

# Improving public transport in Tirana, one step at a time.



## Building livable cities in Albania

The mobility of people is a major topic worldwide. Sustainable urban mobility is paramount to creating and sustaining livable cities by improving quality of life, promoting economic prosperity, social inclusion, environmental sustainability, and public health. Sustainable urban mobility enhances resilience, supports effective urban planning, and fosters a balanced, accessible, and vibrant urban environment in our cities.

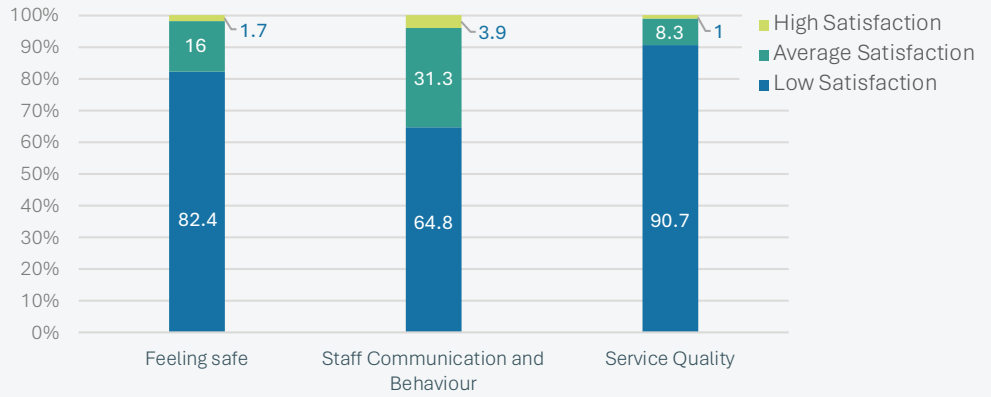
Urban mobility within Tirana, one of Europe's most densely populated and rapidly expanding cities, has remained a

pressing concern for many years. As the capital of Albania, Tirana has experienced high growth over recent decades, with its population tripling to almost 1 million people in the past 20 years. The surge in population has been accompanied by a significant rise in car ownership. In the late 1980s, under communism, car ownership was virtually non-existent, but by 2024, 44.4% of family units now own a car (INSTAT, 2024). Simultaneously, public transportation — which relies solely on privatized bus services — has not undergone significant improvements, rendering it

In a 2020 study conducted by a local NGO, Qendra Steps, more than 80% of respondents reported low satisfaction with the quality of service.

## Level of satisfaction with the bus service in Tirana

November 2020



Source: Qendra Steps, November 2020

incapable of adequately accommodating the swiftly expanding population. Extreme traffic, rising GHG emissions and decreasing quality of life are some of the negative results. To unlock the potential of public transport in Tirana, it is essential to prioritize dependable, frequent, and easily accessible public transportation as a viable alternative to car usage.

Over the years, Tirana's bus services have faced numerous issues, ranging from poor quality and limited coverage to outdated fleets and a lack of reliable information for passengers. In 2015, the system was expanded to include new areas, primarily to connect villages within the Tirana Municipality. Detailed

timetable specifications were agreed with the operating companies. However, passengers were largely unaware of these changes. The general perception was that bus services in Tirana have not kept up with the growing expectations of citizens.

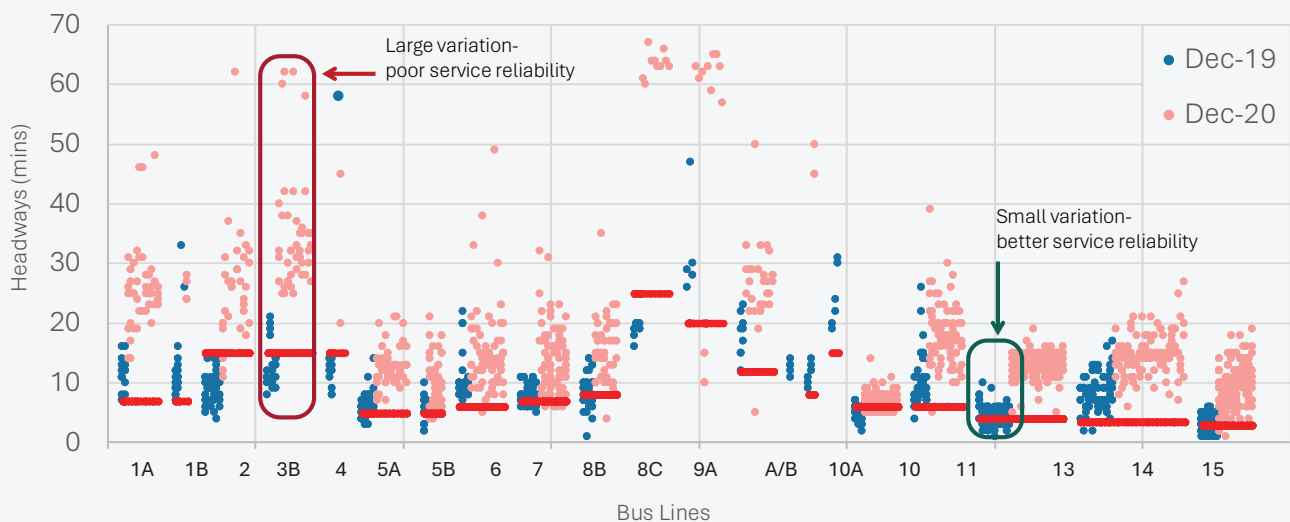
In a 2020 study conducted by a local NGO, Qendra Steps, more than 80% of respondents reported low satisfaction with quality of service, safety, and access for people with disabilities. Women were more dissatisfied than men.

**An analysis of bus frequencies using data from December 2019 and December 2020 shows that, in most cases, buses did not adhere to schedules (figure below).**

## Bus Service Frequency Dec. 2019 & 2020

### Average Frequency vs Scheduled:

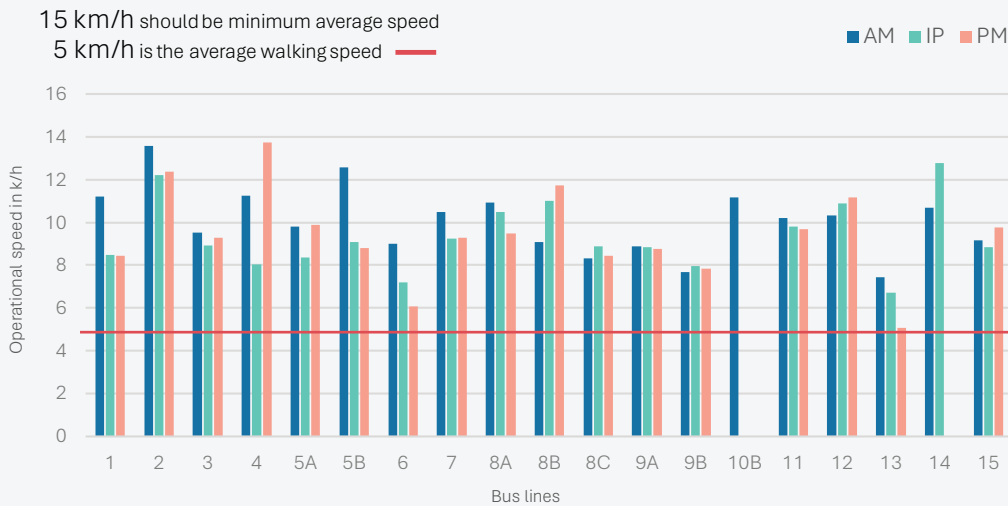
Dec 2019: 70% of scheduled frequency | Dec 2020: 55% of scheduled frequency



Source: Municipality of Tirana



## Route operational speeds



Source: GIZ & Municipality of Tirana surveys, December 2020

Buses had a **low average speed in 2020** reaching an average of 9 - 11 km/h.

This issue worsened in December 2020 as the system was recovering from the pandemic (pink dots in the figure left down). Additionally, issues with reliability are evident, as demonstrated by the significant variation in headways shown in the graph.

