



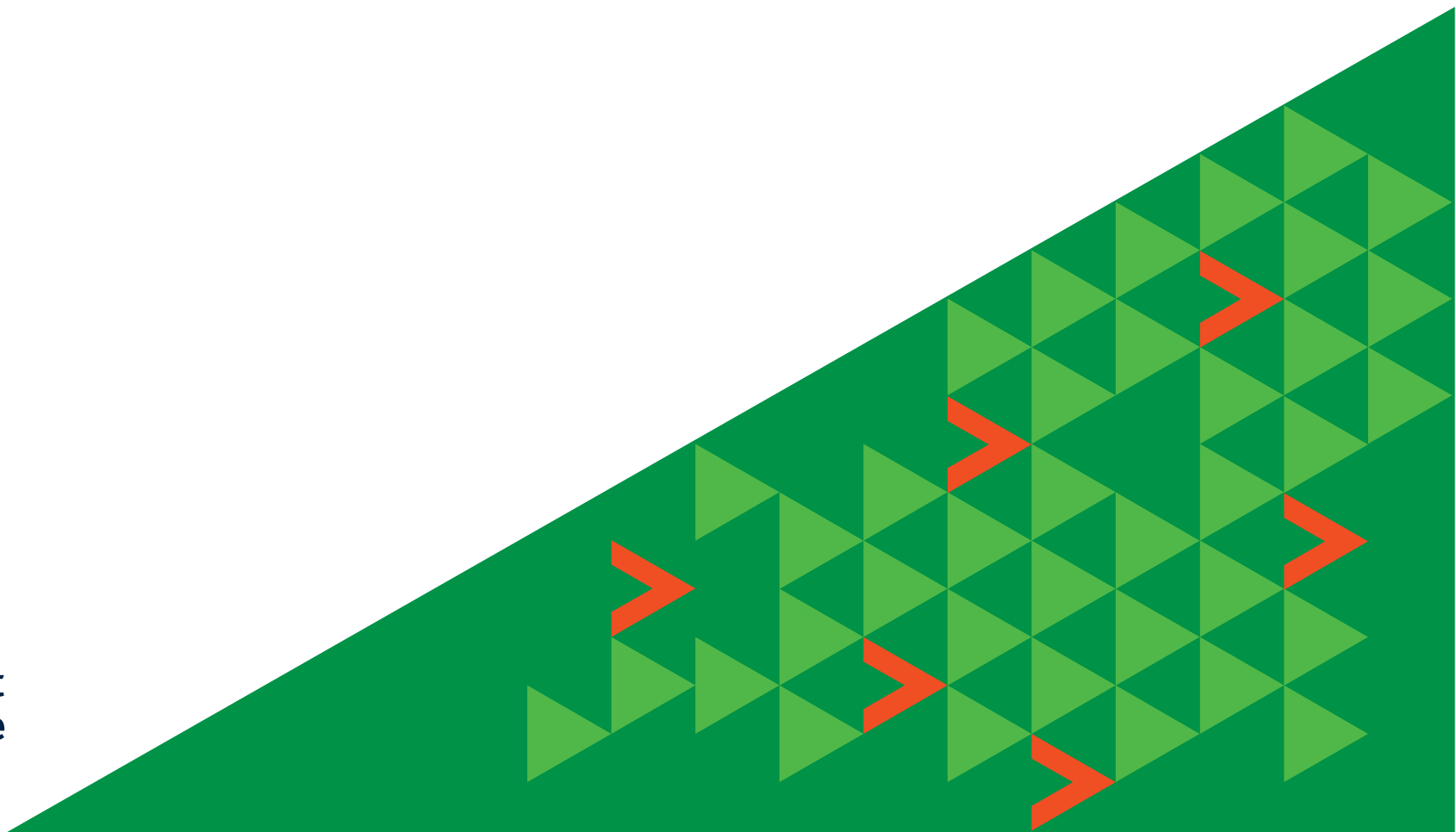
International Bus
Benchmarking Group

The Performance of London Buses Compared to Other World Cities

IBBG Phase 2022/2023
(2021 data summary)

Imperial College
London
Projects

TSC > Transport
Strategy Centre



Thirteen Bus Benchmarking Group Member Cities; Seven Operators in the IBBG for 19 Years Now



KPI Structure: Balanced Scorecard Approach

Key topics to measure how organisations perform against each other:

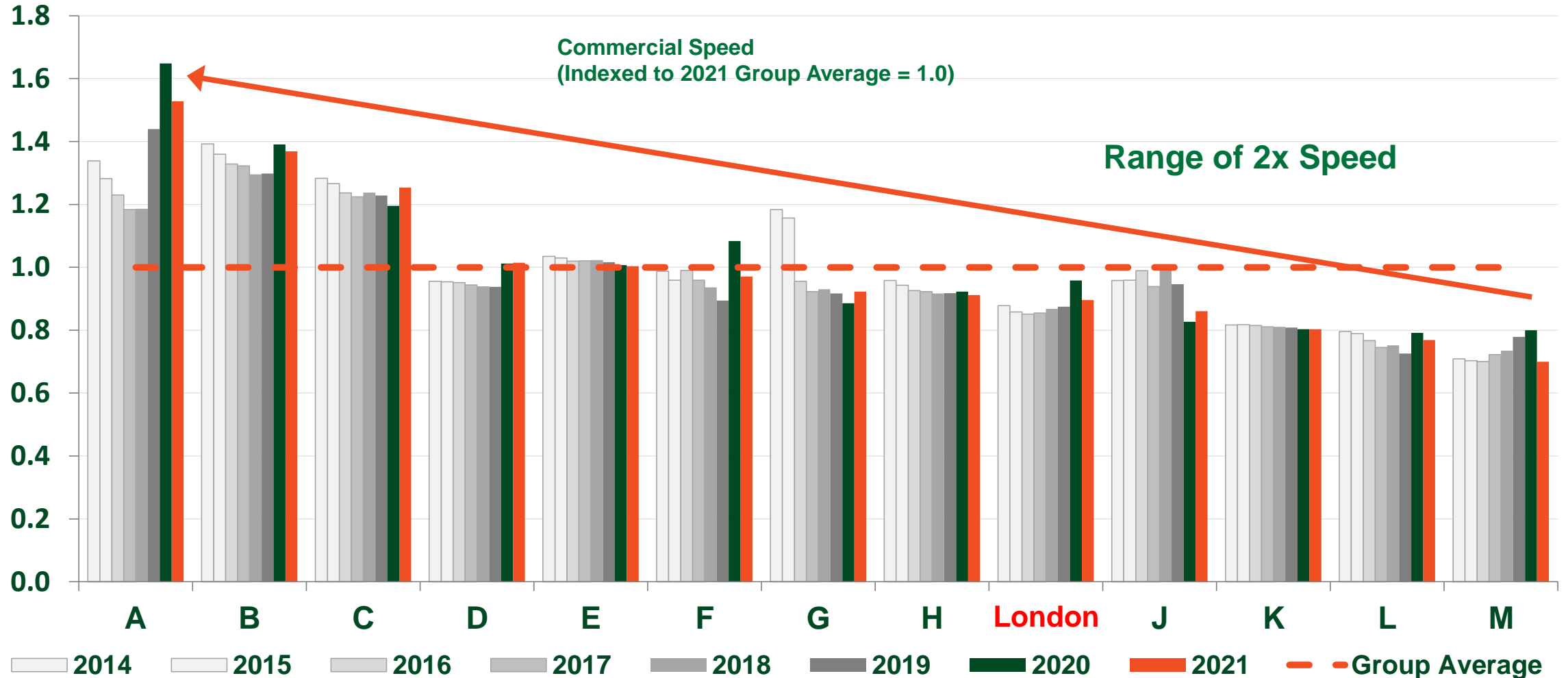


Note: organisations' performance for 2020 and 2021 has been severely impacted by the pandemic.

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.

Commercial Speed is a Key Driver of Performance

2021: Speeds in London back in line with the pre-Covid trend



Vehicle Capacity Filled by Passengers



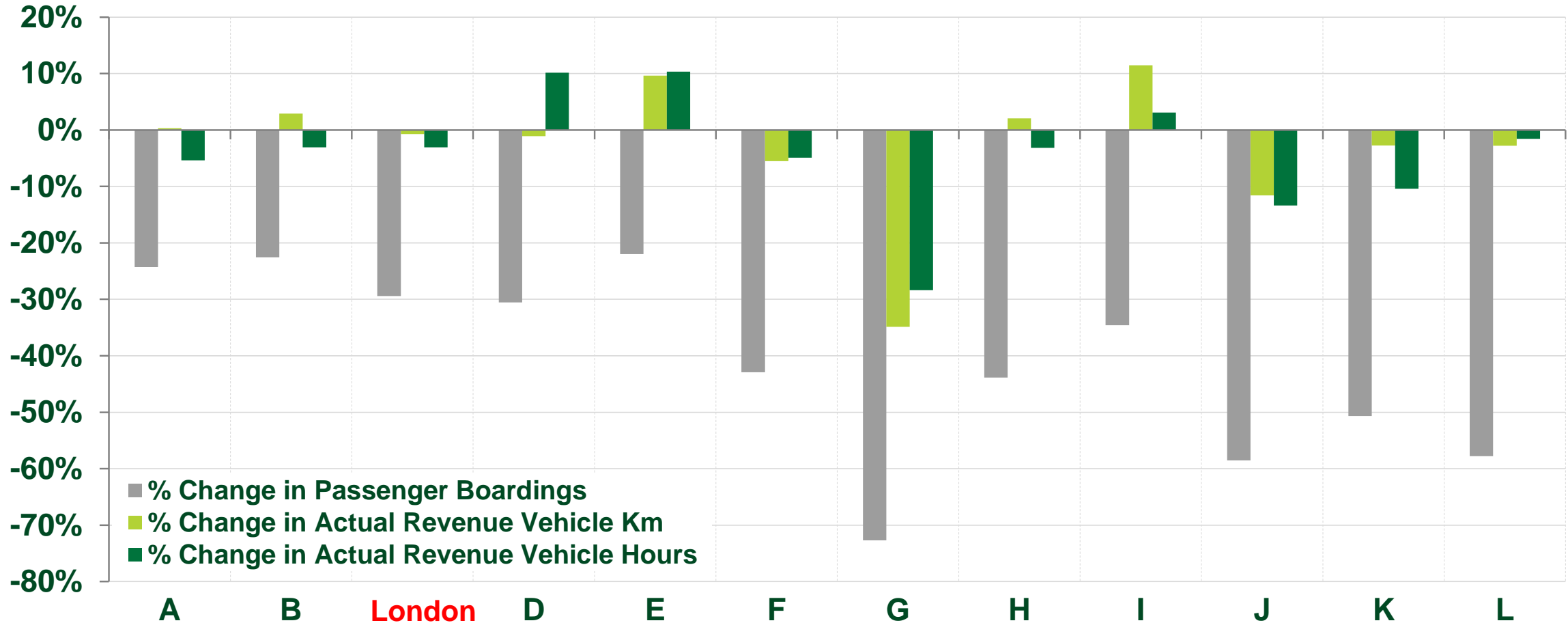
Ridership is recovering post-Covid, but with service levels near pre-covid levels, average capacity utilisation remains lower



Pandemic Impact: % Change in Passenger Boardings and Vehicle Kilometres (2019-2021, 2 year change)



Passenger Boardings, Actual Revenue Vehicle km and Actual Revenue Vehicle Hours (% Change for 2021 vs. 2019)

