What is the relationship between perceived and measurable features of the lived environment?

TSS Early-Stage researchers Award

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Perceived vs. measurable features of the environment

- Is this a city, a town, a suburban or rural environment?

Courcelles

Degree of urbanization: **city**

Belgium: **no city status**

Perceived vs. measurable features of the environment

- Is this a city, a town, a suburban or rural environment?

Eksaarde, Lokeren

Degree of urbanization: **suburban**

Belgium: **city status**

Perceived vs. measurable features of the environment

- Empirical studies and policy making link outcomes to measures
- What if perceived ≠ measured ?
- Outcomes such as people's behavior are shaped by perception
- We want to understand the gap between perceived vs. measured

→ **missing explanatory factors in behavioral, social, and policy research**

Prior studies on Perceived vs Measured

Gorodzeisky & Semyonov (2020):

- misperceptions of the size of immigrant populations

→ more predictive of public opposition than actual demographic data.

Piekut & Valentine (2016):

- people's perceptions of ethnic diversity influenced more by interpersonal contact
- than by who is actually present in a given space.

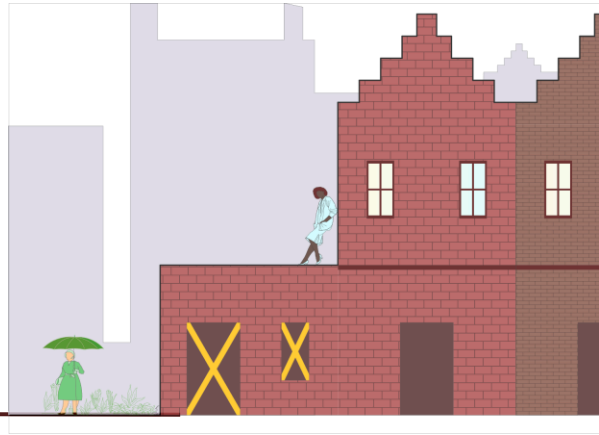
Four dimensions as main focus

1. Perceived and measured **level of urbanity**
2. Perceived and measured **level of diversity**
3. Perceived and measured **accessibility to destinations of daily activities**
4. Perceived and measured **accessibility to spaces of social interaction**

Proposed methodology – Level of Diversity

Perceived – Examples of survey questions:

- To what extent do you disagree with the following statements?
  - In my neighborhood, I can meet many people that are not of Belgian origin.
  - I often interact with residents that are not of Belgian origin in my neighborhood



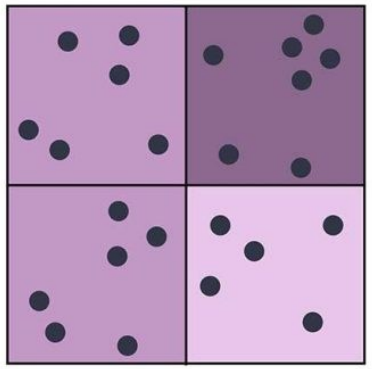
Measured – Other data sources:

- Demographics and other statistical information from Statbel open data

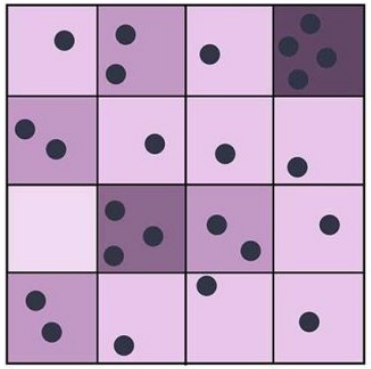
Spatial information at multiple scales

Why is spatial information important?

- Show more differences between groups of participants
  - Differences between regions and types of areas (affluent/disadvantaged, urban/rural)



  - Differences between smaller areas (sub-municipalities or neighborhoods)



→ Better understanding of what happens at local scale

Spatial information while protecting privacy

- Providing home location creates high risk of indirect identification
- But for geographical research, we need spatial information

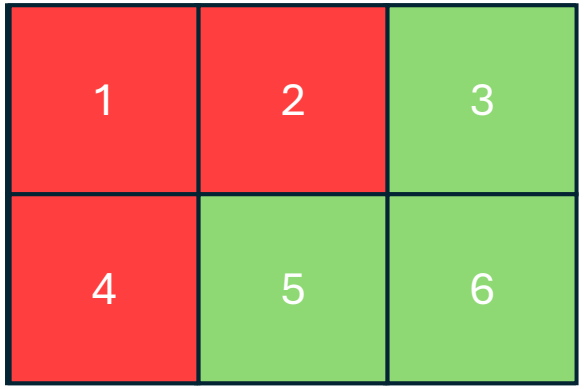
Potential solutions to balance the two:

1. **Secure research platform** (e.g., CBS Netherlands)
2. **Internal data linking** (e.g., Intego Environment Project)

Our proposed approach

RESEARCHERS

1. Compute measured value per spatial unit



Measured

Unit 1 – urban
Unit 2 – urban
Unit 3 – rural
Unit 4 – urban
Unit 5 – rural
Unit 6 – rural

