



Unravelling socio-environmental inequality at the street level: a refined typology of Brussels' urban fabrics

Madeleine GUYOT, Isabelle THOMAS and Sophie O. VANWAMBEKE

35th International Geographical Congress – Dublin 2024

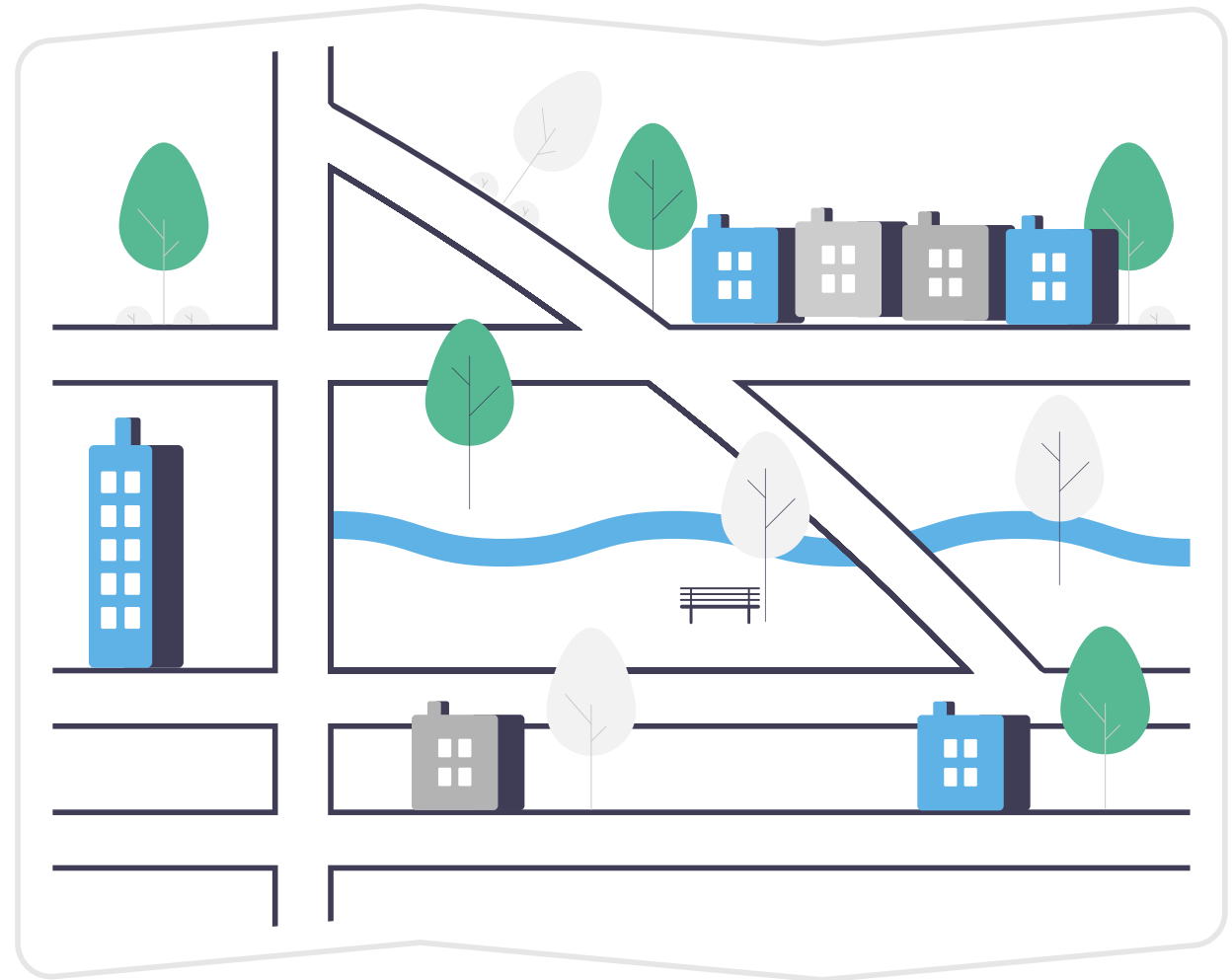
Environmental Quality

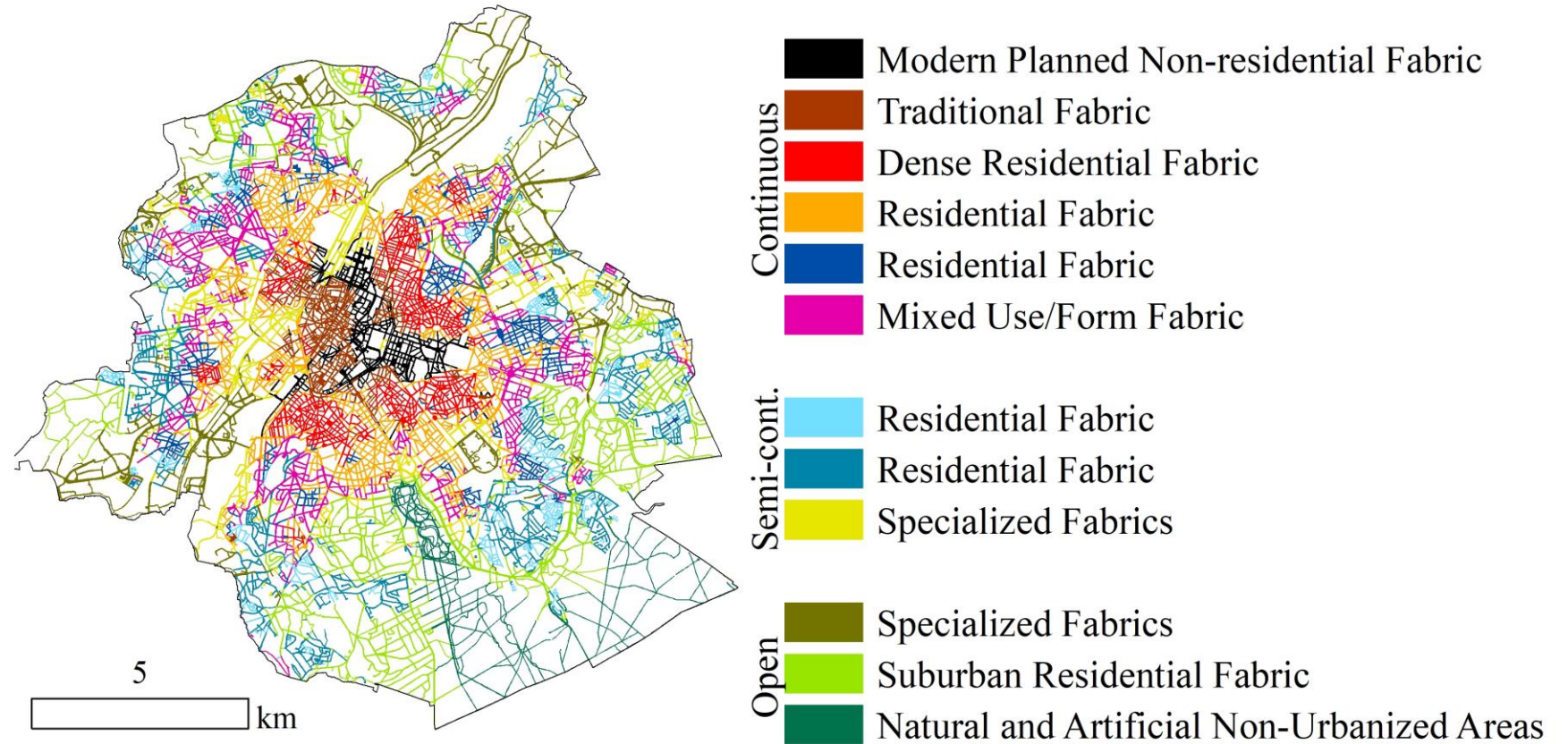


Residential segregation

Drivers

- Social inequalities
- Housing systems
- Area-based interventions
- Housing policies and local urban morphology
- Migration dynamics

