

The Research Group
Cosmopolis Centre for Urban Studies

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

Pedram Saeidizand

to obtain the degree of Doctor of Sciences

Title of the PhD thesis:

**Car dependency of metropolitan areas around the world:
a cross-sectional and longitudinal analysis**

Promotor:

Prof. Dr. Kobe Boussauw

The defence will take place on

**Monday, September 9, 2024 at
3:00 p.m. in auditorium I.0.01**

The defence can also be followed
through a live stream:
<https://t.ly/HzE5R>

Members of the jury

Prof. Dr. Fabio Vanin (VUB, chair)
Prof. Dr. Geert te Boveldt (VUB, secretary)
Dr. Koos Fransen (VUB)
Dr. Eva Van Eenoo (VUB)
Prof. Dr. Enrica Papa (University of
Westminster, UK)
Prof. Dr. Thomas Vanoutrive (UAntwerpen)

Curriculum vitae

Pedram Saeidizand is a transport planner with extensive experience in both industry and academia. He is a Civil Engineer and holds an advanced Master's in Urban Management and Development. Since 2019, he has been a part-time researcher at Cosmopolis Centre for Urban Research, focusing on his PhD thesis on car dependency in global metropolitan areas (MAs). His research interests encompass travel behaviour, car dependency, the interaction between travel and the built environment, new mobility services, and quantitative analysis. One of his chapters was published in the renowned journal *Cities*, and has become one of the top-ranked papers on car dependency of the last few years. Furthermore, he published in *International Journal of Sustainable Transportation*, while other parts of his work are under review.

Abstract of the PhD research

Various indicators of car dependency have been the subject of previous studies. The current PhD research delves into the variables that play a part in car dependency at the level of global metropolitan areas. The first chapter reviews pertinent literature on car dependency, identifying the research gaps. In the second chapter, it updates initial studies on the topic through drawing on more recent data, notably the Mobility in Cities Database, and carrying out a more holistic analysis. In a third step, it sheds light on those metropolitan areas with unexpectedly high or low degrees of car dependency in relation to the model's output, the so-called outlier metropolitan areas. The fourth chapter monitors the evolution of car dependency in the same metropolitan areas over time, and compares the outcomes of this longitudinal analysis to those of the cross-sectional analysis conducted earlier. This PhD study assesses the contributions of the built environment, public transport supply and use, travel cost, and car ownership to car dependency of metropolitan areas, whereas it acknowledges the pivotal role of socio-economics, residential self-selection and attitudes that may account for car dependency but could not be included in the conducted quantitative analyses. The dissertation contributes to the field by investigating the major driving forces behind car dependency of MAs, assessing MAs with unexpected levels of car dependency, and studying the temporal evolution of car dependency of MAs.