



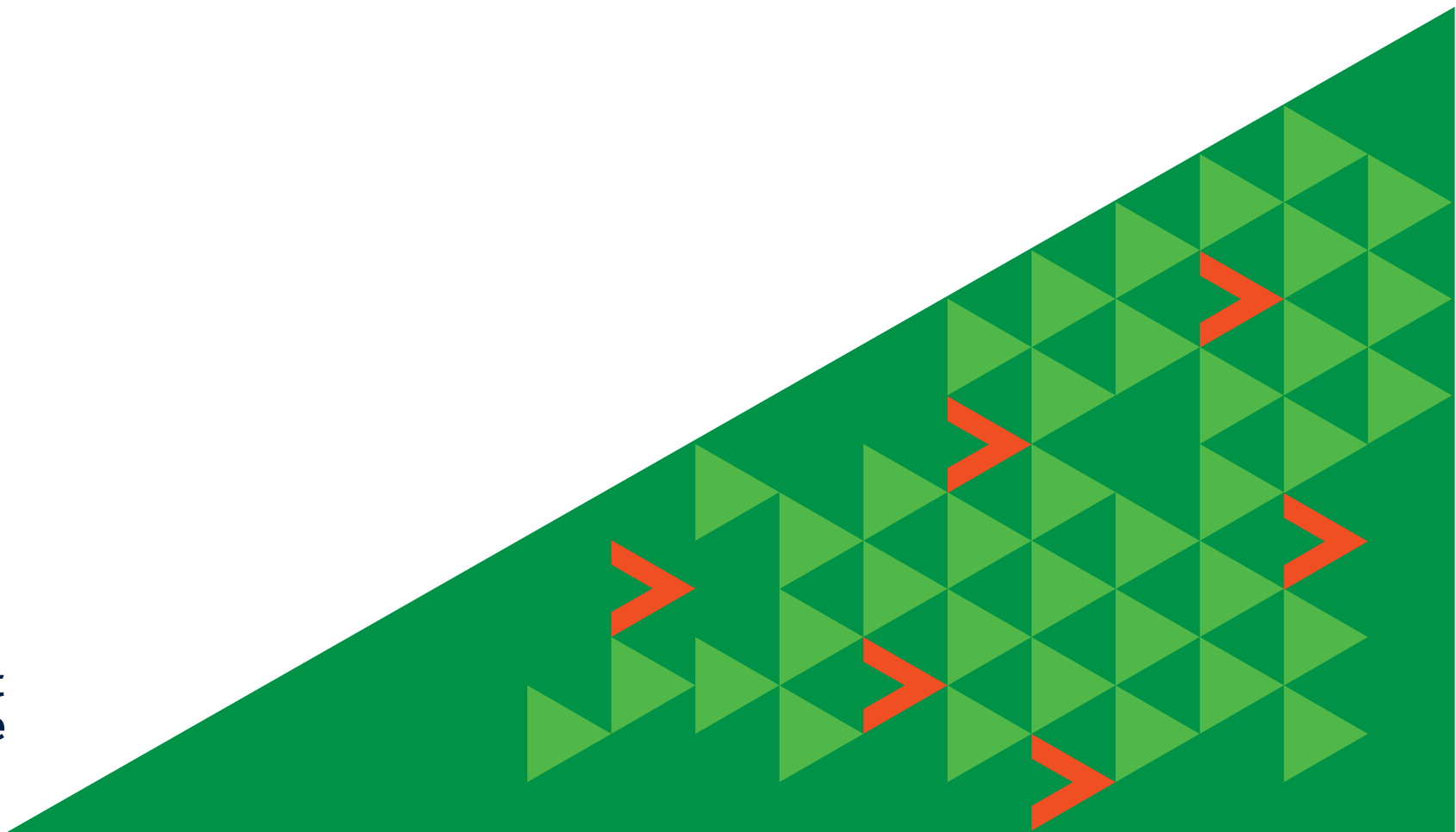
International Bus  
Benchmarking Group

# The Performance of STM Bus Operations Compared to Other World Cities

2024 data summary

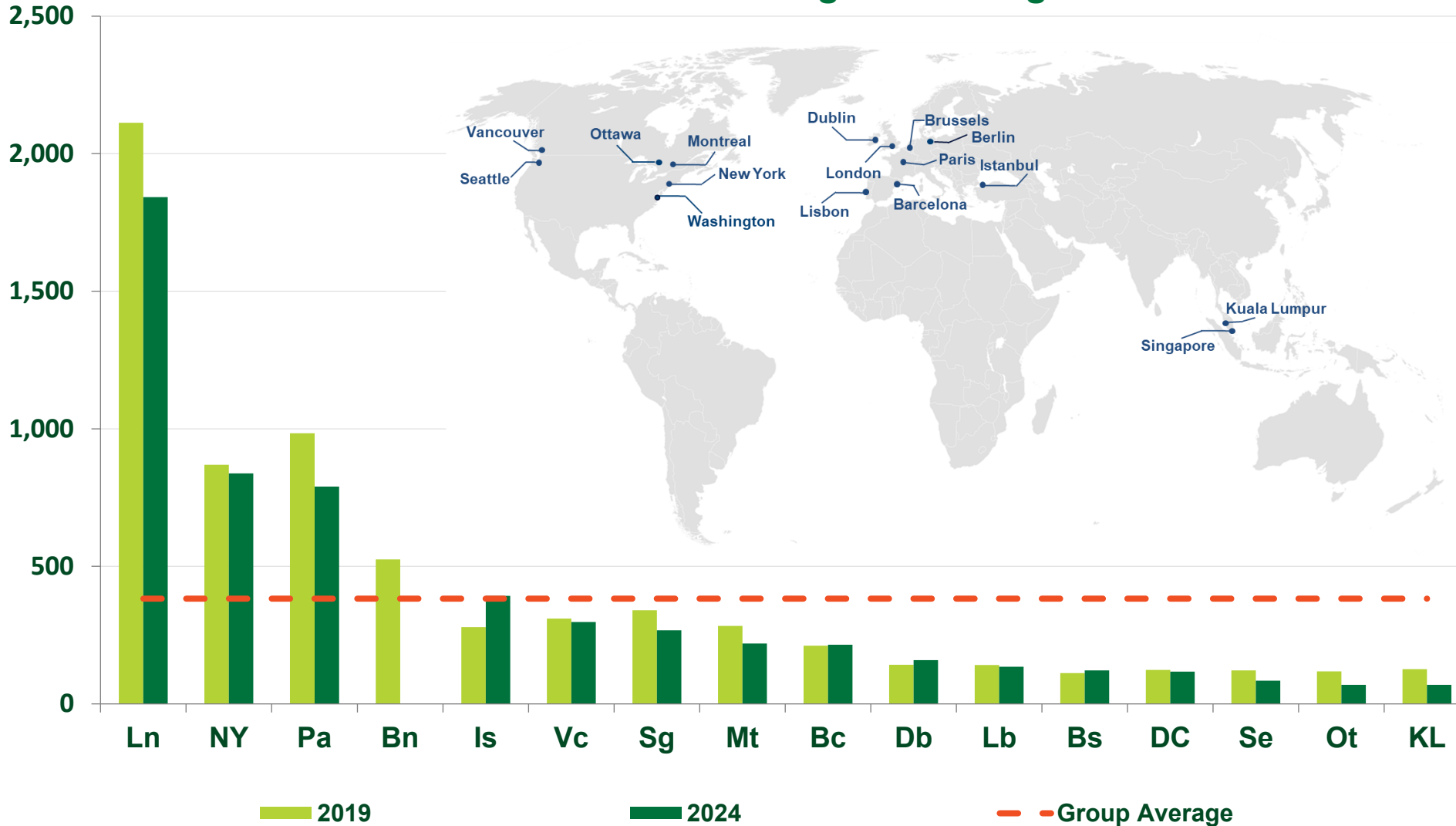
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# IBBG: Sixteen Bus Benchmarking Group Member Cities; Seven Operators in the IBBG for 22 Years, including STM

## Million Annual Passenger Boardings



The IBBG is a group of 16 large public urban bus organisations, with fleets ranging from 740 to 8,800 buses

IBBG organisations agree to share data, information, best practices and lessons learned in a confidential environment for the common purpose to help each other improve

STM is a founding member of this Group. IBBG is facilitated by the TSC at Imperial College London

# KPI Structure: Balanced Scorecard Approach

This slide deck provides an analysis of STM bus operations relative to peers in the following areas:

- ▶ Context:
  - Commercial speed
  - Ridership recovery
- ▶ Reliability:
  - % Scheduled service delivered
  - % On-time terminal departures
  - Lost kms due to internal reasons
  - Mean distance between failures
- ▶ Productivity:
  - Capacity utilisation
  - Peak fleet utilisation
  - Driver productivity
- ▶ Financial Efficiency:
  - Operating cost per vehicle hour
  - Service operations cost per revenue vehicle hour