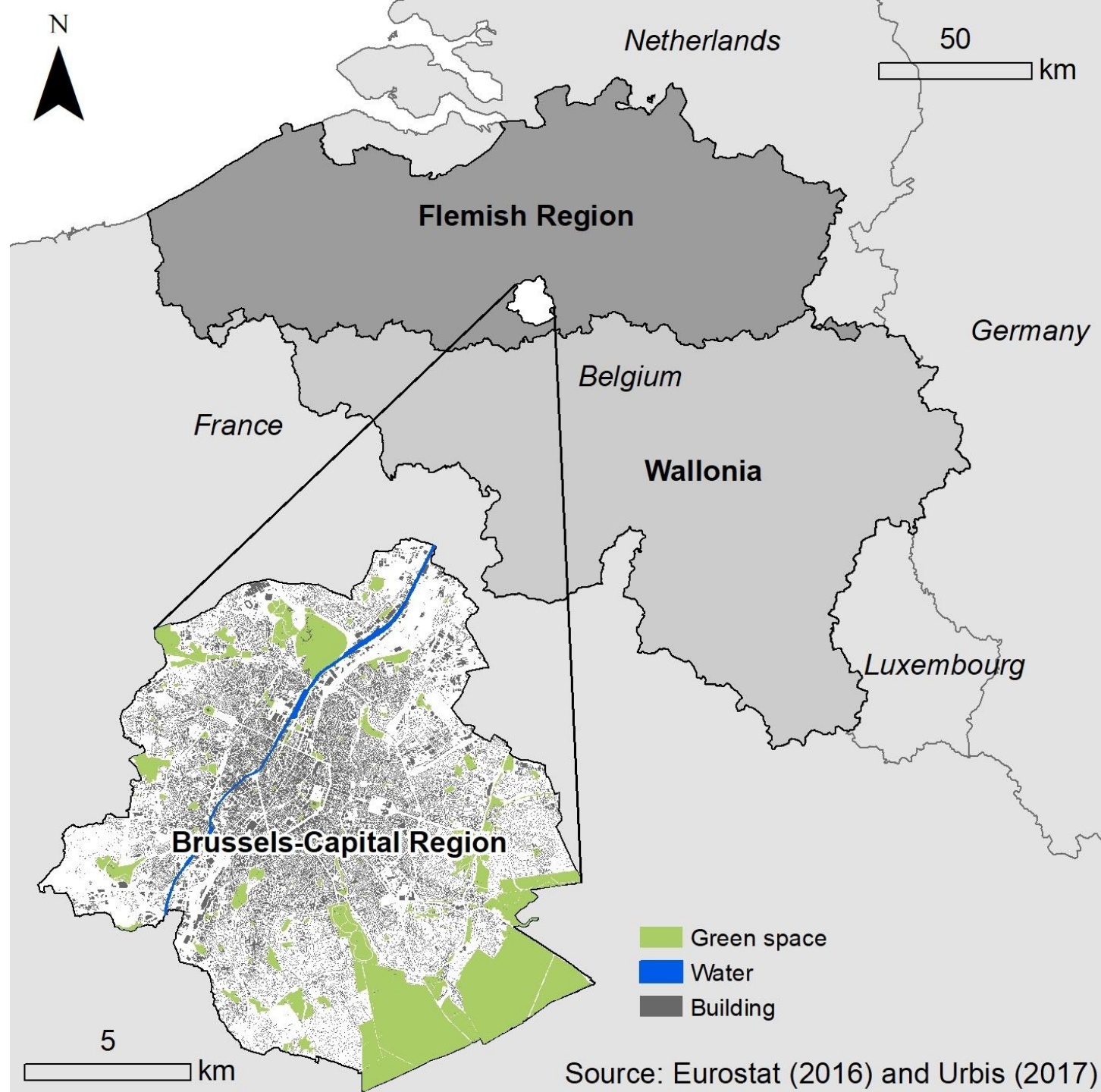




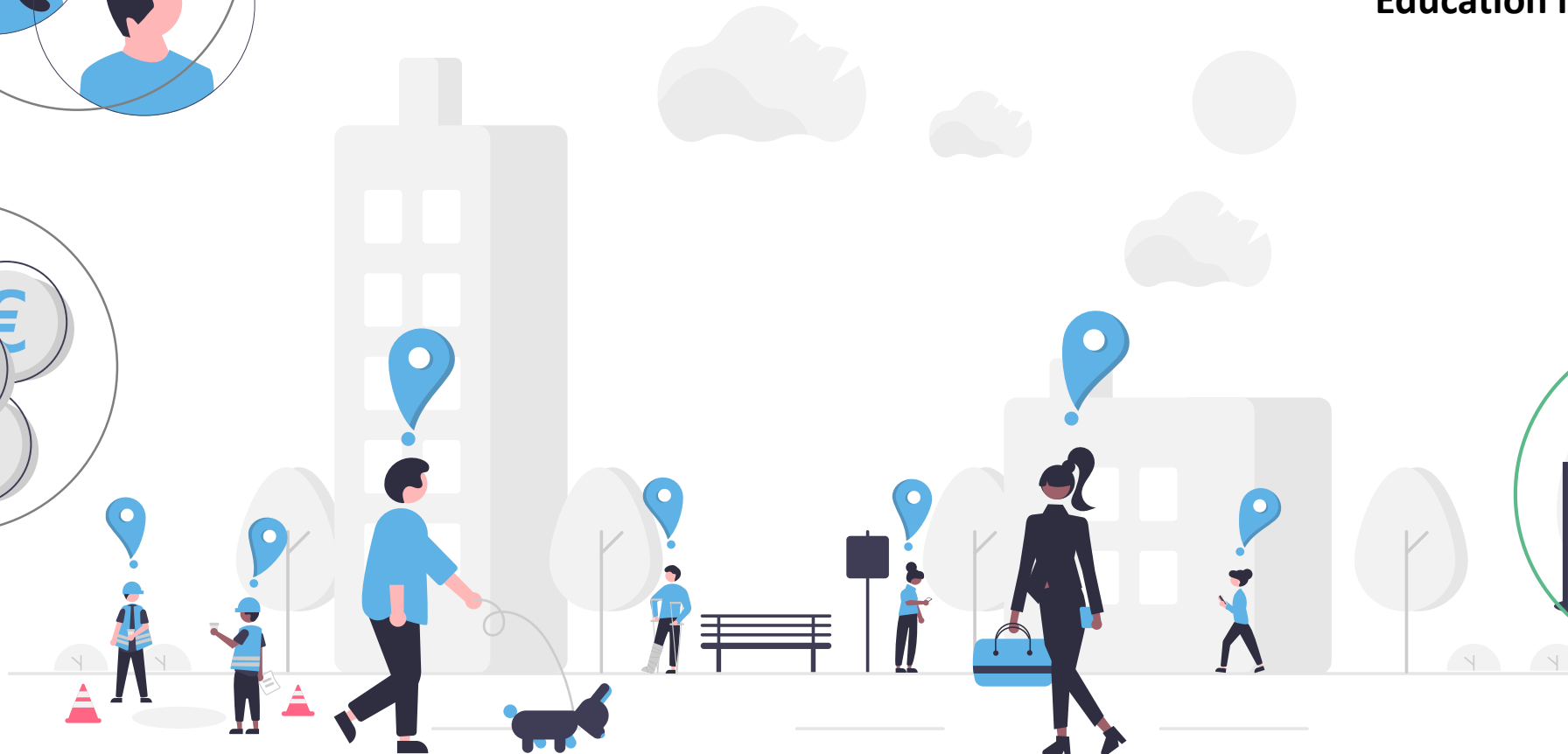
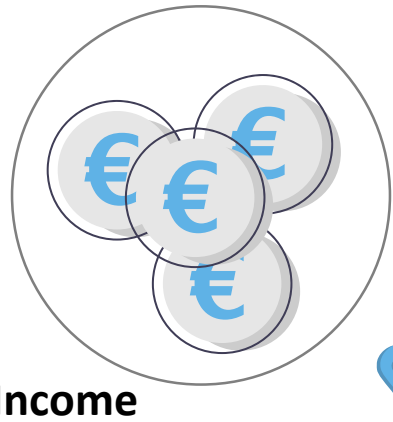
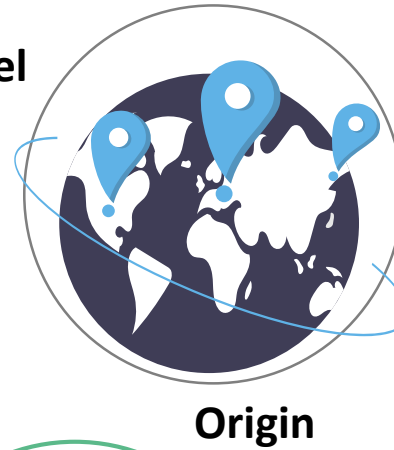
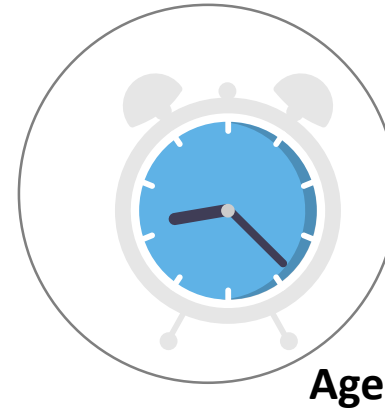
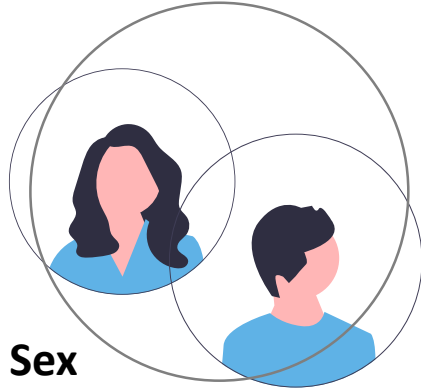
Objective



