

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


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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.

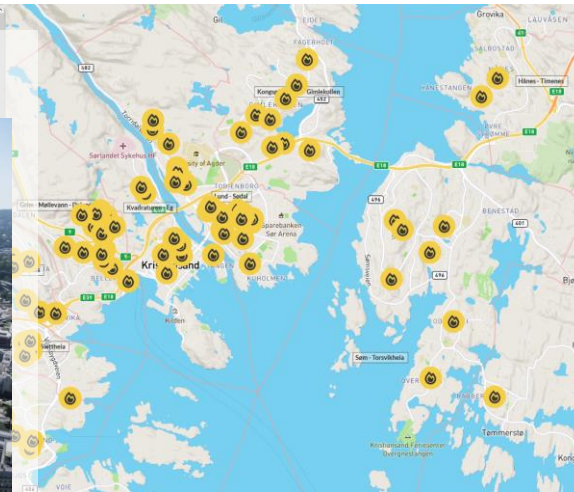
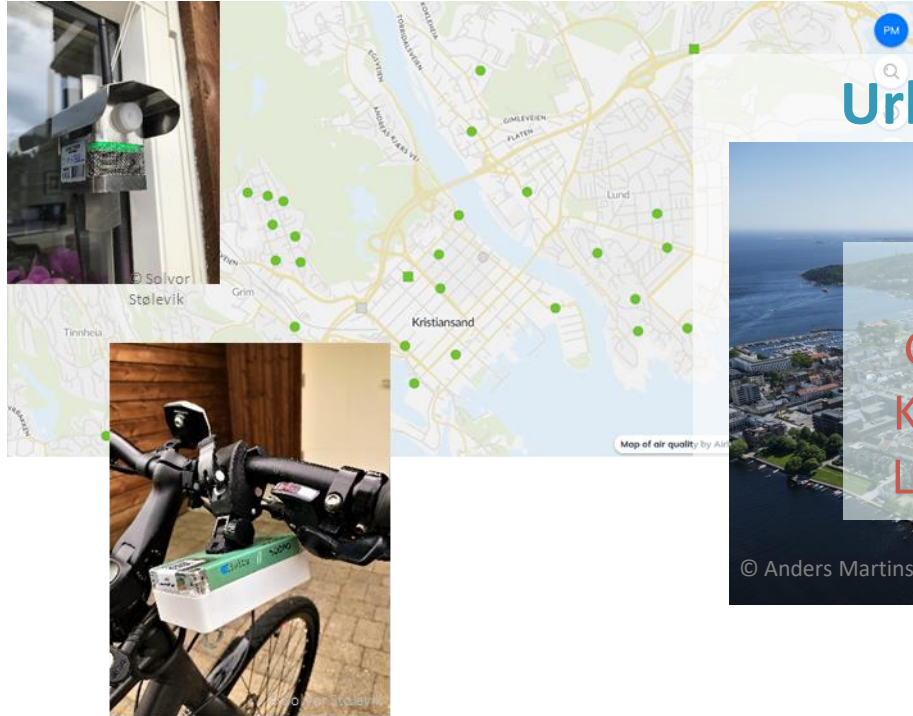