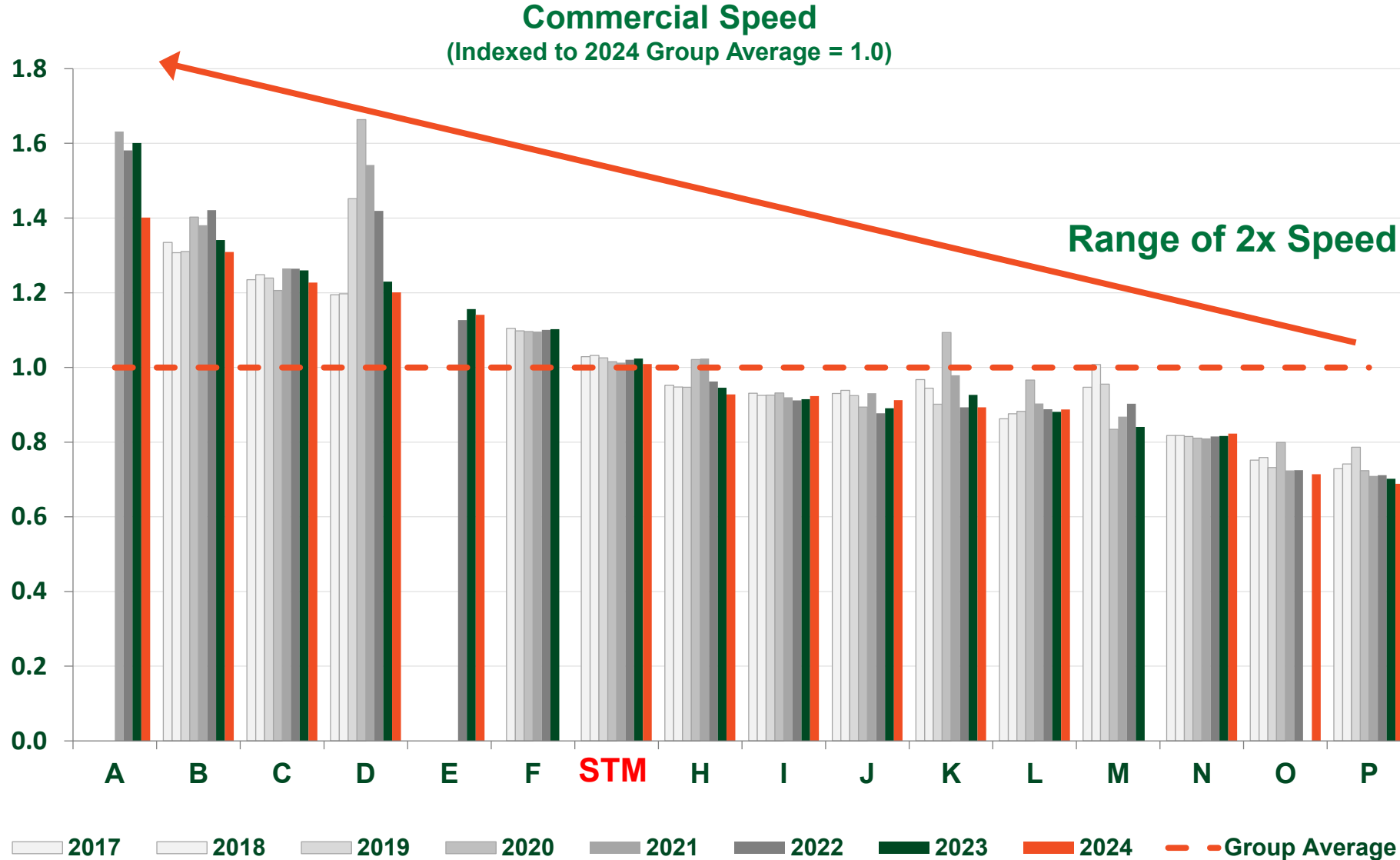
Notes:

Organisations' performance data has been anonymised, ranked and indexed to a group average of =1 to comply with the IBBG confidentiality and membership agreements

With respect to trend data: Organisations' performance for 2020 and 2021 has been severely impacted by the pandemic. Due to local differences in timing of COVID-19 peak cases (and how these line up with reporting 'years'), and variety in adoption of pandemic measures and policy, 2020 and 2021 performance is hard to compare with the rest of the years.

# Commercial Speed is a Key Driver of Performance

## STM bus speeds are average, but have been declining



Commercial speed is a key driver for the performance (efficiency, productivity and quality) of urban bus operators.

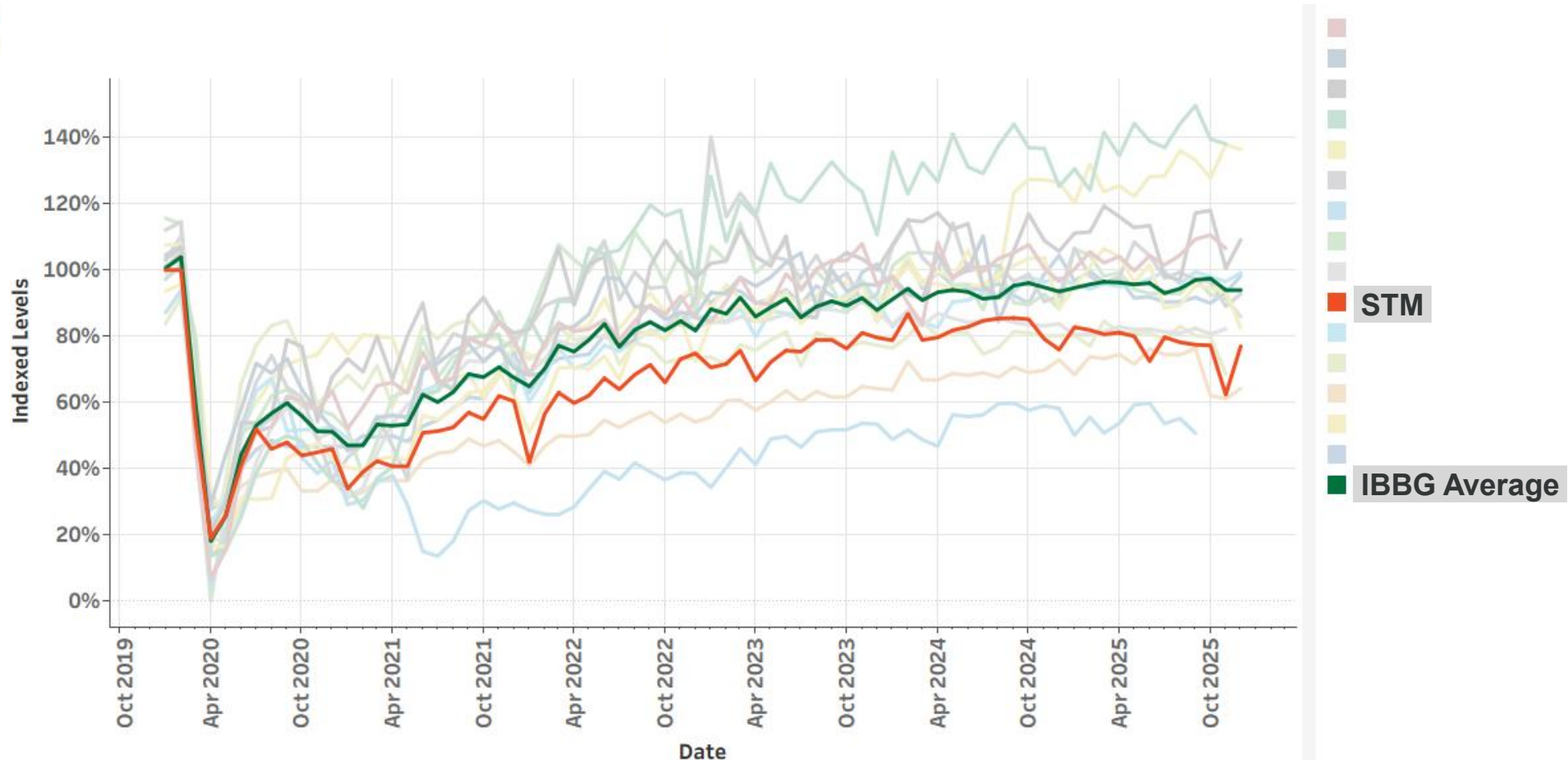
For every vehicle hour in operation, operator A and B would produce approximately twice the amount of vehicle kms and capacity kms than operator O and P.

STM's bus speeds are average within the IBBG, but just like in most cities, have been declining, including in 2024.