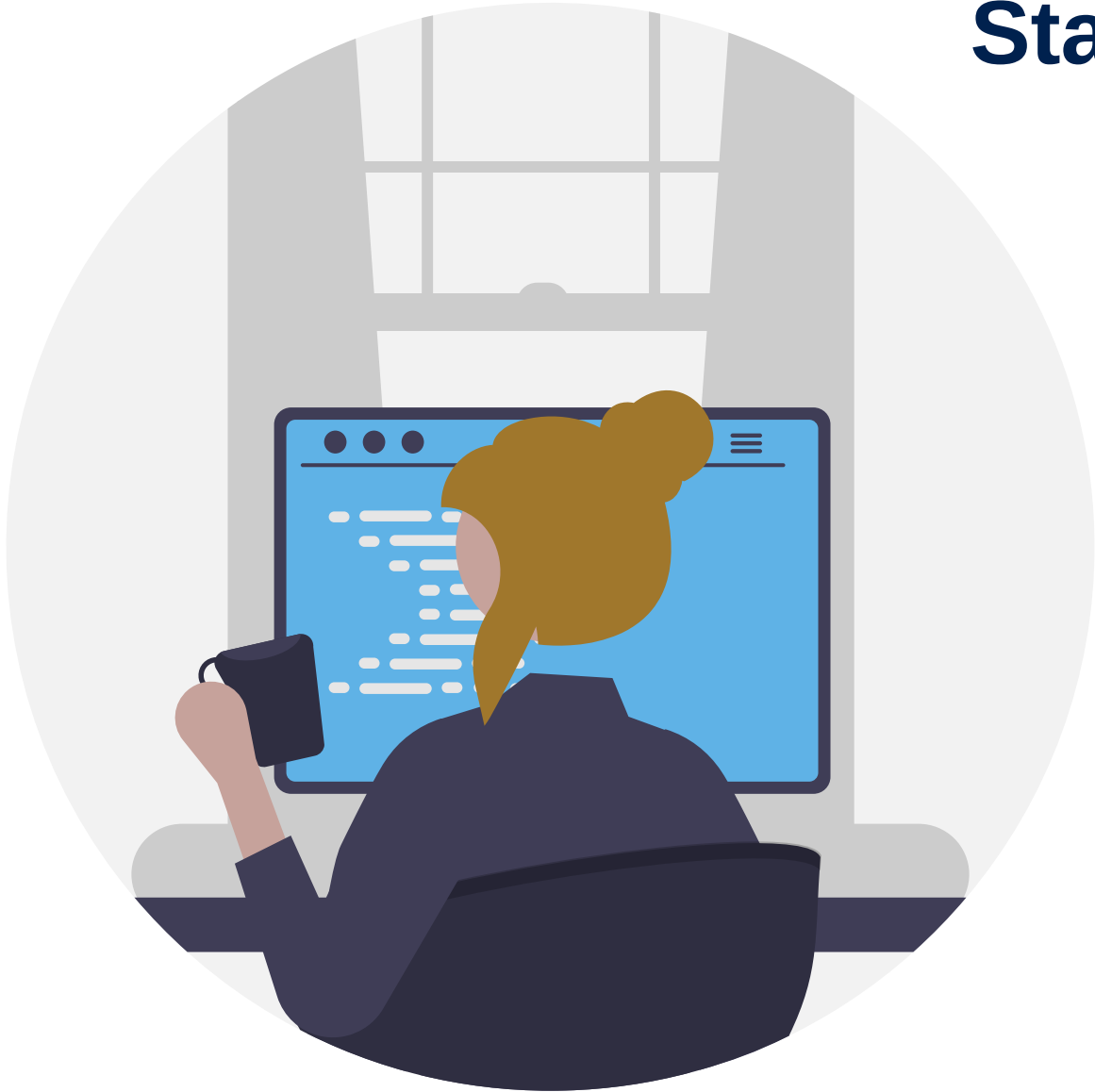
explore how **neighbourhood morphology** shapes the **socioeconomic characteristics** of communities.