NordicPATH model for citizens participation



Environmental co-monitoring

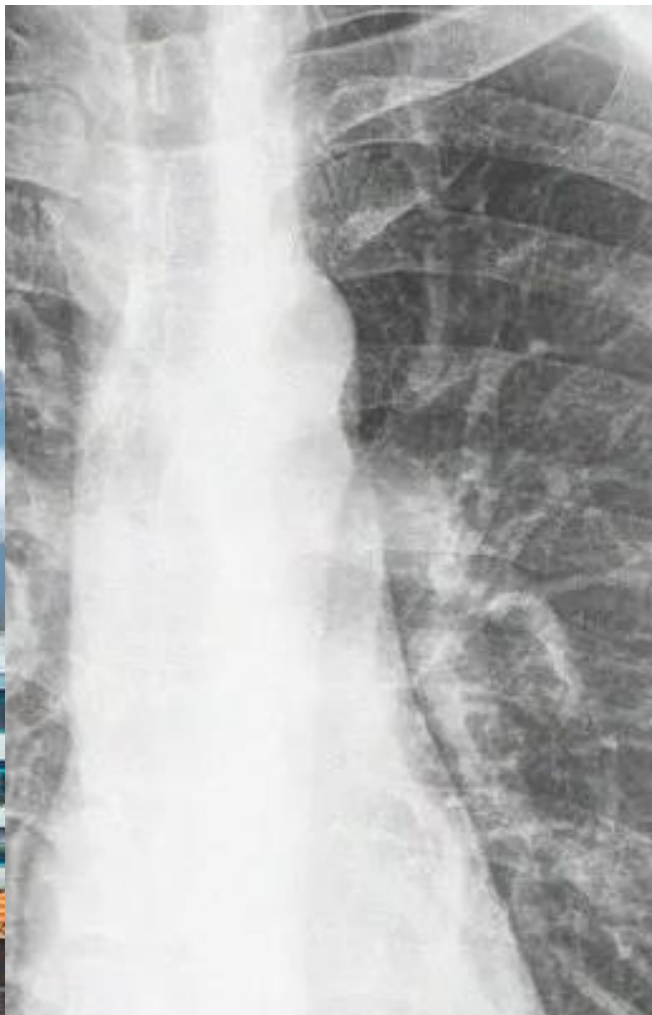
Participatory urban planning



Lessons learned

