International Bus Benchmarking Group

The Performance of London Buses Compared to Other World Cities

IBBG Phase 2021/2022

(2020 data summary)

Imperial College London Projects

TSC > Transport Strategy Centre

Thirteen Bus Benchmarking Group Member Cities; Seven Operators in the IBBG for 18 Years Now

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KPI Structure: Balanced Scorecard Approach

Key topics to measure how organisations perform against each other:

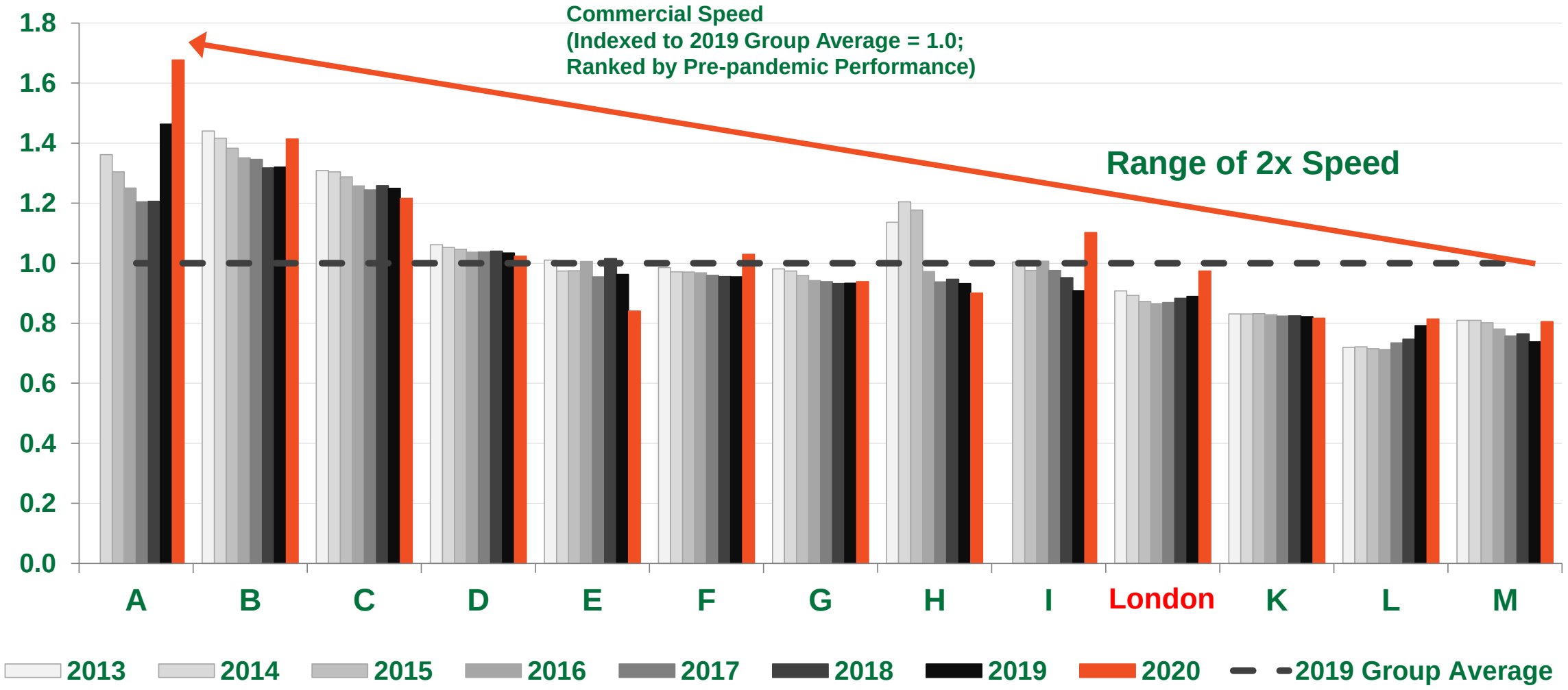
Note: organisations' performance for 2020 has been severely impacted by the pandemic.

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 performance is hard to compare.

Performance is therefore ranked on 2019 values

Commercial Speed is a Key Driver of Performance

2020: faster speeds due to pandemic, in contrast to prior decreasing speed trends worldwide



