

Citizen Science Monitoring of Air Pollution from residential wood burning using low-cost sensors


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I am a Senior Scientist at NILU

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Liveable, healthy and sustainable cities

Municipalities have to provide **healthy** and **pollution free** neighbourhoods, reduce **climate change** emissions and provide **public spaces for city life** accessible for everybody.

NordicPATH focuses on the required Socio-Technological Change. NordicPATH builds on the necessity of a changeover towards **citizen-inclusive governance**.

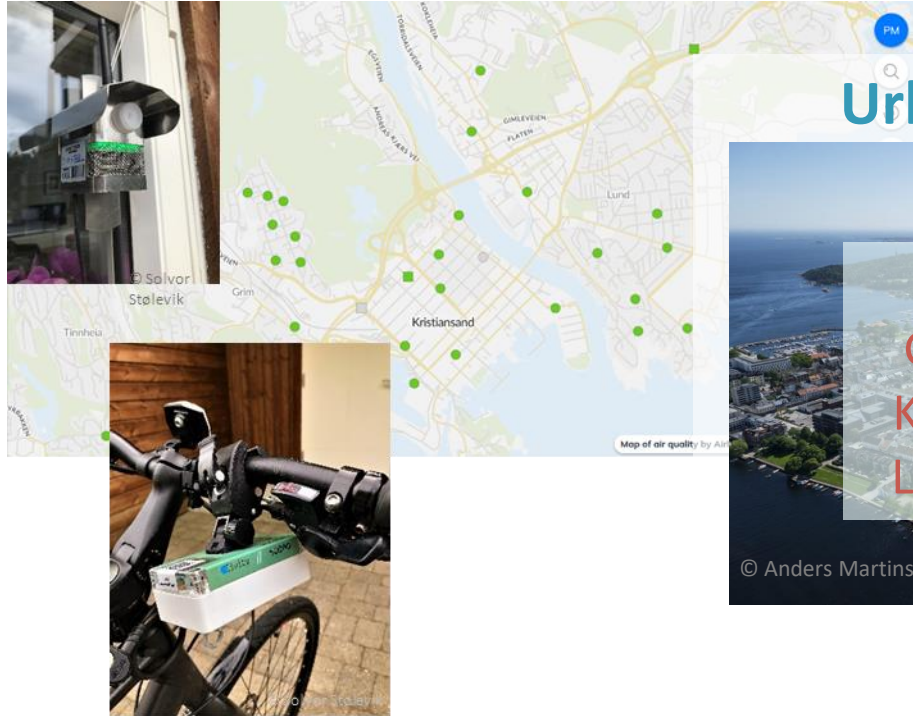
NordicPATH investigates **how technologies can facilitate processes of collaborative co-design of solutions** towards shaping more liveable, healthy and sustainable cities for everyone.



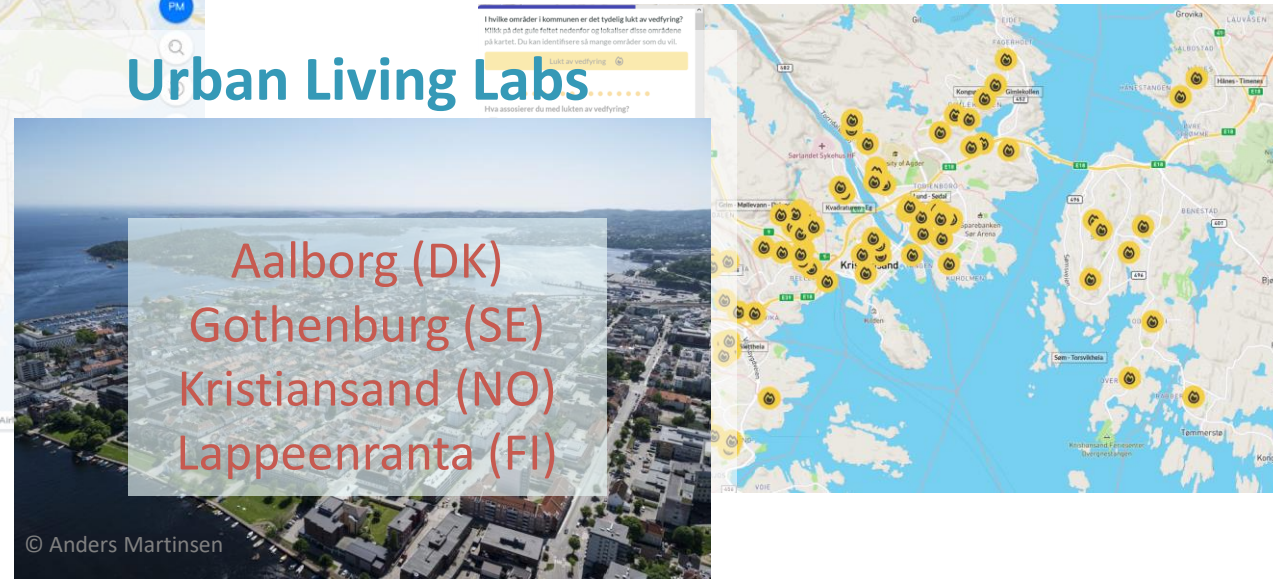
NordicPATH model for citizens participation