Transfer to other cities

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



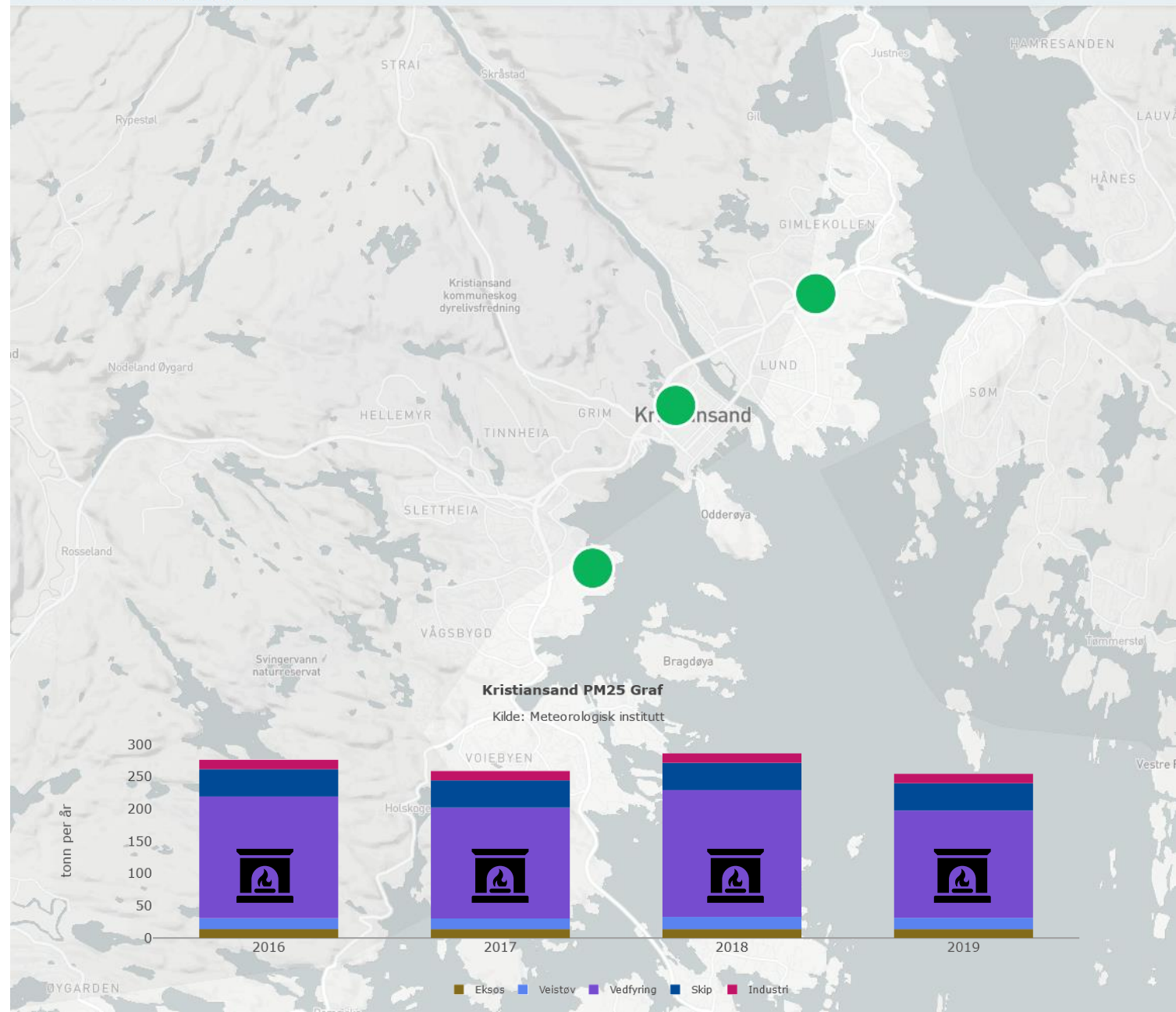
Urban Living Lab Kristiansand, Norway