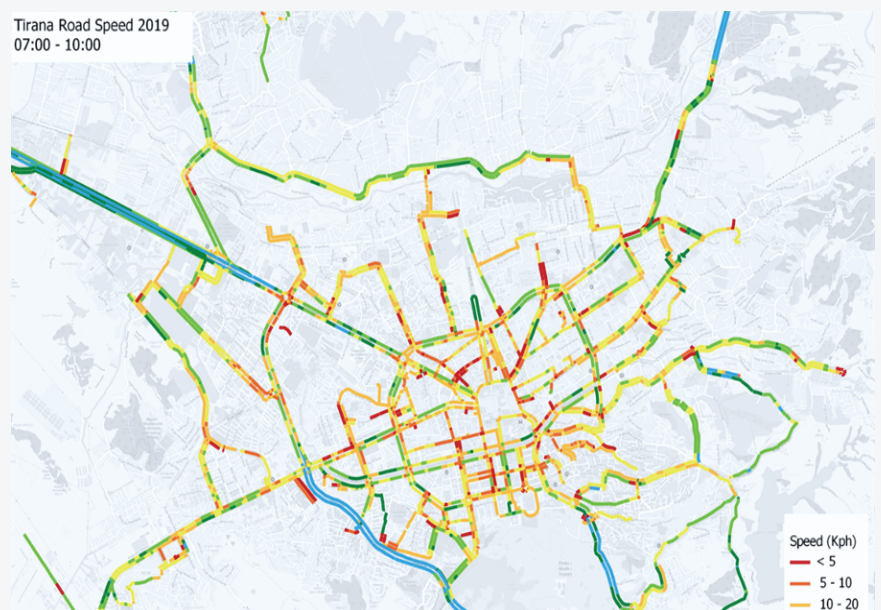
Adding to the frustration was the slow average speed of the buses, reaching an average of 9 - 11 km/h in 2020, resulting in prolonged and frustrating travel times for passengers. International practices show that the minimum standard for the average bus speed should be 15 km/h.

### High levels of traffic, and lack of bus priority measures caused these low speeds.

During the morning peak, certain city areas experience more congestion than others, as shown on the map below (in red).

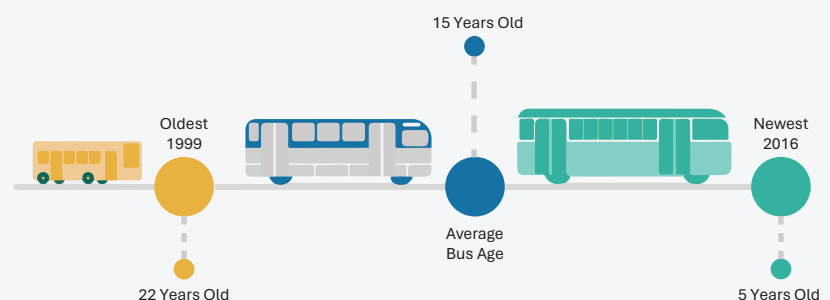
The most problematic corridors are around the city center and some main arteries in the central area, where the average traffic speed is lower than 5km/h (segments in red).

Low bus operational speeds lead to unreliable services and low passenger satisfaction. Addressing this issue was a major concern for the Municipality of Tirana.



Source: GIZ & Municipality of Tirana surveys, December 2019

In 2020, the average bus age was 15 years, with the oldest being 22 years. The entire fleet still consists of second-hand buses, and their emissions do not meet current standards. Newer buses are needed, but investment support is required to achieve this.



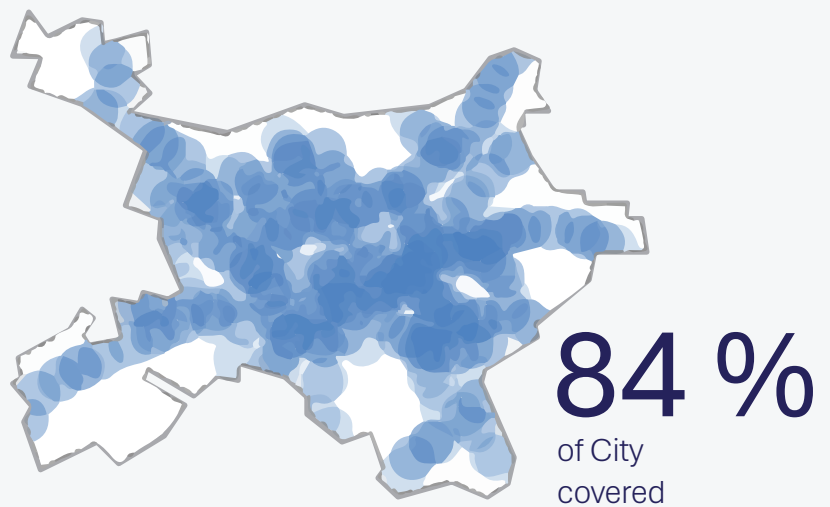
Source: Municipality of Tirana, 2019

Bus stops are well-distributed, with 84% of the urban population living within 500 meters of one. However, certain areas, like the southwest and northeast, are not well-served and require higher attention for better accessibility. With fewer than a third of stops (stations) having passenger shelters, most stops only have a road traffic sign, and in some instances, even the sign is absent. The provision of physical shelter is a highly desirable amenity (particularly in regions of high temperature and UV exposure) after recognisable bus stop signage and publicity information.



Source: GIZ, 2021

Furthermore, the absence of bus service information hampers the system's clarity and accessibility. In Tirana, familiarity with the system was essential for its use — there was no standard for displaying information. Timetables and route details were not considered public-facing elements, so developing these aspects required a transformational approach that included an evaluation of bus stop names, locations, as well as route alignments. The foundations of a passenger-led bus system were laid in this process.



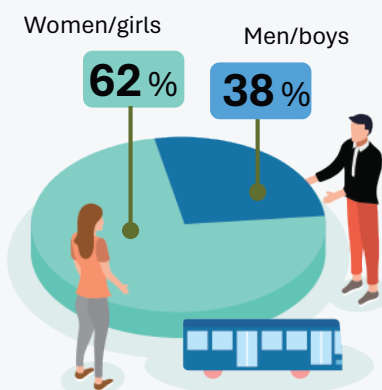
Source: City | TUMI – GTFS Analyzer (tumidata.org), 2024

## Improving public transport in Tirana is a gender equality goal.

Surveys conducted between 2020 and 2024 show that around 65% of bus passengers in Tirana are women, primarily traveling for work and education. This data highlights the essential role that the bus system plays in their daily lives and underscores the

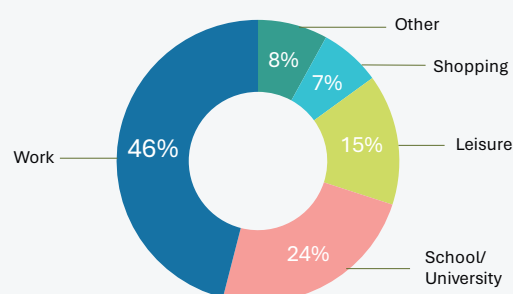
importance of public transport in facilitating economic and societal gender equality in Albania. By understanding the specific needs and travel patterns of women, we can better target our efforts to improve the public transport system.