Environmental co-monitoring



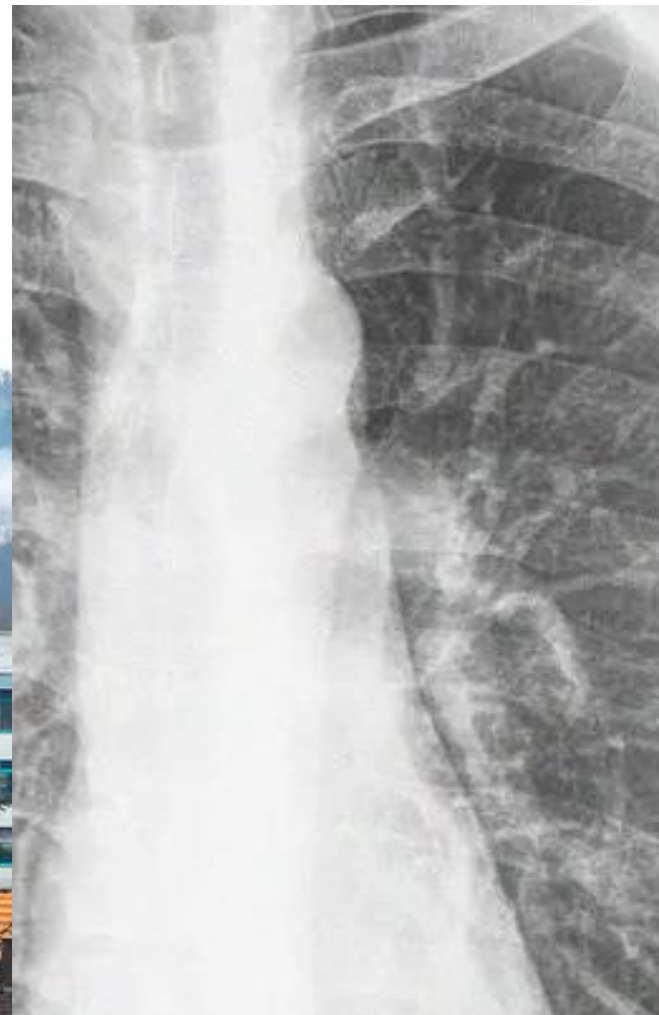
Participatory urban planning



Lessons learned
Transfer to other cities

Collection of best methods for citizen engagement & promotion of socio-technical





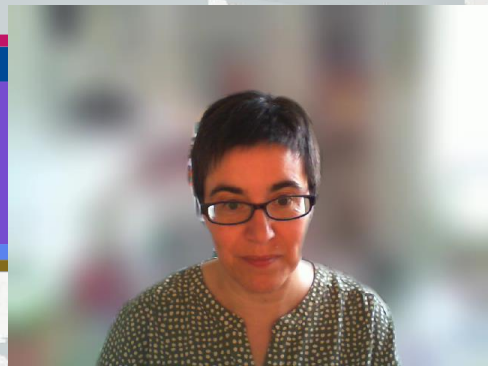
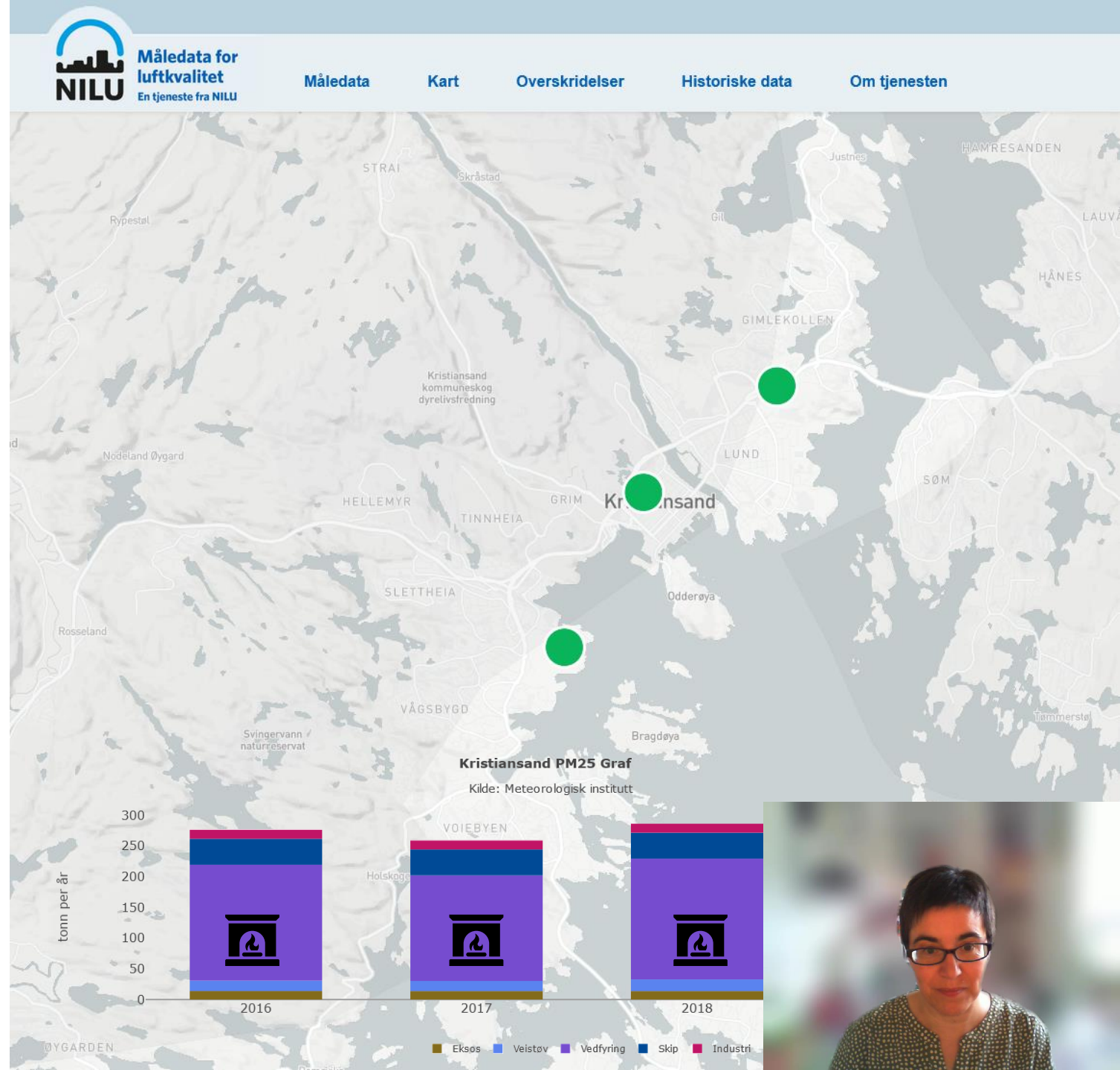
Urban Living Lab Kristiansand, Norw