4. Return only matched variables to researchers

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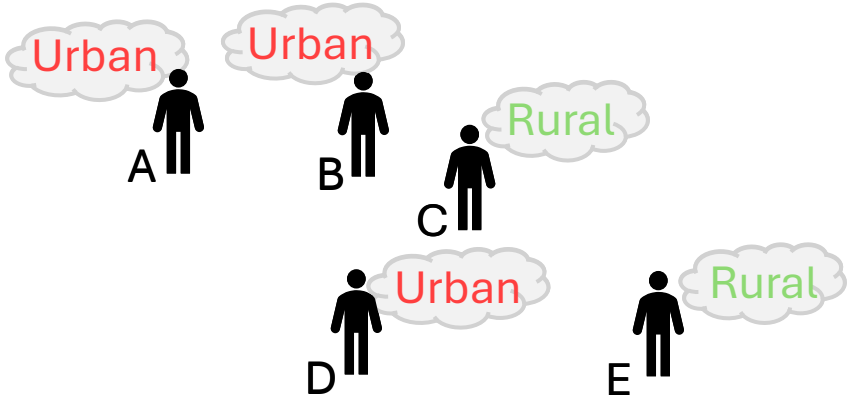
2. Perceived value from survey respondents



Perceived

Person A – urban
Person B – urban
Person C – rural
Person D – urban
Person E – rural

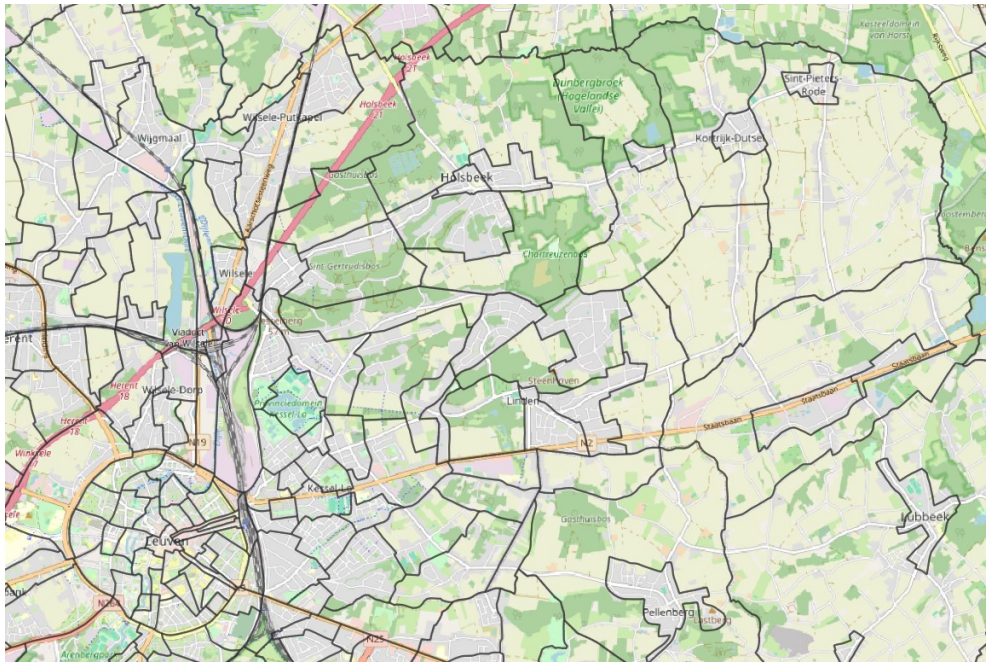
3. Internal data matching

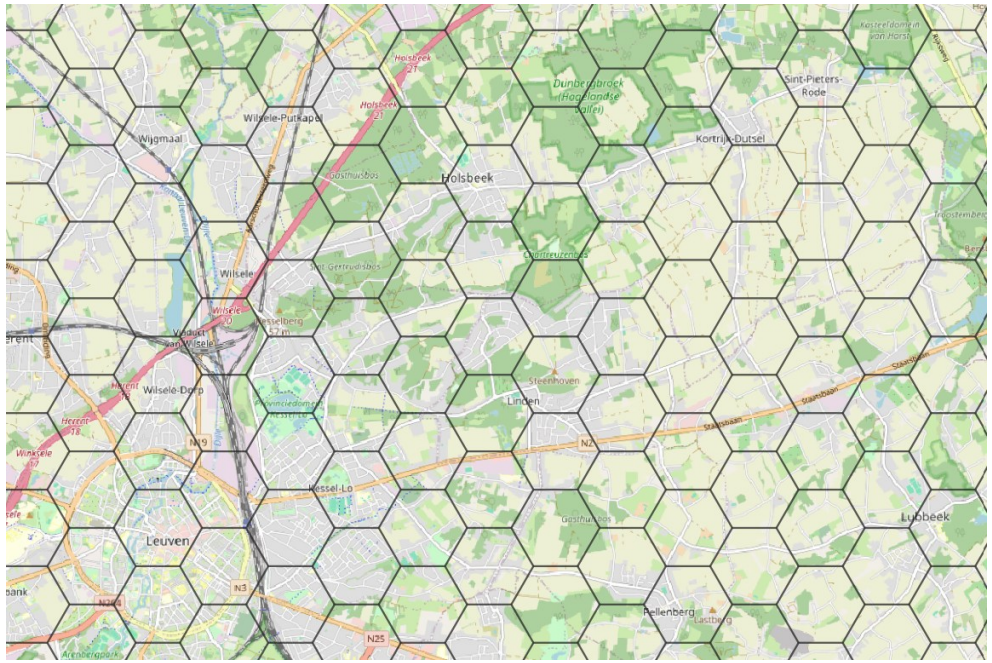
Perceived	Measured
urban	urban
urban	urban
rural	urban
urban	rural
rural	rural

Internal Data Linking

Which spatial unit?

Statistical sectors or *Hexagon grid*





Thank you!

Any questions?

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