# Impact of COVID-19 Pandemic on Bus Patronage

Period Jan 2020- Dec 2025: STM's ridership recovery (77%) is lower than the IBBG average (~94%). Impacted by strikes in November 2025

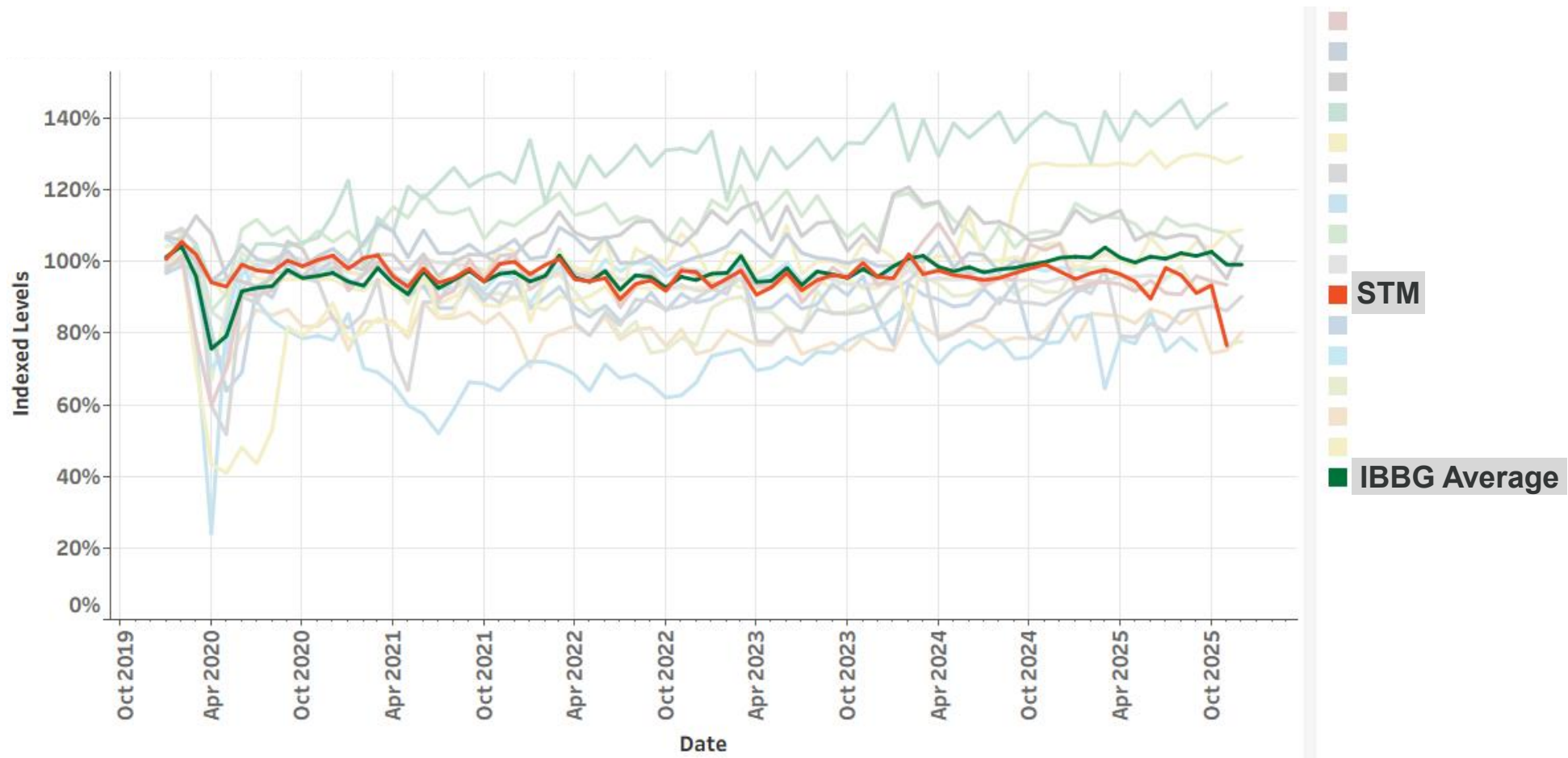
**Demand Recovery:**  
Ridership levels indexed to the same month in 2019



# Change in Bus Service Since the COVID-19 Pandemic

## Period Jan 2020- Dec 2025: STM shows a reduction in service levels in 2025, with service significantly impacted by strikes in November 2025

Supply Recovery:  
Revenue vehicle kms indexed to the same month in 2019



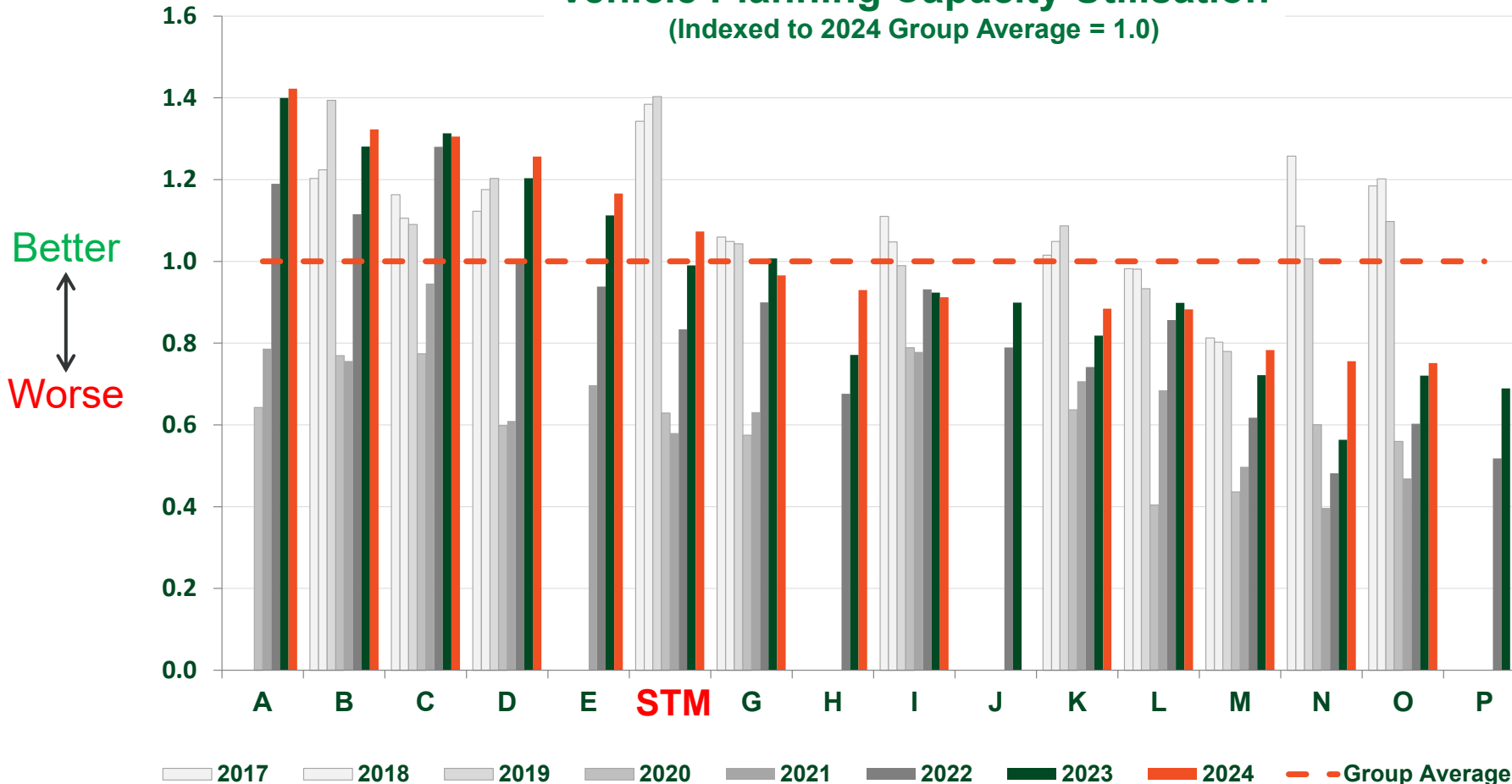
# Vehicle Capacity Filled by Passengers

## STM average performance in 2024, but traditionally (pre-Covid) amongst the top performers



### Vehicle Planning Capacity Utilisation

(Indexed to 2024 Group Average = 1.0)



