

BREATHE

*Building Resilient Economic Agglomerations
addressing Transportation and Health Effects*

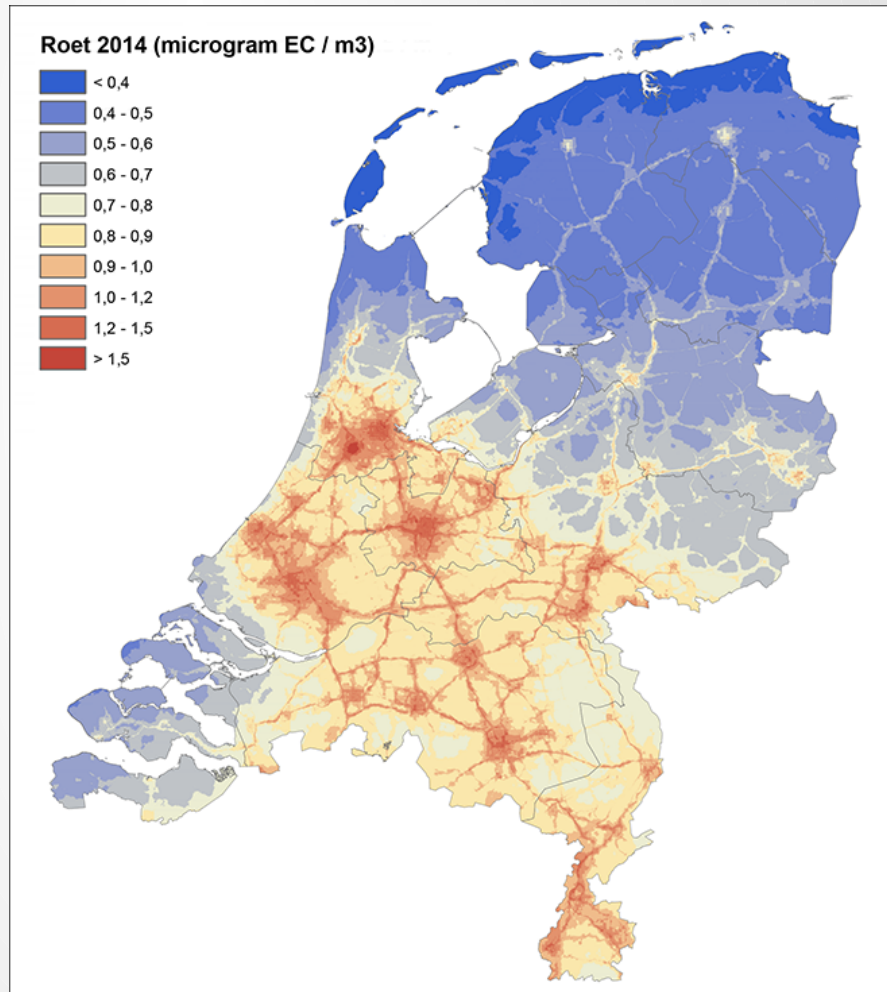
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Urgency: world-wide



Urgency also concentrates...

Air pollution (soot)



Source: RIVM

Societal challenges...

Accessibility

Local and
global
environment

Functioning of and
well-being in cities
and hinterlands

BREATHE

- Incorporation of interactions naturally calls for Spatial General Equilibrium Framework
 - Simultaneous equilibrium on
 - Transport markets
 - (Spatial) land and housing markets
 - (Spatial) labour markets
 - Fiscal systems
 - Simultaneity means we incorporate
 - Interactions between markets
 - ... and do this from a long-run perspective

Real cities

- Similar questions, but...
 - Polycentric structure
 - Networks
- BREATHE will make calibrated models for the four participating cities
 - Randstad
 - Gothenburg
 - Barcelona
 - Istanbul
- Basic structure similar; network and city differ
 - Differentiation between types of city on purpose: insights for wide variety of cities

Policy scenarios

- Current plans:
 - Scenarios for all cities
 - Business-as-usual
 - Theoretical optimum
 - Cordon pricing
 - Electric vehicles
 - City-specific scenarios, for example (also depending on national priorities):
 - Gothenburg: charging points
 - Barcelona: bicycle lanes
 - Istanbul: tolls on bridges
 - Amsterdam: flat km charge; automated driving