**65% of bus passengers in Tirana are women, primarily traveling for work and education.**



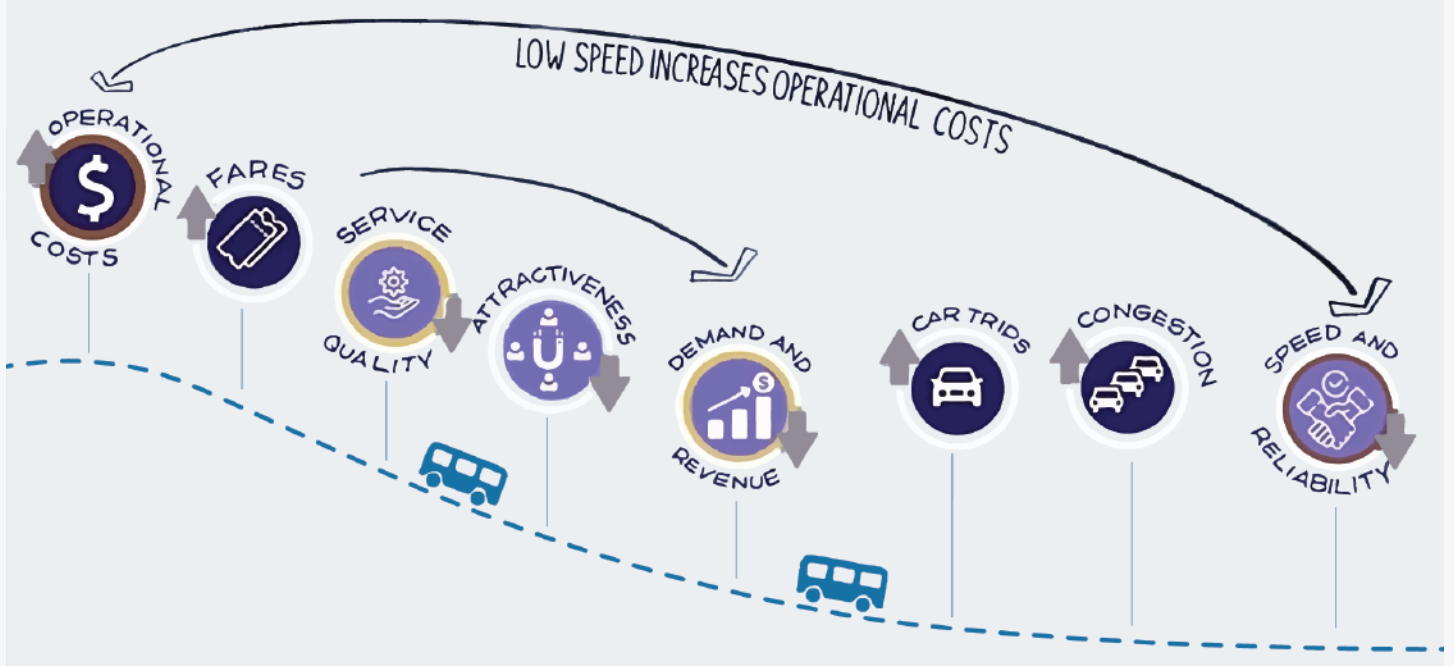
Source: GIZ surveys, 2023

### Bus trip purpose by women in Tirana





## Journey of Bus Decline



Source: Integrated Transport Planning Ltd, 2022

These issues led to a vicious cycle of service decline. Poor service quality, characterized by long travel times, unreliability, and accessibility concerns, made the bus service less attractive. Consequently, car trips increased, causing more congestion and further deterioration in speed, reliability, as well as revenue. Although performance differed among the various operating companies, the system of checks and contractual measures was insufficient to ensure that the operators maintained

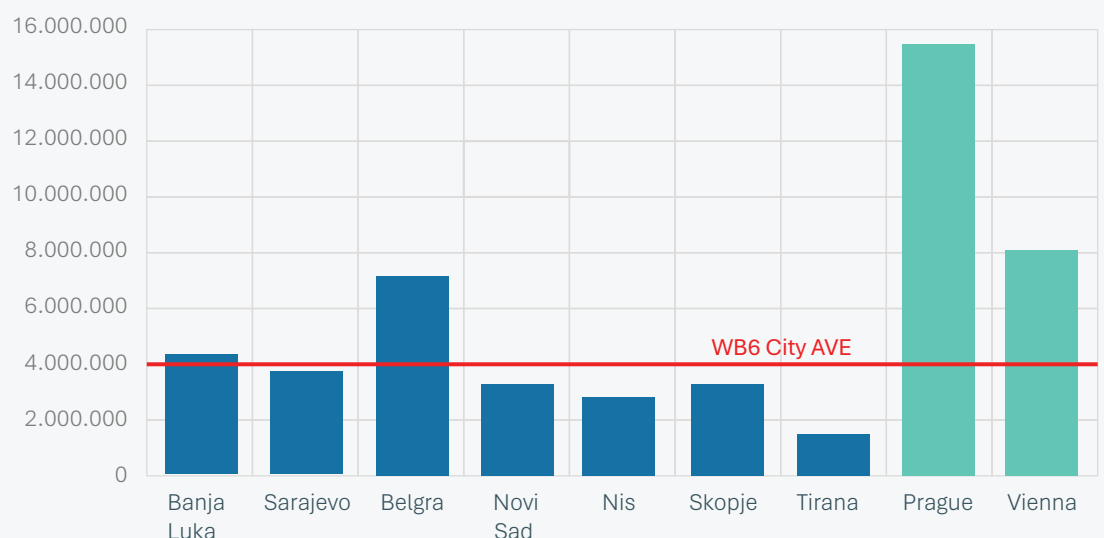
and improved quality throughout the entire city.

Compared to other cities in the region, Tirana's public transport service supply is lacking. The number of kilometers run by public transport per 100,000 inhabitants is well below the regional average, demonstrating inadequate service levels.

To better understand Tirana's bus service, the factsheet in the next page outlines its main operational characteristics.

The system of checks and contractual measures was insufficient to ensure that the operators maintained and improved quality throughout the entire city.

## Annual number of public transport vehicle kilometers per 100.000 inhabitants



Source: World Bank, 2024

# Tirana bus network factsheet

number of routes

# 26

number of stops

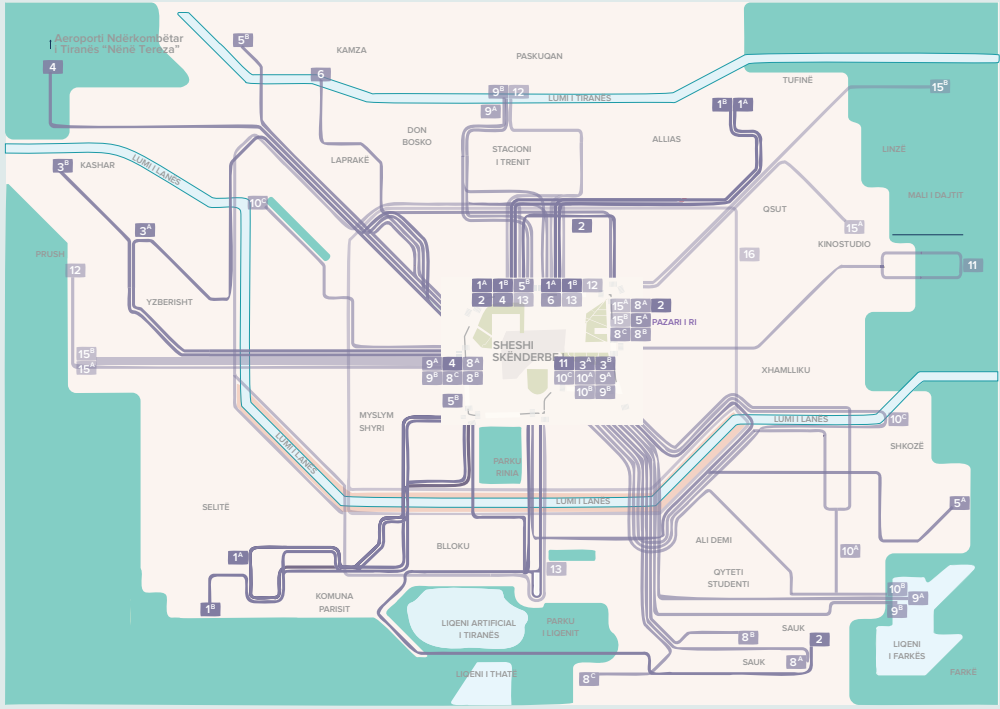
# 469

operators

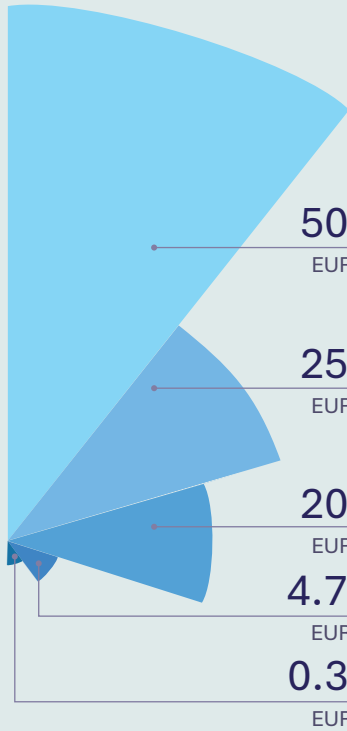
# 11

route length

16	7.5 km
15	10 km
13	11.5 km
12	11.8 km
11	6.65 km
10	10 km
9	11 km
8	26.2 km
6	6.3 km
5B	10.6 km
5A	9 km
4	8 km
3	26 km
2	12 km
1	13.2 km