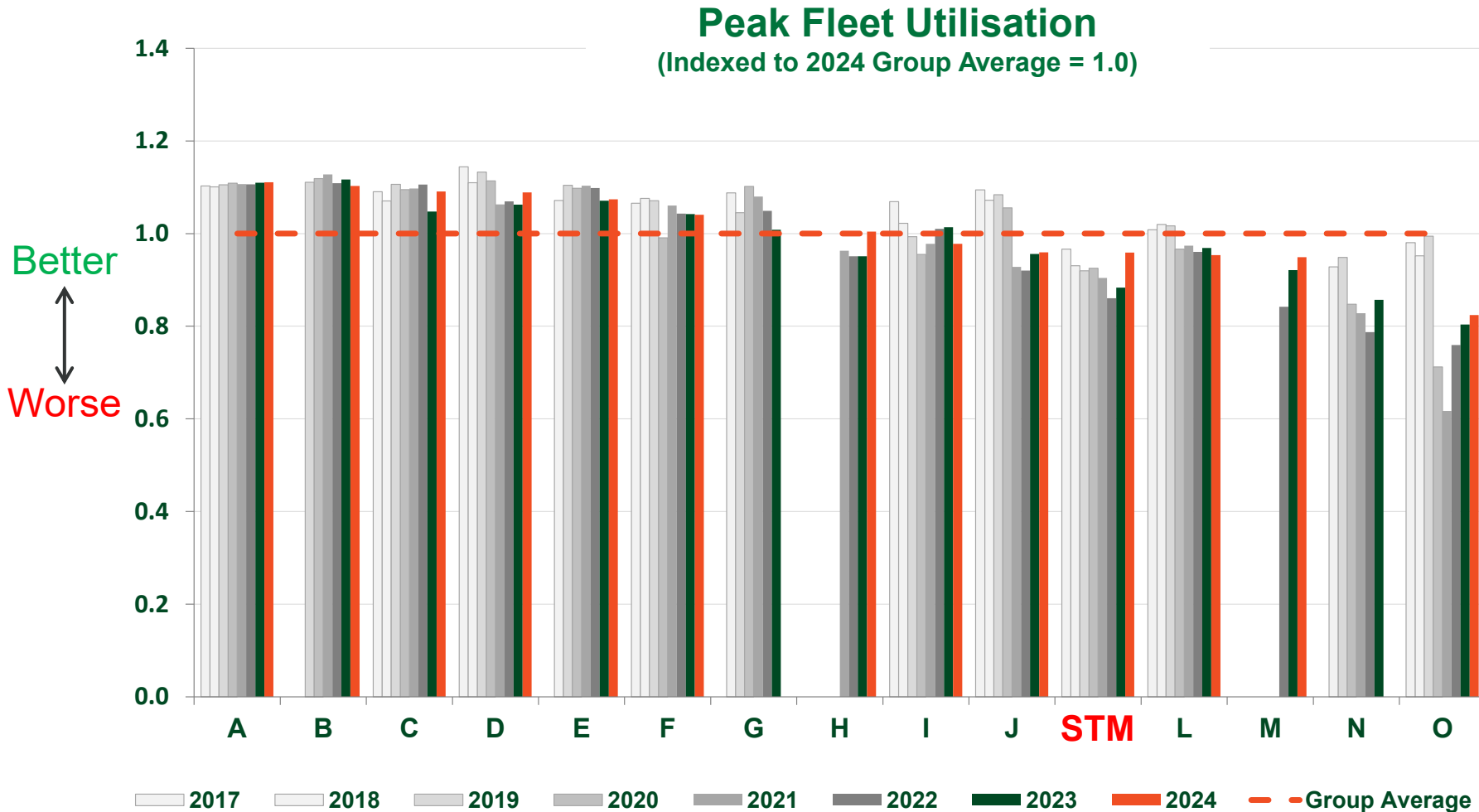
Planning capacity includes seating capacity + 'planned' standee capacity

Ridership is recovering post-Covid, but with service levels near pre-covid levels, average planning capacity utilisation in the industry remains lower than before

STM has recovered back to just above IBBG average levels, but was traditionally a top performer

# Fleet Utilisation at Peak Time

STM now closer to group average in 2024 with increase service in the peak hour and fleet retirements



The graph shows the fleet in use during an average weekday peak service as a proportion of total fleet size

STM now has the 5<sup>th</sup> lowest performance in the IBBG, but an improvement over the 2022-23 period

The next slide provides a breakdown of the reverse graph, e.g. fleet not in use during the peak time

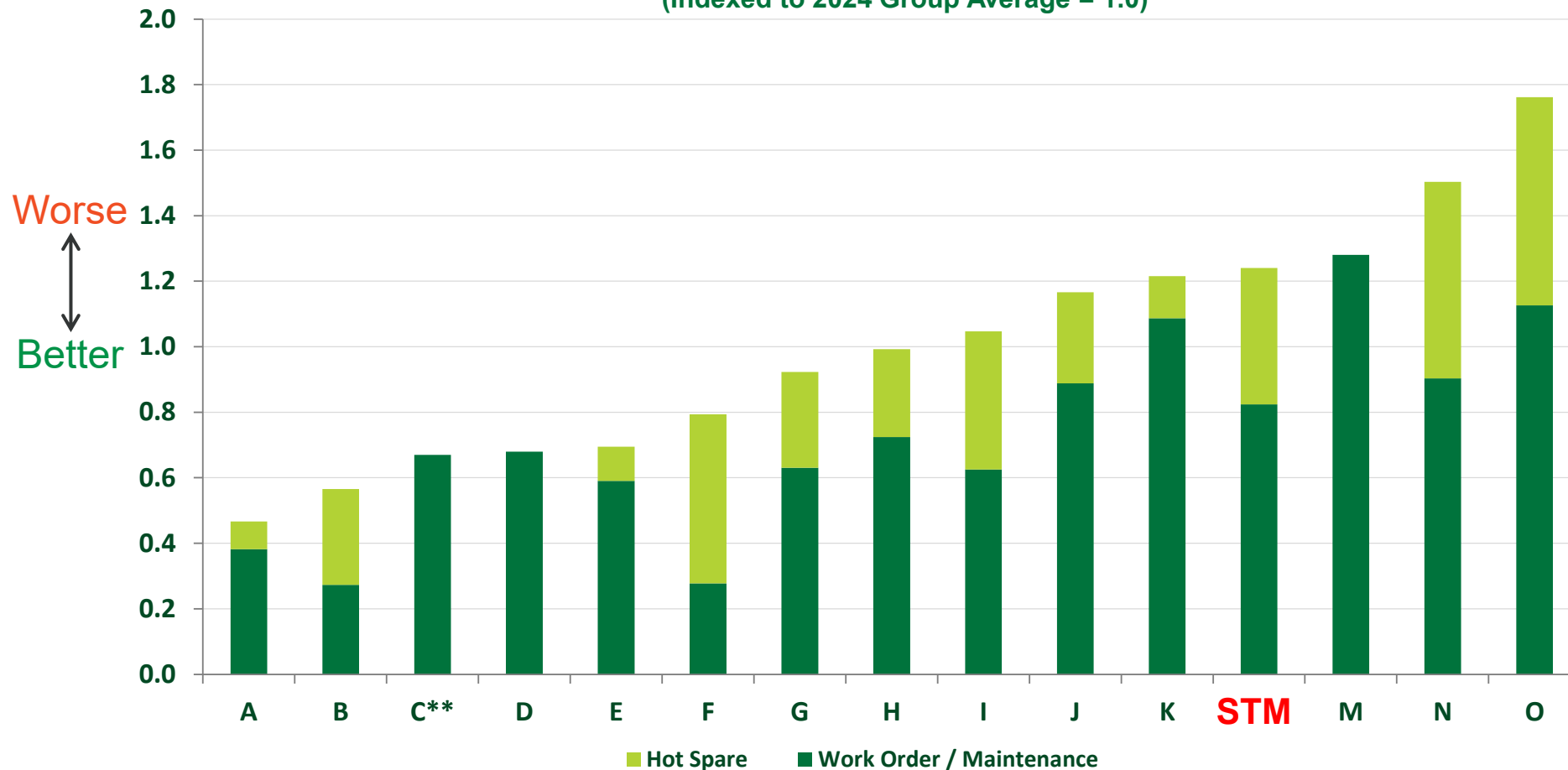
Note: data available for 15 of the 16 members

# Fleet Not In Use at the Peak Time

STM has a high % of fleet not in use (2<sup>nd</sup> highest within the IBBG)

## % Peak Fleet Not In Use – Categories 2024

(Indexed to 2024 Group Average = 1.0)



\*\* 2019 data

This graph provides a breakdown of the fleet not in use during the peak time in 2024