Microdata

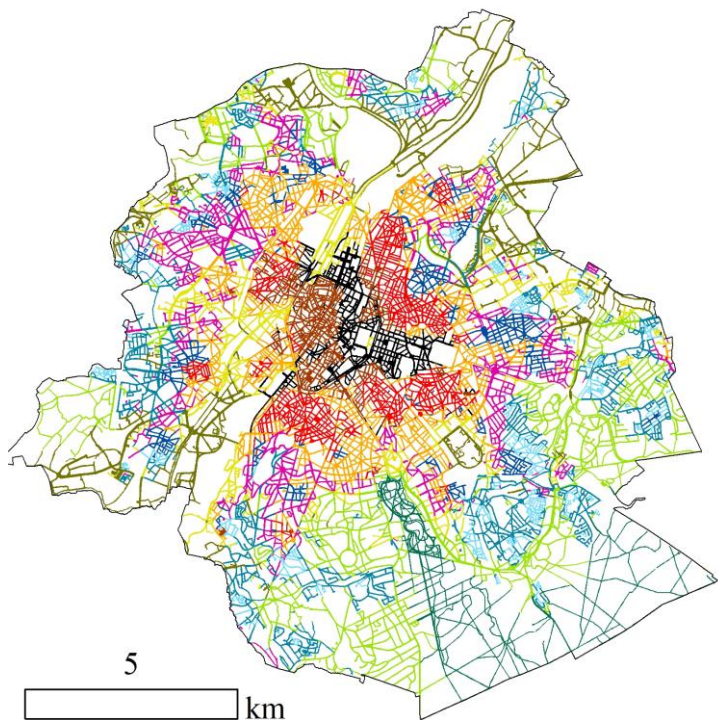


Statistical method



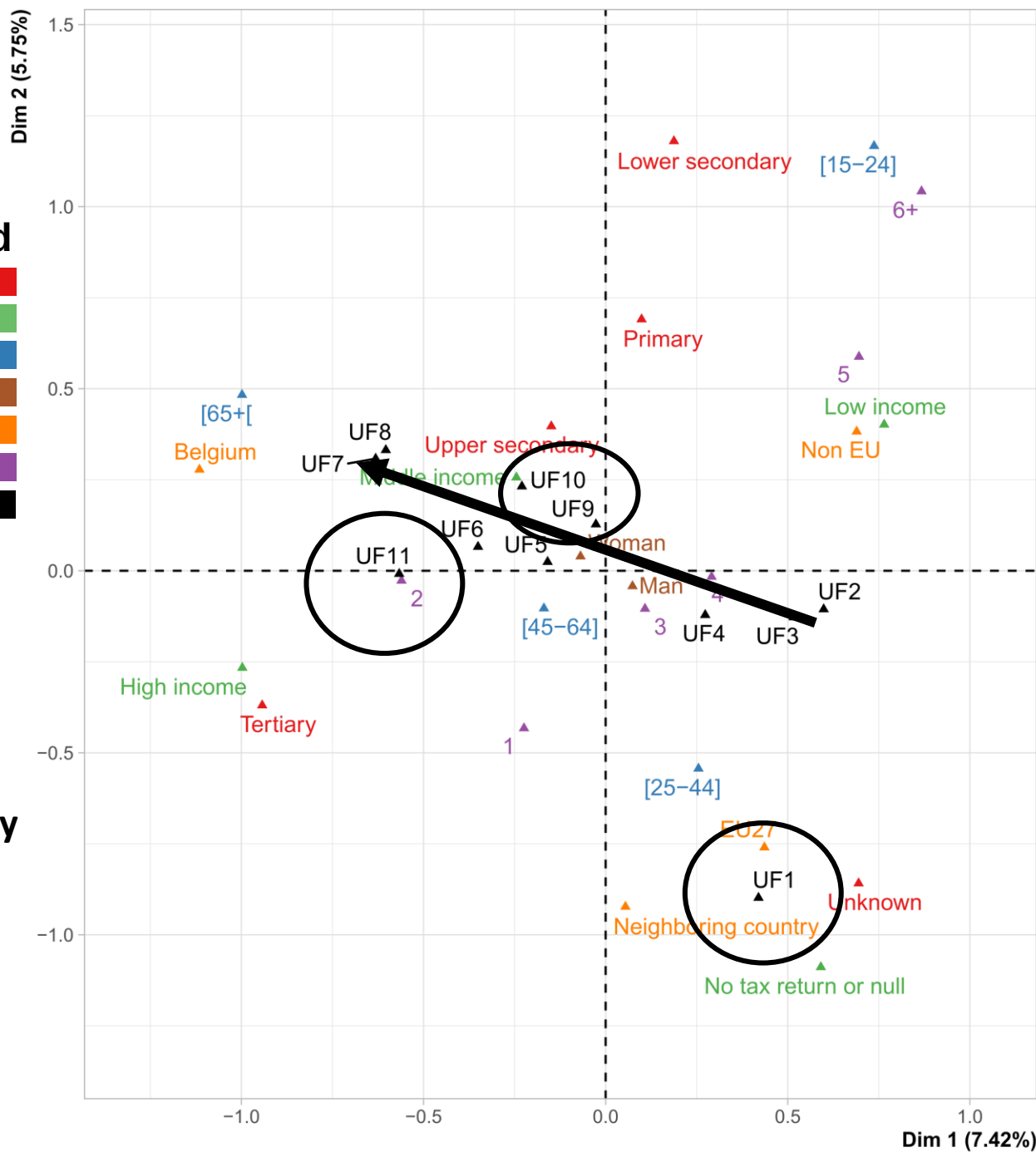
Multiple Correspondence Analysis

~ A PCA of categorical variables



Legend

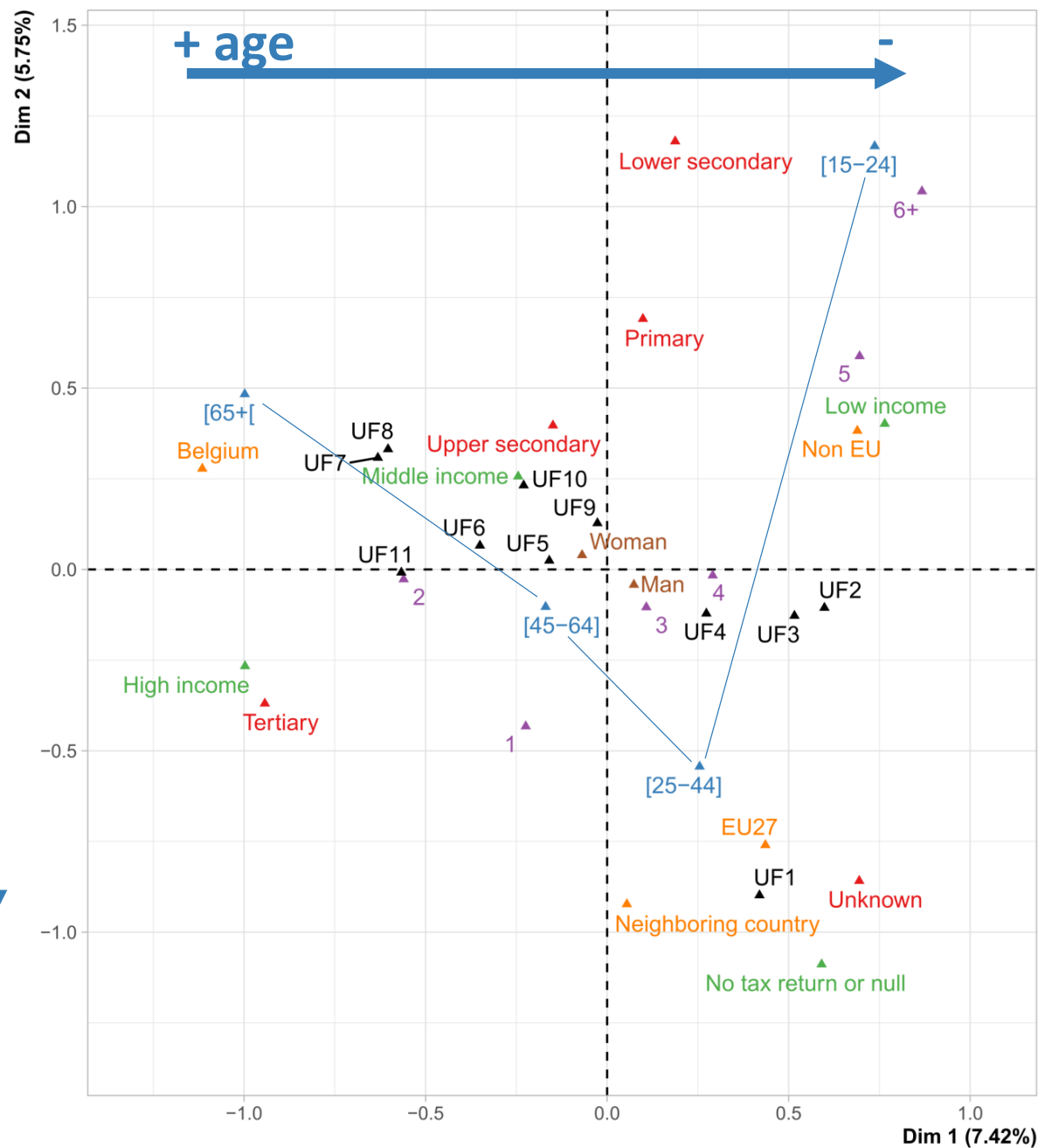
- Educational level
- Income
- Age
- Sex
- Origin
- Household size
- Street typology



- UF1 Modern Planned Non-residential Fabric
- UF2 Traditional Fabric
- UF3 Dense Residential Fabric
- UF4 Residential Fabric
- UF5 Residential Fabric
- UF6 Mixed Use/Form Fabric
- UF7 Residential Fabric
- UF8 Residential Fabric
- UF9 Specialized Fabrics
- UF10 Specialized Fabrics
- UF11 Suburban Residential Fabric
- Natural and Artificial Non-Urbanized Areas

