



Workshop Title	Harmonising Environmental AMR Monitoring: A One Health Data Infrastructure Approach
Facilitators and contributors Details of the individuals leading and contributing to the workshop, including: • Workshop facilitators • Guest speakers or contributors • Their roles in the session	Facilitators: Thomas Berendonk Johan Bengtsson-Palme Ulrike Loeber Luis Pedro Coelho Speakers: Henrik Caspar Wegener (currently leads a database for food borne AMR) Nikiforos Alygizakis (responsible for AMR in the NORMAN database) Windi Muziasari
Background An overview of the context and rationale for the workshop, outlining the key issue, challenge, or opportunity it addresses, and why this topic is timely and relevant.	Antimicrobial resistance (AMR) poses a major challenge to public health, yet integrated data infrastructures linking human, veterinary, and environmental sectors are still lacking. In the environmental domain, AMR data are often fragmented, non-standardised, and inaccessible across sectors, limiting coordinated response and policy development. The revised EU Urban Wastewater Treatment Directive now mandates AMR monitoring in municipal wastewater, creating a unique opportunity to establish harmonised, FAIR-compliant environmental AMR data systems. This workshop brings together experts from microbiology, bioinformatics, environmental sciences, and public health to discuss the development of a One Health Data Platform for Environmental AMR Monitoring (OH-DMS) as a foundation for harmonised AMR surveillance.
Workshop Aims A description of the purpose of the workshop and its intended focus. This section highlights what participants can expect to explore, learn, or develop during the session.	The workshop aims to foster cross-sector dialogue and co-design approaches for environmental AMR monitoring and data integration under the One Health framework. Participants will: • Explore standards for sampling, analysis, and data annotation in environmental AMR research; • Identify key components and governance models for a shared AMR data platform; • Discuss pathways for linking environmental, clinical, and veterinary datasets; and • Develop a roadmap for harmonised data collection and exchange. By combining technical, regulatory, and practical perspectives, the session will advance collaboration between research institutions, wastewater utilities, and policy bodies.
Participant Takeaways A summary of what participants will gain from attending the workshop. This may include new knowledge, practical skills, tools, frameworks, or shared resources, as well as any tangible outputs (e.g. ideas, draft materials, or collaborative outcomes).	• A draft roadmap for harmonising environmental AMR data collection, analysis, and management across sectors; • Reflect on the current approach/protocols planned in the EU and formulate set of practical recommendations for standardising sampling and sequencing protocols • A conceptual framework for an interoperable and FAIR-compliant data platform linking human, animal, and environmental data; • Networking connections among institutions involved in environmental AMR monitoring, data management, and One Health governance; • An initial outline for a collaborative white paper or policy brief addressing data integration challenges and opportunities in environmental AMR monitoring. Ideally soon after the workshop

	already a beta-version of the database (for a later data management) to be tested as a pilot.
Expected Impact An outline of the broader value of the workshop, including how it may: • Influence research, policy, or practice • Support collaboration and knowledge exchange • Contribute to future work or ongoing initiatives	This workshop will serve as a catalyst for establishing a coordinated environmental AMR monitoring network in Europe and beyond. By aligning methods and data structures, the outcomes will directly support: • The implementation of the EU Urban Wastewater Directive (UWWTD, 2023) requirements on AMR monitoring; • In the best case a worldwide One Health Platform (OHP) in developing shared infrastructures for environmental health data. • The uptake of FAIR data principles in AMR surveillance; and • Evidence-based policy design through transparent, standardised, and comparable data. The workshop's interactive design—combining short impulse talks, group work, and mapping exercises—will foster actionable results rather than solely discussion. Participants from academia, regulatory agencies, and wastewater operators will co-create prototypes for harmonised workflows and data flows. Most importantly the participants will also develop criteria for easy-access and use of data. Follow-up collaborations are anticipated in the form of multi-institutional pilot studies and integration of workshop outcomes into upcoming research consortia and EU-level AMR data initiatives also of past EDAR initiatives
Who should attend? Information on the intended audience for the workshop, including: • Relevant backgrounds, sectors, or expertise • The level of participation expected (e.g. discussion, group work, problem-solving)	Target participants: • Environmental microbiologists, wastewater engineers, data scientists, and public health researchers, medical doctors, veterinarians • Representatives from water authorities, regulatory agencies, and One Health policy units; • Practitioners from wastewater utilities and environmental monitoring organisations. Active participation will be expected through group work and breakout discussions, with facilitators moderating cross-disciplinary exchanges. Participants will be invited via professional networks and research networks (EDAR community, JPI-AMR, water4all, AMR research clusters). Assistance from the conference organisers in recruiting international contributors and policy representatives is welcome.
Workshop Schedule and Duration A summary of the structure and flow of the workshop, including: • Key session components • Interactive or breakout activities	Welcome & Introduction (Workshop aims and One Health context) <i>15-minutes</i> Impulse Talks – AMR Monitoring Standards & Data Integration Challenges <i>15-minutes</i> Group Activity: Mapping Barriers and Enablers in Environmental AMR Data Sharing <i>40-minutes</i> Breakout Sessions: Designing Elements of a One Health Data Platform <i>30-minutes</i> Wrap-Up: Draft Roadmap & Next Steps toward Collaborative Implementation <i>15-minutes</i>