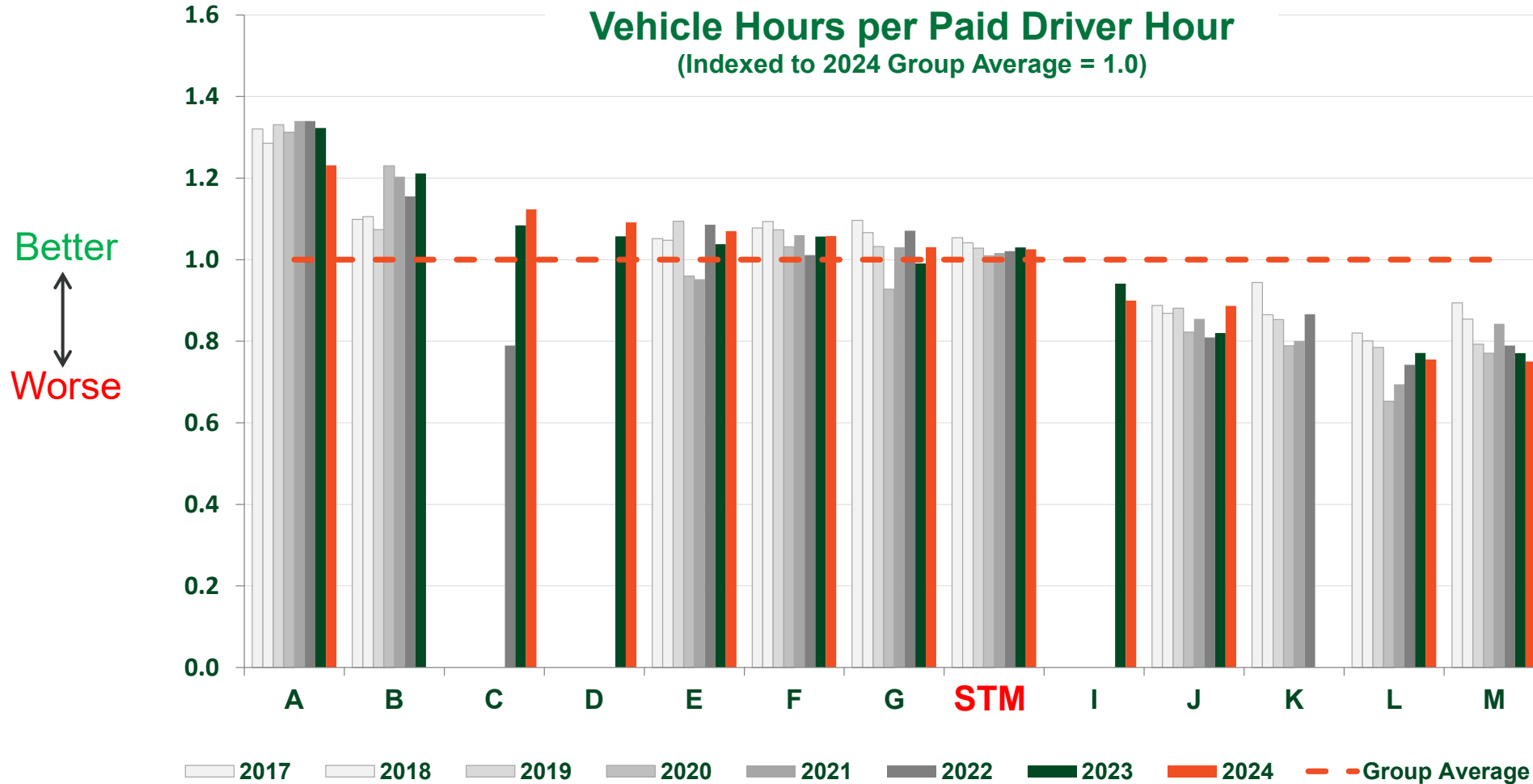
STM has the overall 4<sup>th</sup> highest % fleet not in use at the peak time and STM has the 6<sup>th</sup> highest % of fleet not in use at the peak time due to Maintenance/ Work order reasons

It can be observed that a third of STM's fleet not in use at the peak time is due to buses being kept as 'hot spares'. This is a reduction compared to 2021-23

Note: data available for 15 of the 16 members

# Driver Productivity

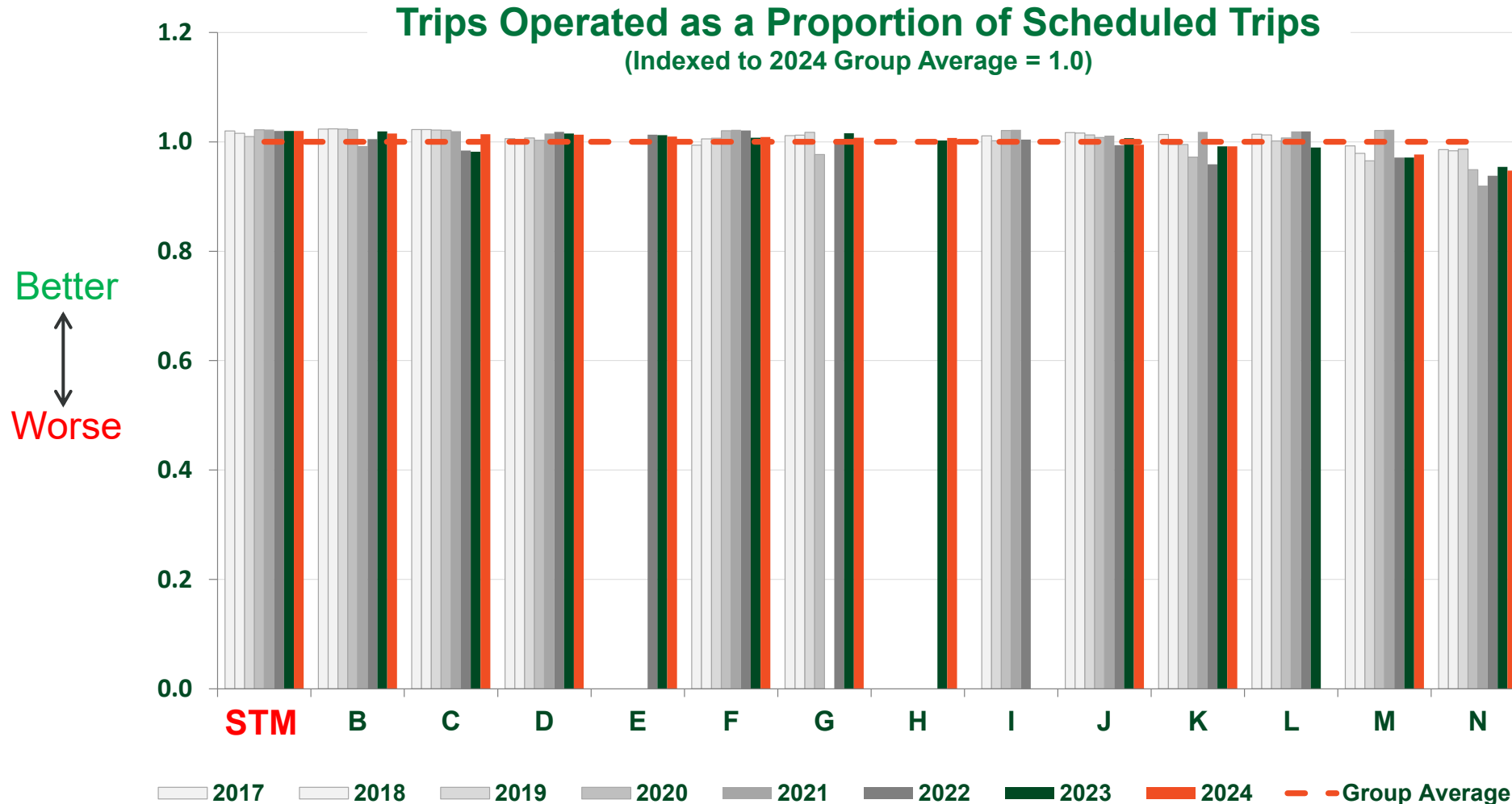
## STM is an average performer with regards to driver productivity



Note: data available for 14 of the 16 members

# % Scheduled Service Delivered

STM has consistently been a top 3 performer in the IBBG with regards to % of scheduled service delivered