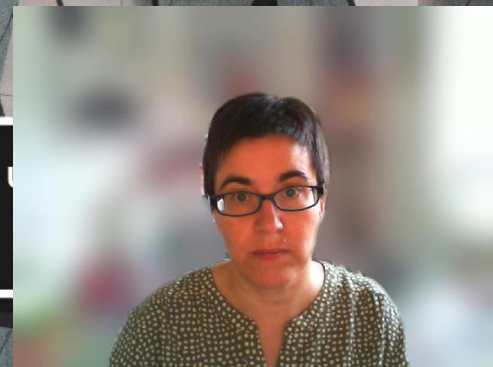
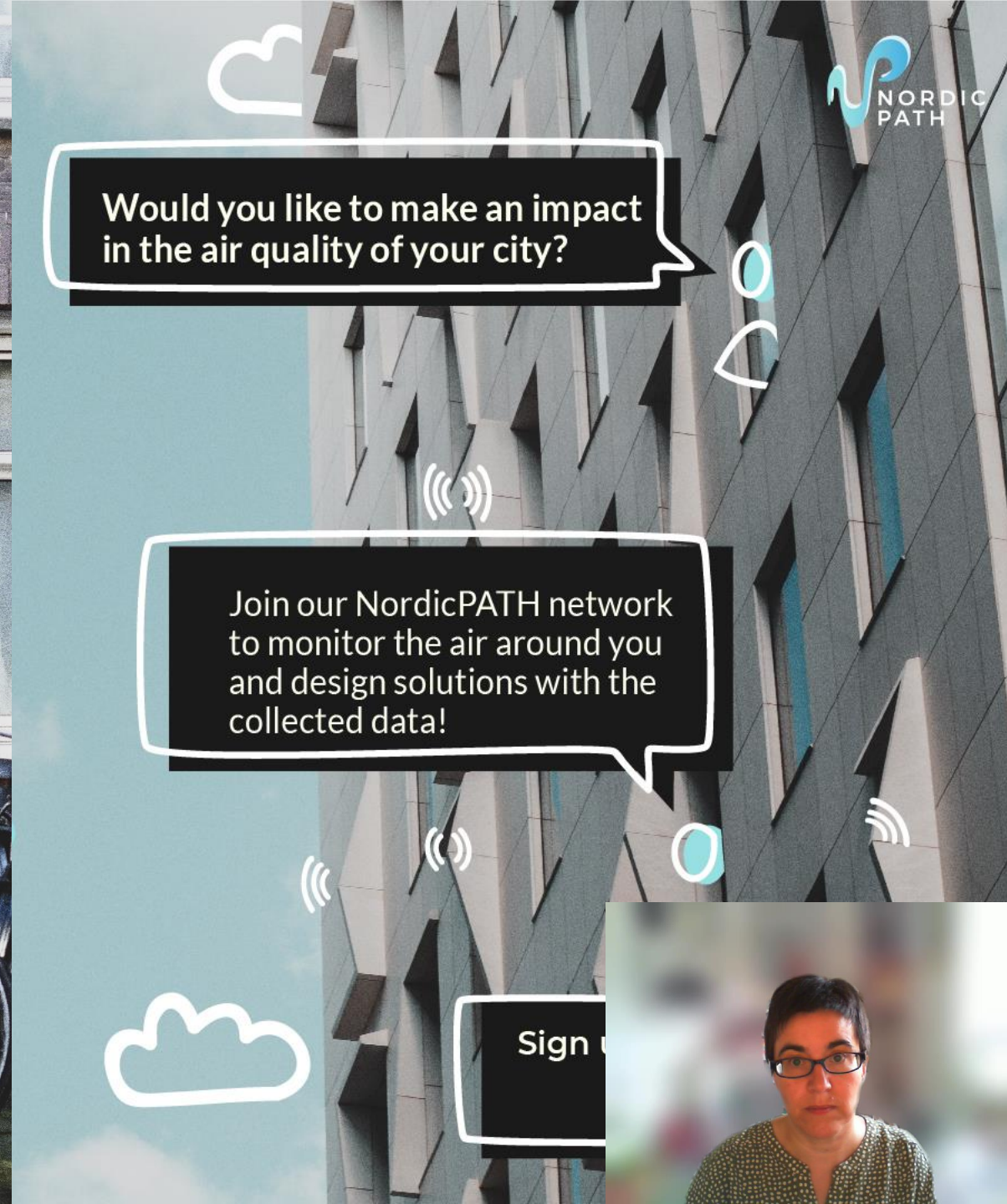
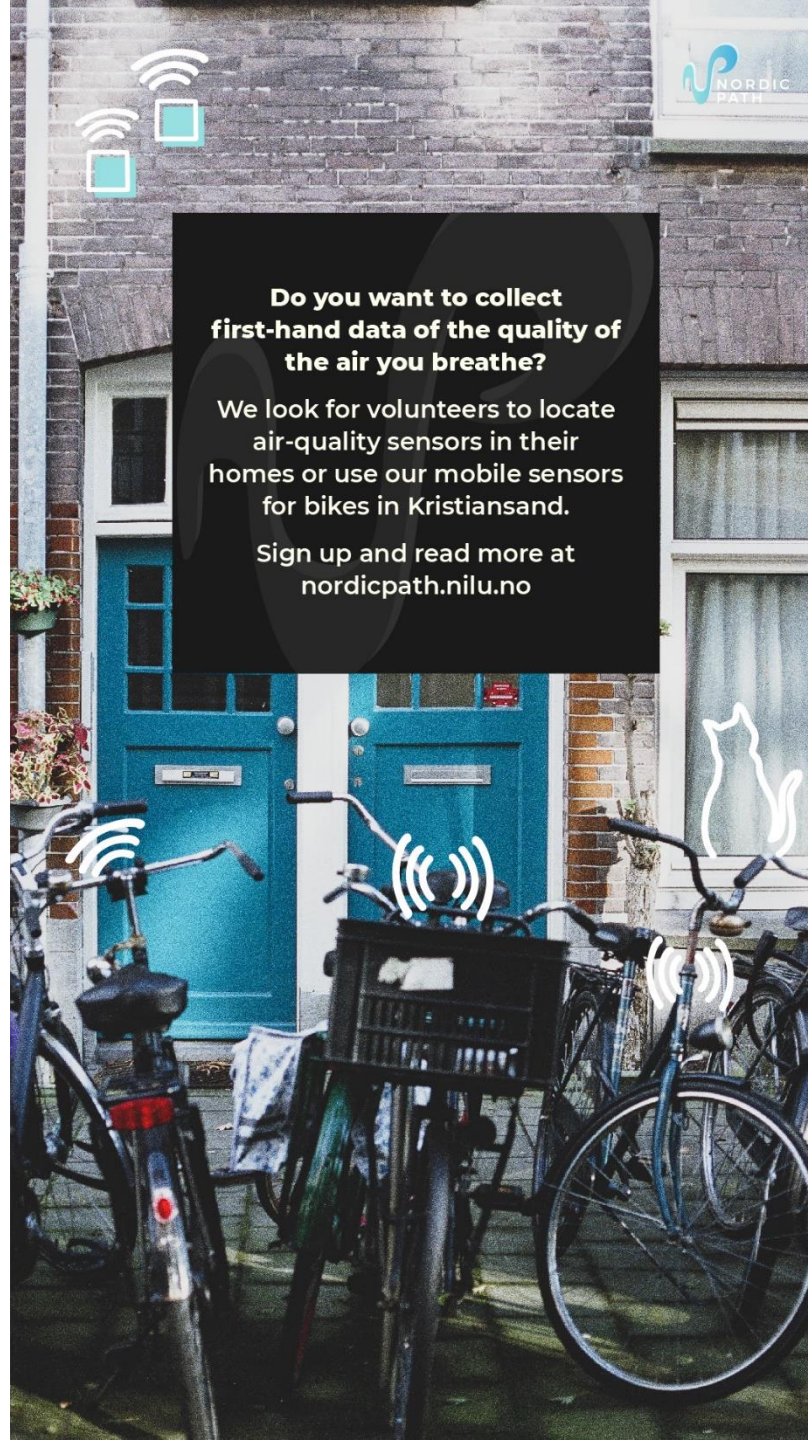
Three official monitoring stations in Kristiansand, one industrial, one background and one traffic.