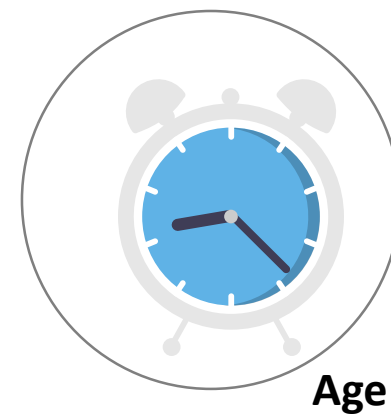
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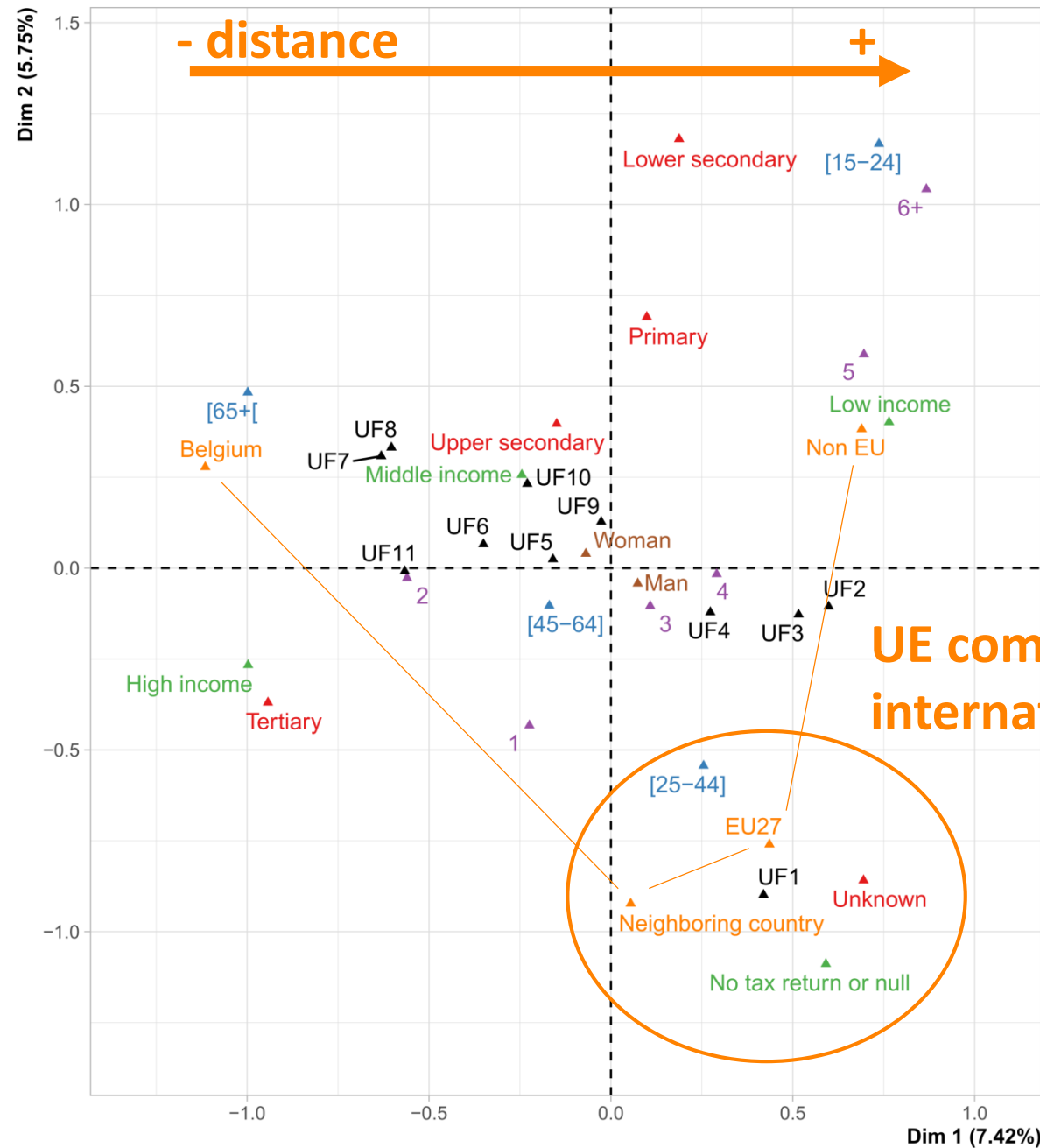
active



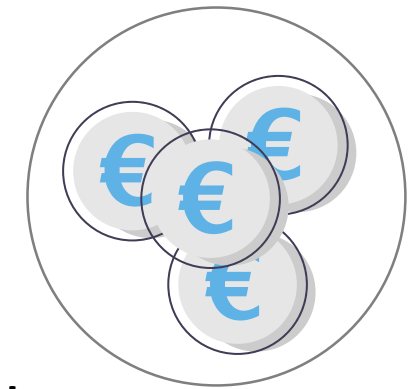
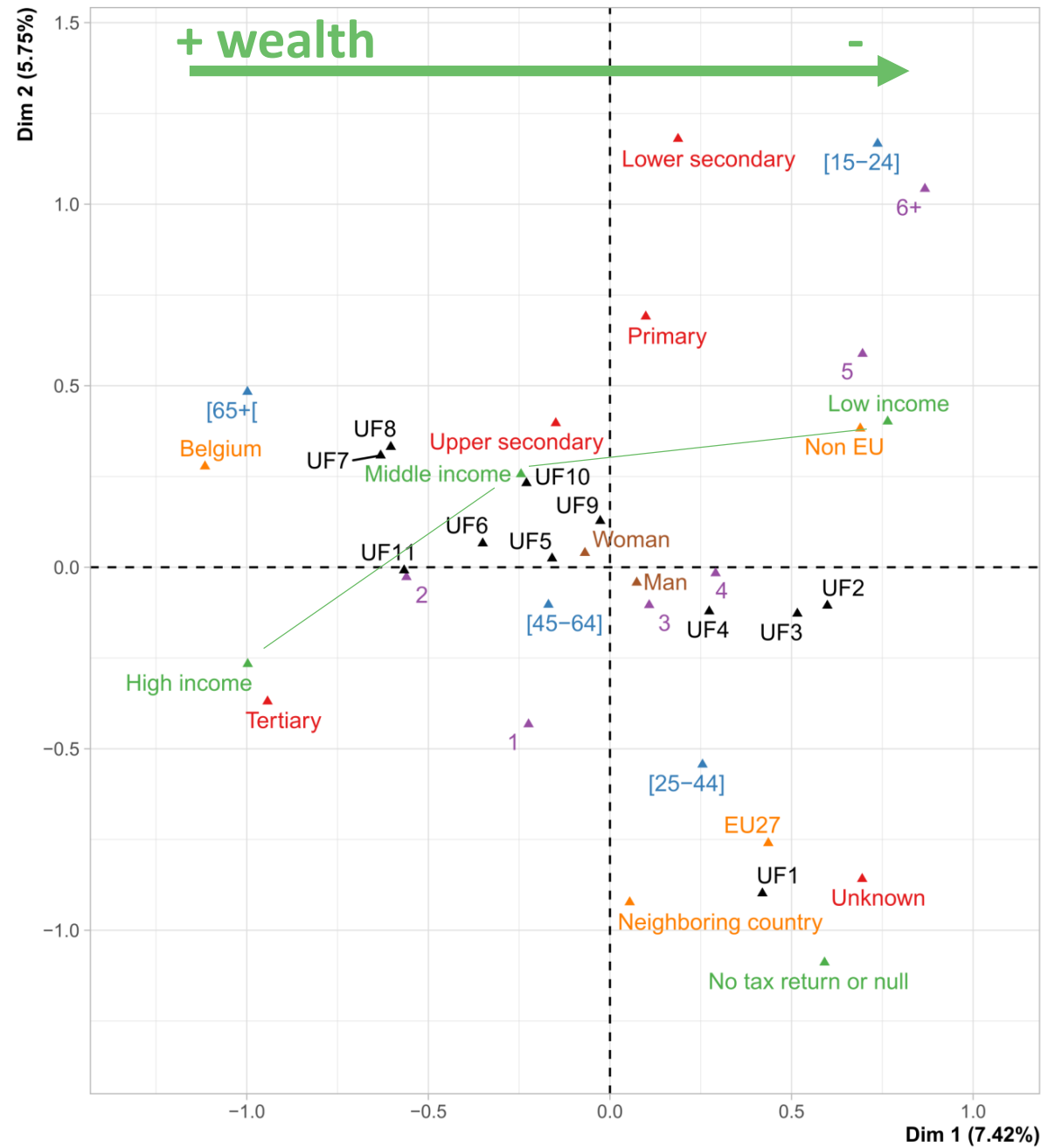
Legend