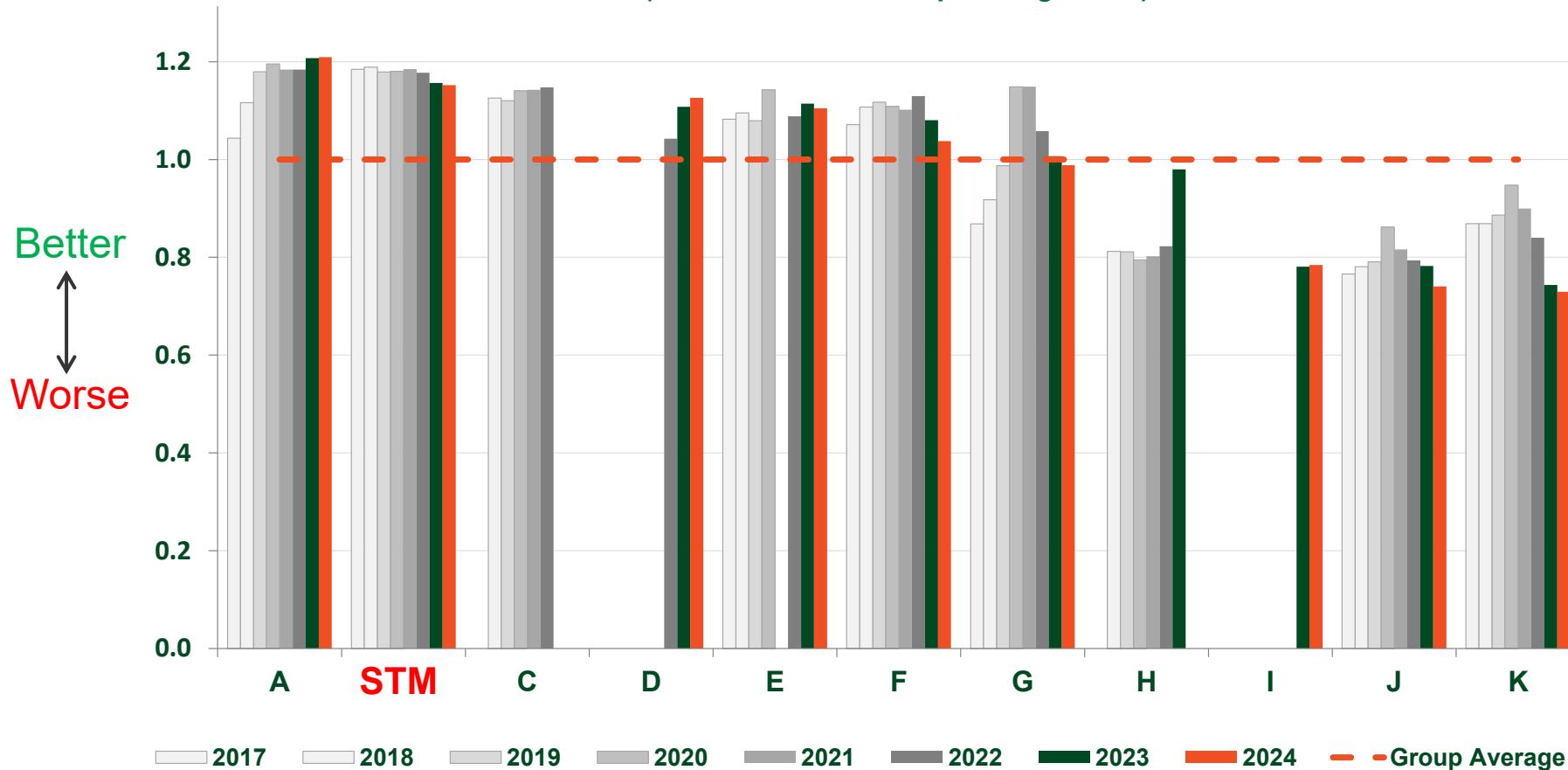


Note: data available for 14 of the 16 members

# % On-time Terminal Departures

STM has consistently been a top 3 performer in the IBBG with regards to % of on-time terminal departures

**On-Time Terminal Departures as a Proportion of Scheduled Trips**  
(Indexed to 2024 Group Average = 1.0)



Note: STM's definition of 'on-route' punctuality includes both high frequency service as well as low frequency service, whilst it is more common amongst IBBG operators to only measure punctuality for low frequency routes. Therefore, there is no comparable IBBG statistic for STM regarding 'on-route' punctuality

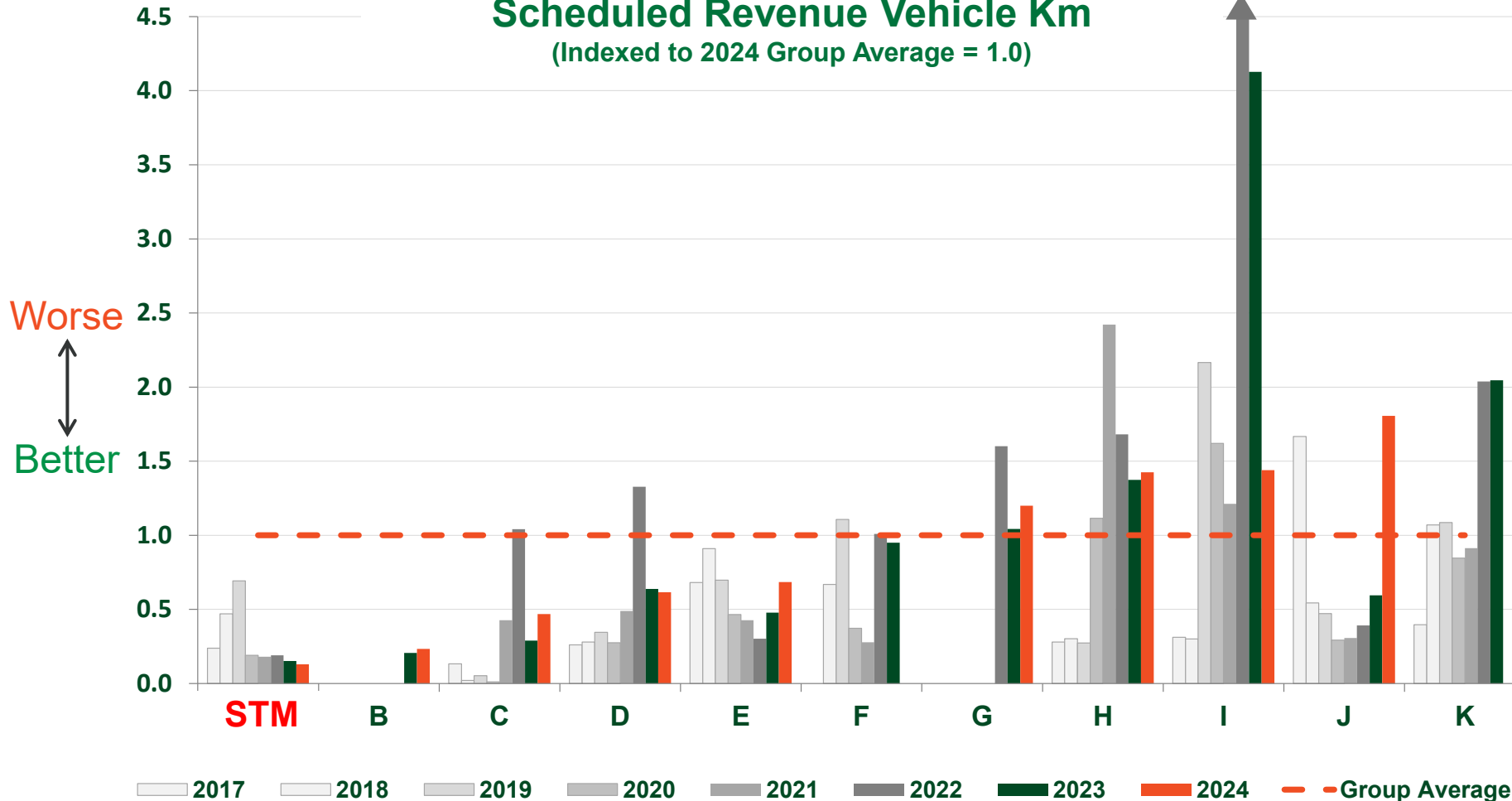
However, this graph does represent comparable performance for 11 out of 16 IBBG operators for the % of terminal departures that are 'on-time'

Note: data available for 11 of the 16 members

# Lost Vehicle Km (Internal Reasons)

STM has been the best performer in the IBBG from 2021-2024

Lost Vehicle Km due to Internal Reasons per Scheduled Revenue Vehicle Km  
(Indexed to 2024 Group Average = 1.0)



Note:  
Lost vehicle kilometres due to internal reasons include factors such as:

- Driver absenteeism, driver shortage, strikes
- Technical issues (breakdowns), bus not available
- Service control decisions (short turning)