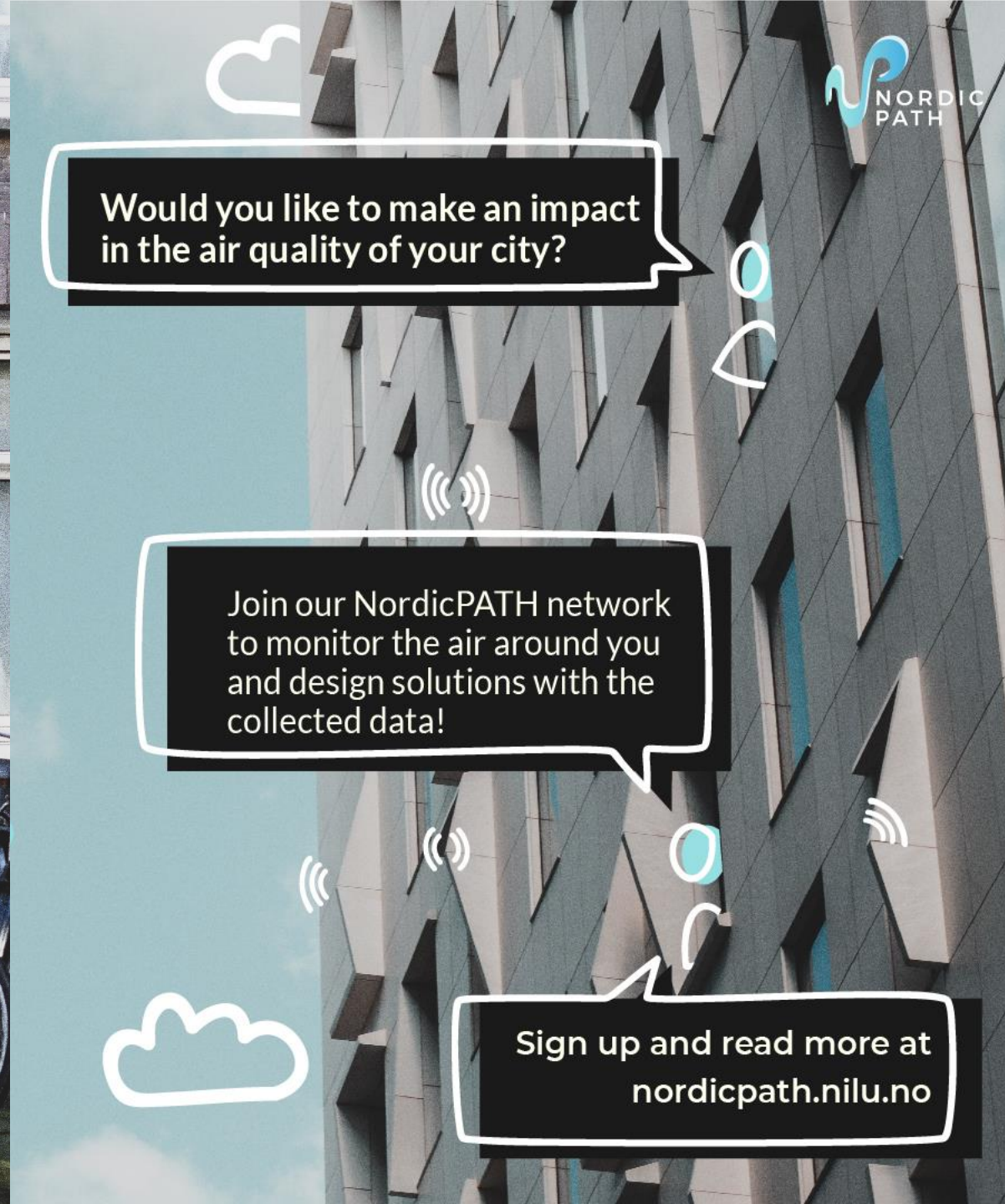
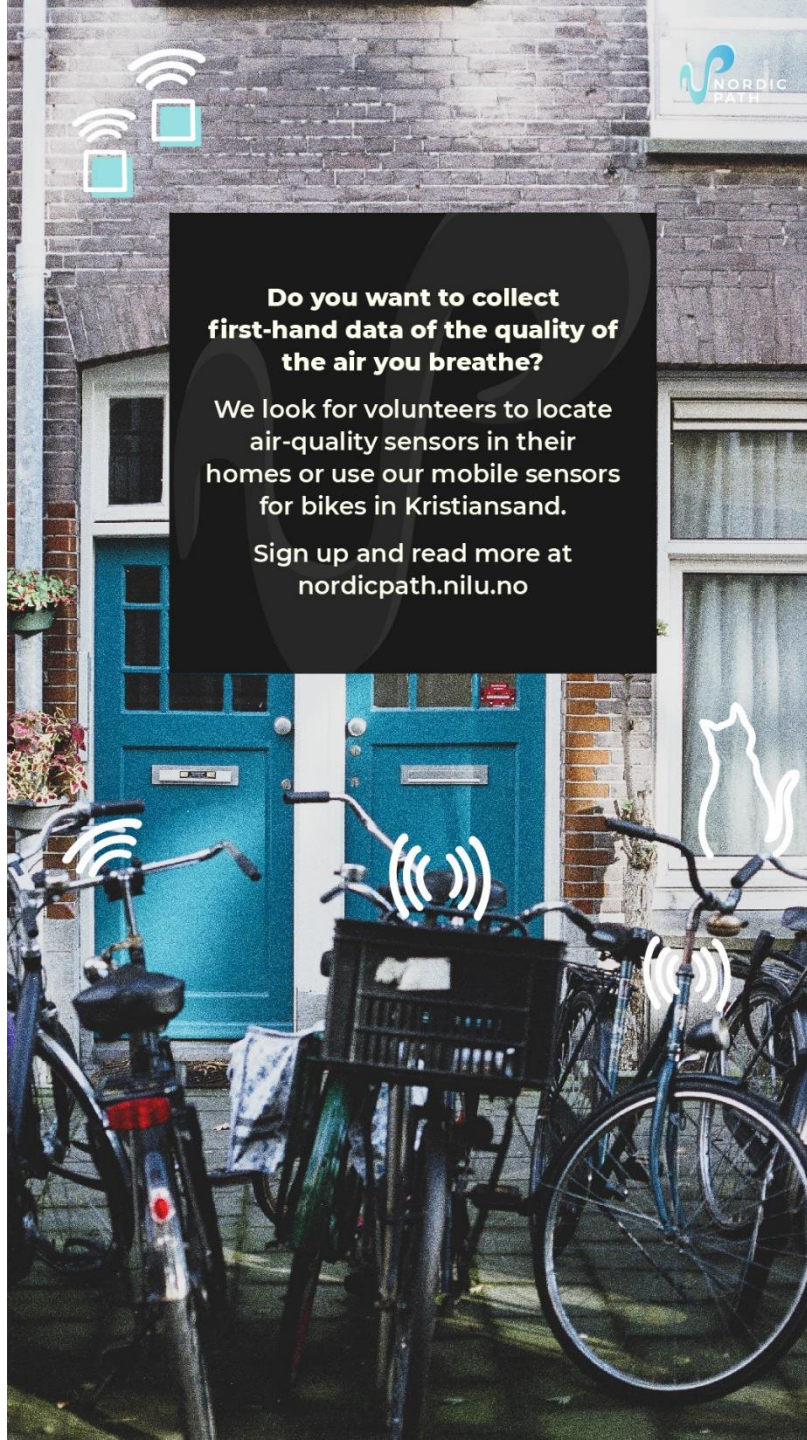
Three official monitoring stations in Kristiansand, one industrial, one background and one traffic.

