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Today's disconnect

While the disciplines of urban planning and health were closely linked in the past, today they are largely disconnected. In most cases, health intersects with spatial planning processes only through obligatory evaluations (e.g. environmental impact assessments), or restrictive environmental legislation. This institutionalisation of environmental health, in a traditional bureaucratic government structure, conflicts with today's complex, fragmented and volatile socio-reality. Consequently, urban planning has difficulties to deal with recent environmental health challenges, like the ever-growing empirical evidence on environmental impacts, or the increasing awareness and empowerment of citizens on the health impacts of spatial projects (Fig. 1).

Fig. 1 Citizen protest because of air pollution and noise concerns in Antwerp

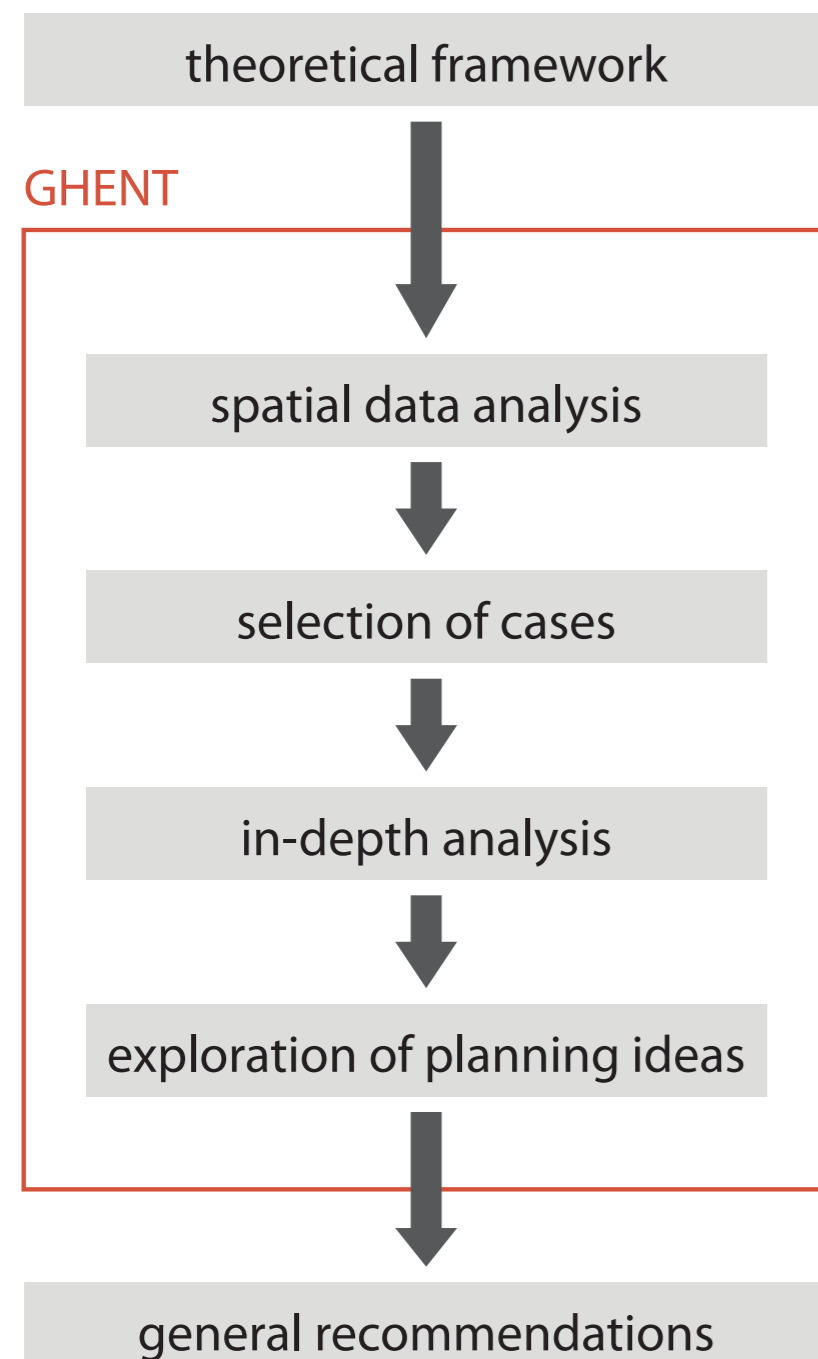


This disconnect raises three major dilemmas:

