

# Measuring up: Comparing public transport in the UK and Europe's biggest cities

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## Executive summary

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## Introduction

### **Box 1: Methodology**

Text

# 02

## How the transport systems of big British cities measure up to their European counterparts

**Figure 1: Unlike a number of other Western European countries, productivity does not increase with city size in the UK**

Productivity and city size



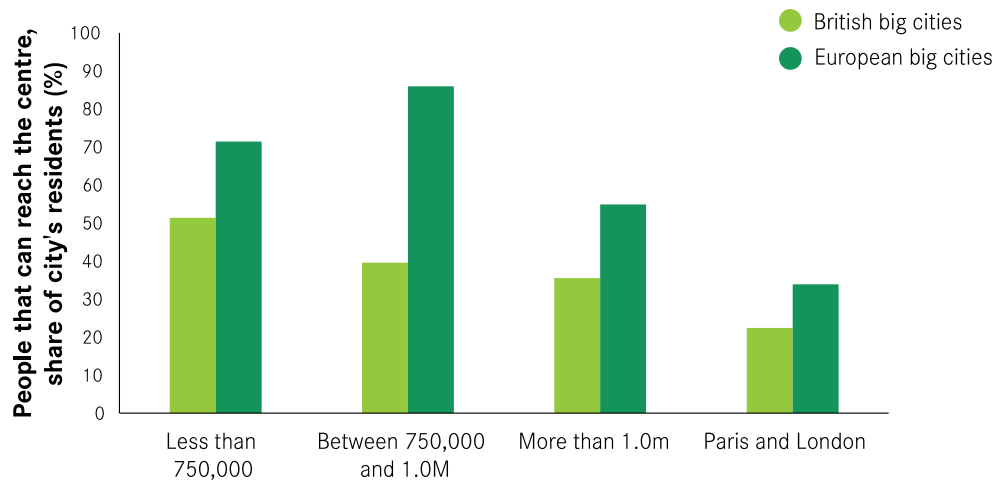
Note: The western European countries used are Belgium, Denmark, France, Germany, Netherlands and Sweden.

### Box 2: Transport connectivity, criteria, methodology and terminology

Text

**Figure 2: British city centres can be reached by almost all of their wider cities' residents in a 30-minutes' drive**

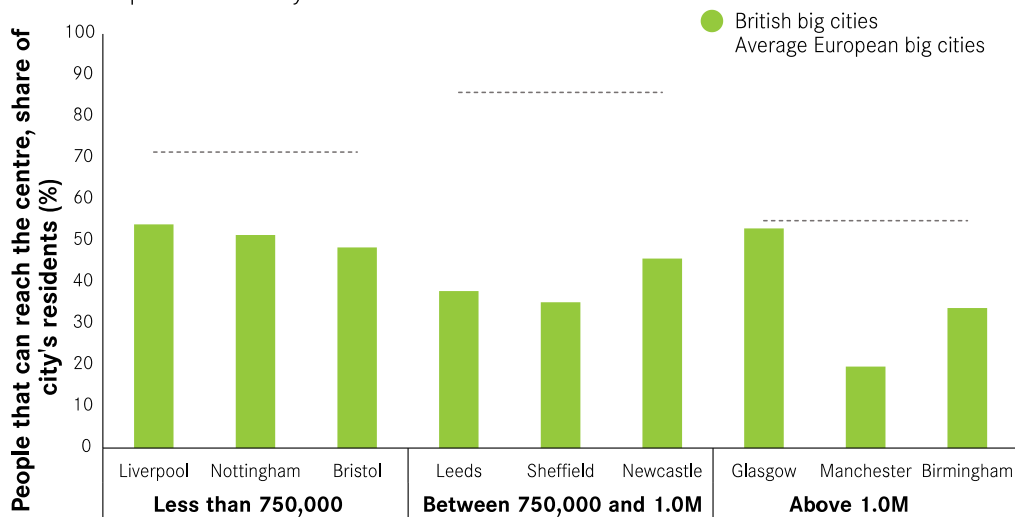
Public Transport accessibility: 30 minutes



Source: Traveltime; ONS; Eurostat; Centre for Cities' calculations. Accessibility above 100 per cent does not necessarily mean that all residents are included as transport network may include residents from different towns and cities.