→ Do we capture pollution from wood burning?

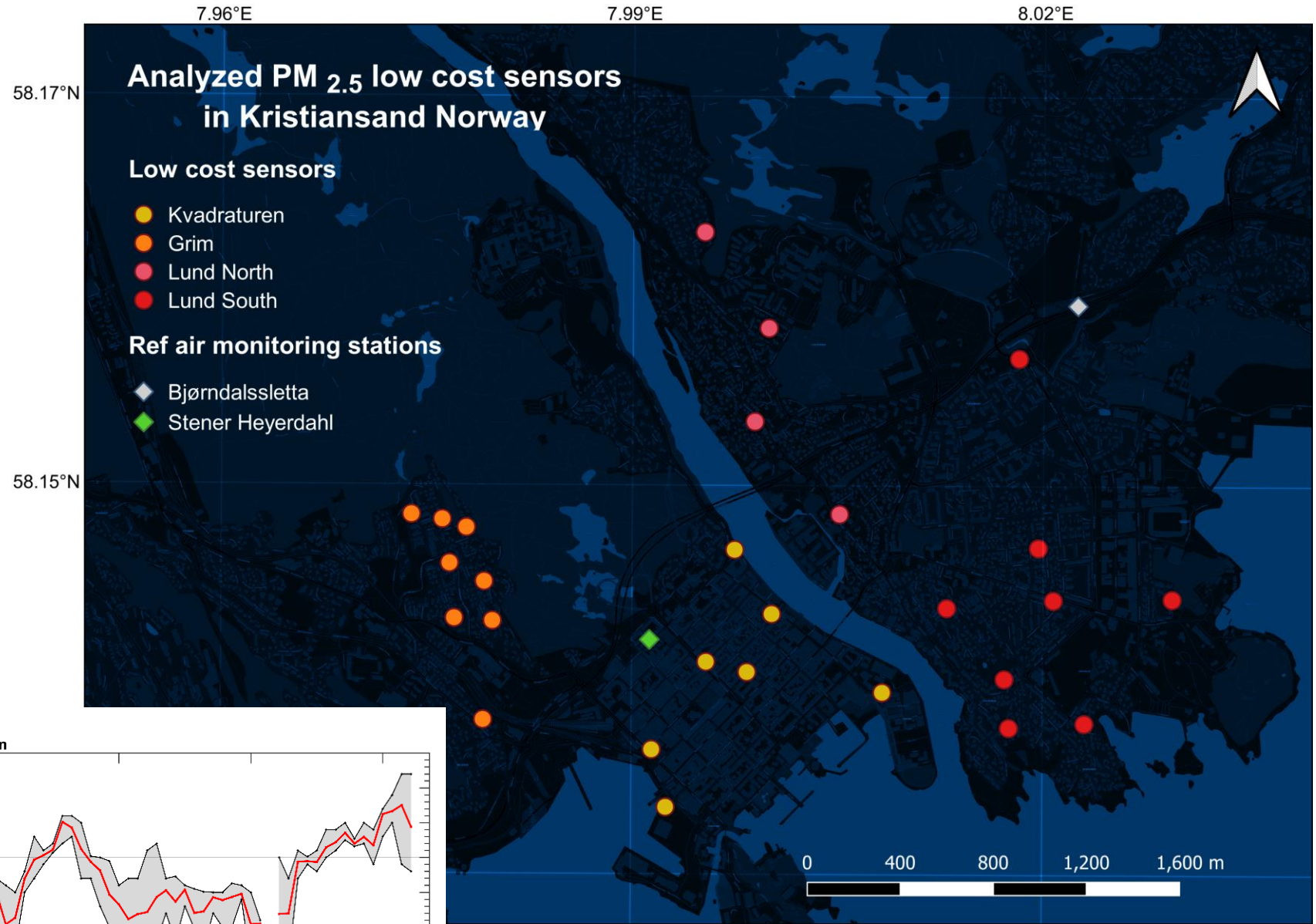


Citizen Engagement

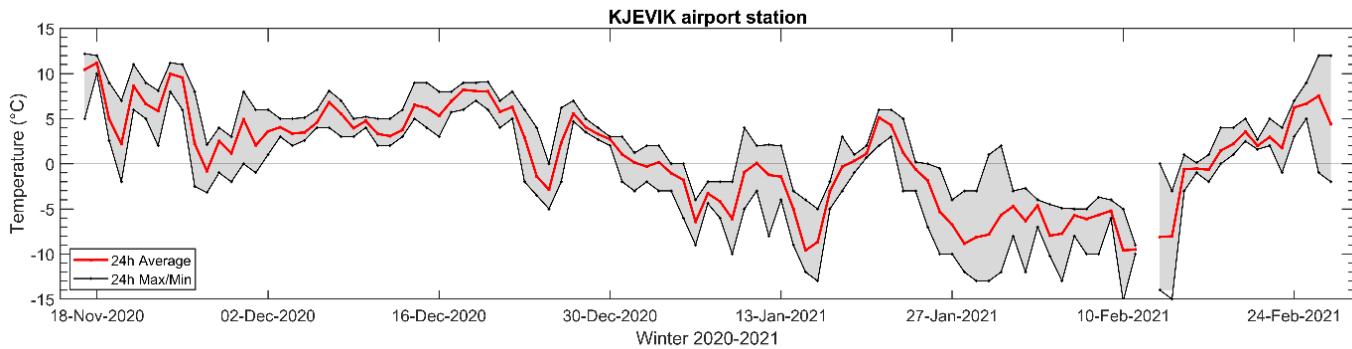