network emissions



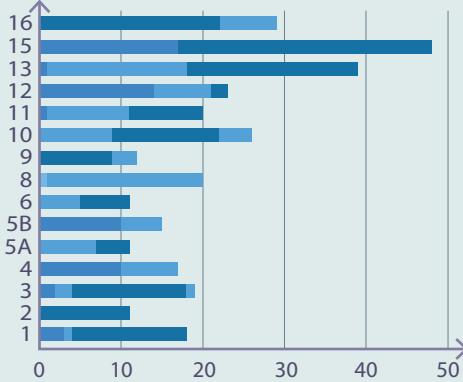
average distance between stops

# 451 m

average monthly km

# 525,045

route emissions



daily passenger trips

# 200,784

operational speed

# 13.4 km/h

buses



contracted 182  
operated 153

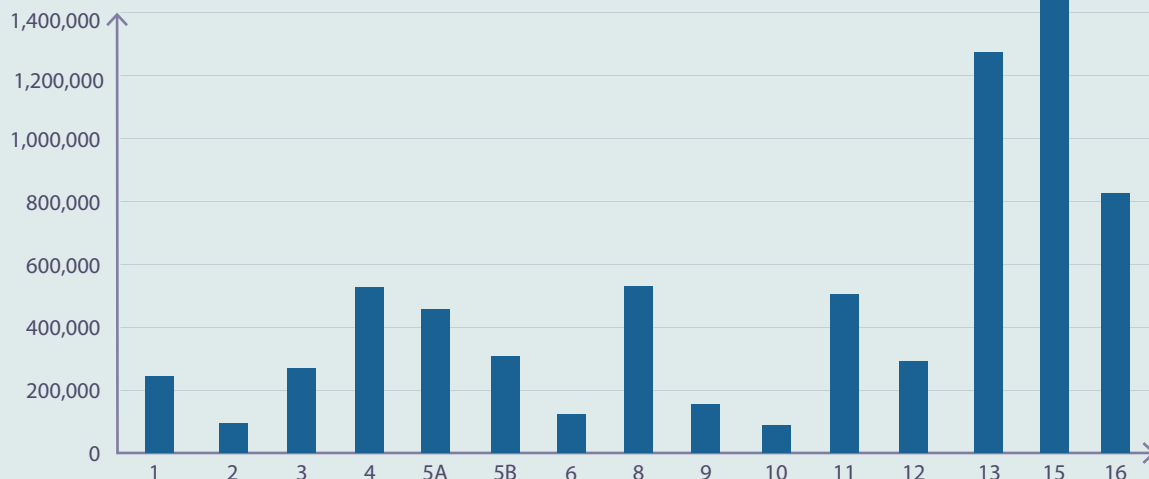
operating costs

# 2.7 euro/km

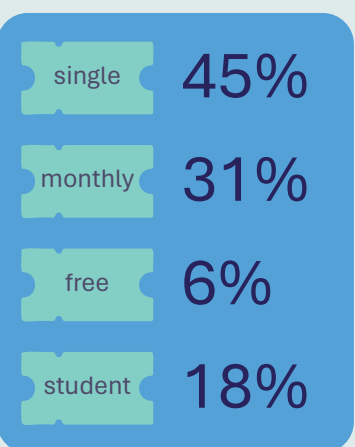
average yield/trip (EUR)

# 0.24 cent

average monthly passengers trips per line



ticket type share





**This story recounts how, with the support of GIZ, the Municipality of Tirana took control of its bus service employing data-driven approaches to deliver an improved, passenger- focused public transportation system.**

## **OUR APPROACH**

Recognizing the urgent need for systematic change, **the Municipality of Tirana together with GIZ embarked on a collaborative transformational journey with relevant stakeholders, including the private sector, to reform Tirana’s bus system and make it future proof.** The GIZ-led bus reform in Tirana began in 2020 with a comprehensive assessment of the prevailing challenges faced by the city's bus services. A baseline analysis was conducted to assess the current conditions, and intervention measures were identified for targeted improvements.

The key principles were:

- a) data-driven,
- b) passenger-focus,
- c) incremental changes every month,
- d) institutional development to deliver political goals.

Following the baseline review of Tirana’s bus network, providing the main operational and commercial performance indicators, we identified key intervention areas and measures, with a strategy to focus on data and working incrementally to lead to sustainable transformations.

The approach towards the collaboration was based on three main pillars:

### **1. Towards a passenger-focused public transportation system.**

By collecting data on passenger priorities and making it easy for passengers to provide inputs, we were able to support the Municipality of Tirana to target efforts and improve the service, building a passenger-focused bus service.

### **2. Creating an effective bus quality management system.**

By conducting an analysis of the current context, analysing, and sense-checking the existing datasets, collecting new data points, and turning them into actionable information, we were able to support the Municipality of Tirana in implementing a proactive approach to bus management.

### **3. Building sustainable institutional capacities.**

Through regular meetings, consistent follow-up, and ad-hoc support as needed, GIZ established trust and became a reliable partner for change. Additionally, GIZ supported an institutional reform within the Transport Department, laying the groundwork for improved management of new projects like Bus Rapid Transit and the establishment of a Transport Authority in Tirana.

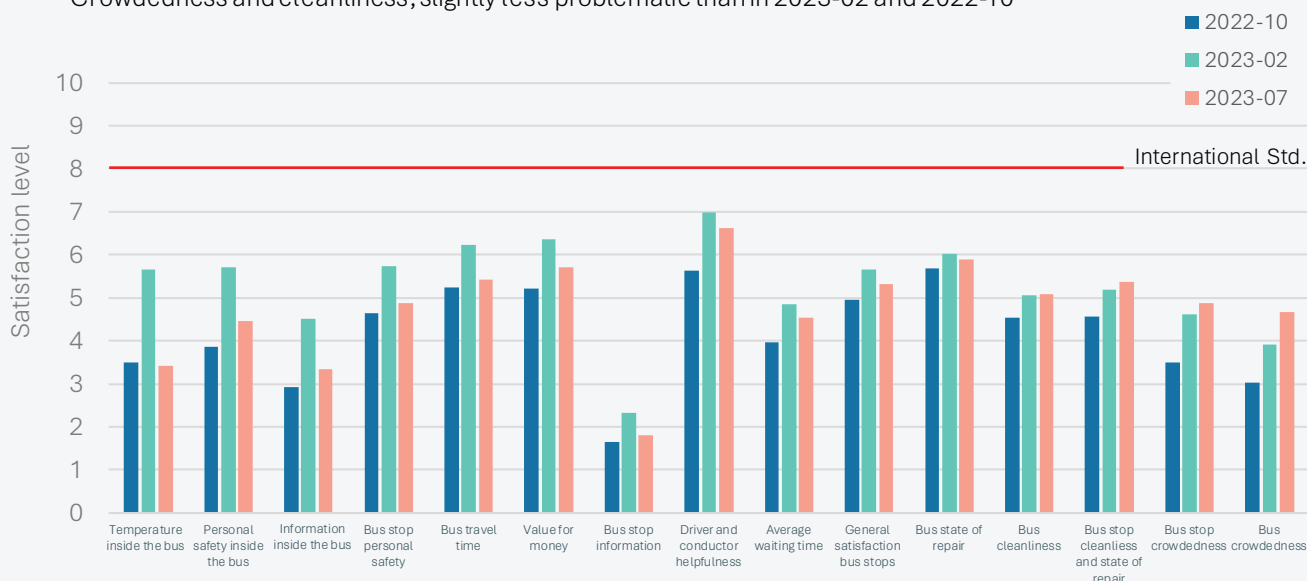
These efforts were supported via demonstration projects that can be commenced at a smaller scale and can be scaled up incrementally, adapting to the pace of the partner and allowing for granular integration.

**The key principles were:**

- a) data-driven,**
- b) passenger-focus,**
- c) incremental changes every month,**
- d) institutional development to deliver political goals.**

# Satisfaction scores of bus surveys, in three rounds

Temperature, safety and information are the scores with biggest drop since 2023-02  
Crowdedness and cleanliness, slightly less problematic than in 2023-02 and 2022-10



Source: GIZ Albania, 2022 - 2023

## 1. Towards a passenger-focused public transportation system

An effective bus service must put passenger needs first. However, in Tirana, the bus system was not consistently managed with the passengers' perspective as its primary focus, and there were no adequate processes in place to understand passenger experience. GIZ set out to support and redirect priorities towards identifying passenger's whole journey experiences and aspirations by:

- **Measuring passenger satisfaction**

Regular bus satisfaction surveys have been conducted since 2022. The data has been analysed and compiled into memos that are used to impact decision-making.