- Educational level
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Origin

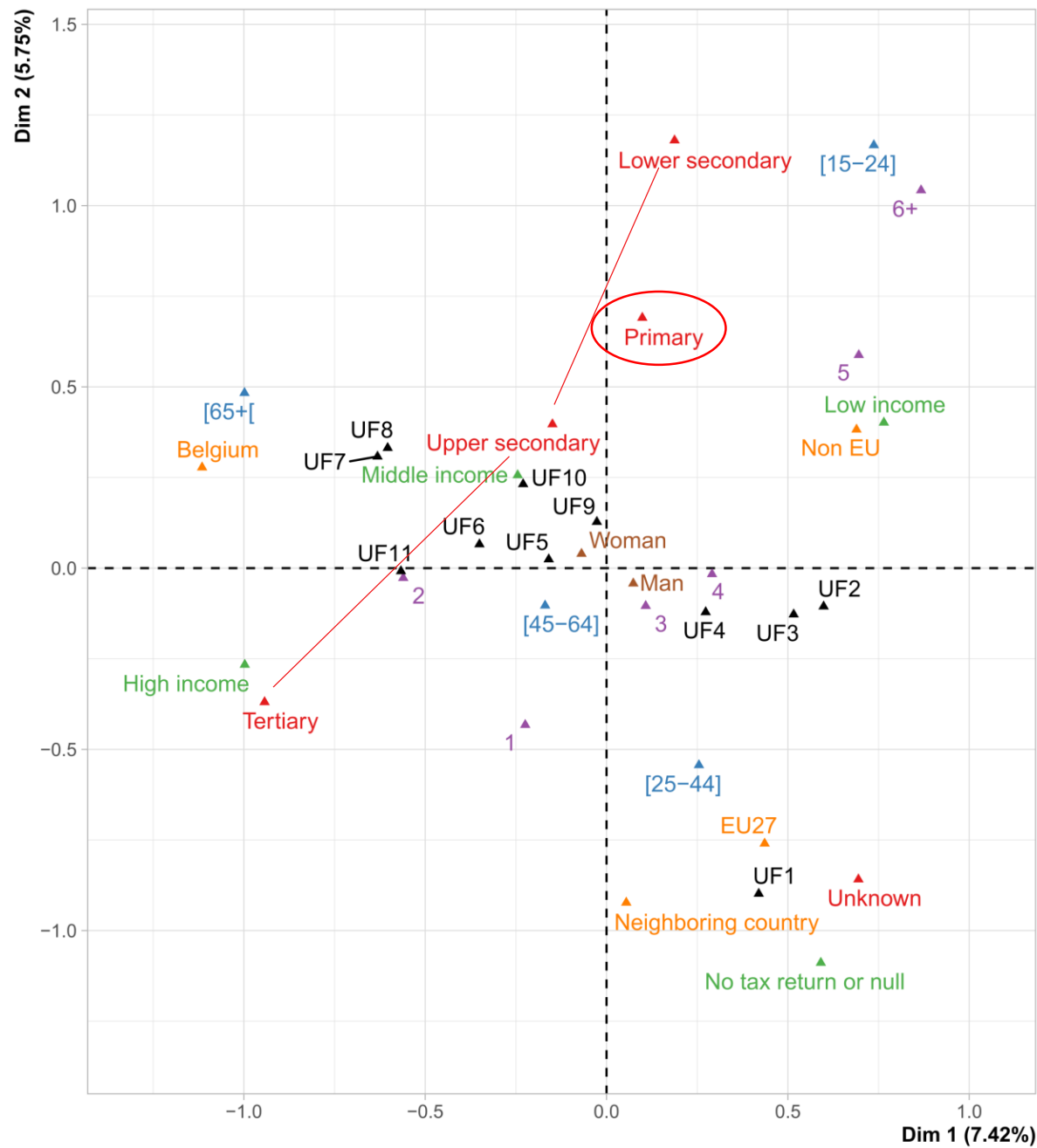


Income

Legend

- ▲ Educational level
- ▲ Income
- ▲ Age
- ▲ Sex
- ▲ Origin
- ▲ Household size
- ▲ Street typology