→ Do we capture pollution from wood burning?

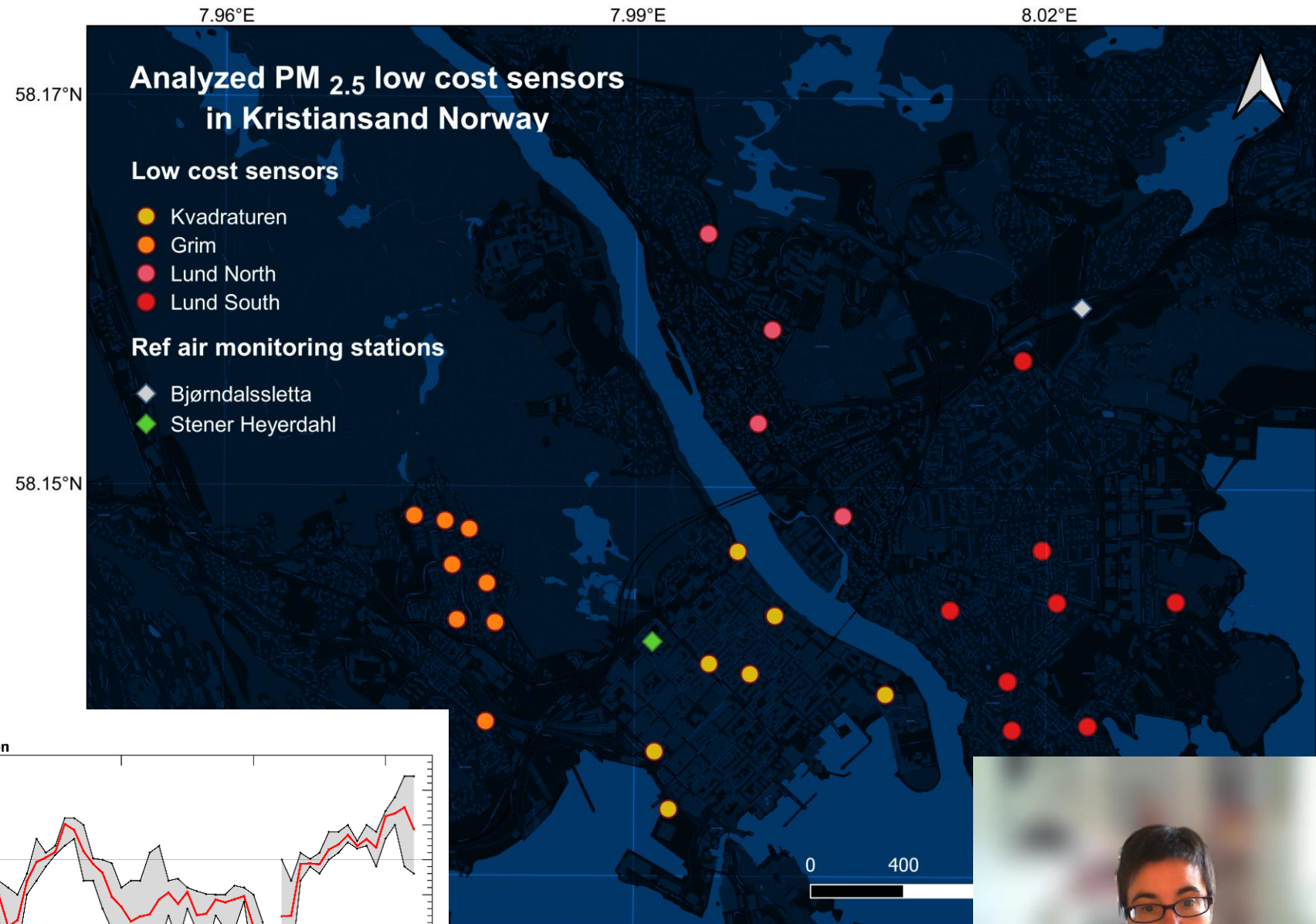
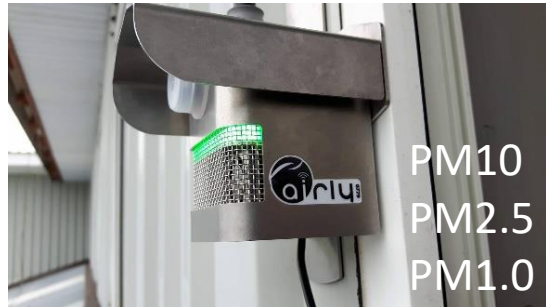