We have distributed 30 static sensors and 10 mobile sensors



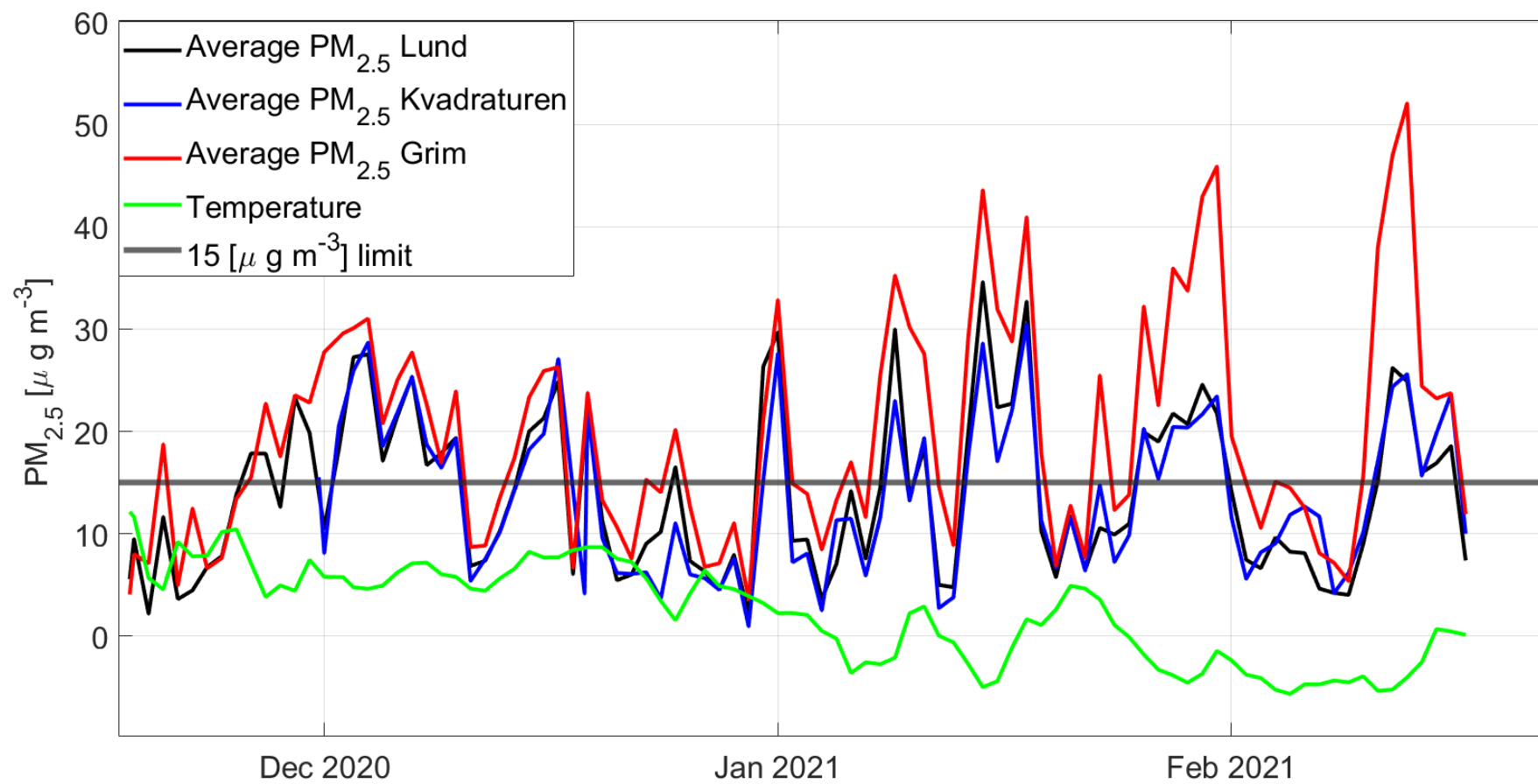
Environmental Co-monitoring with citizens