The first survey assessing passenger satisfaction with the bus service was conducted in September 2022. The survey included 2,500 respondents, who reported an average satisfaction level of 5 out of 10. Data analysis showed that passengers were largely dissatisfied with the overall quality of the bus service, quoting issues on reliability, crowdedness, average times,

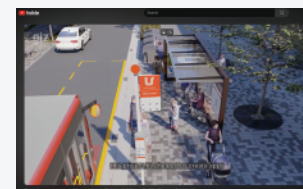
and information availability. Journeys were too often unreliable. The full timetable was not always being provided, resulting in lack of transparency, overcrowded vehicles, and late arrivals.

The survey was conducted every three months, and the findings were compiled into reports for decision-making purposes. Reports were also presented to political levels. Training materials and programs were also developed to equip Transport Department staff with the necessary knowledge for replication. Additionally, efforts to institutionalize these practices included the allocation of a dedicated budget by the Municipality of Tirana in 2023 to conduct these surveys periodically.

These surveys provided an initial understanding of passenger needs and informed actions for improving the bus service.

To further enhance passenger data collection, GIZ supported the establishment of the first Bus Customer Feedback Portal in Albania. Before, the process of receiving passenger complaints was fragmented, untransparent and inaccessible. This digital feedback system enables the needs of passen-

Regular bus satisfaction surveys have been conducted since 2022.



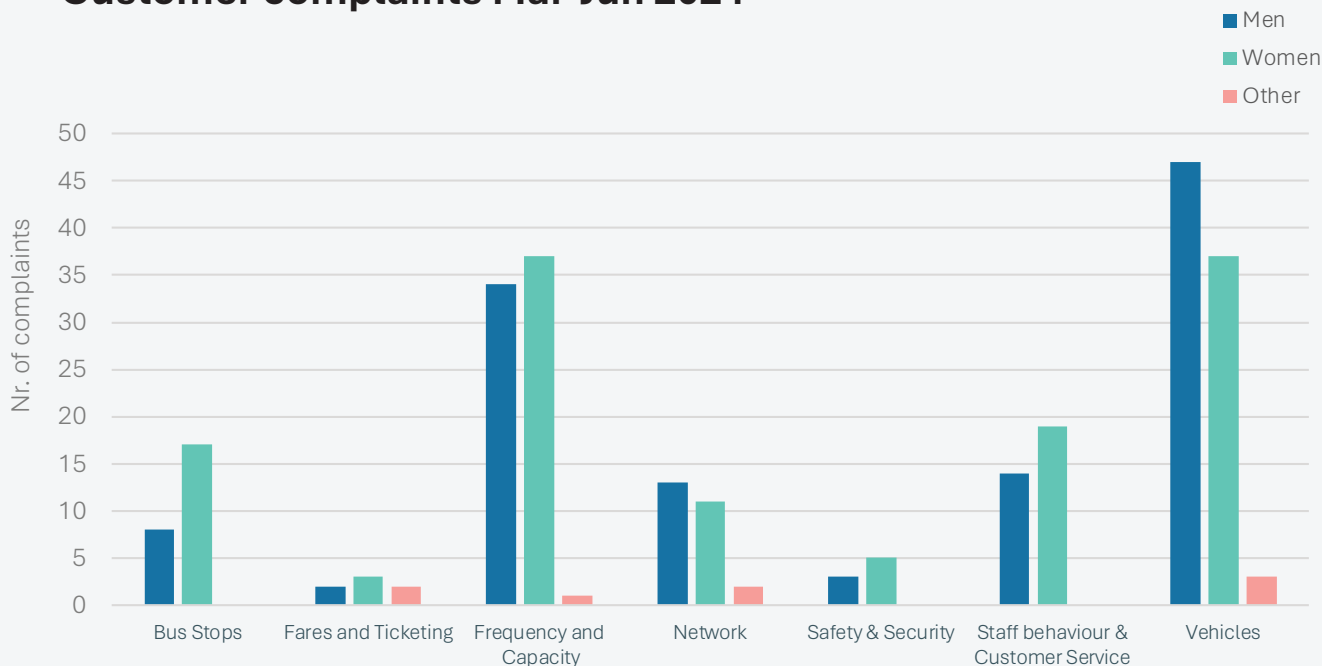
For more info, have a look at our video-story on passenger-focused bus system in Tirana:

[https://youtu.be/JrdJANLlpgb?s=i-li8\\_DXerl1sbF7rc](https://youtu.be/JrdJANLlpgb?s=i-li8_DXerl1sbF7rc)

GIZ supported the establishment of the first **Bus Customer Feedback Portal in Albania.**



# Customer complaints Mar-Jun 2024



Source: Customer Feedback Portal, Municipality of Tirana, March - July 2024

This digital feedback system enables the needs of passengers to be centrally, reliably, regularly, and effectively considered.

gers to be centrally, reliably, regularly, and effectively considered. With the slogan "Making each passenger feedback count," the new portal addresses all issues and compiles regular reports to inform bus planning accordingly.

The portal was launched in March 2024, with every bus featuring posters announcing its launch. Furthermore, a social media campaign was initiated alongside other follow-up marketing efforts, such as placing posters in bus stops.

We developed the tool and simultaneously designed the entire process behind it. A dedicated team was established within the Municipality of Tirana to oversee and address every complaint, while also generating monthly

reports to identify and resolve issues promptly. An intra-departmental process was developed that will not only better address passenger requests, but also introduce a new method of customer feedback management for the Municipality of Tirana.

Workflows, job and process descriptions were developed and implemented for this process.

With the slogan "Making each passenger feedback count," the new portal addresses all issues and compiles regular reports to inform bus planning accordingly.



Source: Customer Feedback Portal, GIZ & Municipality of Tirana



The brand of public transport system takes its name from a term Albanians used for urban public transport:

**“Urbani”**

Source: Public Transport Brand, GIZ & Municipality of Tirana

• **Making buses more accessible**

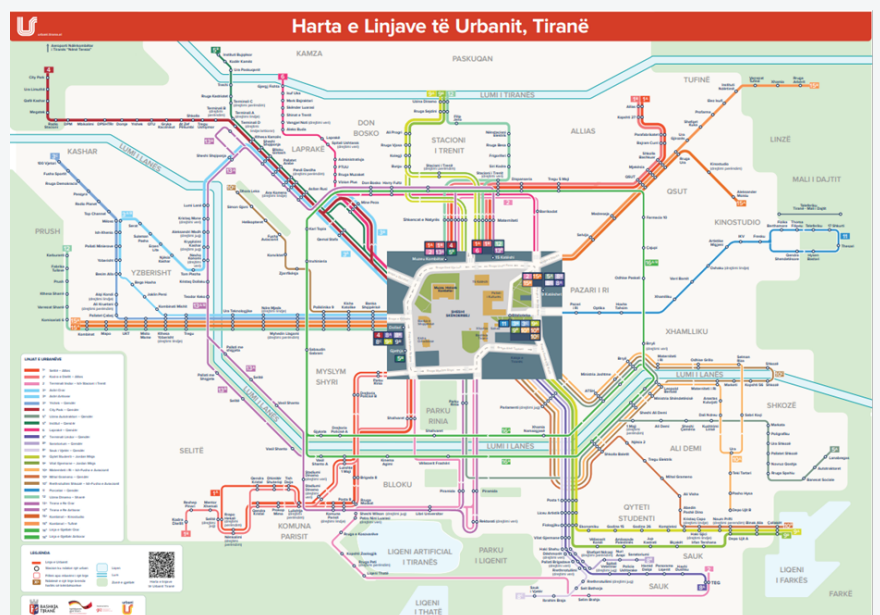
In the past 4 years we supported the Municipality of Tirana in the development of the first ever bus map of Tirana, bus brand and bus information system. This process was followed by a comprehensive analysis of bus route and bus stop data, consistency checks, and standardisation of these data points. It became key for further development of bus information systems. This ensured all stops were named and assigned a unique location number, benefiting both public identification and operational location.