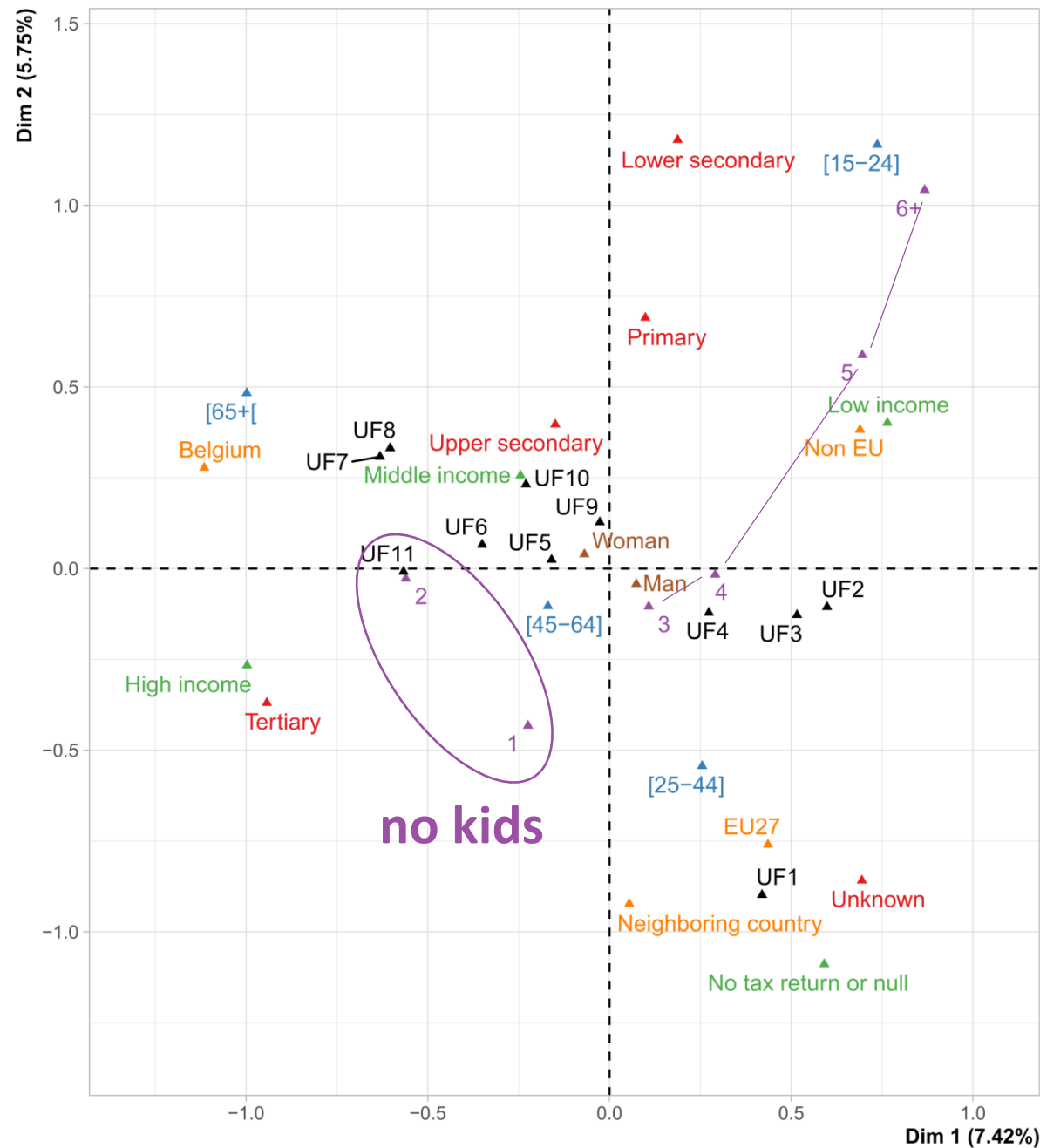
+ education -

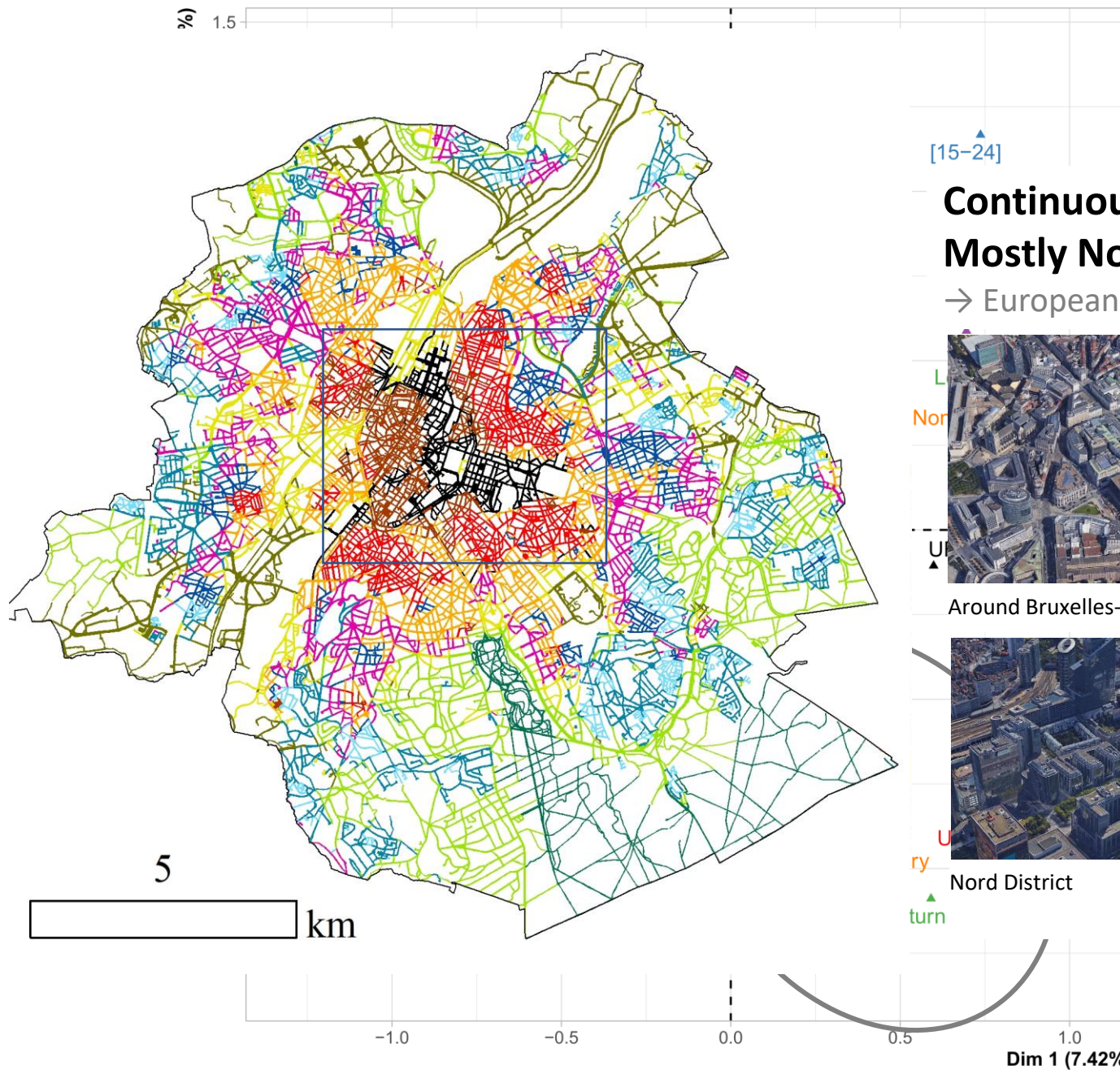


Education level

Legend

- Educational level
- Income
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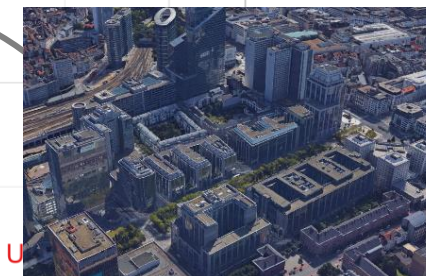
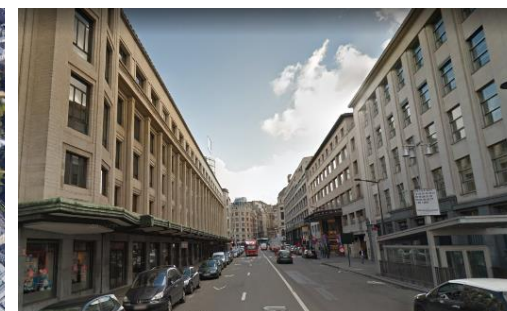
[15-24]

Continuous Modern Planned Mostly Non-Residential Fabric

→ European Quarter and CBD



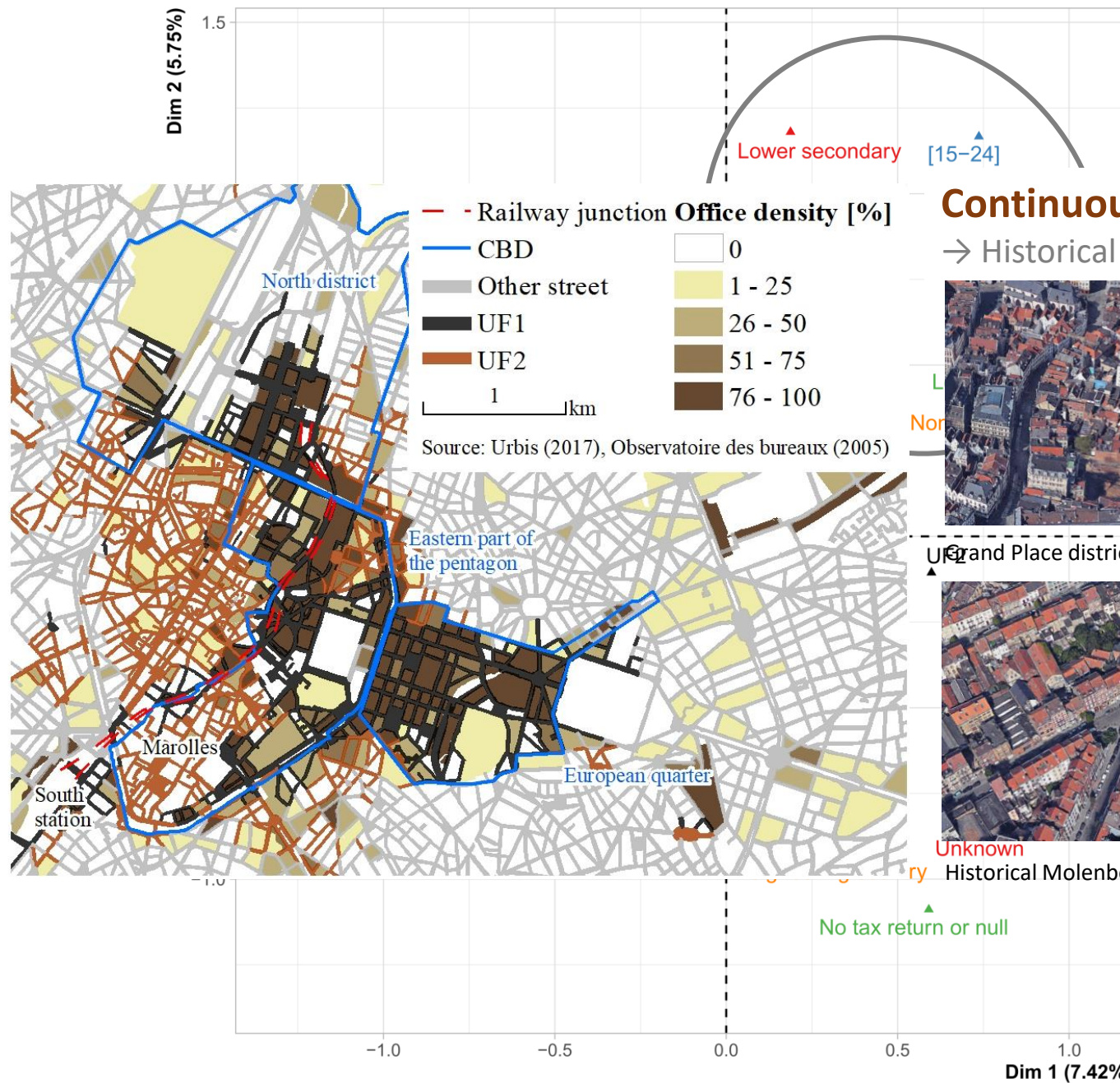
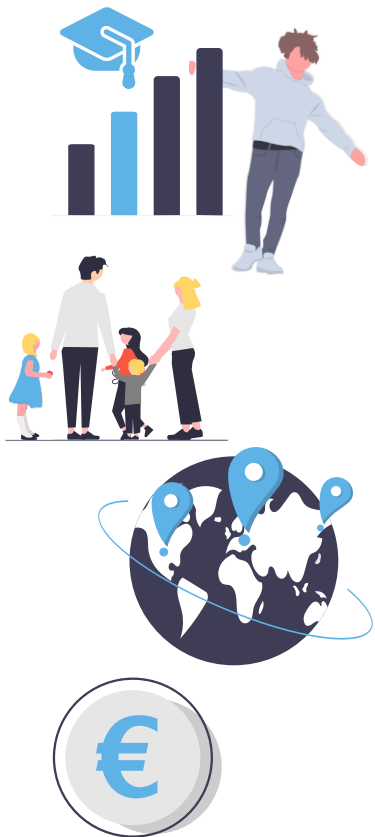
Around Bruxelles-Central Station