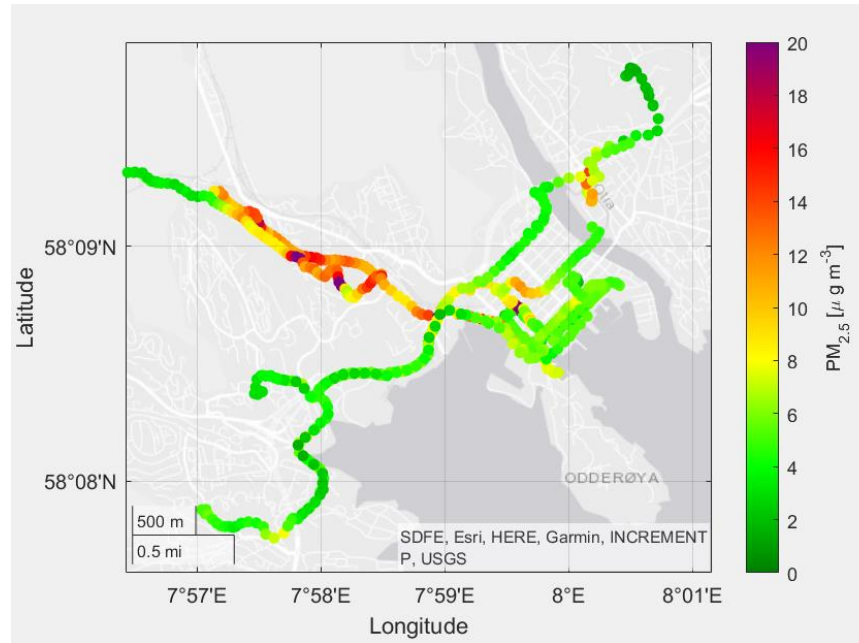
Winter 2020-2021



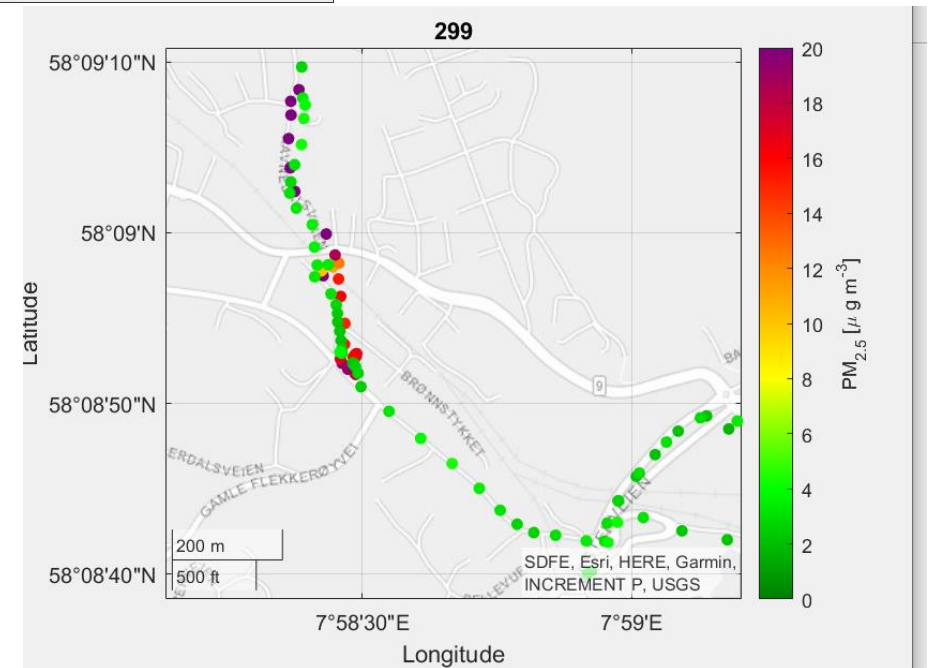
Results



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

Han hengt opp en luftmåler i Kristiansand. Da oppdaget han at luftkvaliteten var like dårlig som i Kina.

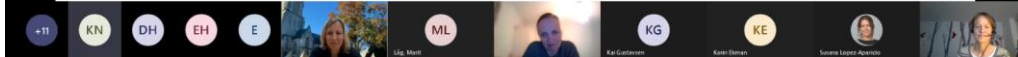
Lyst til å titulere deg som forsker, men ikke studere en evighet? Nå er det faktisk mulig.



On-line workshops

Stig G. Øygrensdal Journalist
Tomas W. Christensen Fotograf