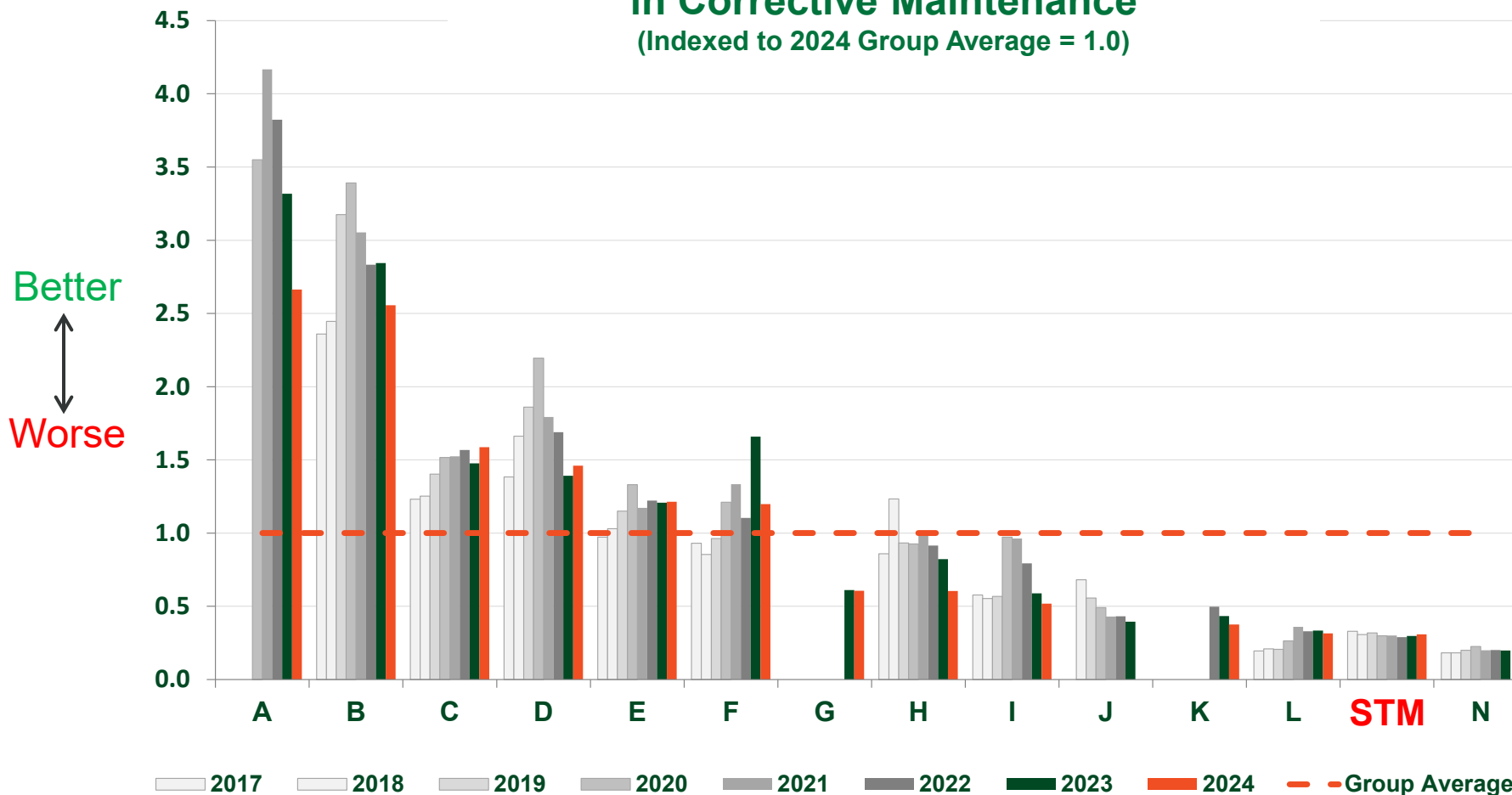
It excludes external factors such as higher levels of traffic, collisions, demonstrations, weather related issues, etc.

Note: data available for 11 of the 16 members

# Mean Distance Between Failures (MDBF)

## STM performs significantly below the IBBG average

Mean Distance Between Failures Resulting  
in Corrective Maintenance  
(Indexed to 2024 Group Average = 1.0)



Note:  
There are policy differences between IBBG operators with regards to when they 'correct' non-major failures

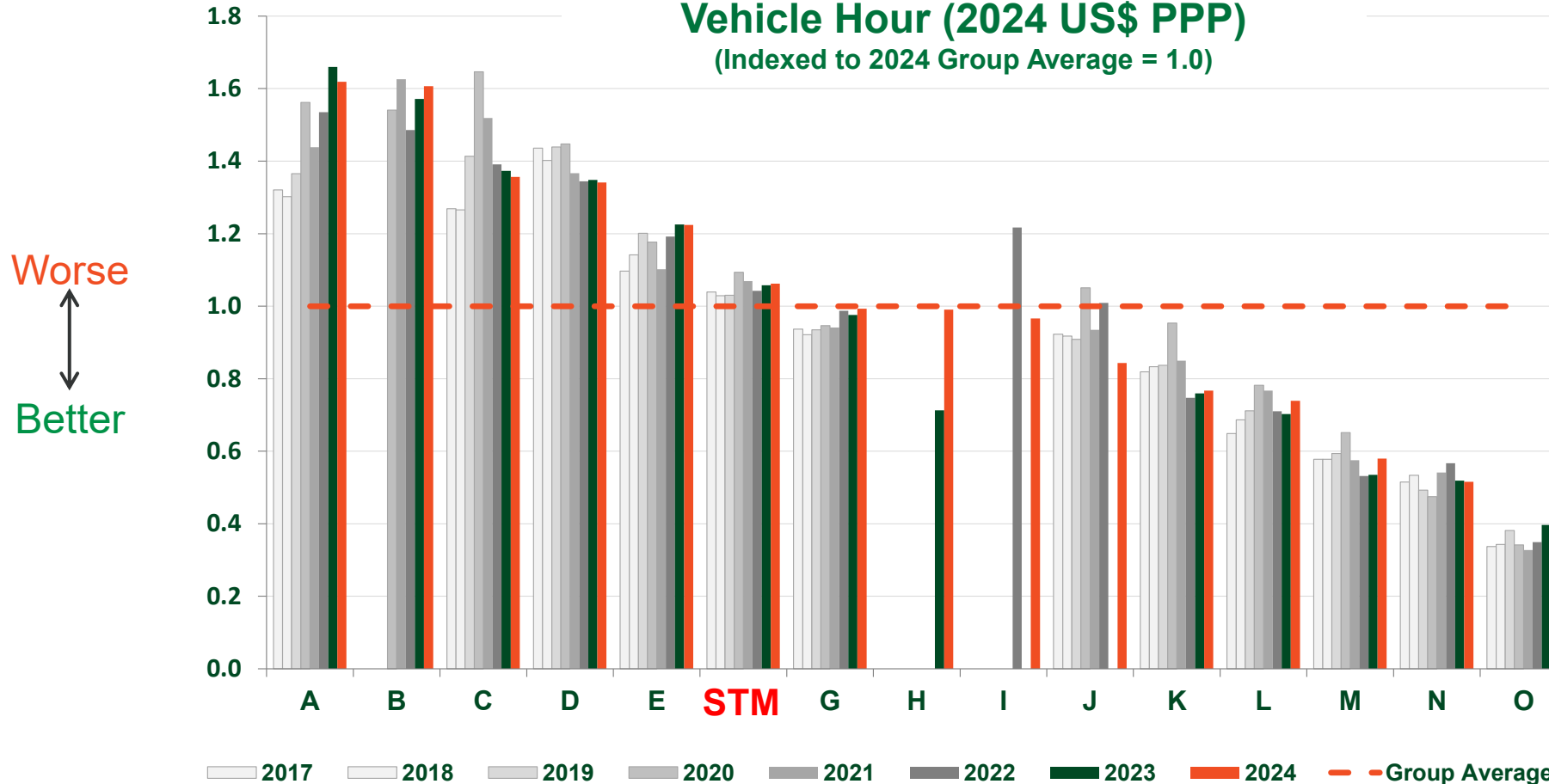
For example, a broken air-con system would, in some cities, mean an immediate withdrawal from service, while in other cities this issue will only be fixed when the bus is scheduled for maintenance next

Note: data available for 14 of the 16 members

# Financial Efficiency: Cost per Vehicle Hour

STM performs just above (=worse than) the IBBG average for total operating cost per total vehicle hour

**Operating Costs per Actual Total Vehicle Hour (2024 US\$ PPP)**  
(Indexed to 2024 Group Average = 1.0)



Note:  
Operating costs include service operations cost, maintenance cost and administration cost (relative performance of these three cost categories shown in the dashboard on page 17)

