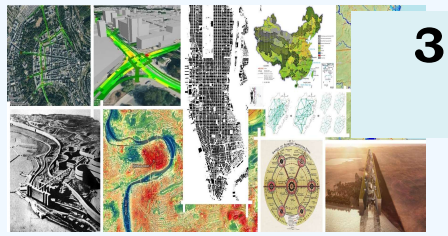

3rd International Conference on Future Challenges in Sustainable Urban Planning

THE QUADAQ FRAMEWORK

A Multi-Level Partnership Model for Sustainable Air Quality Management

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THE URBAN CHALLENGE

9 out of 10 people globally breathe contaminated air (7 million premature deaths/year).
Current Challenges:
• Monitoring Gaps: Conventional stations lack coverage.
• Fragmented Governance: Disconnect between data & policy.
• Sustainability: Projects die when funding ends.

THE QUADAQ LEVELS

A partnership model categorizing actors into four levels:

1. Micro Level: Citizens & Communities (Local Context)
2. Meso Level: Industry & Transport (The Emitters)
3. Macro Level: Academia & NGOs (Scientific Validity)
4. Mega Level: Govt & Policy (Regulations & Resources)

Hypothesis: Sustainable management requires linkages between ALL four.

COMPARATIVE ANALYSIS

Analyzed two European Citizen Science projects:
• CitiObs (Horizon Europe): Strong Policy Link
• AirForAll (Erasmus+): High Accessibility

Level	CitiObs	AirForAll
Micro	Strong	Strong
Macro	Strong	Limited
Mega (Policy)	Direct Link	Limited

KEY FINDING: THE MESO GAP

Both frameworks failed to effectively engage the Meso Level (Polluters). Without Industry collaboration, source reduction is impossible.

DISCUSSION

Sustainability Risk:
AirForAll lacks 'Mega' (Policy) connections, risking collapse after funding ends. CitiObs fares better due to institutional ties.

The Adversarial Trap:
Excluding the Meso level creates a dynamic where citizens 'monitor to blame' rather than 'monitor to solve'.

RECOMMENDATIONS

1. Explicitly Interlock Levels: Governance must integrate community data with oversight.

2. Bridge the Meso Gap: Create forums for Industry and Citizens to co-design strategies.

3. Institutionalize Support: Move from temporary grants to permanent municipal budgets.

Participatory science must evolve from 'temporary experiment' to permanent urban infrastructure.