100 bus stops in Tirana will soon provide essential information for Tirana’s passengers. Developed by GIZ, these designs will offer details such as bus routes, timetables, and publicity schedules. The Municipality of Tirana will oversee implementation. The tender process is set to commence this summer, with expectations that the bus stops will be installed by mid-next year. Simultaneously, GIZ conducted capacity building measures and an asset management tool to maintain and incrementally improve bus stops in the city.

This process was followed by a comprehensive analysis of bus route and bus stop data, consistency checks, and standardisation of these data points.

Albania's public transport system underwent a rebranding initiative aimed at establishing a common recognizable image. This new branding sought to simplify and enhance the public perception of the bus system, emphasizing efficient and responsive service. The initiative aimed to foster a positive image that resonates with passengers, highlighting a commitment to proactive management and improving the overall user experience.

The brand of public transport system takes its name from a term Albanians used for urban public transport: **“Urbani”**. It builds on this term and further expands to become the new face of Tirana’s vision for a high-quality bus service system.

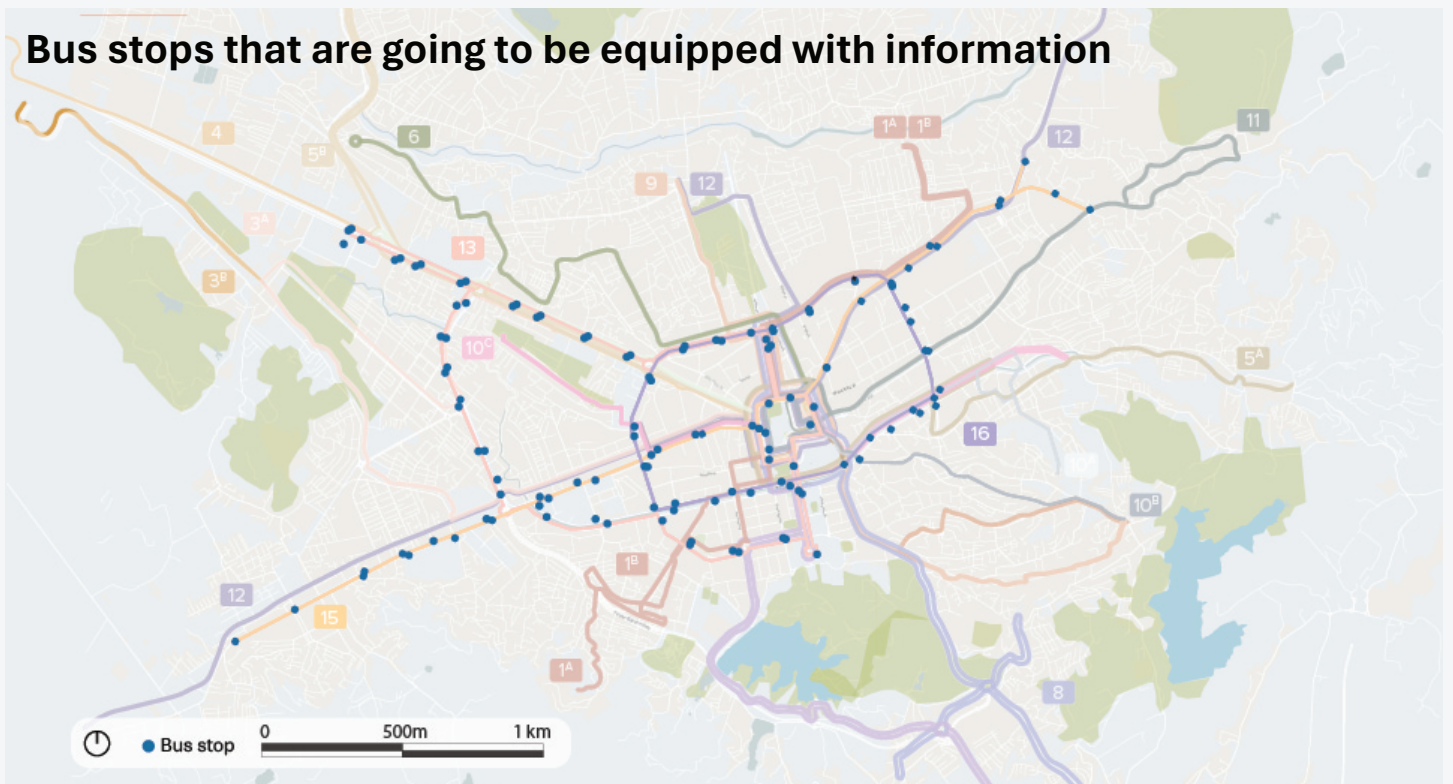


Source: GIZ & Municipality of Tirana, 2024

<https://transformative-mobility.org/multimedia/harta-e-linjave-te-urbanit-tirane/>



## Bus stops that are going to be equipped with information



Source: Municipality of Tirana, 2023

To ensure the sustainability and replicability of these designs, a comprehensive guidebook was developed. This guidebook will enable the Municipality of Tirana to further expand upon these designs. This document establishes common standards to guarantee quality and scalability, ensuring that future projects maintain high standards and can be easily expanded. In addition, Tirana's bus routes were made public in Google Maps in April

2024. The data is based on General Transit Feed Specification (GTFS) that GIZ created with the Municipality. GTFS is an open transit data standard and is now publicly available for anyone who wants to make use of it. This process wouldn't have been possible without a comprehensive analysis of bus route and bus stop data, consistency checks, and standardisation of these data points, as also mentioned above. Ensuring data consistency was crucial to the entire process and required the most effort to carry out.

We are working with the Municipality to further improve quality and consistency of GTFS data and integrate real time passenger information within 2025.

**100 bus stops in Tirana will soon provide essential information for Tirana's passengers.**

**Tirana bus routes are now available on Google Maps!**

**A guidebook to approach bus stop design:**

<https://shorturl.at/svTjN>



These measures will increase citizen's access to the bus service, as well as transparency and accountability. In conclusion, our initiatives have significantly improved Tirana's bus service by focusing on passenger needs. Regular satisfaction surveys and a new digital feedback portal ensure that user concerns, especially those of women, are addressed. The development of a comprehensive bus map, branding, and GTFS data integration on Google Maps has enhanced accessibility and transparency. A dedicated team within the Municipality now oversees continuous improvements, exemplifying a proactive approach.

**These efforts not only elevate the quality of the bus service but also promote economic gender equality and set a new standard for public transport management in Tirana.**

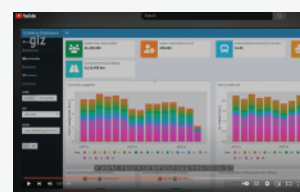
## 2. Building an effective bus quality management system

When we began in 2020, the management of Tirana's bus system resembled make do and mend: reacting to issues as they arose.

However, effective bus service management entails proactive measures, including regular monitoring and incremental adjustments to better cater to passengers' needs.

By introducing an evidence-based approach, recorded, and shared via short input memos built on data collected and analysed in a systematic way, we established a regular and pro-active monitoring process.

With the aim of turning data into actionable information we started with basic indicators of quality such as km-run and moved to more complex ones such as analysis of reasons for lost-km and were able to support the Transport Department in re-establishing direct leadership over the level of km run by the operators. In 3 years, we produced regular reports on bus km-run and passenger loading regularly (almost every month). This information was conveyed via presentations and 35 strategic memos, which were presented to senior management and political decision-makers and were effectively used for improvements in the city.

