UITP ADVANCING PUBLIC TRANSPORT

STATISTICS BRIEF

GLOBAL BUS SURVEY

MAY | 2019

INTRODUCTION

In this report, the main results of a world-wide survey on more than 320 bus operators in 46 countries, including 29 European countries, are presented. The data was collected on a number of operational indicators, most of them on bus fleet. Each of the indicators are introduced and further explained in this report, with graphs illustrating the findings.

Since it was not possible to study all bus operators in the world, a sampling process was set up which led us to the selected operators. Further information on the sampling can be provided upon request. Complementary to this report, an extensive dataset, presented by countries and indicators is also available.

1. Definition of different vehicle fleet types is available in the annex

GLOBAL TRENDS FOR THE WORLD'S BUS FLEET

THE SPLIT OF VEHICLE TYPES

Almost 68% of bus fleet are standard buses (as regular 12-meter buses). A further 12% of them are articulated and the remainder consists of midibuses, minibuses, double-decker and trolleybuses . The precise share of each type of bus is represented in Figure 1.

These numbers are related to the average of the entire sample, so the situation might be different if the focus is on specific countries. For example, in Argentina, Denmark, Finland, Japan, Nigeria and Republic of Korea, more than 90% of the buses are standard buses which is largely above the average.

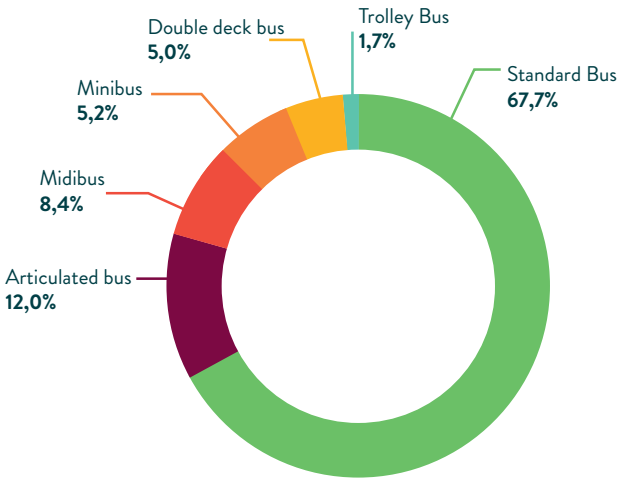

Figure 1. Bus fleet types

AGE OF THE BUSES

The average age of buses is 6.9 years. Countries like China, Russia and Brazil with large number of younger buses affected the average age significantly. Young buses are also found in Indonesia, Mexico and Republic of Korea.

A MIX OF PROPULSION SYSTEMS

Diesel is the most popular fuel by far as it represent 50% of all bus fleets. An additional 22% of the buses consume diesel combined with some additives or biodiesel. Electric buses account for almost 18% of the buses. Figure 2 shows the global share of different fuels.

A remarkable finding is that China is the pioneer of operating electric buses with 57% of the buses included in this survey. Other countries with noticeable penetration of this propulsion system are Romania with 22%, and France and the United Kingdom with 18%. Concerning other alternative fuels, almost 98% of the buses in Republic of Korea consume CNG.

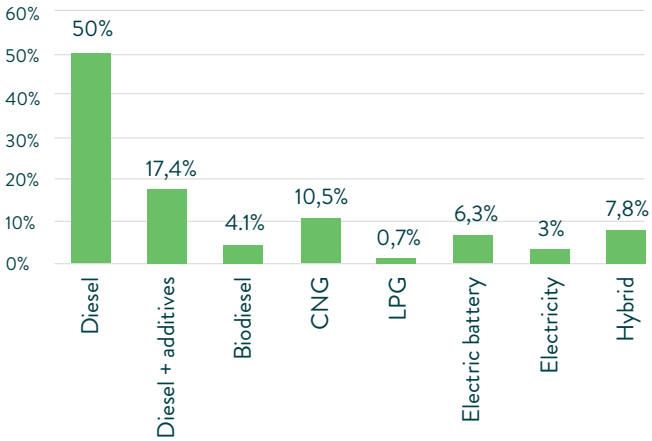

Figure 2. Bus propulsion systems

DISTRIBUTION OF EMISSION STANDARDS

The emission standard with the highest frequency in the sample is Euro V. 28% of the buses meet this standard and together with Euro VI buses, they make up 44% of the sample. After Euro V, Euro III and Euro VI represent the next largest shares with 23% and 17% respectively (Figure 3).