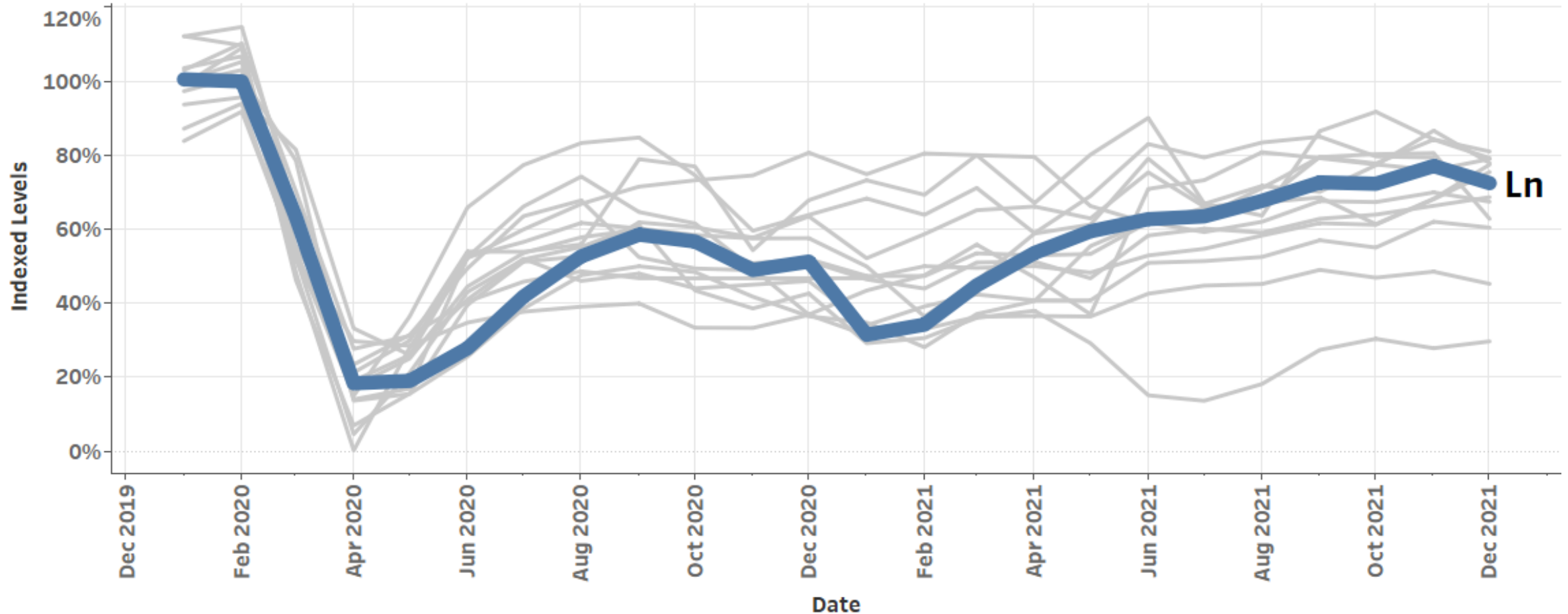


Note: data available for 12 of the 13 members

Impact of COVID-19 Pandemic on Bus Patronage Period Jan 2020- Dec 2021

Passenger Boardings

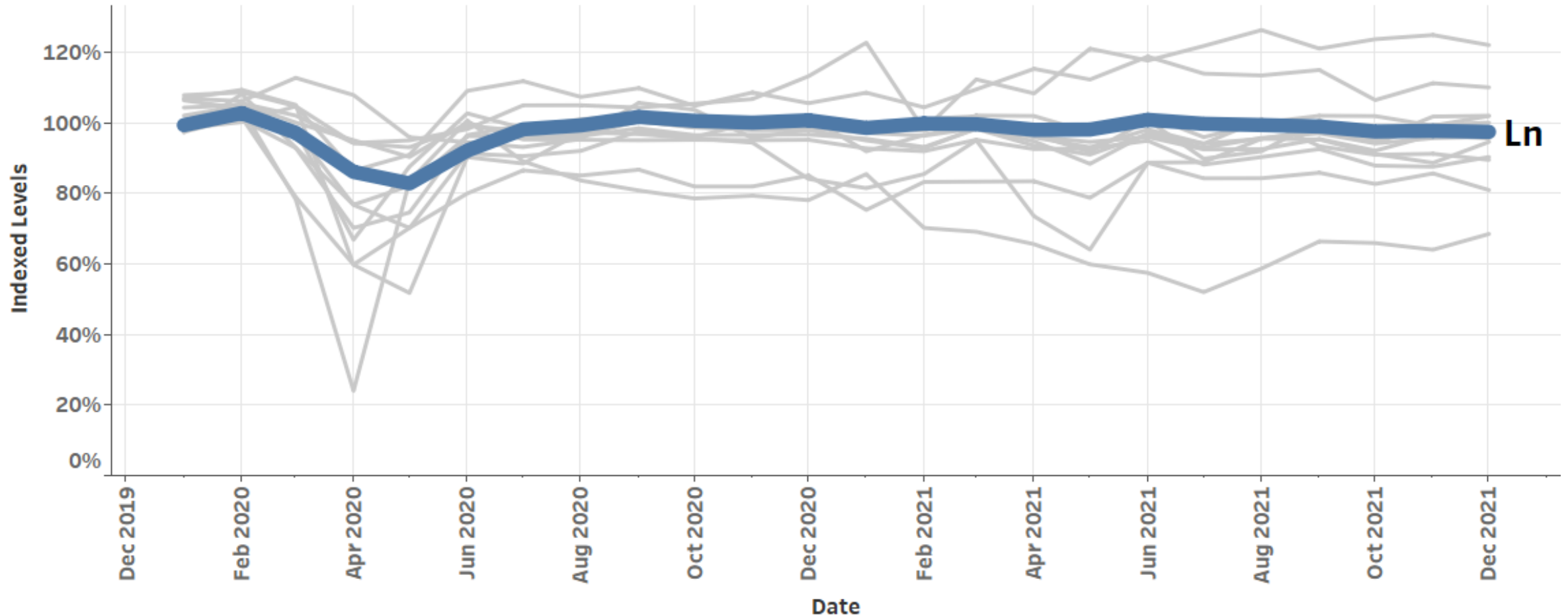
Indexed to the Same Month in Calendar Year 2019



