

Title
Slide

Model Calculations to Estimate Urban Levels of Particulate Matter (PM) in Oslo

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September 25, 2006



Mapping
Slide

This presentation gives the methods, challenges, and results of PM₁₀ modeling for Oslo



The modeling tool - AirQUIS



Challenges in calculating PM₁₀ with respect to traffic induced re-suspension



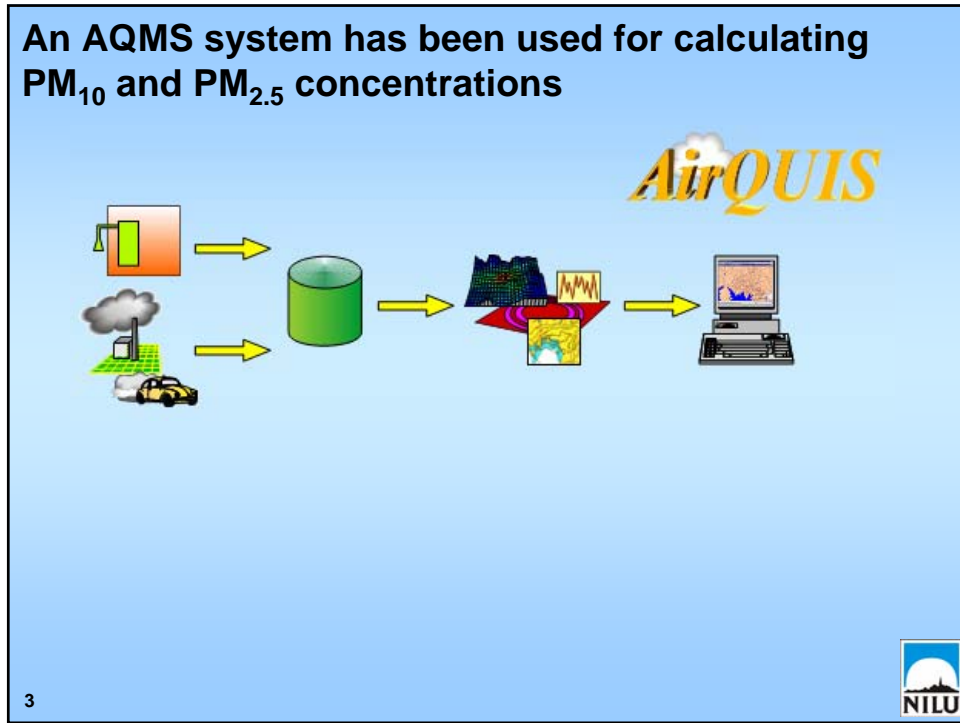
Comparison with measurements

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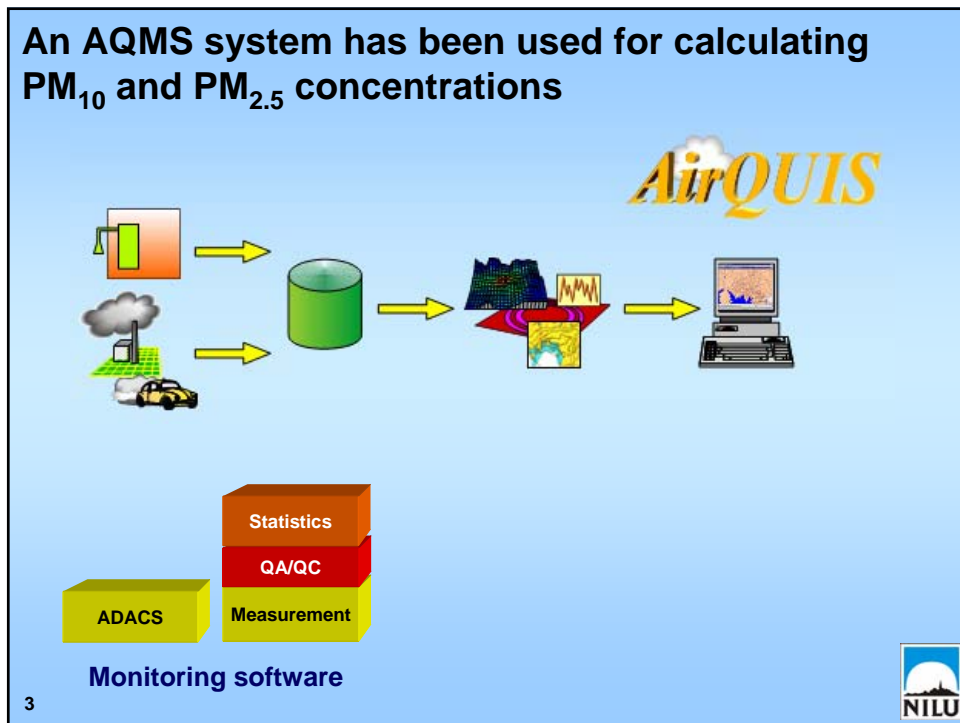