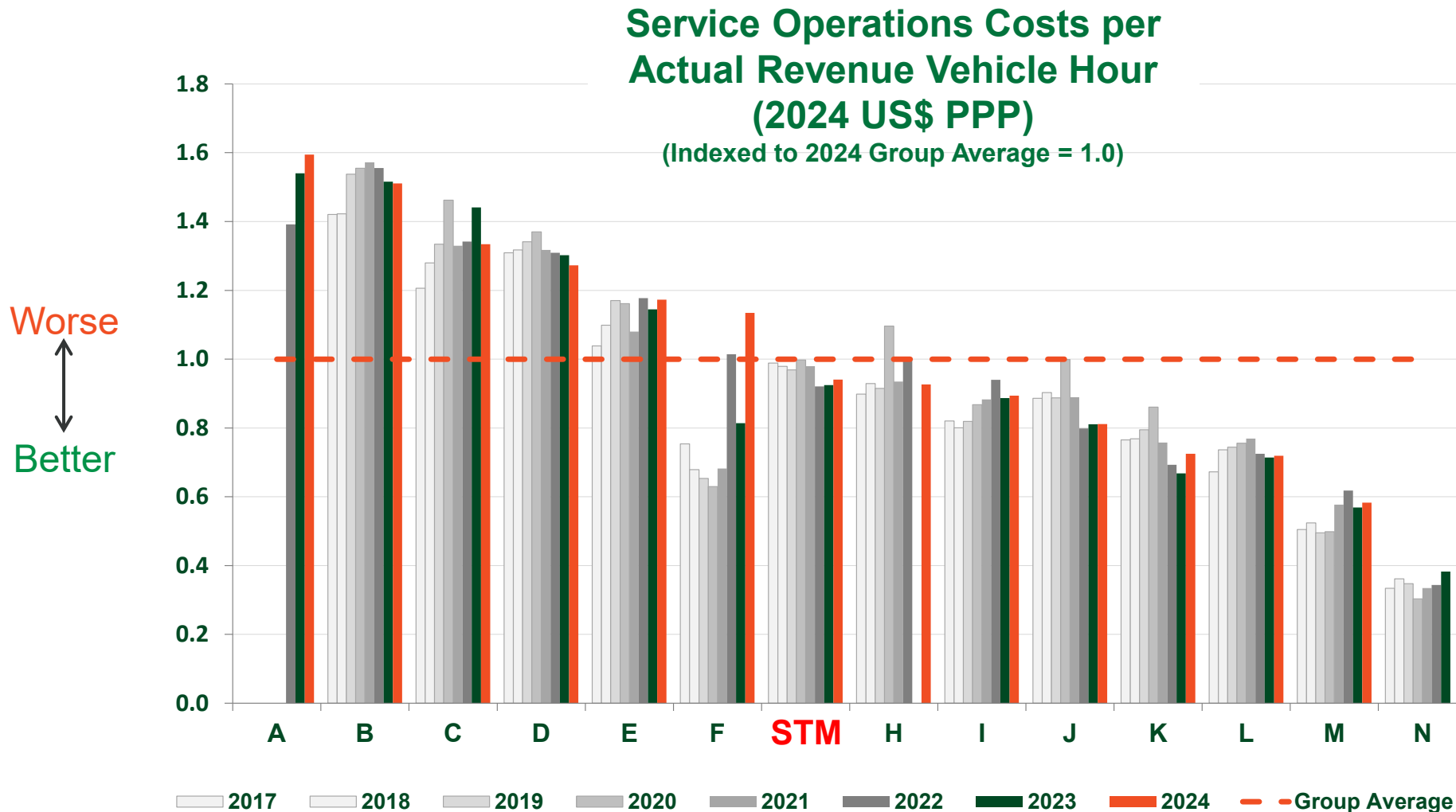
Costs were converted into US\$ PPP (Purchasing Power Parity) to enable a fair comparison

Costs are best normalised by hour to be less impacted by the differences in commercial speed between operators

Note: data available for 15 of the 16 members

# Service Operating Cost Efficiency

STM performs just below (=better than) the IBBG average for service operations cost per revenue vehicle hour



Note:  
Service operations costs include driver cost, fuel, service control, and depot operations that are directly related to provision of service such as dispatch. Revenue vehicle hours exclude deadheading and interlining hours

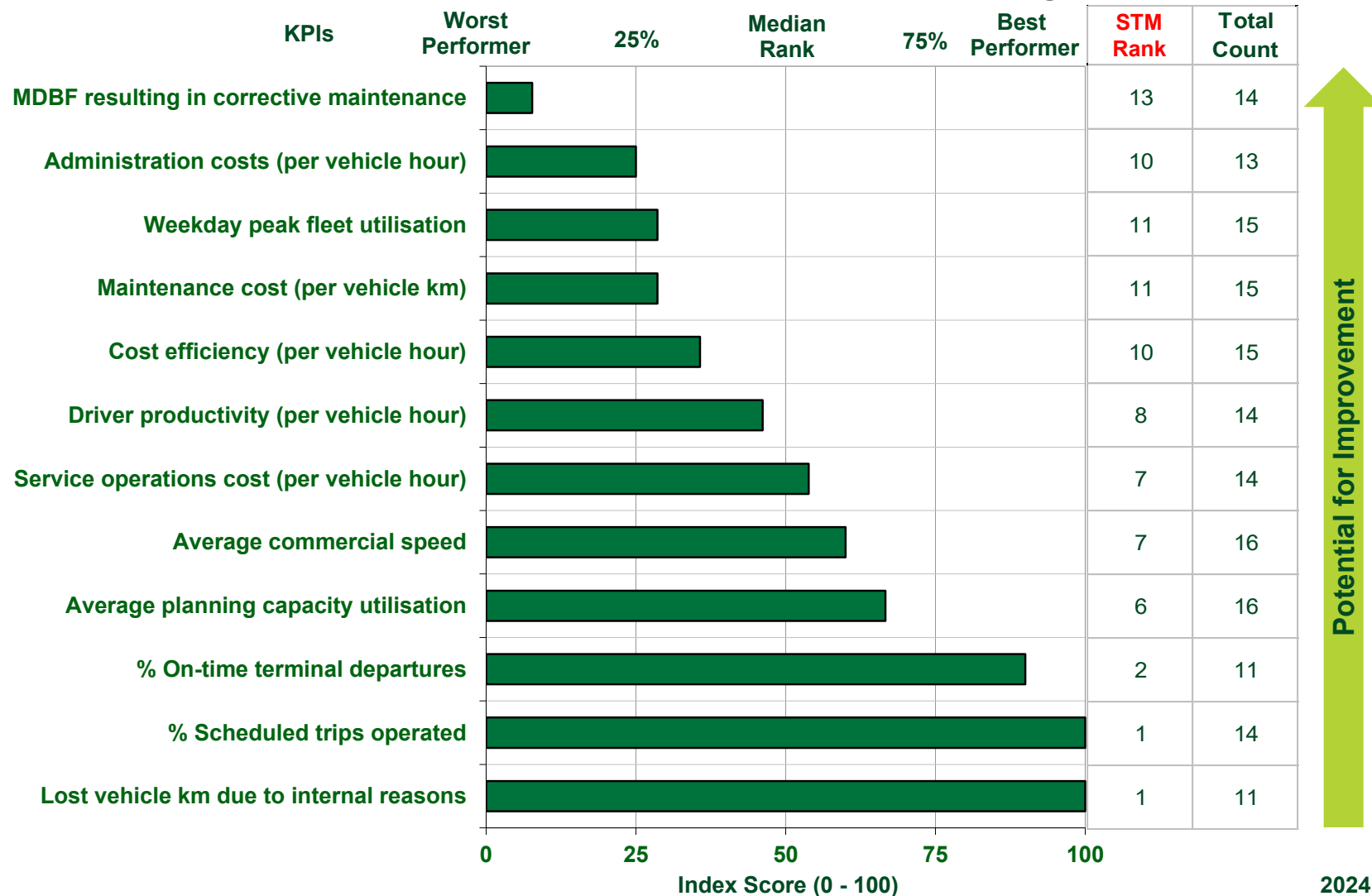
Costs were converted into US\$ PPP (Purchasing Power Parity) to enable a fair comparison

Cost are best normalised by hour to be less impacted by the differences in commercial speed between operators

Note: data available for 14 of the 16 members

# Performance Dashboard (absolute): How Does STM Bus Operations Rank Relative to Other Group Members on Several Dimensions in 2024?

► Relative performance of STM Bus Operations to other organisations in 2024



2024

# Concluding Comments

- ▶ This slide deck represents a high level benchmarking overview of STM's bus operations relative to other world-class peers in the areas of Productivity, Reliability and Finance
- ▶ The KPIs shows that STM is an overall average performing organisation, with a mix of excellent, average and poor performance over different KPIs in these three areas.
- ▶ **Reliability**: Apart from 'vehicle reliability' as measured by MDBF, STM's reliability performance is **world-class and consistently within the top 3** of IBBG Agencies
- ▶ **Financial Efficiency**: STM performs around the world-class peer **average** with respect to total operating cost efficiency and service operating cost efficiency
- ▶ **Productivity**: This area has **mixed results** for STM, with poor performance regarding the % of peak fleet utilisation (possibly linked to the poor vehicle reliability performance), average performance of capacity utilisation and average driver productivity performance