silesia in Katowice University of Warsaw Warsaw City Warsaw University of Technology Wielkopolska Regional Environ
Portugal	Institute for Earth Sciences Uni Evora IrRADIARE Portuguese Enviroment Agency University of Aveiro University of Porto
Romania	Bucharest City Hall Ilfov County INOE INOESY SRL Ministry of Environment National Agency for Environ National Environment Protection Nat Inst Res& Dev for Primaria Magurele
Serbia	BioSense Institute Institute of Nuclear Sciences, Serbia Institute of Public Health Belgrade University of Novi Sad, BioSense
Slovenia	Institute JozefStefan Environment KI, National Institute of Chemistry Ministry of the Environ & Spatial Slovak Hydrometeorological Institute University Novi Gorici
Spain	AEMET Agència de Salut Pública de Àrea Metropolitana de Barcelona Barcelona City Barcelona Supercomputing Center BASF Castelldefels City CIEMAT Comunidad de Madrid Diputació de Barcelona Eurecat Generalitat de Catalunya Generalitat Valenciana Gobierno de Aragón Govern Illes Balears IDAEA-CSIC Institute for Advanced Architecture of Instituto de Salud Carlos III IPNA-CSIC ISGlobal Junta Castilla y León Junta de Andalucía Junta de Castilla La Mancha LEITAT Madrid City Ministry for Ecological Transition

WP6: Other issues: Stakeholders involved along the project

824 contacts

	Organisation
Spain (cont.)	Mossos d'Esquadra (Police) Observatori de Qualitat Ambiental Litoral-Besòs Observatory Fabra RACAB Parlament de Catalunya Polytechnic University of Valencia Principado de Asturias Sant Cugat City Science for Change Terrassa City Universidad de Extremadura Universitat de Barcelona University of A Coruña University of Granada University of Huelva Vic City Xunta de Galicia Zaragoza City
Sweden	Lund University Stockholm City Stockholm University Swedish Environmental Protection Agency Swedish Environmental Research Institute
Switzerland	Canton St Gallen Office for the Environment Canton Zurich Canton Zürich Federal Office for the Environment Leiterin Fachstelle Umwelt, Umwelt- und Gesundheitsschutz Winterthur Paul Scherrer Institute Swiss TPH University of Bern Zurich City
Netherlands	DCMR Environmental Protection Agency Rijnmond Delft University of Technology Leiden University Oneplanet Research Center RIVM TNO Utrecht University Wageningen University
Turkey	Istanbul University Koc University
Ukraine	National Aviation University
UNECE	UNECE
United	Birmingham City DEFRA Department of Health, Northern Ireland IAGOS Imperial College London Public Health England Scottish Environment Protection Agency SEPA UK Environment Agency UK Health Security Agency University of Birmingham Welsh Government
WHO	WHO
WMO	WMO

Company	Company
21c Consultancy	Privata
Abacus Laser	RADIELLO
Acea Elabori SpA	Raymetrics
Acoem	RICARDO
ADDAIR	SaliBri Cooper
Adenc	Setam srl
Aerodyne	SIMAM SPA
Aerosol doo	Simularia Srl
Aethlabs	Solware srl
Agilent (contact France)	TEA Group SRL
Air Quality Consultants	Tera Environnement
Airly	TerrAria srl
AIRMODUS	TRAGSATEC
Alphasense	TSI
AQMesh	Vaisala
ARIANET	
Art-er	
Aureo comunicazione	
Barcelona Regional	
Cambridge Environmental Research Consultants	
Cambustion	
CF Energy Service	
Chromatotec	
Cimel	
Coccosphere	
CON.TEC Engineering Srl	
CONCAWE	
CONSULENTE	
Datalystica	
DEKATI	
Durag	
EKOMETRIA	
Envicontrol Group	
Enviro Technology Services Ltd	
ESOLVE	
Fassmer Technical Projects	
GEA SRL	
GRADKO	
GRIMM	
Haze instruments	
ing. sergio Iezzi	
INOESY	
IRCCS Mario Negri	
KUNAK	
LECO	
LNI Swissgaz	
Los Gatos	
Markes (UK)	
MCV	
Menapia	
Meteosim	
Michela Malagoli	
NANEOS	
Orion SRL	
OTT-Hydromet (Lufft)	
PALAS	
Picarro	

WP6: Other issues

ICOS-Cities/RI-URBANS

- *Joint meeting at the end of the project (Unsuccessful, because different timings)*
- *Joint booklet to include STs from both projects (Unsuccessful, because different timings)*
- *Joint visit to DG ENV (Unsuccessful)*

Thanks a lot for your attention!!