Citizen Engagement

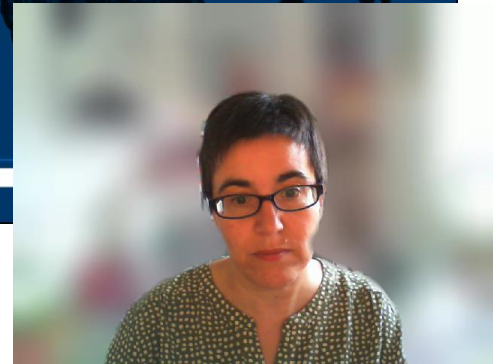
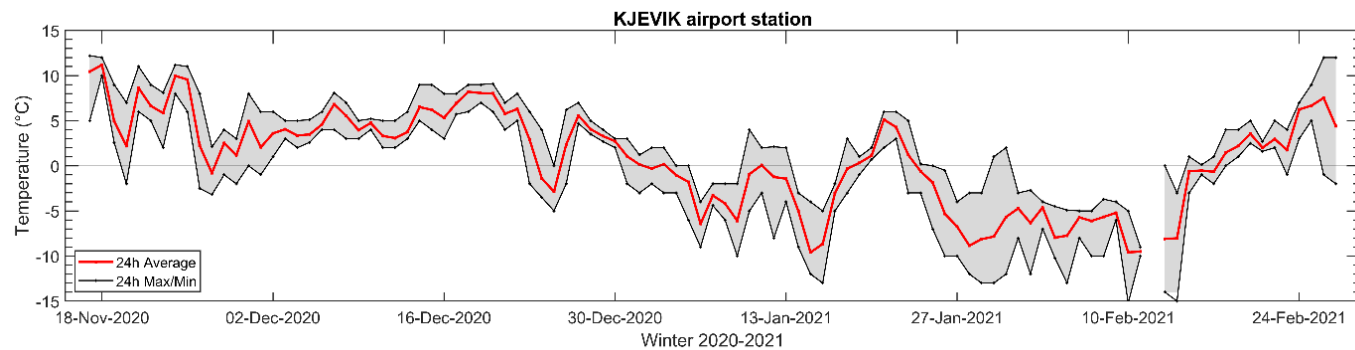
We have distributed
30 static sensors and
10 mobile sensors



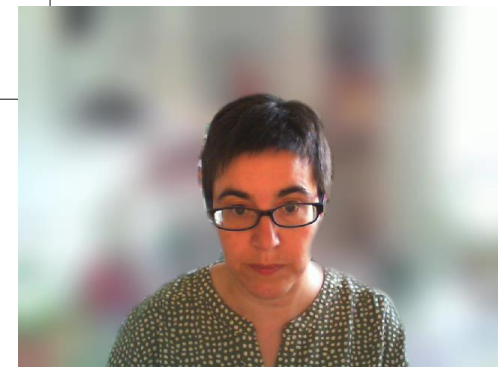
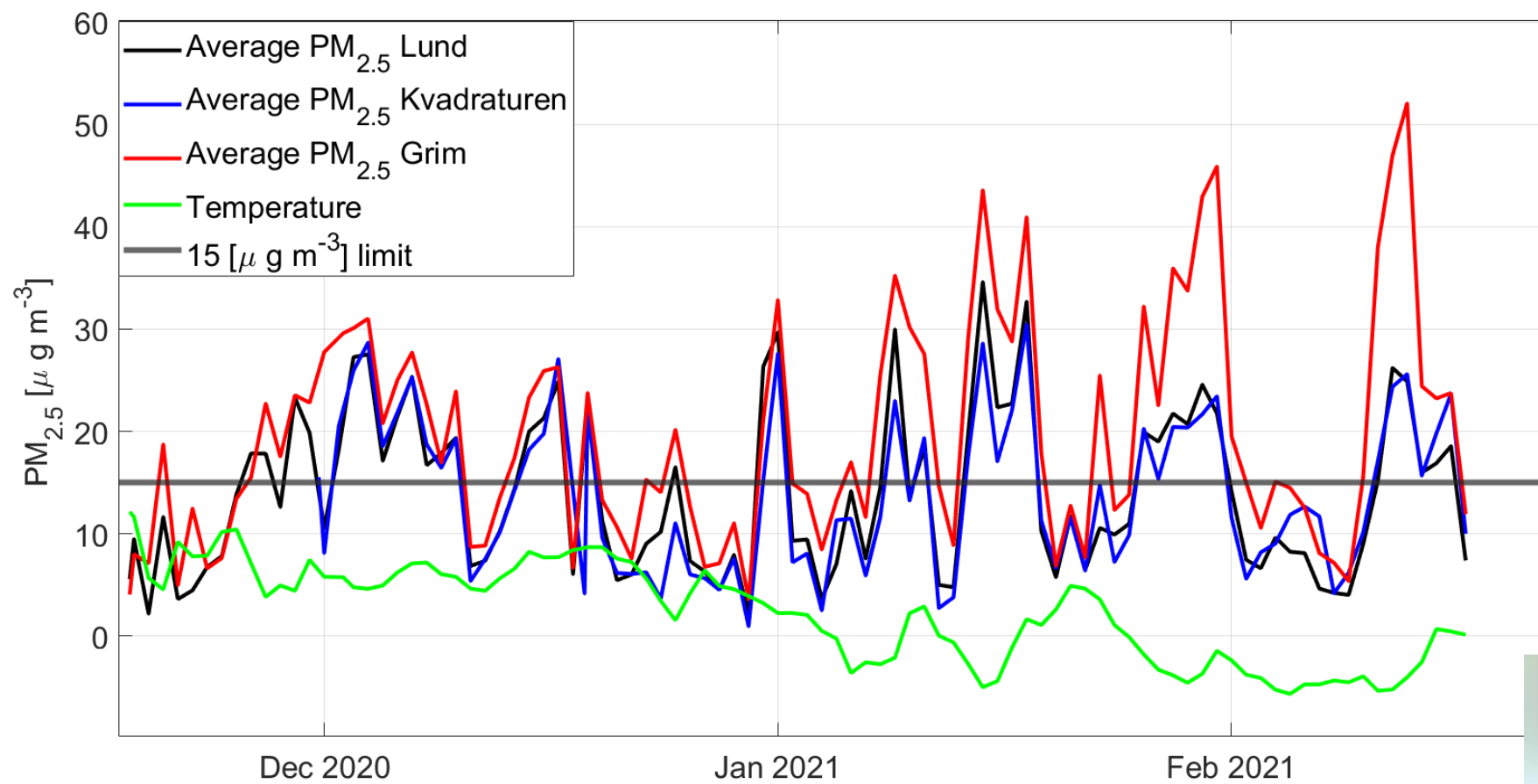
Environmental Co-monitoring with citizens