Slides from Presentation at Norwegian Institute for Air Research

Slide from Section 1 (animation)

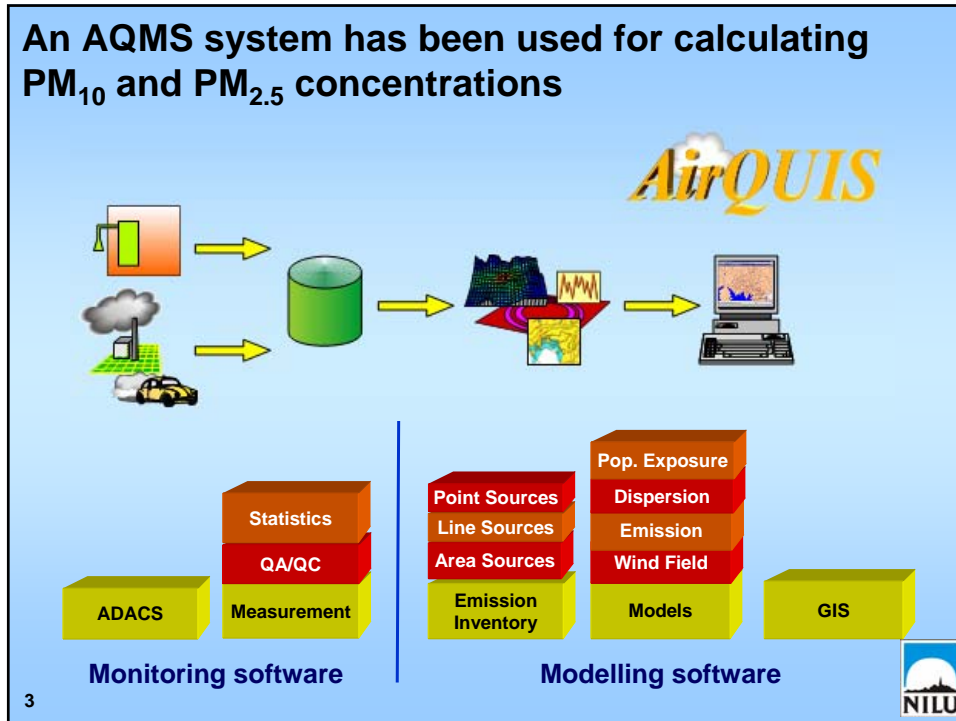


Slide from Section 1 (animation)



Slides from Presentation at Norwegian Institute for Air Research

Slide from Section 1 (animation)



Slide from Section 2

Emission estimates of traffic induced re-suspension is the main challenge in modeling PM_{10}