Austria, Lithuania, Luxembourg, Norway, Republic of Korea and Sweden are the countries with at least 80% of their buses meeting Euro V or Euro VI standards.

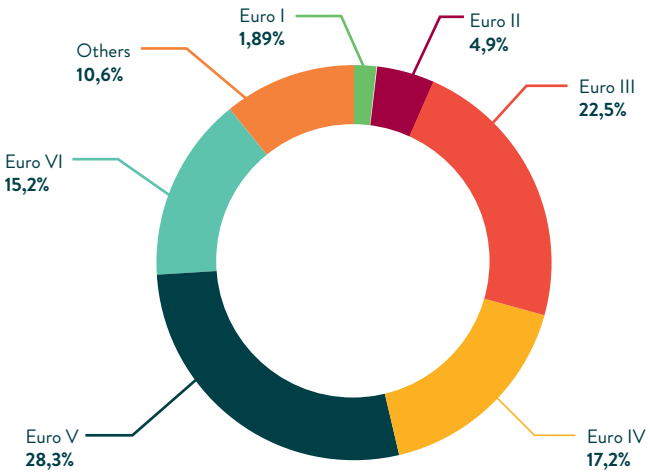

Figure 3. Emission standards of buses

ACCESSIBILITY EQUIPMENT

To evaluate the share of different accessibility equipment, the following variables have been identified: buses with low floor, buses with floor ramp, buses with kneeling, buses with space for wheelchairs and buses with sound and visual signals.

Buses with low floor is the most apparent facility at 67%, representing the highest share from the sample. Moreover, almost half of the buses provided space for wheelchairs. Figure 4 details on the share of accessibility equipment from the sample of buses.

At least 90% of buses studied in 18 countries out of 46 are equipped with spaces for wheelchairs, makes the service more inclusive for the citizens. Among them, 14 countries are from Europe.

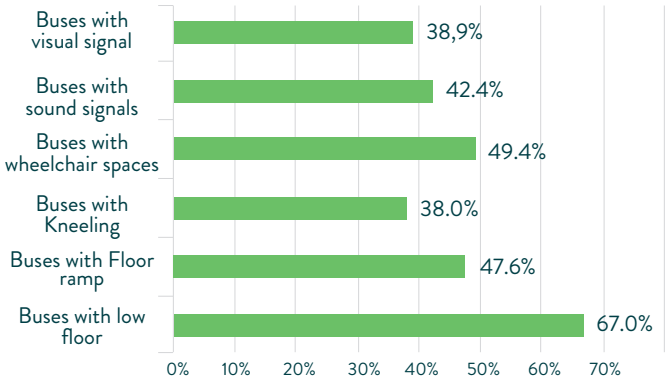

Figure 4. Accessibility equipment of buses

2. Definition of electric buses is available in the annex

DRIVERS PER BUS AND PER MILLION JOURNEYS

There is a relatively wide range of number of drivers per bus in different countries. It varies from slightly more than one up to three drivers per bus, while the average is two drivers per bus.

On Figure 5, some ranges for number of drivers per bus are shown and the number of countries for each range is provided.

In 63% of the cases, there are between 1.6 to 2.5 drivers for each bus.