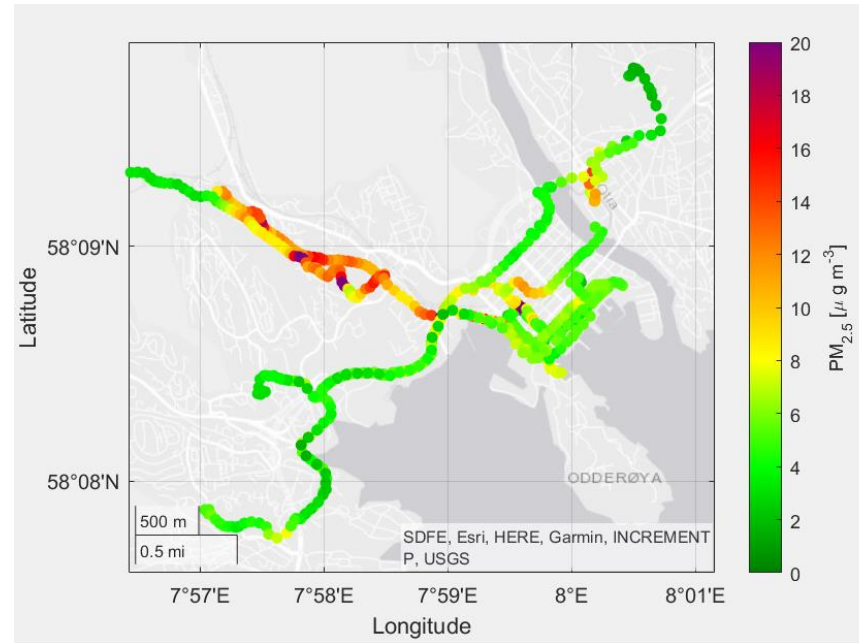
Winter 2020-2021



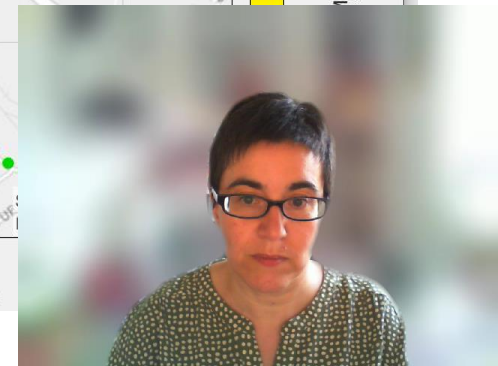
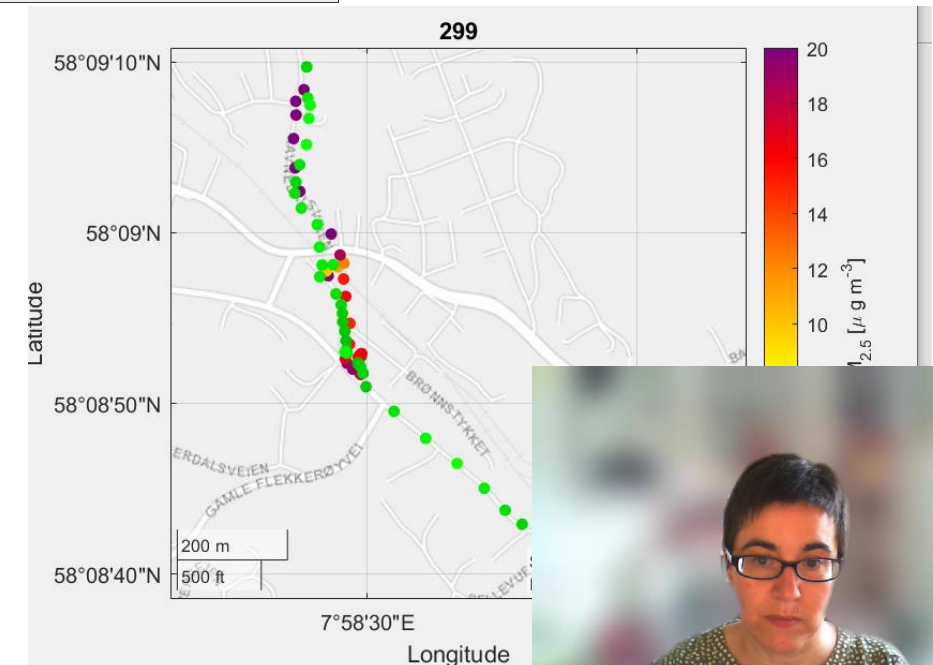
Results