Initially poor agreement between measured and estimated PM_{10}

Difficulties in modelling the coarse fraction ($PM_{10} - PM_{2.5}$) of PM_{10}

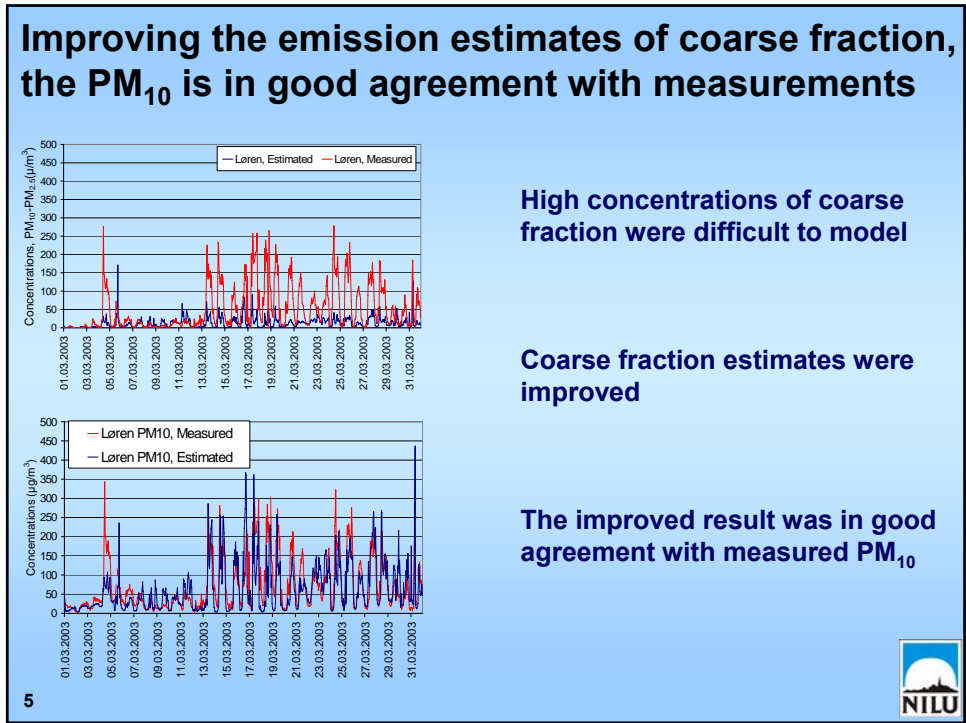
Coarse fraction dependent on reservoir of dust particles and road surface conditions

Two photographs are included: one showing a car driving through a cloud of dust on a road, and another showing a close-up of a road surface with a grid pattern, likely a dust reservoir.

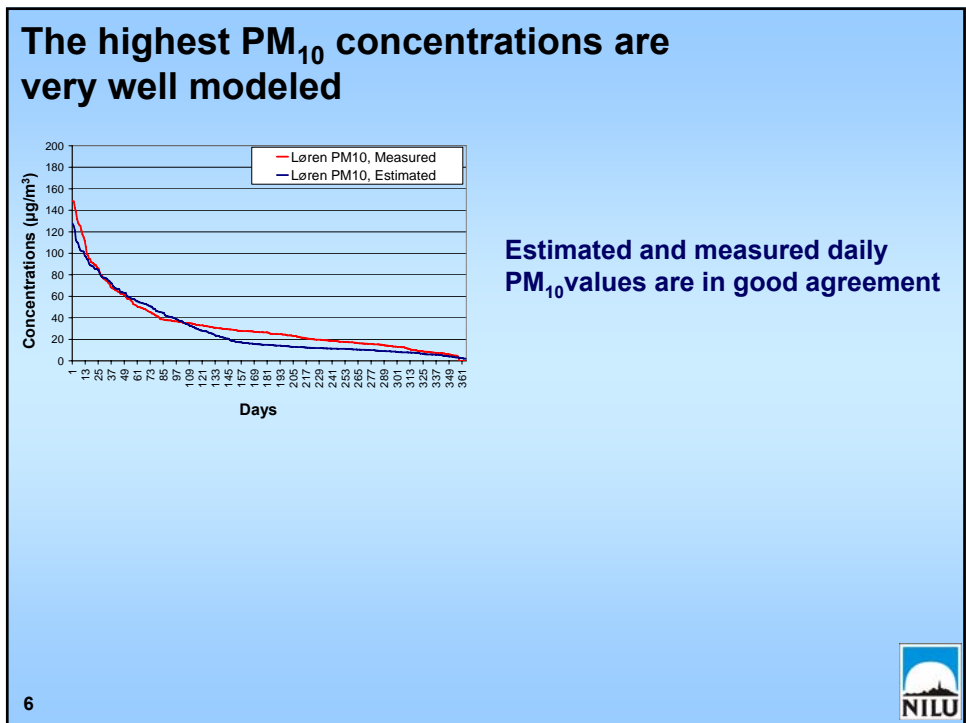
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Slides from Presentation at Norwegian Institute for Air Research