Change in Bus Service During the COVID-19 Pandemic Period Jan 2020- Dec 2021

Revenue Vehicle km

Indexed to the Same Month in Calendar Year 2019

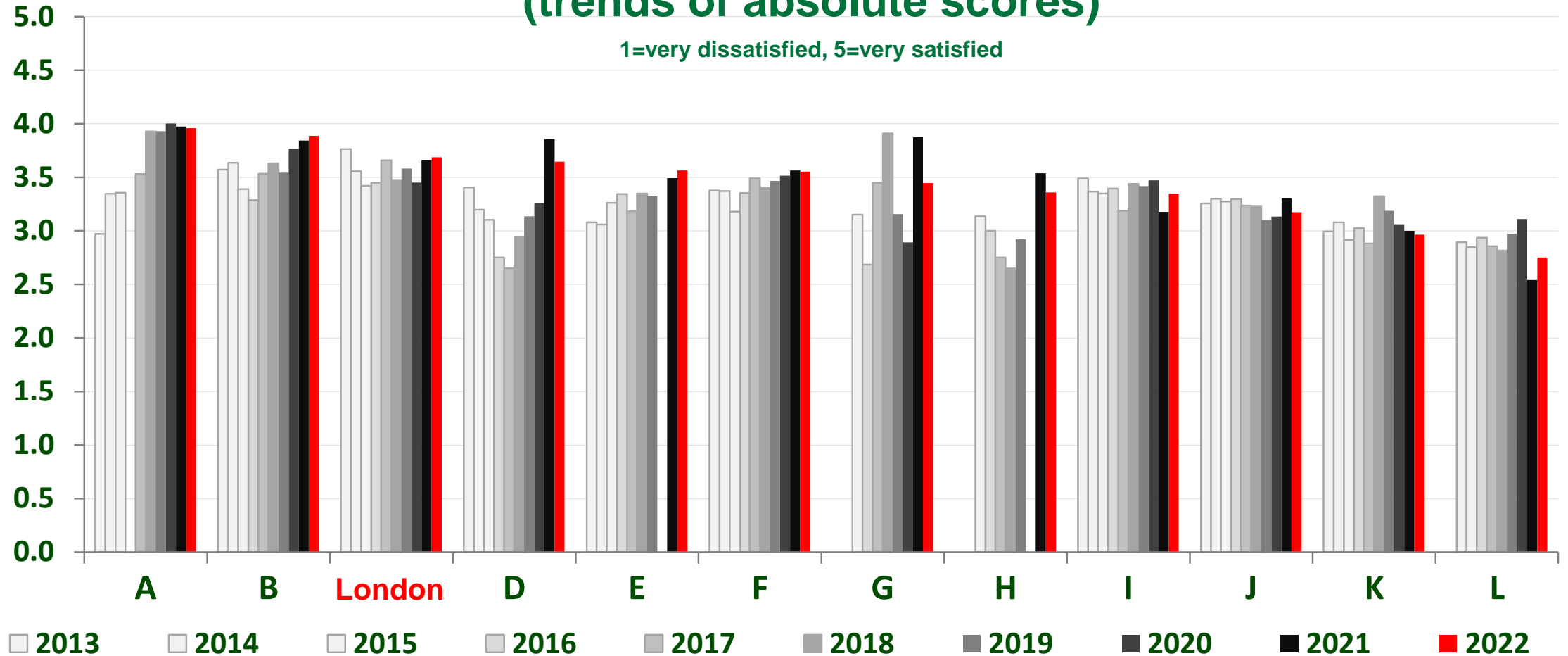


Customer Satisfaction



How satisfied are customers with their bus services? (trends of absolute scores)

1=very dissatisfied, 5=very satisfied



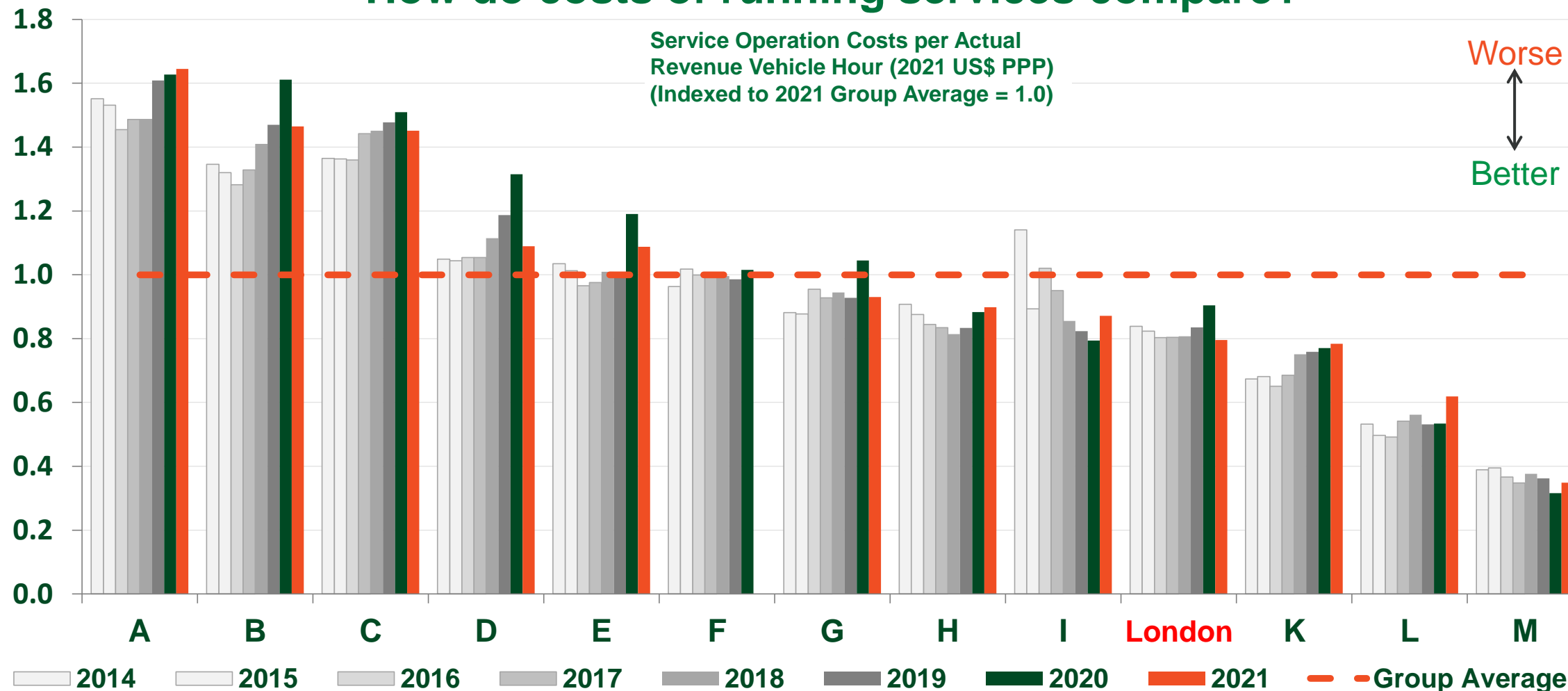
► Note: International comparisons not advised due to known cultural bias

Note: data available for 12 of the 13 members

Financial Efficiency: Cost per Vehicle Hour



How do costs of running services compare?