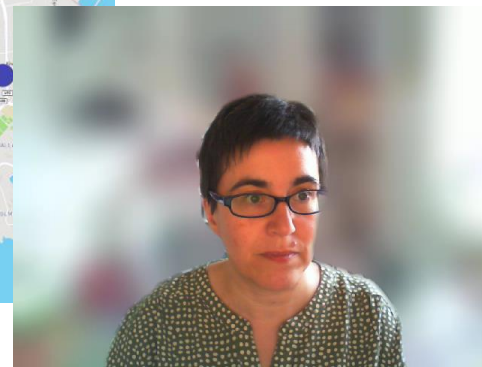
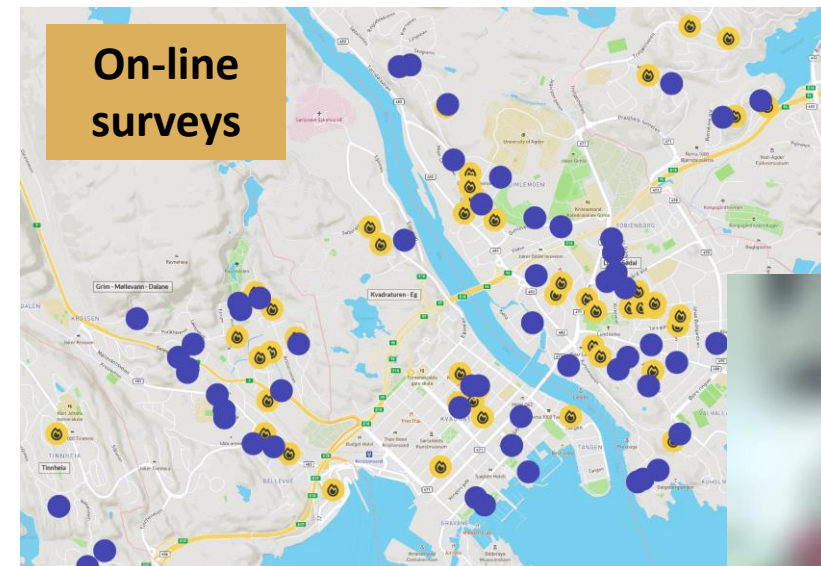
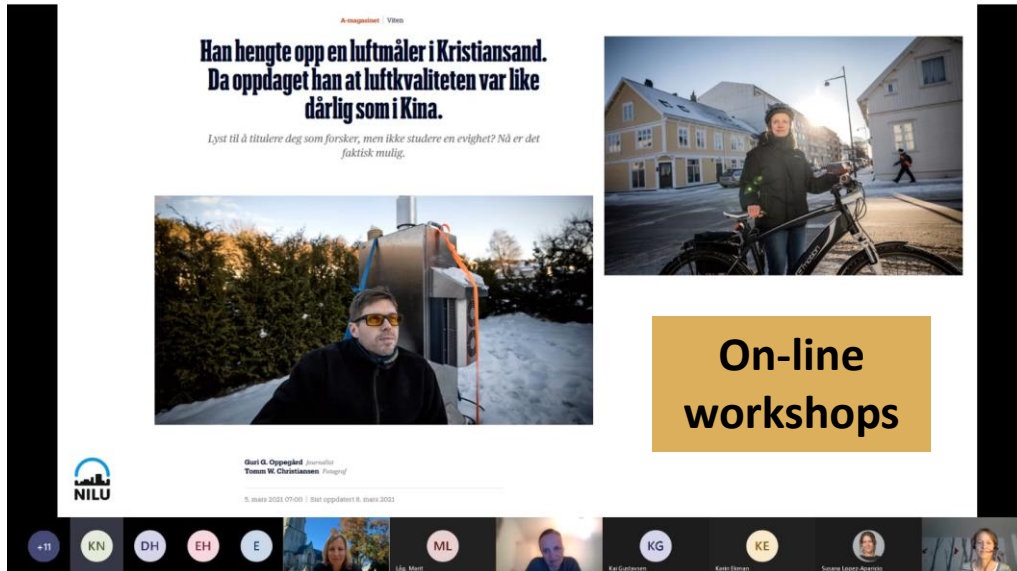
Results



Citizen-driven environmental monitoring can generate knowledge that enriches and can be combined with official data for health and legislative purposes.

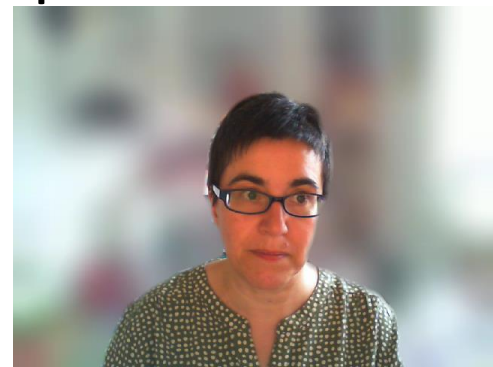


Participatory Urban Planning



Results

- The municipality is working with all the results to plan new actions to reduce air pollution from residential wood burning
 - Incentives to improve insulation
 - Incentives to renew old stoves
- A new workshop with citizens discussing
 - How can we facilitate citizens to apply for incentives?
 - Shall incentives prioritize areas?
 - Shall incentives consider socio-economic situation of applicants?
- The municipality has adopted a new model for citizen participation
 - A community affected by industrial pollution
 - Reducing motor traffic in the city center



<http://nordicpath.nilu.no>



NORDIC PATH

