INTRODUCTION

Tram and light rail systems are available in 389 cities around the world, with more than half of them (204) in Europe. This Statistics Brief describes the evolution of light rail transit (LRT) in Europe since 2015, and provides a snapshot of the situation in 2018.
LRT has experienced a renaissance since the new millennium, with no less than 108 new cities (re)opening their first line, of which 60 are from Europe. This does not include new lines in existing systems and line extensions.

Between 2015 and 2018, 420 km of new LRT opened in Europe. This makes up 36% of LRT line openings worldwide. 2017 was a watershed year as, for the first time, greenfield LRT projects in Asia-Pacific exceeded those in Europe.

With a total annual ridership in Europe of 10,422 million in 2018, LRT carries as many passengers as metros and regional/commuter rail, and 10 times more passengers than air travel in Europe. The small railways certainly do not play a small role in the sustainability of European cities.

The symbolic threshold of 10 billion passengers per annum was reached in 2016.

Germany and Central Europe make up half of all patronage, the rest being distributed as shown on Figure 4.

2 Eurostat, 2017
3 2017 data used for France, Poland and Switzerland
LRT popularity is best measured by the annual number of LRT trips per inhabitant per year. The annual use ranges from 10 to 182 trips and can be explained by a variety of factors, mainly by the system development and sophistication.

Figure 6 shows different ridership evolution according to regions, ranging from a strong 17.5% in the British Isles, where infrastructure growth was also the strongest, to 1.5% in Poland.

With a ridership growth of 6.9% between 2015 and 2018, demand growth is 50% higher than the supply growth.

Data about passenger-kilometers is available for 17 countries. The average LRT journey in Europe is 3.27km.

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The busiest LRT network is Budapest, Hungary, with 427 million passengers. All systems in Figure 9 are long-established tram networks. The only exception is Paris where LRT was re-introduced almost 30 years ago.
The longest LRT network in Europe is Berlin (193 km) reaching third place worldwide after Melbourne (250 km) and Saint Petersburg (246 km).

Between 2015 and 2018, LRT infrastructure in Europe grew by 3.9% from 8,943 km to 9,296 km.

There are notable differences between network structures across the countries. While the European average lies at 7.3 km, lines tend to be longer on average in countries with newer systems and limited number of lines, while older and more complex systems feature lower average line length.
The fleet available to operate the 1,276 LRT lines in Europe consists of 20,754 trams and light rail vehicles.

Currently 51% of the total installed fleet in Europe are partial or full low-floor vehicles, with 100% of the fleet in France, Spain, Ireland, UK and Norway being low-floor vehicles.

A frequent rolling stock KPI is the average yearly mileage per unit. The average annual mileage per vehicle in Europe is 52,000 km, ranging between 38,700 km and 77,500 km. The discrepancy can be partly explained by the fleet age structure. In addition, this value is theoretical and based on the assumption that all vehicles are equally used.
**PERSPECTIVE**

With continued pressure to reduce congestion, tackle air quality in cities and reduce greenhouse gas emission contributing to climate change, LRT will continue to obtain support of decision-makers and the travelling public in Europe. **LRT is clean and space-efficient.** However, much attention and resources will go into the maintenance, modernisation and replacement of assets to keep ageing systems attractive and fit for operational purpose. For this reason, the growth of green-field projects in Europe will continue to slow down.

**DEFINITION AND METHODOLOGY**

The data for this document was extracted from a database compiled by UITP, using official company data and other authoritative sources (national statistics office, national associations, etc.). **LRT and trams are urban rail guided systems operated at least partly on line-of-sight, on infrastructure shared with other users and partly on their own infrastructure.** Systems operated on guided rubber-tyred multi-articulated vehicles with Right-of-Way 2 are included. **Infrastructure predictions are based on scenarios developed from UITP's rail project database. This Europe LRT landscape is based on the full LRT Statistics Report 2019 which includes further details and analysis.**

![Figure 16: Forecast for new LRT infrastructure in Europe (km)](image-url)

The predicted surge in 2019 is influenced by the completion of 69km conversion project (tram-train in Aarhus, Denmark). Without this specific project, the annual figure would fit the downwards trend.

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