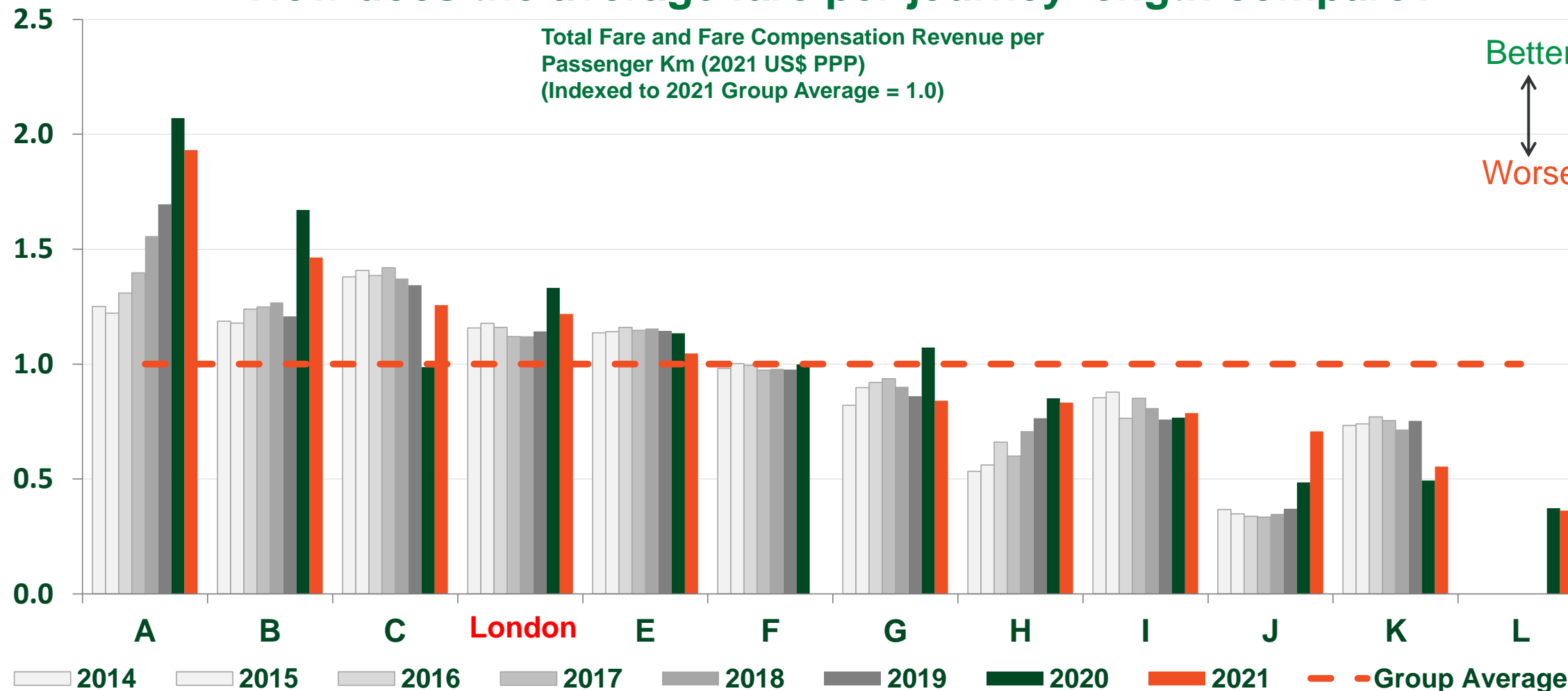


Fares: Balancing Affordability and Cost Recovery

**comparability impacted by pandemic fare policy, and fare support differences*



How does the average fare per journey length compare?

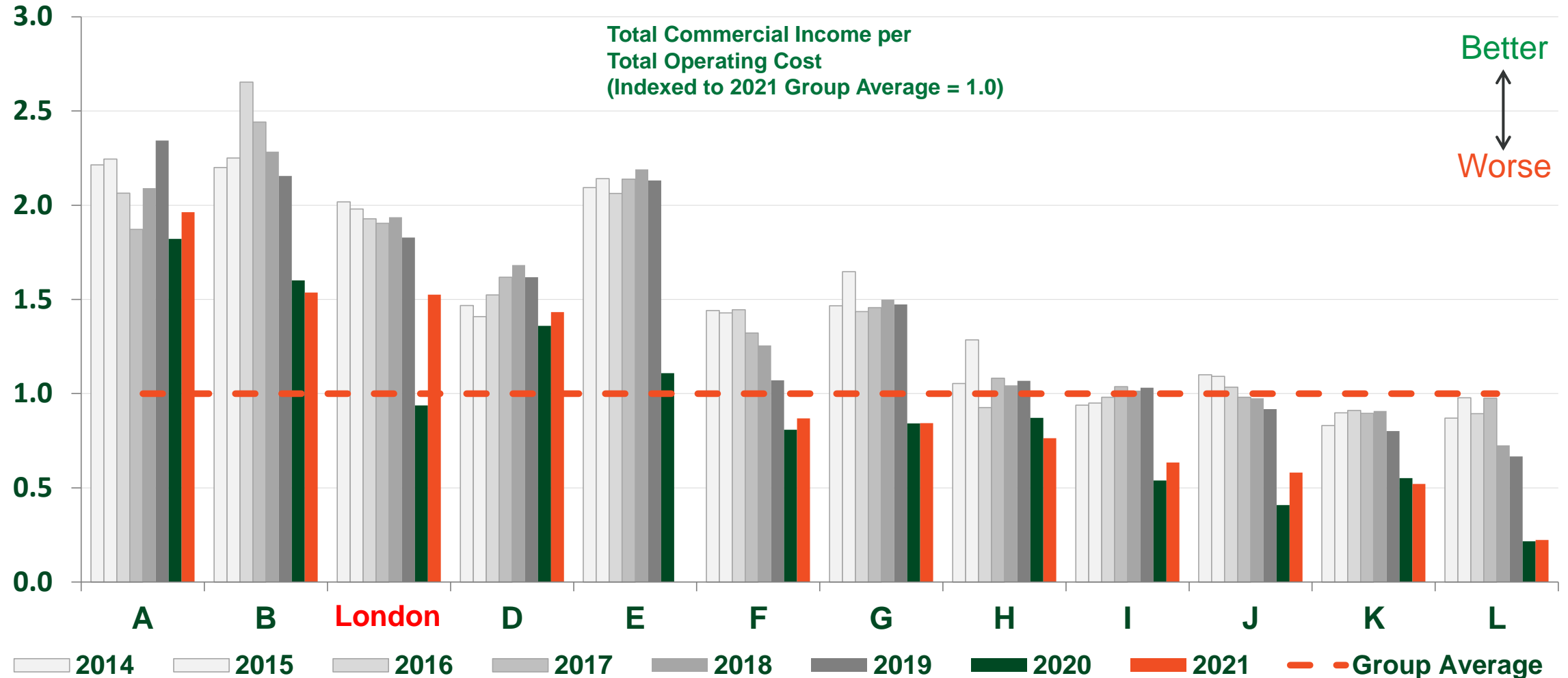


Note: data available for 12 of the 13 members

Commercial Recovery Ratio



How does the level of income generated vs. operated costs compare?