- 1. Comprehensibility:** an increasing scientific specialisation on environmental impacts burdens a holistic planner's perspective, and widens the gap with civic knowledge.
- 2. Context dependency:** generic standards and procedures of environmental quality no longer meet increasingly unique expectations or specific needs.
- 3. Volatility:** assessments, regulations and procedures quickly become obsolete but cannot easily be adapted.

In these dynamic, multi-dimensional and multi-actor settings, there is a need for more evolutionary transition management that does not seek to control or diminish uncertainties, but instead tries to indirectly influence or redirect developments towards improved conditions.

Research methodology



A healthy planning matrix

A matrix of planning management strategies combines robustness and flexibility, by encompassing additional innovative strategies, complementary to institutionalized structuralist strategies. Depending on scale and complexity, another combination of strategies is needed.

FIXED SETTINGS	CHANGING SETTINGS	
COLLABORATIVE MANAGEMENT - flexible planning involving a changing set of stakeholders (citizens, civil society, companies, experts, governments, ...), that collectively interpret 'environmental health'	CO-EVOLUTIONARY MANAGEMENT - reciprocal collaboration between a changing set of actors, without fixed aims or objectives - learning by doing through situational improvements - self-organisation	CHANGING ACTORS
PATH-DEPENDENT MANAGEMENT - command-and-control policy - generic norms, regulations and guidelines - established processes (EIA, SEA) - objective data collection	ADAPTIVE MANAGEMENT - flexible planning and application of regulations, adaptive to specific and changing contexts - need for contextual and local knowledge on specific situations	FIXED ACTORS

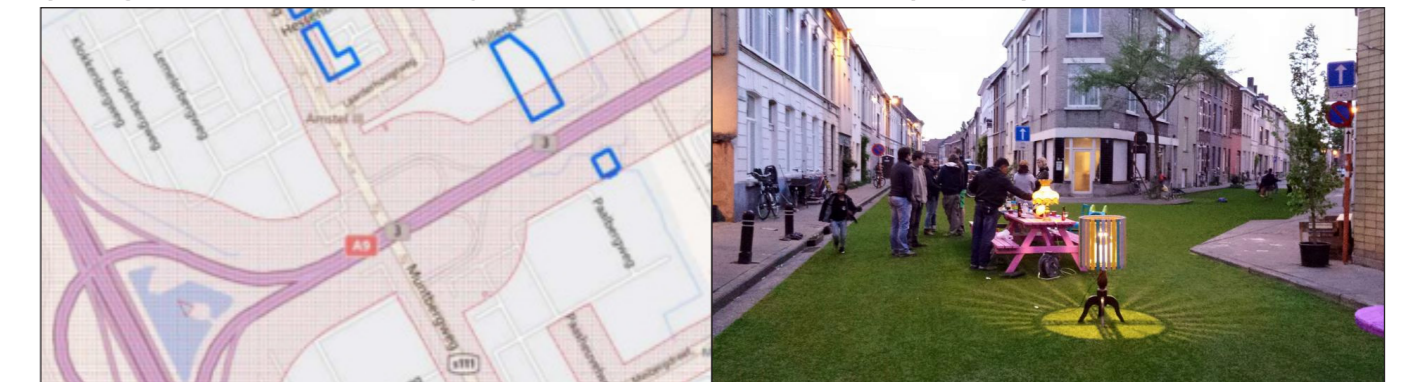
• **Path-dependent management**
e.g. EU air quality standards, noise mapping

• **Adaptive management**
e.g. distance rules for sensitive facilities (Amsterdam, NL): requirements on the minimal distance between high traffic roads and newly built sensitive facilities (hospitals, schools, daycare centres) (Fig. 2).