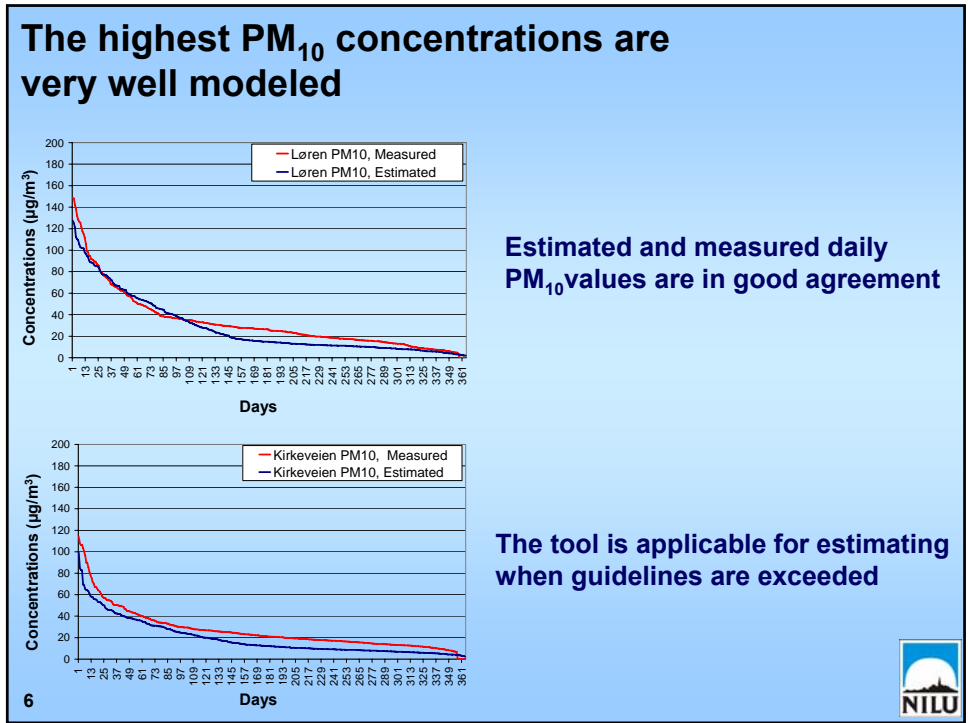
Slide from Section 3



Slide from Section 3 (animation)



Slide from Section 3 (animation)

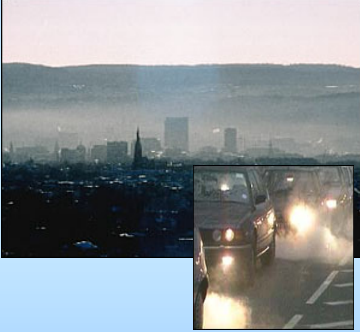


Conclusion Slide


In summary, PM₁₀ is very well estimated using the tool, but further improvements are needed

Good agreement occurred with measured PM₁₀ concentrations after improvements of coarse fraction

Further development of the emission model from traffic induced re-suspension is needed



Questions?



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