Nord District

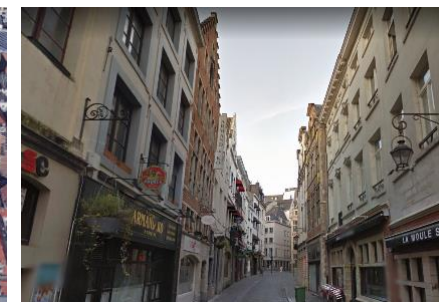


- Origin
- Household size
- Street typology

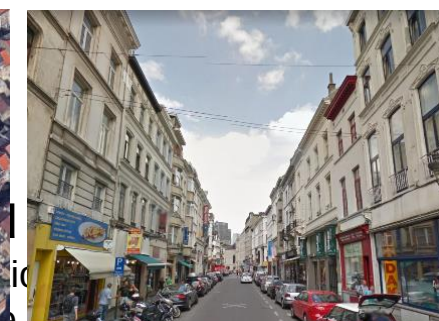
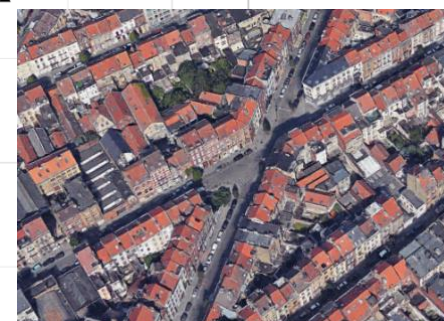


Continuous Traditional Fabric

→ Historical center



Grand Place district (Îlot Sacré)



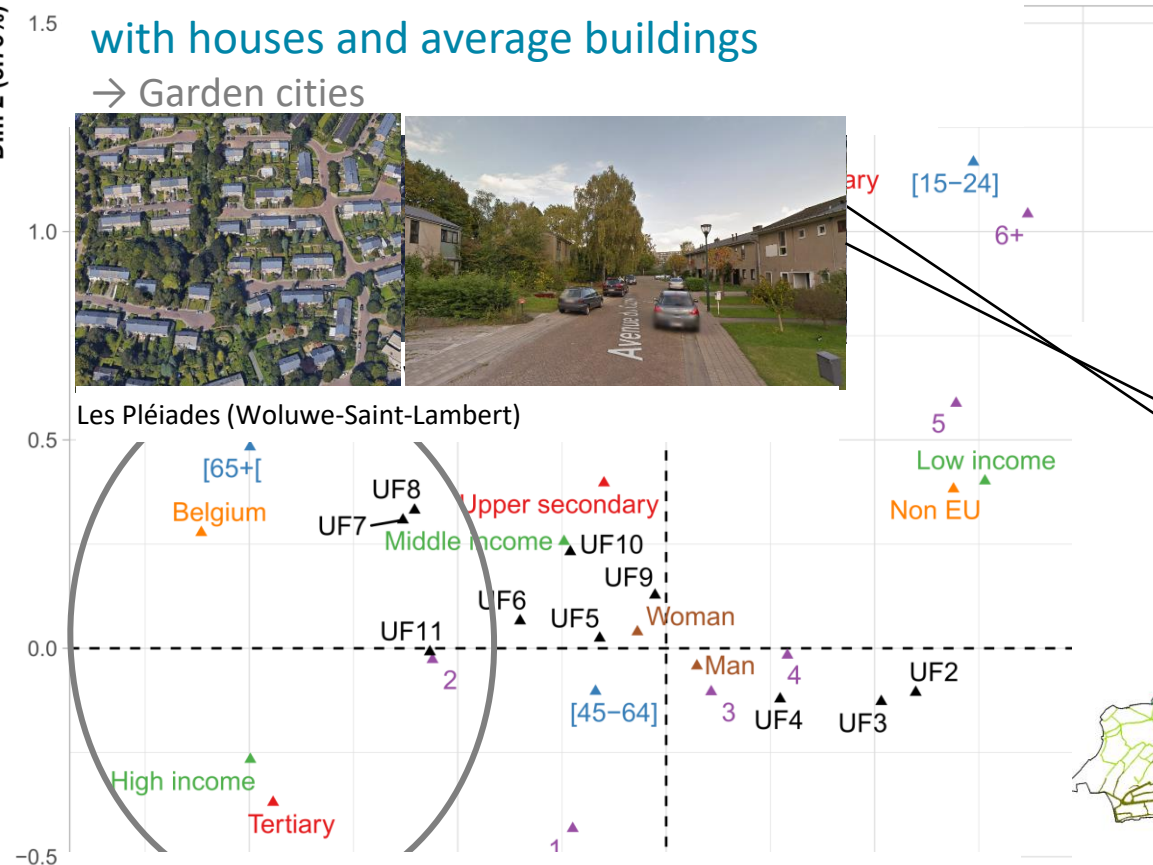
- Unknown
- Income
- Age
- Sex
- Origin
- Household size
- Street typology



UF8 - Semi-continuous Residential Fabric with houses and average buildings

→ Garden cities

Dim 2 (5.75%)



Les Pléiades (Woluwe-Saint-Lambert)

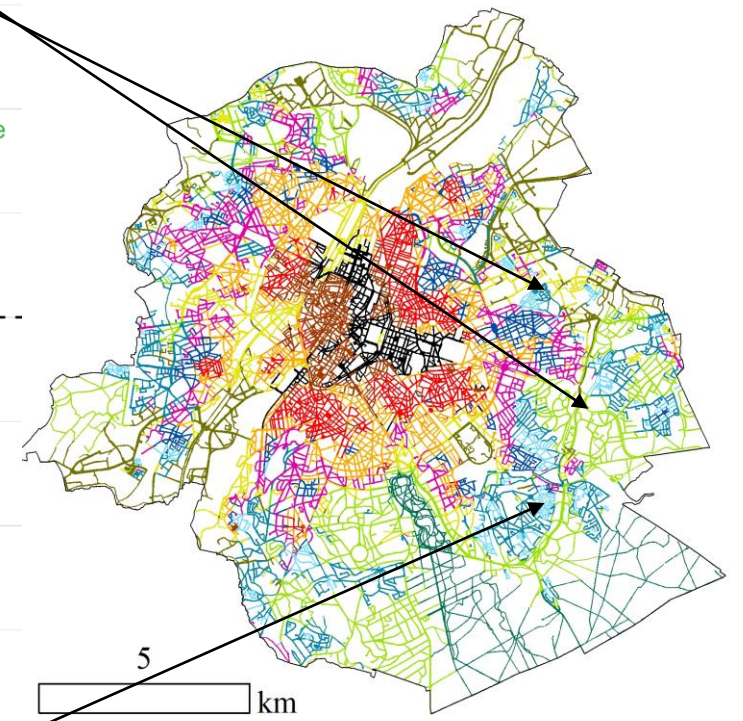
UF7 - Semi-continuous Residential Fabric with small houses and small buildings

→ Garden cities

-1.0



Floréal (Watermael-Boitsfort)



5 km

Dim 1 (7.42%)

Key messages

Neighborhood morphology and socioeconomic characteristics are linked

Multidimensional analysis captures complex relationships

Distinct socio-economic profiles tied to specific urban areas

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Find the PDF of the presentation here



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