

The Research Groups

Cartography and Geographical Information Science,
Brussels Institute for Social and Population Studies,
and Cosmopolis Centre for Urban Research

has the honor to invite you to the public defence of the PhD thesis of

Elsa Gallez

to obtain the degree of Doctor of Interdisciplinary Studies

Title of the PhD thesis:

Schools as Gateways to Urban Nature for All: A Mixed-Methods Analysis of Children's (In)equitable Exposure to School-Related Green and Blue Infrastructure in Brussels and Other European Cities

Supervisors:

Prof. dr. Frank Canters
Prof. dr. Francesc Baró
Prof. dr. Sylvie Gadeyne

The defence will take place on

**Thursday, January 29, 2026 at 4 p.m. in
auditorium I.0.01, on VUB Etterbeek campus**

The defence can also be followed through a
live stream: <http://urlr.me/rMfR8b>

Members of the jury

Prof. dr. David Bassens (VUB, chair)
Prof. dr. Christophe Vanroelen (VUB)
Prof. dr. Boud Verbeiren (VUB)
Prof. dr. Edyta Łaszkiewicz (University of Lodz, PL)
Prof. dr. Diana Reckien (Universiteit Twente, NL)

Abstract of the PhD research

Children growing up in cities are particularly vulnerable to ongoing urbanisation, limited access to urban green spaces, and increasingly sedentary lifestyles. However, the spatial distribution of urban green and blue infrastructure (GBI), along with its associated ecosystem services and health benefits, often disproportionately favours children from more affluent families. Despite a growing body of literature on inequitable access to GBI and related health disparities, schools remain understudied in accessibility research.

This interdisciplinary dissertation aims to deepen the understanding of children's (in)equitable access to and use of school-related GBI (in schoolyards and outside school premises), both during and after school hours, in Brussels (the main case study), Barcelona, Rotterdam, and Paris. Using a multi-dimensional framework, the research employs a mixed-methods approach to examine the extent of inequalities in exposure to school-related GBI.

First, inequalities in access to school-related GBI are examined through geospatial and statistical analyses. Results show that children from wealthier families in the Brussels-Capital Region benefit from greener schoolyards and healthier school outdoor environmental quality, with Brussels exhibiting the strongest inequalities compared to Barcelona, Rotterdam, and Paris.

Second, the dissertation investigates children's use patterns of school-related GBI and its determinants, through map-based surveys and semi-structured interviews with parents and school staff in the Brussels-Capital Region. Findings indicate that, after school hours, children from lower-income families and younger children (under six) use public green spaces more frequently than others. Yet, the lack of nearby, attractive, and accessible public green spaces emerges as a major barrier to their use, particularly in lower-income neighbourhoods. Limited motivation and experience among school staff regarding outdoor learning further constrain use.

Supported by these findings, several policy recommendations are proposed to promote children's interactions with nature in urban school environments while ensuring equity. Given the global momentum around schoolyard greening and the growing interest in outdoor learning, this dissertation calls for placing justice considerations at the centre of greening initiatives in and around schools.

Curriculum vitae

Elsa Gallez holds a Bachelor's degree in Geographical Sciences from the University of Namur (2018) and a Master's degree in Urban Environmental Management from Wageningen University & Research (2020).

Her interdisciplinary PhD began in 2022 at VUB and was conducted in the framework of the EU Horizon 2020 COOLSCHOOLS project (2022-2025). Her work focuses on identifying effective levers to promote equitable access to nature for all.