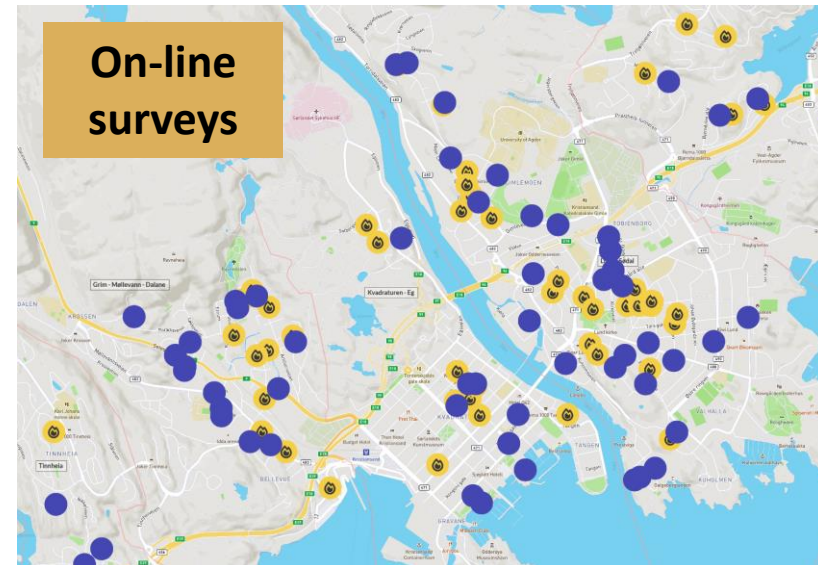
5. mai 2021 07:00 | Stat oppdatert 6. mai 2021



Street activities



- Mer tilgjengelig trykkløst for barn i lekeplasser
- Turområder som møter
- Lekeplasser og bevar
- bevare de grønne områdene som finnes
- "leil" at komme inn foran som små
- Takke for alle fine områder som finnes
- Hamruvann i tillegg!
- Beshyfte og indre i tillegg
- Boder i tillegg



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



Kristiansand
kommune