In an increasingly urbanized world, peoples’ access to urban green spaces (UGS) is crucial.

Former studies have mostly focused on determining whether urban dwellers have access to UGS or not.

We used OpenStreetMap (OSM) and Urban Atlas (UA) data to analyze the walkable environment – the connecting area between green space demand and supply – of European cities.

In this study, we i.) to developed a modeling approach that applies the Detour Index (DI) and Local Significance (LS) walkability indices, ii.) compared the results on a European scale, and iii.) implemented the indices by showing possible use cases for city planners.

By employing the Local Significance (LS) index, we revealed potential overcrowding effects at UGS in southern Germany.

With the Detour Index (DI), we could not only show how many urban residents have access to UGS within 500 meters network distance, but also estimate the efficiency of the routes people take.

Future research should focus on i.) accounting for the number of UGS people can reach, ii.) augment our results with further environmental data and iii.) account for other means of transportation, like cycling or public transport.