**Figure 3: All large British cities, except Glasgow, have worse public transport accessibility than their European peers**

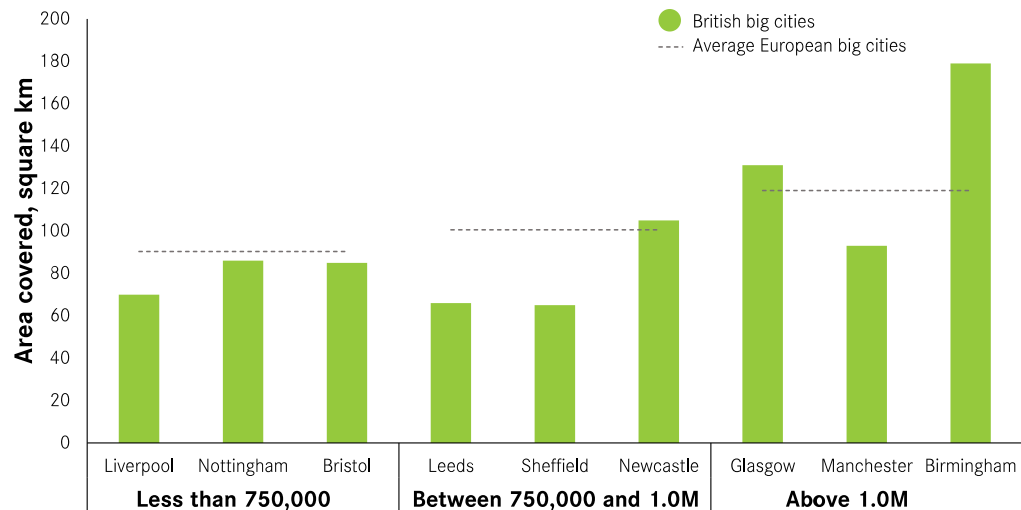
Public Transport accessibility: 30 minutes



Source: Traveltime; ONS; Eurostat; Centre for Cities' calculations. Accessibility above 100 per cent does not necessarily mean that all residents are included as transport network may include residents from different towns and cities.

**Figure 4: The size of the public transport network is not a problem in all British large cities**

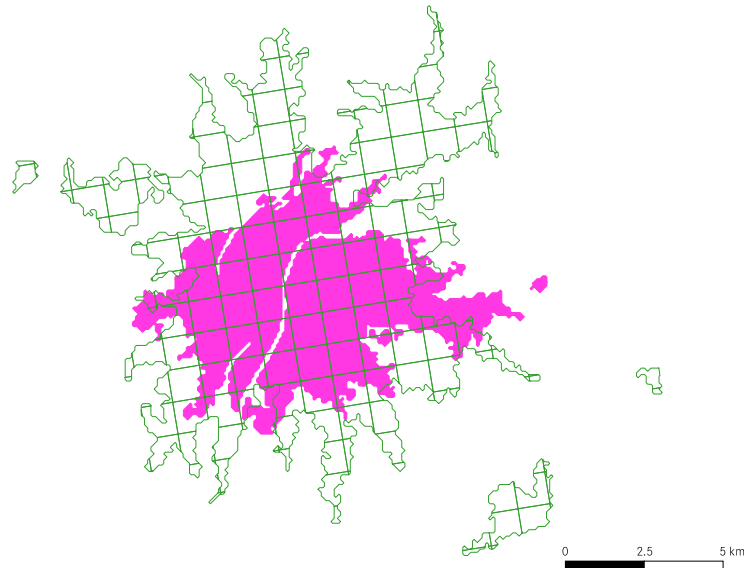
Public Transport network size: 30 minutes



Source: Traveltime; ONS; Eurostat; Centre for Cities' calculations.

**Figure 5: Birmingham's public transport network (green lines) is larger than Lyon's (pink), when measured by coverage area, but the two areas cover a similar number of residents**

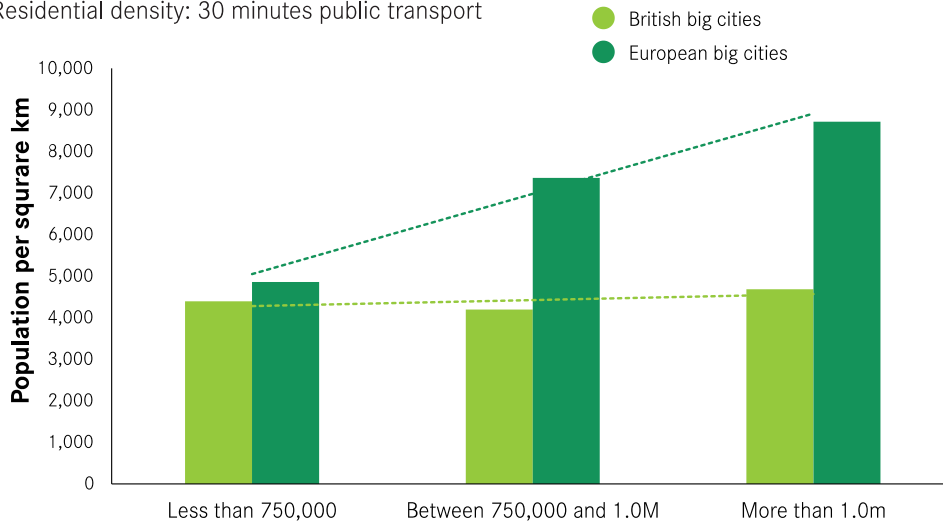
Area within 30 minutes of city centre by public transport (square km)



Source: Traveltime; ONS; Eurostat; Centre for Cities' calculations.