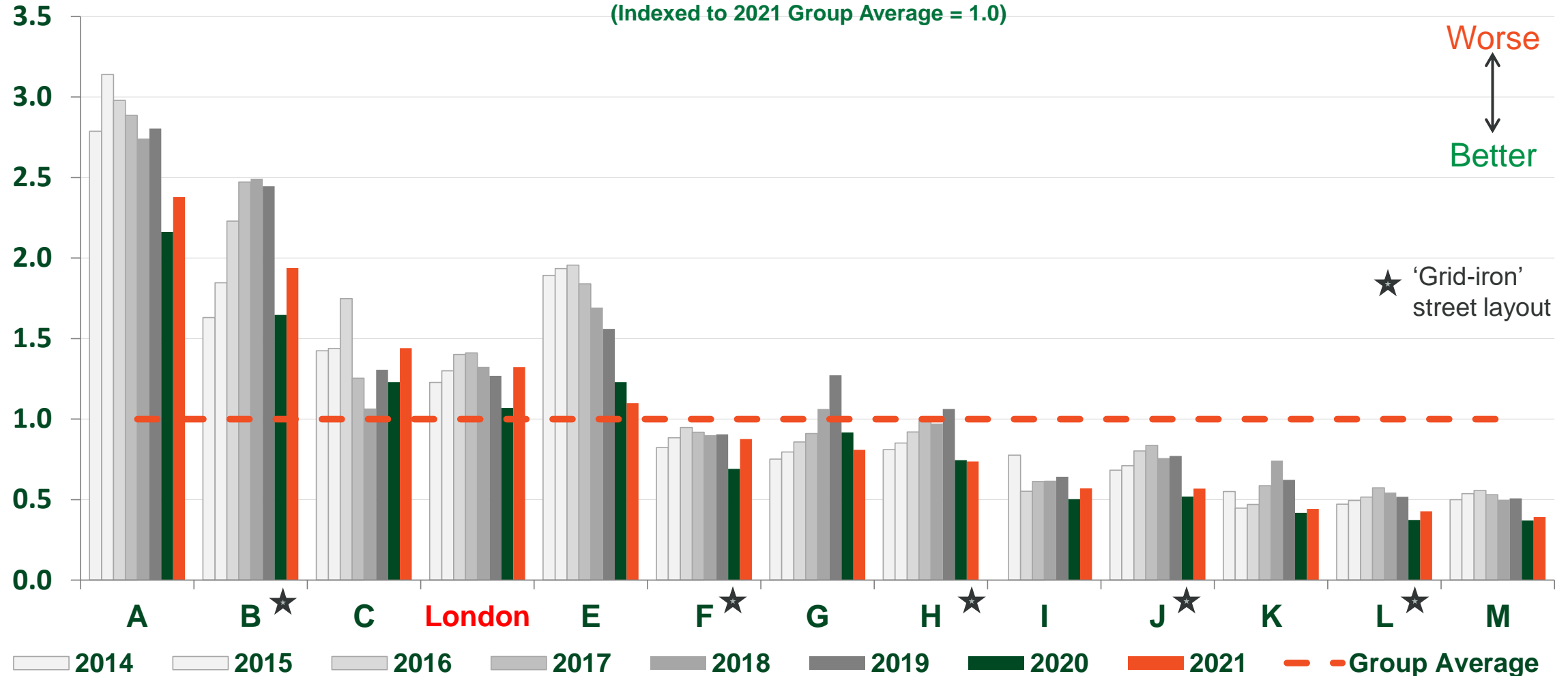
Note: data available for 12 of the 13 members

Collisions per Vehicle km



How does the collision rate compare?

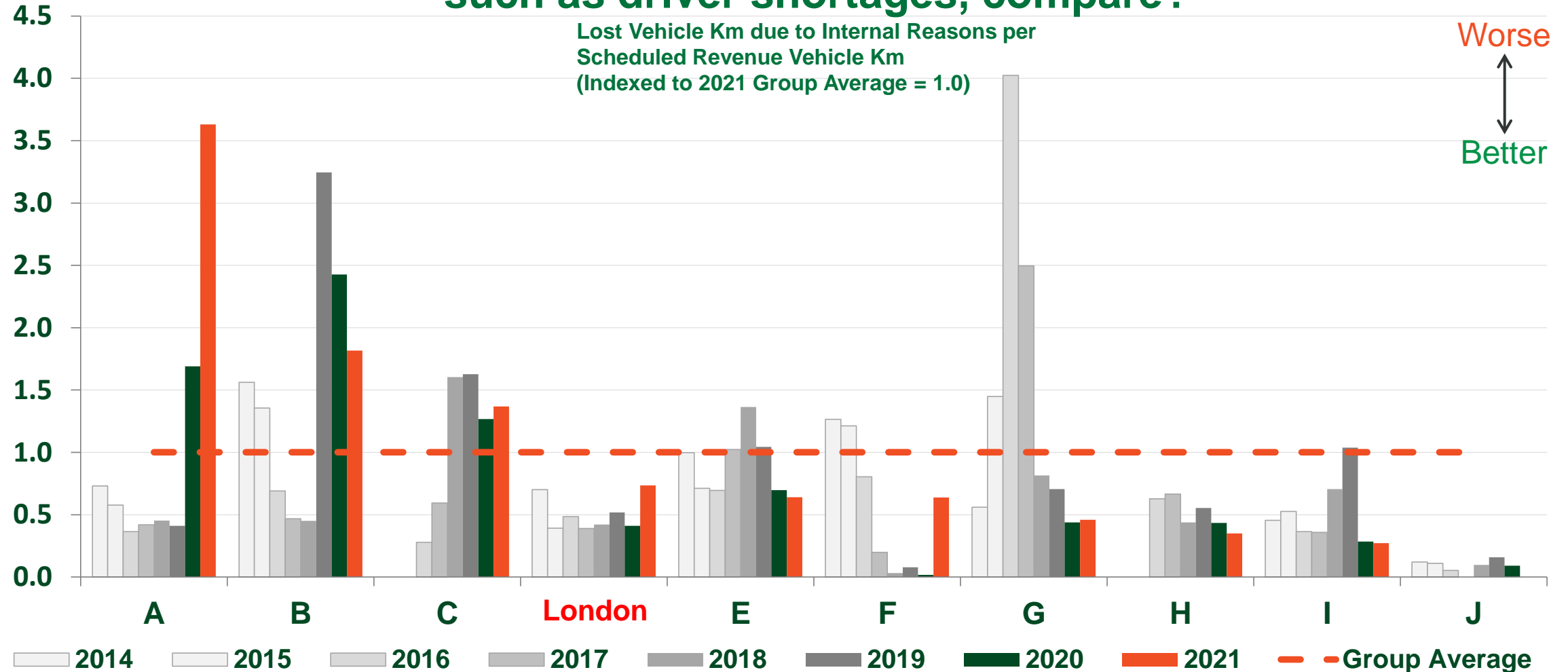
Number of Vehicle Collisions per 10,000
Actual Total Vehicle km
(Indexed to 2021 Group Average = 1.0)



