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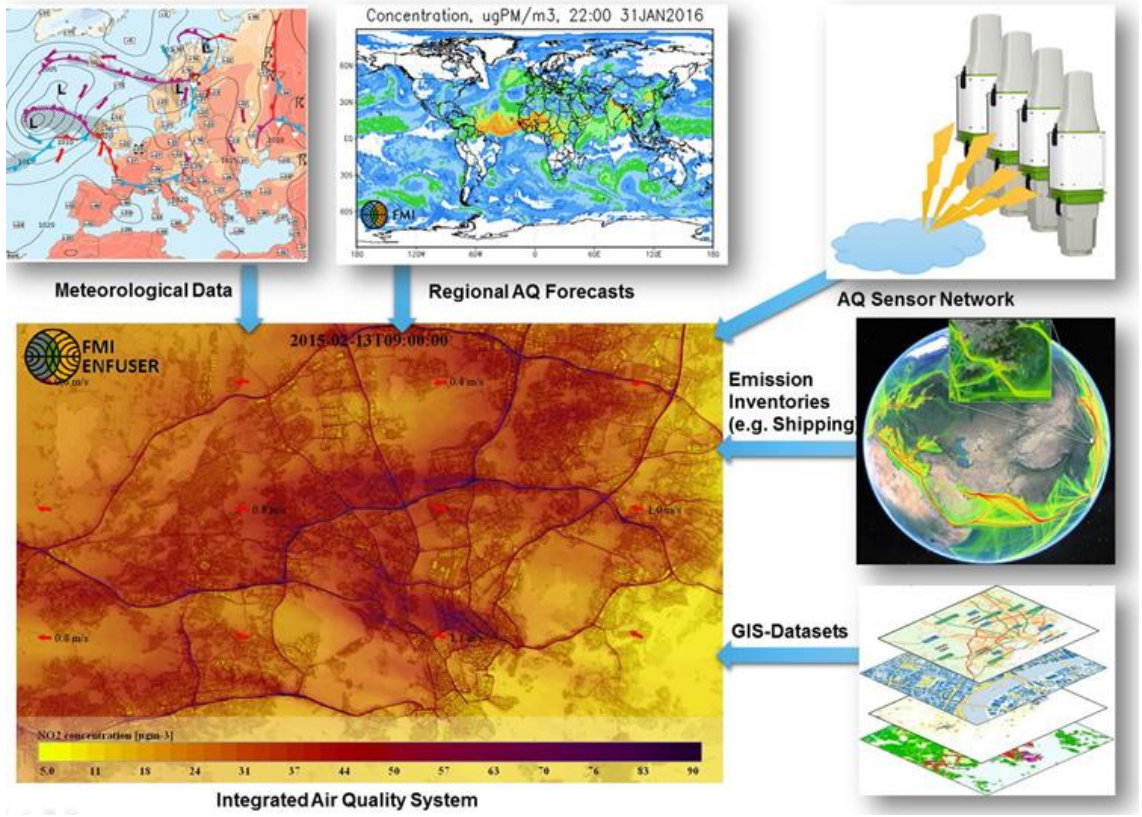
HELSINKI – CAPITAL OF CLEAN AIR

Helsinki Air Quality observation and visualization system



4 levels of observations:

- Supersites
- Authority network
- Mid-cost network
- Low-cost network

Output:

AQI + concentrations:

- Observed: $PM_{2.5}$, PM_{10}, LDSA, NO_2, O_3, SO_2, CO.
- Derived variables: BC, PN, CS, H_2SO_4, HNO_3…

City scale, 12 m resolution

Current day (midnight to midnight)

Horizon 2020
Call: H2020-SC5-2015-one-stage
Topic: SC5-15-2015
Type of action: ERA-NET-Cofund
Grant agreement no: 689443
Proposal acronym: ERA-PLANET

LES modelling for city planning

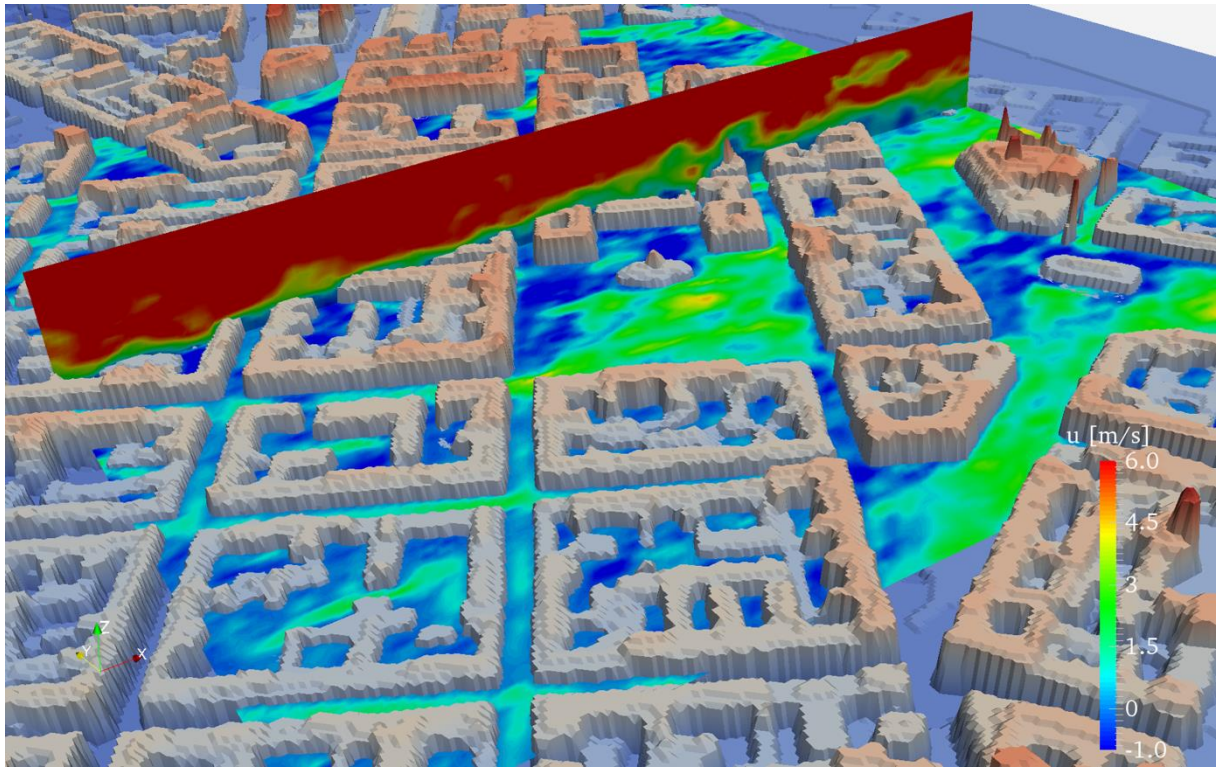


Figure: Flow field in central Helsinki as simulated using PALM model using detailed surface model (M. Auvinen).

Large Eddy Simulation model PALM, spatial resolution of 1 m

E.g. examining how neighbourhoods should be built for optimal AQ

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