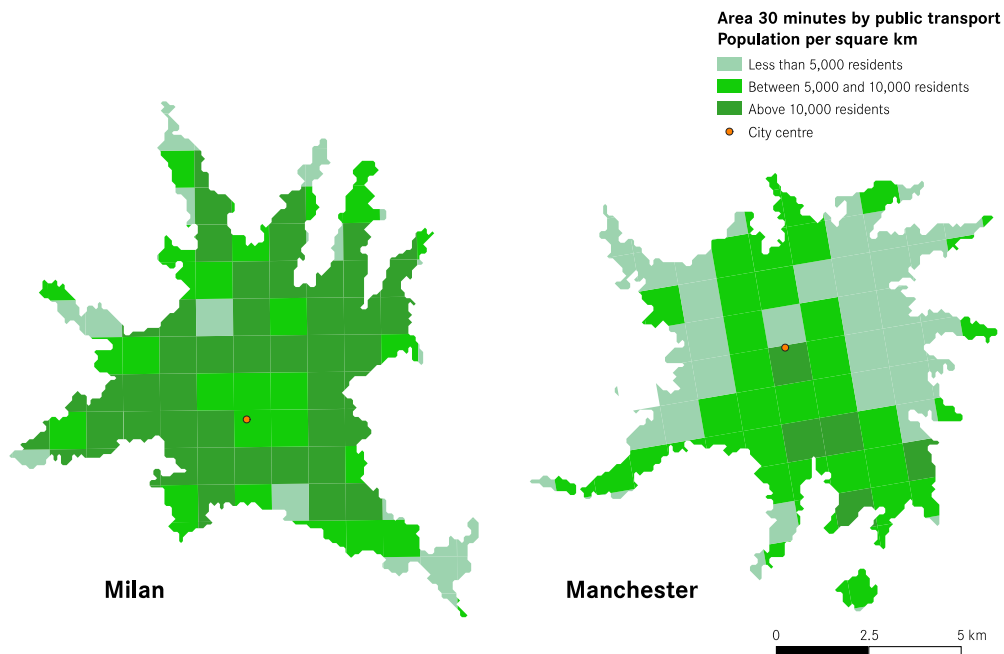
**Figure 6: Britain's biggest cities outside the capital have the biggest density mismatch with their European peers**

Residential density: 30 minutes public transport



Source: Traveltime; ONS; Eurostat; Centre for Cities' calculations

**Figure 7: Milan's 30-minute area has more people living in it than Manchester, despite being a similar size**



**Figure 8: Urban form of both Milan and Manchester, approximately 15 minutes from the city centre by public transport**



Source: Google Maps, 2021. Milan (Zona Risorgimento) and Manchester (Beswick).

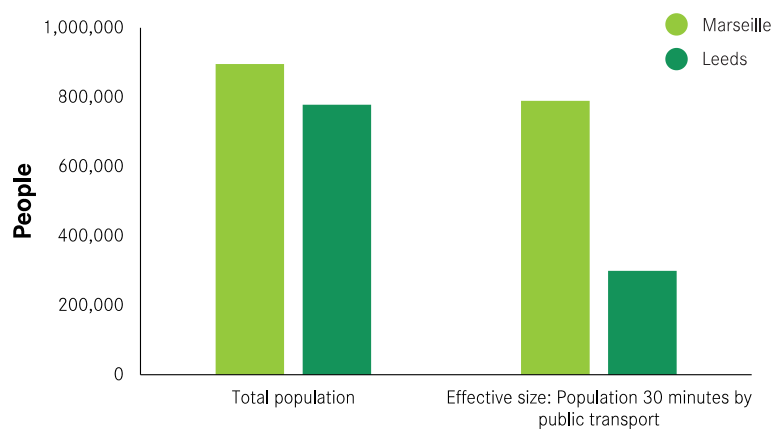
**Figure Whitlocks End (left) and Pilning (right) stations sit amongst fields despite being within commutable distance of Birmingham and Bristol respectively**



Source: Google Maps, 2021.