Lost Vehicle Km (Internal Reasons)



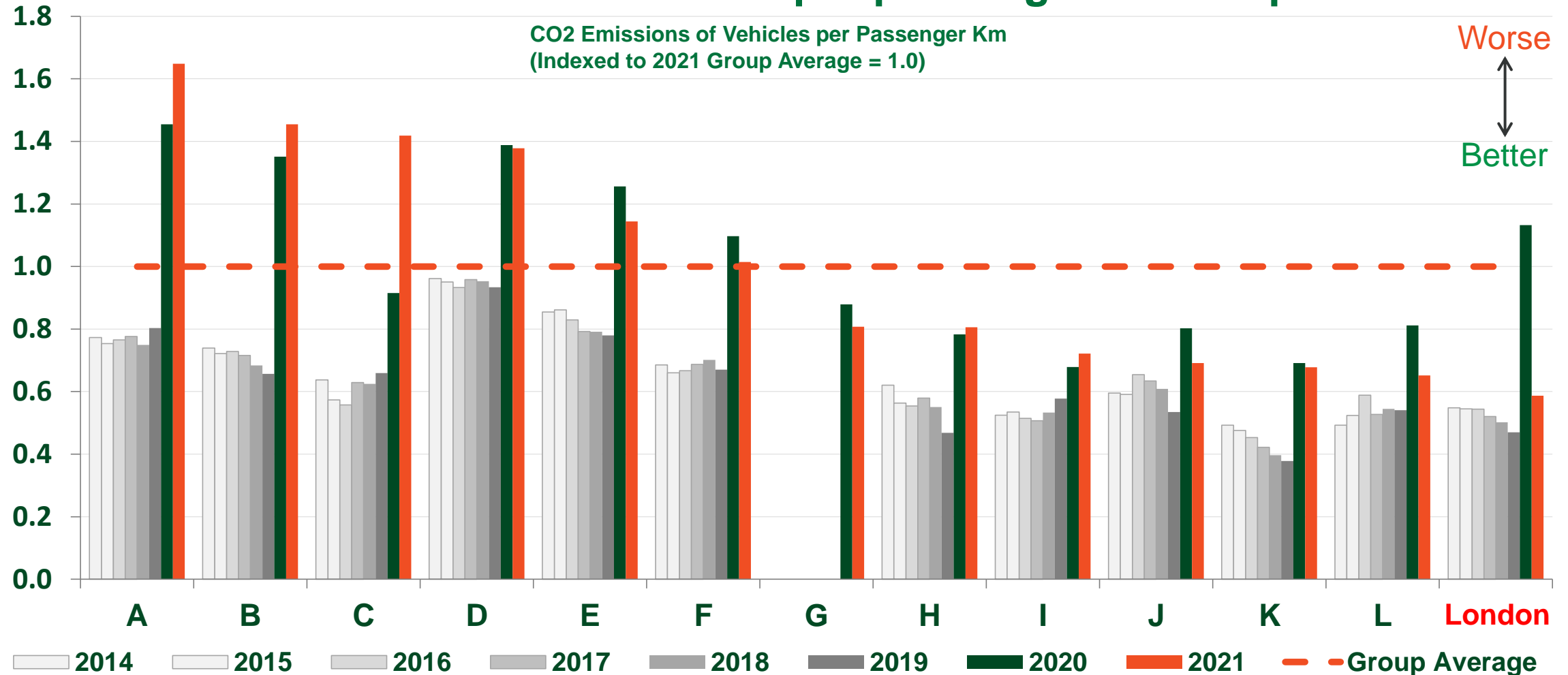
How does lost km due to internal reasons, such as driver shortages, compare?