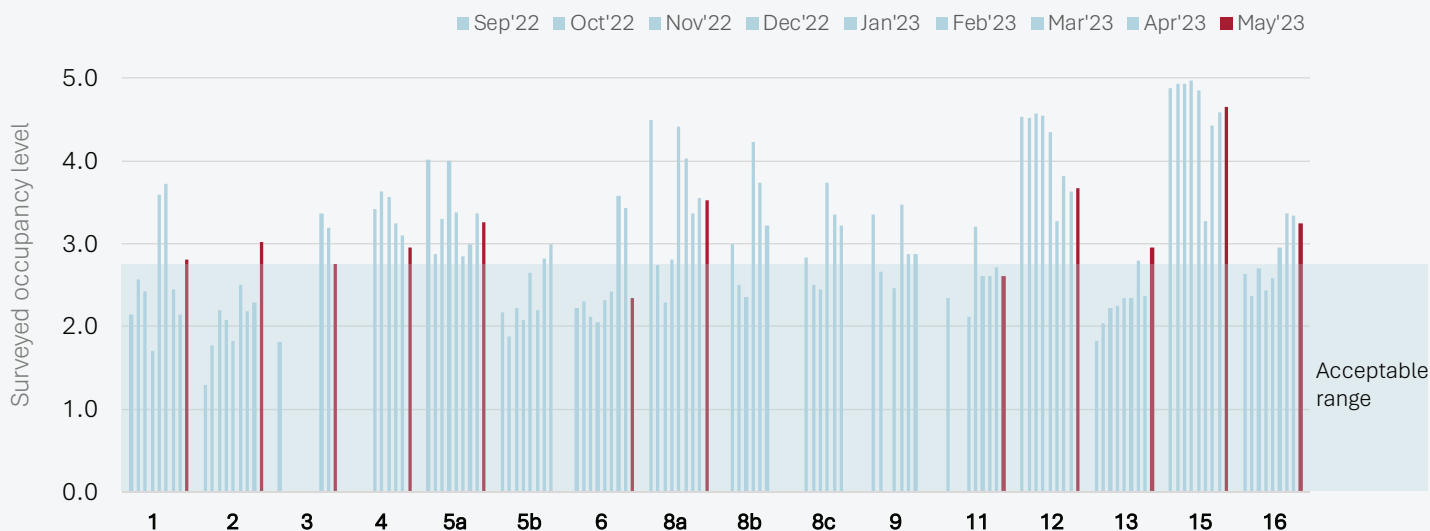


For more info, have a look at our video-story on passenger-focused bus system in Tirana:

<https://youtu.be/x44SBvbEep8?si=gK0CCRbYO6Gk7oUH>

### Surveyed occupancy level per line

Occupancy levels are rated from 0 to 5, with 5 indicating a completely full bus. Level 2 is considered good, and level 3 is acceptable. Any rating above 3 is a cause for concern.

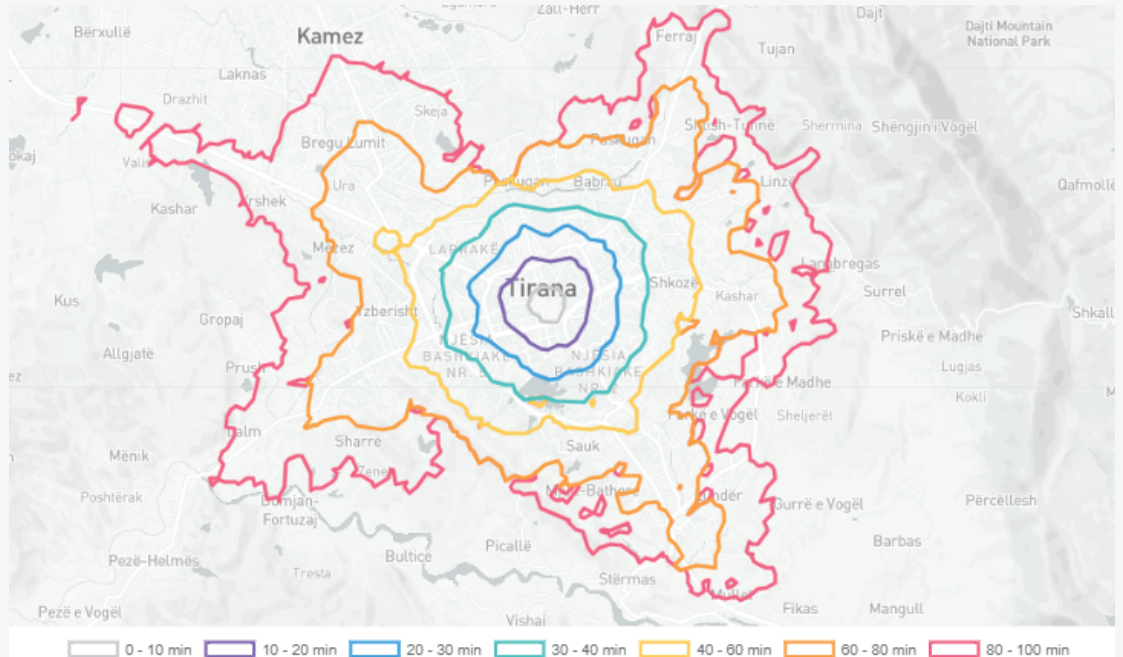


Source: Municipality of Tirana, Agency of Consumer Protection, September 2022 - May 2023



# Bus Service Frequency Dec. 2019 - 2020

Weekday | 2023-05-16 | 2024-05-06 | 16:55



Source: GIZ & Municipality of Tirana Surveys

We started by making every km, passenger, and trip count!

This process was implemented gradually, employing a marginal gains approach.

Various data tools were developed to facilitate improvements in public transport, contributing to a more livable city.

*“Before, decisions were mostly based on impressions from the partner’s long experience of working on buses. This changed when we started using reliable and regularly collected data.”*

## How did we do this exactly?

By making every km, passenger, and trip count!

We started by collecting data on passenger trips, bus speeds, loads, and km run, and we standardized commercial data reporting by operators.

We later expanded these datasets by collecting data on ticketing structure, passenger satisfaction with the levels of bus service and customer feedback.

We developed data tools with the aim of synthesizing information and facilitating evidence-based decision-making. This process was implemented gradually, employing a marginal gains approach to achieve transformational change incrementally. This process of data collection, aggregation, and reporting has been crucial for the implementation of bus improvement measures.

Data from these tools were transformed into informative memos that were used for decision-making processes.

## 5 data collection and/or reporting tools were developed:

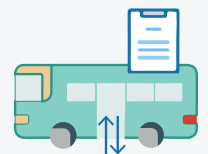
1. A bus commercial data collection and analysis tool.



2. A bus commercial scenario tool.



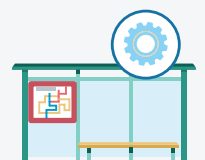
3. A bus boarding and alighting data collection and reporting tool.



4. A ticketing and satisfaction data analysis tool.



5. An asset management tool for bus stop administration.





### Tirana's first bus subsidy:

In January 2022, GIZ supported the Municipality of Tirana to introduce the **first bus service subsidy in Albania after privatization**. This decision was supported by evidence gathered over the course of 2020 and 2021. The aim was to close the gap between the operator's costs and the level of service needed by the city. We ensured that a subsidy could only be received against confirmed delivery of the new, higher bus-km requirements.

The results show the impact clearly:

-In 2022, there was a 37% increase in Tirana's bus system km run, compared to 2021.

-In 2023, a 16% increase was observed, and the forecast for 2024 is that the service levels increase further by 29%.

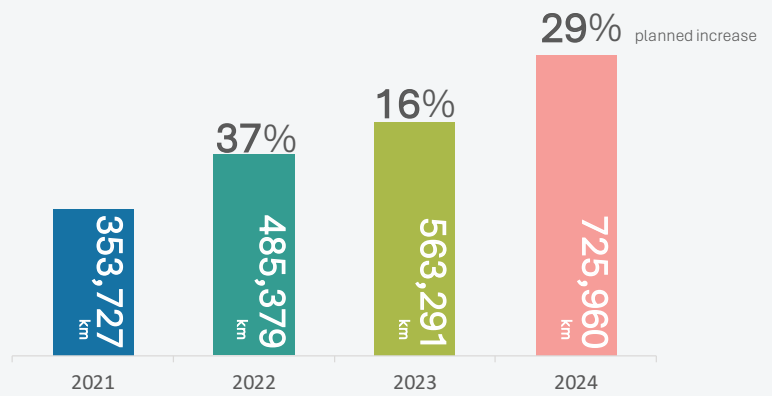
This means an increased frequency in most lines, and more regular service levels. **A considerable increase in passenger numbers was observed in 2022 and 2023, as shown in the figure on the right.**

Regular monitoring and consistent follow-up with the bus operators is key to the improvements of the bus service. GIZ is assisting the Municipality of Tirana in developing a consistent monitoring process. This involves daily measurement of service levels by a team of public transport specialists who collect reliable data on bus services and use it to make informed decisions for adjusting service levels. The staff has been trained and equipped with the necessary methodologies to conduct this monitoring independently. This process is now fully institutionalized within the Transport Department, as you can see in the third figure on the right, which compares network planned km versus measured GPS.

In addition to monitoring the bus service, commercial bus data was collected, analyzed, and presented to inform subsidy decisions and other important commercial considerations, helping us understand the revenue dynamics of the bus system (see image on the right).