**Figure 10: Unlike Marseille, Leeds' labour market is much smaller than its total population**

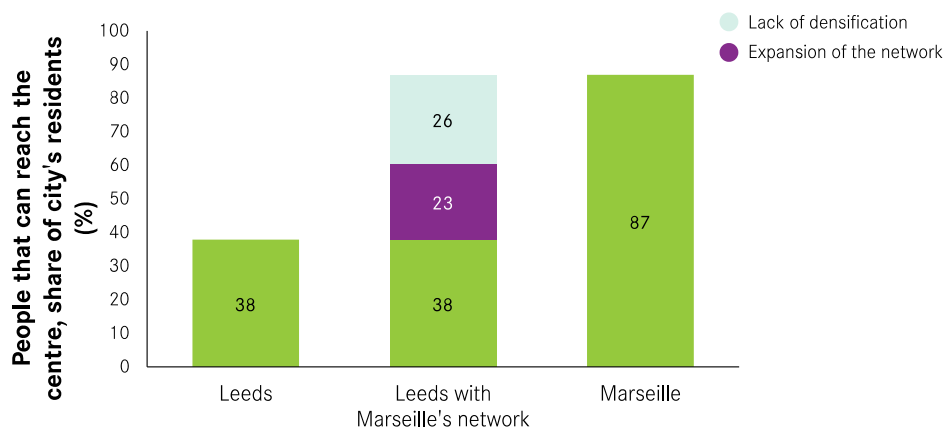
Public transport, 30-minutes from city centre: population



Source: Traveltime; ONS; Eurostat; Centre for Cities' calculations.

**Figure 11: The gap between Leeds and Marseille will not be fully closed simply by increasing the size of the public transport network**

Public Transport accessibility: 30 minutes



Source: Traveltime; ONS; Eurostat; Centre for Cities' calculations.

**Figure 12: The urban form next to public transport is significantly different in Marseille and Leeds**



Source: Google Maps, 2021. Marseille (next to La Blancard train station) and Leeds (next to Burley Park train station). Both areas are approximately five minutes away from the main station.

**Figure 13: British cities have rates of public transport commuting similar to other cities with comparable accessibility**

Public transport usage and accessibility



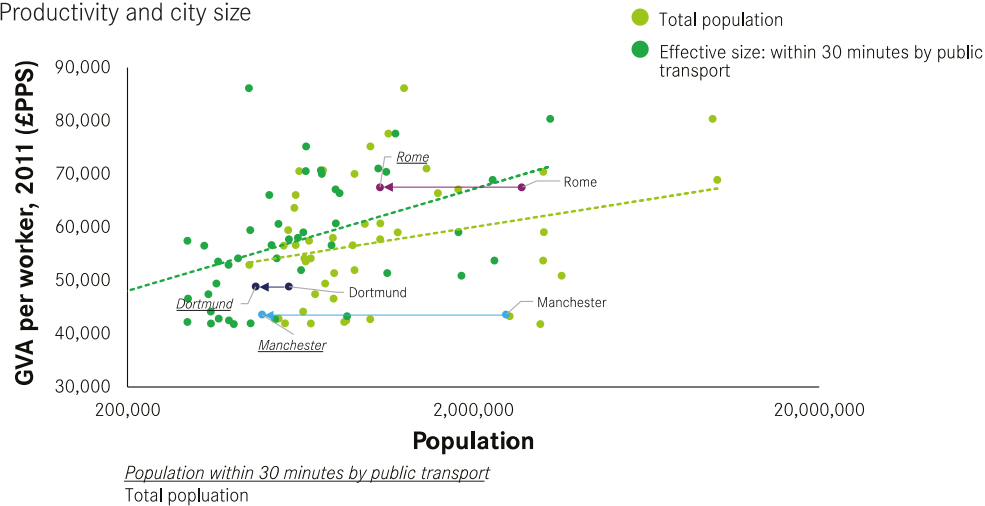
Source: Traveltime; ONS; Census 2011; Eurostat; Centre for Cities' calculations. Data for German cities from 2012 and 2011 for the remaining cities. The different time thresholds across cities, depending on their size, were selected considering the closest threshold in which cities can reach around its' population size. As Figure 3 shows, larger cities are not able to capture all of their population within a 30-minute commute due to physical distances and have had their thresholds adjusted in Figure 13 to show the relationship between commuting and accessibility. Colour code by city size; symbol by geography (UK and non-UK).

# 03

## What public transport tells us about levelling up

**Figure 14: Manchester's poor public transport accessibility reduces the size of its labour market, and helps explain its economic underperformance**

Productivity and city size



Source: Traveltime; ONS; Eurostat; Centre for Cities' calculations.

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