CO2 per Passenger Km

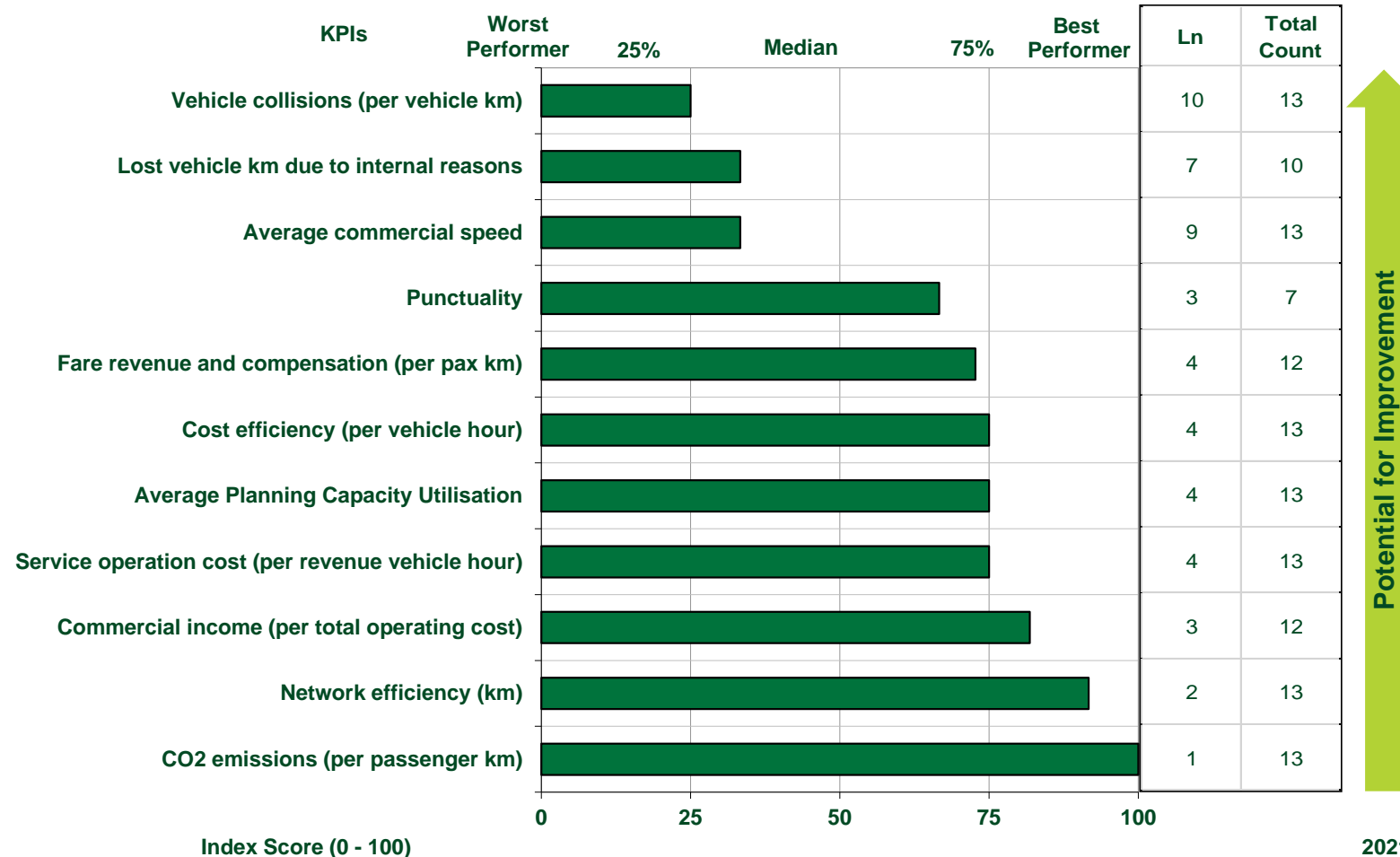


How does CO2 emissions per passenger km compare?



Performance Dashboard (absolute): How Does London Buses Rank Relative to Other Group Members on Several Dimensions in 2021?

► Relative performance of London Buses to other organisations in 2021



Concluding Comments: Pandemic Has Significant Impact on 2020 and 2021 Metrics, including for London Buses

- ▶ All organisations' performance for 2020 and 2021 has been severely impacted by the pandemic
 - Due to local differences in timing of Covid peak cases (and how these line up with reporting 'years'), and variety in adoption of pandemic measures and policy, 2020 performance is hard to compare.
 - Performance for 2021 however is significantly more comparable between bus organisations, but the performance level itself remains impacted by the pandemic.
- ▶ Commercial speed, a key driver for efficiency, increased during the pandemic due to reduced congestion and lower dwell times.
 - The 2021 speed level declined compared to 2020 speeds due to a return of traffic and ridership, however the 2021 speed is in line with the improving trend that was started in 2017
 - The pandemic situation showed the potential for increased commercial speed and related efficiency gains. It revealed the potential gains of investing in more bus priority and reducing road congestion.
 - More information on the benefits of bus priority infrastructure can be found in the IBBG report on "[The identification and management of bus priority schemes](#)"

Concluding Comments: Ridership Recovery and Capacity Utilisation

► Ridership recovery is good

- London Buses experienced longer periods of low ridership during the early pandemic period, and the 2nd wave in December 2020-February 2021 saw stronger ridership reductions than in other cities at that time.
- However, since the 2nd wave the pace of bus ridership recovery was stronger than in most cities and by December 2021, London Buses recovered to almost 72% of pre-COVID levels, which is above the IBBG group average of 67%.

► Service level and capacity utilisation improve but remain below pre-pandemic levels:

- Pandemic related staffing challenges resulted in an increased number of lost vehicle kilometres in 2021, however London Buses was able to maintain better than average service availability performance.
- London Buses' service levels were reinstated to near pre-pandemic levels since July 2020 in order to facilitate social distancing, and is at 97% of pre-pandemic levels in December 2021 which is similar to the IBBG average.
- With ridership recovery at 72% and service levels at 97% (in December 2021), the capacity utilisation remains lower than pre-pandemic levels, but a significant improvement (the strongest amongst peers) can be observed compared to December 2020.

Concluding Comments: Financial and Environmental Performance

► Good financial performance, despite pandemic challenges:

- London Buses' service operations cost per vehicle hour are at its lowest level since 2014 and remain the 4th lowest cost per vehicle hour amongst IBBG peers (20% below IBBG average).
- Fare related revenue per passenger kilometre is 4th highest amongst peers, 20% above IBBG average
- London buses now have the 3rd lowest subsidy requirement compared to other international peers (compared to 5th lowest in 2020), as a result of both reasonable revenue and relative low cost.

► Good environmental performance, best amongst peers in 2021:

- All members saw CO2 emissions per passenger km performance worsen since 2020 due to the reduced demand and social distancing requirements
- However, with a higher proportion of electric vehicles than most other IBBG members, a fairly young fleet and a comparatively strong ridership recovery, London Buses performed best amongst peers with regards to CO2 emissions per passenger km in 2021

Concluding Comments: Reducing Vehicle Collisions Remains a Focus Area for London Buses with Potential for Improvement

- ▶ Vehicle collisions increased to pre-pandemic levels and remain above the IBBG average
 - Vehicle collisions per vehicle kilometre reduced from 2017 to 2020, with 2020 seeing a significant reduction in collisions due to reduced traffic as a result of pandemic measures.
 - This effect of reduced collisions in 2020 was observed in all 13 IBBG member cities.
 - However in 2021, with traffic returning, the collision rate increased to pre-pandemic levels
 - This effect of increased collisions in 2021 was observed in 10 out of 13 IBBG member cities, however the relative increase in London was stronger than in other cities.
 - The latter was observed in London more widely*, with also other road user collisions (car, taxi, motorcycle etc) increasing significantly compared to 2020.
 - London Buses has established a bus safety programme: <https://tfl.gov.uk/corporate/safety-and-security/road-safety/bus-safety> which was partly informed on lessons learned through the IBBG.
 - Most IBBG cities, including London, have signed up to Vision Zero, e.g. working towards zero fatalities and serious injuries on the road.
 - The IBBG continues work on increased comparability and understanding of safety data and continues to benchmark safety programs and policies to help improve safety in all IBBG member cities to achieve the Vision Zero targets.

* source: <https://content.tfl.gov.uk/casualties-in-greater-london-2021.pdf>