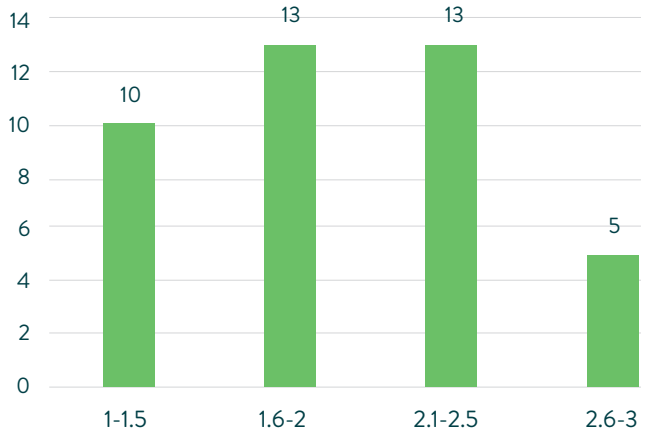

Figure 5. Number of countries with ranges of drivers per bus

To look at the number of bus drivers per million journeys, four ranges have been created.

The range with the largest number of countries (17) counts between 10 and 20 drivers. This means that in order to transport one million passengers in those countries, between 10 and 20 drivers are required (Figure 6).

Detailed numbers of drivers per country is provided in the full dataset.

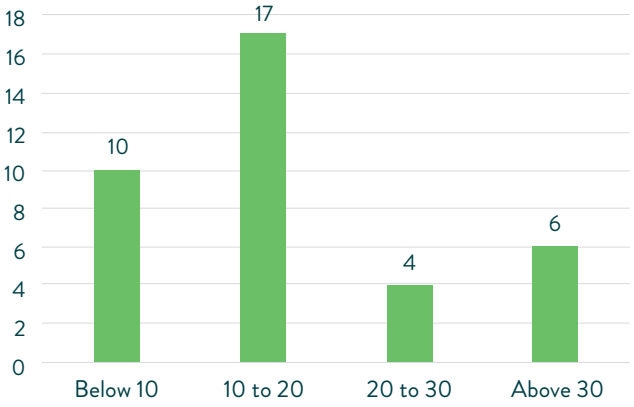

Figure 6. Number of countries with ranges of drivers per million journeys

NUMBER OF JOURNEYS PER BUS

The number of journeys per bus can double from one country to another: from under 100,000, up to 200,000 and above. There is almost an equal number of countries for each interval except for above 200,000 passengers. Figure 7 illustrates the overall situation in this respect.

Austria, Czech Republic, Estonia, Poland, Romania and Slovakia are the countries which carry the most passengers per bus. All together, they form the range above 200,000 journeys per bus.

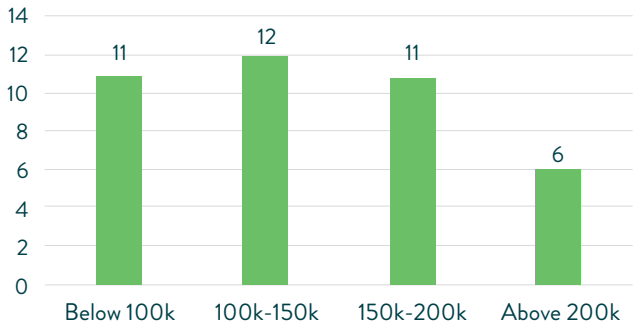

Figure 7. Number of countries with range of journeys per bus

METHODOLOGY

The countries included in the project were selected primarily based on availability of data on their bus operators and the level of maturity of their bus services. Additionally, it was tried to broaden the range of countries in the sample and include both developed and developing countries from different continents. In order to draw a picture of the global bus fleet, a selection of bus operators from various sizes of cities in each country was made.
Considering our specific set of indicators, data was mostly collected through bus operators themselves, and by benefiting from the data source mainly available to their staff. Once the data was collected, a quality check was conducted to ensure the reliability of the data.

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ANNEX

**Definitions of Vehicles:*
In the table below, definitions used for different vehicles in this project are presented.

TYPES OF VEHICLES	COMFORT CAPACITY	MAX. CAPACITY
Bi-articulated 	150	200
Articulated 	110	150
Standard (12 meters) 	75	100
Midi (9 meters) 	55	75
Mini (6 meters) 	22	30

Source: TMB, Barcelona

**Definition of electric buses:*
Electric buses (or e-buses) come in different types. The name always refers to a motor road vehicle that is mostly emission free at the point of operation. These buses normally consist of battery bus, fuel cell, trolleybus, plug-in hybrid and hybrid buses (Source: UITP).

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