Appendix 1 – Data acquisition: Overview

Data acquisition is a crucial part of geographic analysis. Reliable sources of data are key in producing reliable output, so it is wise to carefully select one’s data sources \citep{vanderMeer.2019}. To model the walkable environment of cities on a European level, we chose to create the Local Significance (LS) and Detour Index (ID) \citep{Esch.2014, Wolff.2021}. For the creation of the LS and DI on a European scale, we require data on i.) green spaces, their entry points and their area, ii.) residential buildings, their entry points and the number of residents inhabiting them, and iii.) the network that connects the residential buildings with the green spaces. Finding comparable data for a Europe-wide study can be a challenge in itself. There is a plethora of network, building and green space data provided on national or municipal levels. They are provided in different formats and quality and have different access restrictions. Gathering these data, city by city or country by country could potentially create a comprehensive source of data for our analysis. But overcoming all restriction barriers, finding comparable data, bringing all of the different formats into alignment would prove too difficult for this work. For the purpose of developing the workflow to create LS and DI for European cities, we have chosen to acquire Urban Atlas (UA) and OpenStreetMap (OSM) data. UA and OSM are both freely accessible and offer more or less comparable data on a European scale. We derive the green space data as well as the information on the city’s inhabitants from UA. From OSM we derive the network and the buildings. We estimate the locations of building and park entry points based on both datasets (see Appendix 2b and 2c). This chapter shows the measures we have taken to find and access data that covers as much of our area of interest as possible.