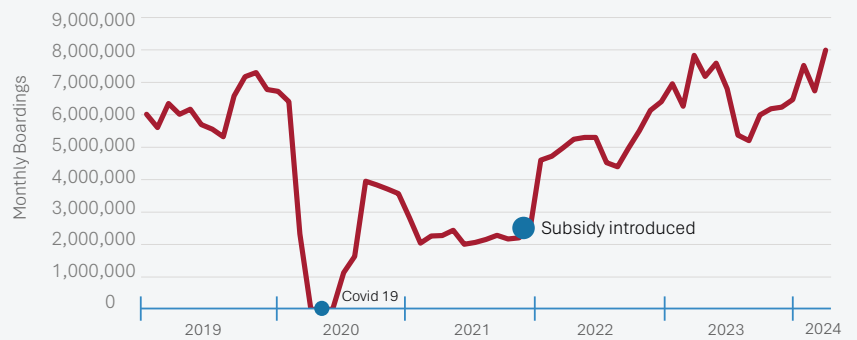
### Bus service km increase: 2021 - 2024

Monthly performed km



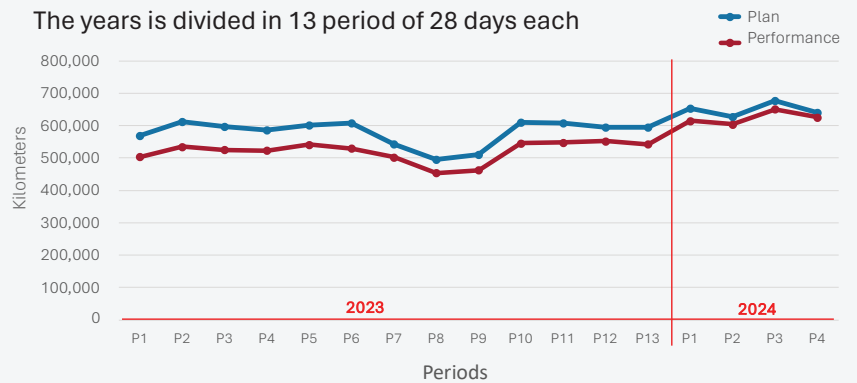
Km performed are now being monitored on a daily basis

### Bus ridership levels 2019 - 2024



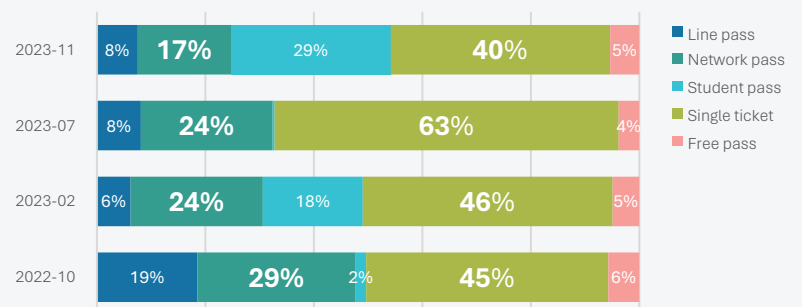
### Network planned km vs GPS in 2023 - 2024

The years is divided in 13 period of 28 days each



### Bus Service in Tirana: Ticket distribution

Average survey size is 7500, 4% of total bus trips



Source: GIZ & Municipality of Tirana Surveys

### 3. Building institutional capacities

Every work process is a conversation and negotiation between parties that is almost always challenged by siloing and lack of cross-departmental collaboration. Our efforts frequently involved coordinating and uniting various departments within the Municipality of Tirana, as well as engaging other stakeholders, including private bus operators, local organizations, and national government institutions.

One of the cornerstones of this collaborative effort was building trust, achieved through regular business meetings, via the organization of forums, workshops, as well as many bilateral meetings. Over the past four years, we have maintained a schedule of weekly meetings with the Department of Transport, during which we diligently pursued our agreed-upon agenda, addressing agreements, tasks, and processes. This structured approach fostered deeper collaboration and bolstered trust, enabling us to effect gradual yet incremental change.

Another approach that supported further this goal was working with short inputs, in the form of memos instead of long “consultancy” studies that take a long time to develop and are harder to consume and have few immediate benefits in practice. The main aim was to increase communication and transparency in all work processes, by creating a shared process of “propose/challenge/agree” to produce something that benefits everybody. Collaborative initiatives and engagement with stakeholders have fostered a spirit of increased cooperation and innovation, leading towards a more efficient and reliable urban mobility system in Tirana.

Quote: “After GIZ began supporting the Municipality of Tirana, communication between the Municipality and the operators increased significantly”.

Certainly, all the change is not possible without strengthening the human and institutional factors. An organization can only change and become more efficient

if you develop human resources. In our case in Tirana, this approach was twofold:

#### a. Targeted training and peer-to-peer support.

An initial assessment of the current workflows and capacities was conducted, and a step-by-step proposal was drafted to delineate how changes need to take place.

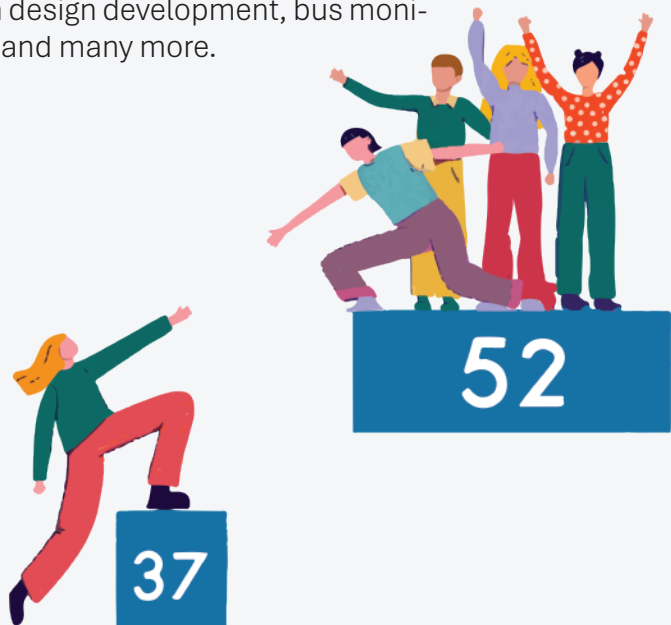
A 3-year long training with UITP was carried out on topics such as public transport fundamentals, e-ticketing, IT & ITS technologies for public transport, etc. Five study tours were organized, allowing colleagues from the Transport Department to learn from international best practices in public transport.

#### b. Increasing the size of the department.

When we started, only 6 people in the transport department were responsible for the management of public transport, in a city with 800'000 citizens. We recommended increasing the resources and introducing new work processes that needed to start as soon as possible. In 2 years, the staff of the transport department increased by 32%.

We supported the enlargement of the transport department system by providing detailed job descriptions, operating procedures, process workflows, and on the job training. Two new sectors were introduced: technical support and customer feedback. Other new processes include bus stop information design development, bus monitoring, and many more.

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## Executive Summary

These visible changes underscore Tirana's commitment to high-quality and customer-oriented bus reform. In the first phase of the project, our project laid the foundations for a sustainable public transport system, based on the principles of:

- a) data-by-default
- b) passenger-focus
- c) incremental changes every month
- d) institutional development to deliver political goals

By applying these principles, we established data management processes aiming at creating efficient management processes, introduced the first bus subsidy after privatization, created the first bus map and information design standards, and implemented institutional transformations to sustain these advancements.

These initial steps lay the groundwork for further investments in public transport improvement. The KfW (German Development Bank) signed a €50 million investment in an electric Bus Rapid Transit (BRT) system, supported by another €35 million grant from the European Union, marking a significant milestone in Tirana's public transportation history.

With these ongoing and future initiatives, Tirana is setting a new standard for public transport in the region. The city's commitment to sustainable and inclusive transportation solutions reflects a broader vision of urban development that prioritizes the well-being of its residents while addressing environmental challenges. These efforts signify a pivotal shift towards a more connected, accessible, and greener urban environment, ensuring that public transport in Tirana meets the needs of all its citizens now and in the future. GIZ Albania, a trusted partner in urban development, will continue supporting these transformations and expand efforts to other cities in Albania, with the goal of creating livable urban environments for all citizens.



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