• **Collaborative management**
e.g. contract between residents, companies and the city to temporarily accept higher noise exposure without complaining (Zaandam, NL)

• **Co-evolutionary management**
e.g. "Lab of Troy" Project (Ghent, BE): living lab with different partners, where the civil society takes the initiative and the city only facilitates. A successful project was the temporary closing of city streets on citizen's initiative (Fig. 2).

Fig. 2 Distance rules for sensitive facilities in Amsterdam (left), closing of city streets in Ghent (right)



Case study Ghent (BE)

The environmental impacts of air pollution and noise are spatially unevenly distributed (Fig. 3 and 4).

Fig. 3 Air pollution (NO₂) in Ghent

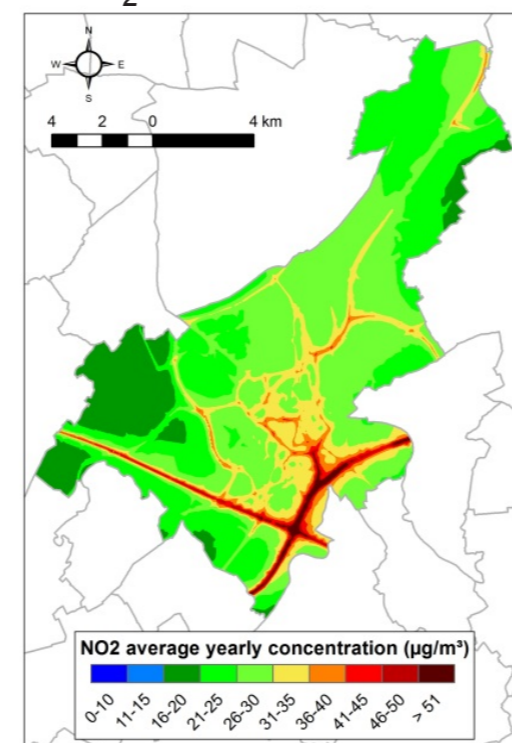
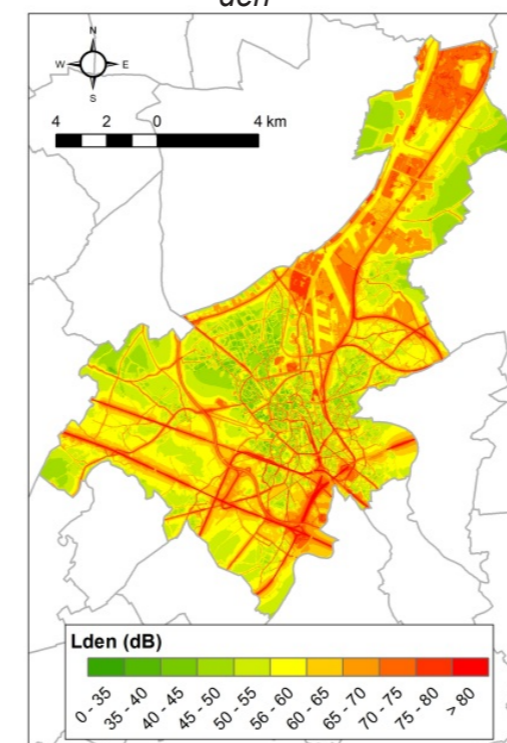


Fig. 4 Environmental noise (L_{den}) in Ghent



Combined with a survey, statistical analysis also shows an unequal social distribution, with a significantly higher exposure for:

- low income citizens
- citizens who don't use a car often
- non-Belgian citizens
- house renters

The data analysis pointed to an interesting case study area in the south of Ghent (Fig. 5), where a highway cuts through the urban fabric.

Research questions

- Based on the data an environmental inequality is present, but is this also an injustice which asks for intervention?
- If yes, which kind of planning strategies is needed?
- How to involve different kinds of residents in the process?

Fig. 5 Case study area in the south of Ghent



Further research steps

- In-depth analysis to get insight into processes behind, perception, appreciation and narratives (data sources, survey, interviews)
- Exploration of healthy planning matrix through bilateral and multilateral consultations with stakeholders