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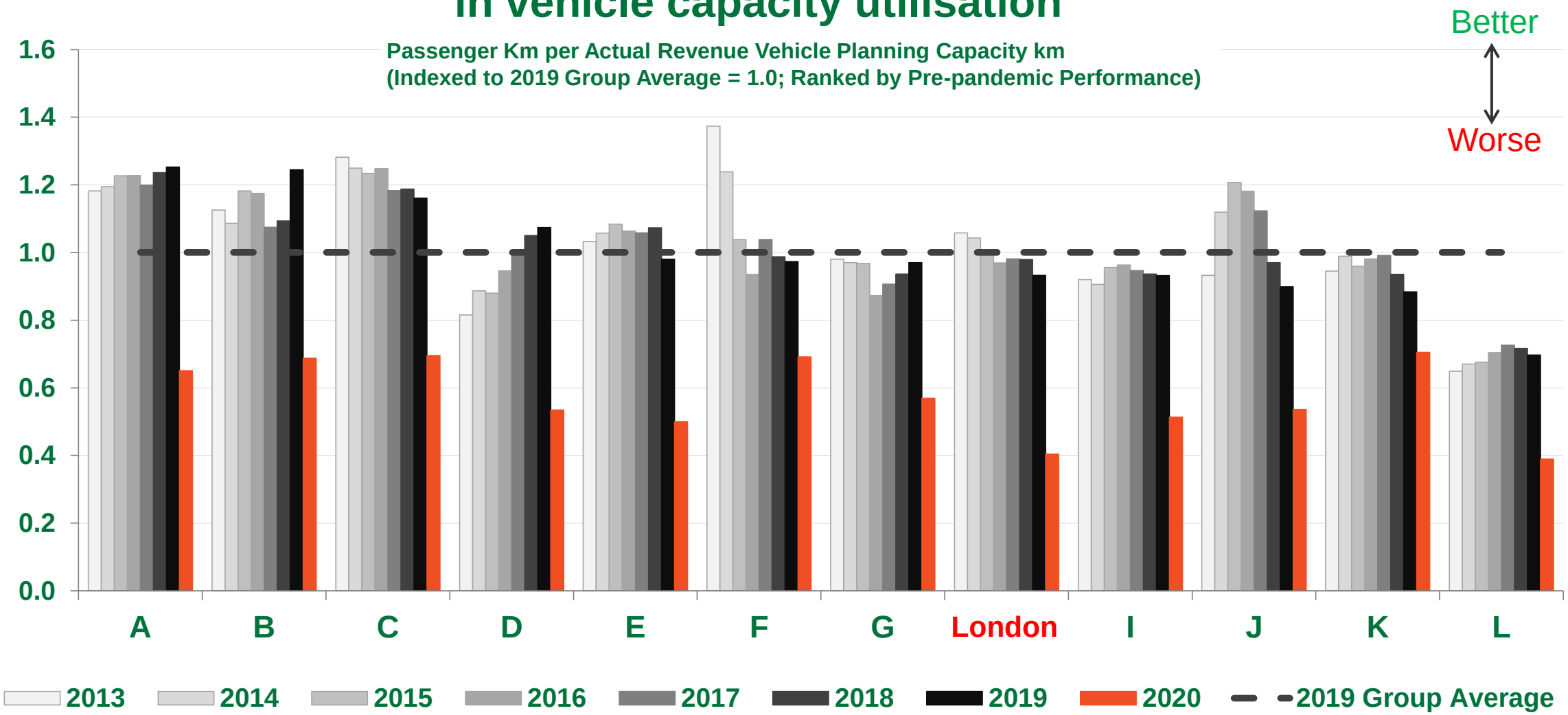
Vehicle Capacity Filled by Passengers

Reduced ridership and social distancing measures lead to drop in vehicle capacity utilisation



Note: data available for 12 of the 13 members

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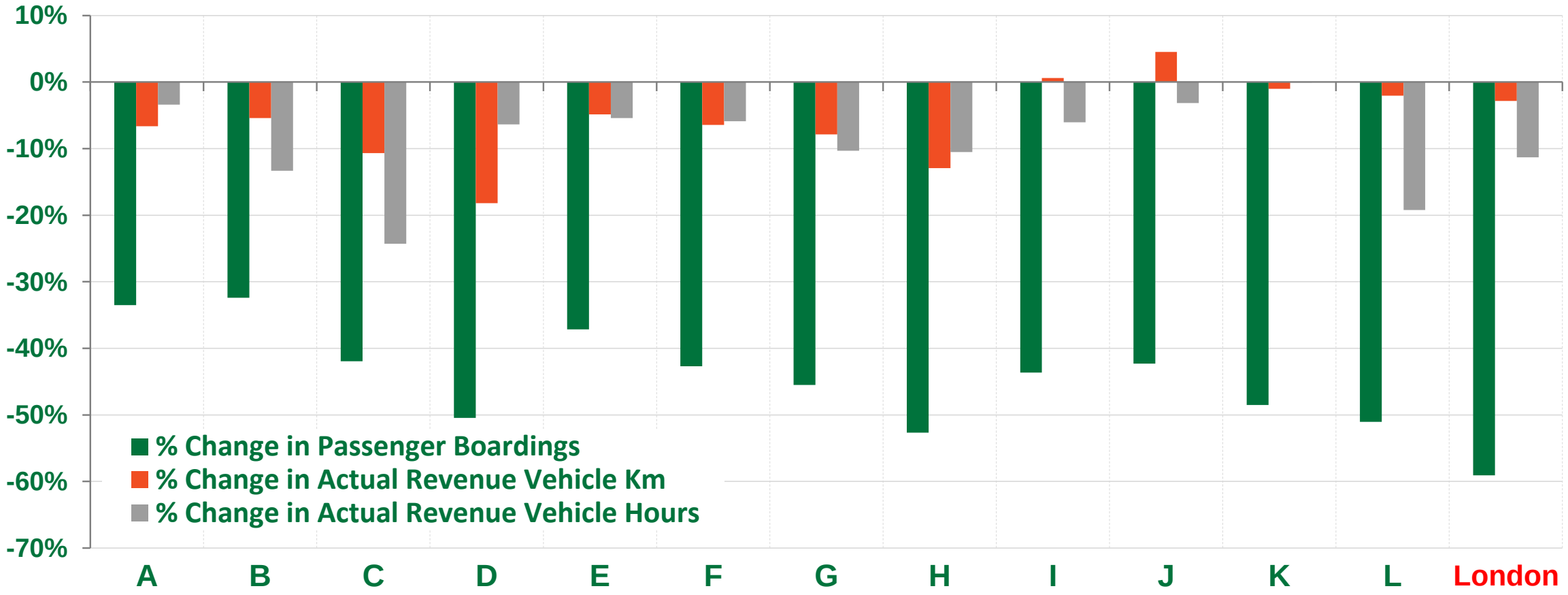
Pandemic Impact: % Change in Passenger Boardings and Vehicle Kilometres (2019-2020, 1 year change)

Passenger Boardings, Actual Revenue Vehicle km and Actual Revenue Vehicle Hours (% Change for 2020 vs. 2019)



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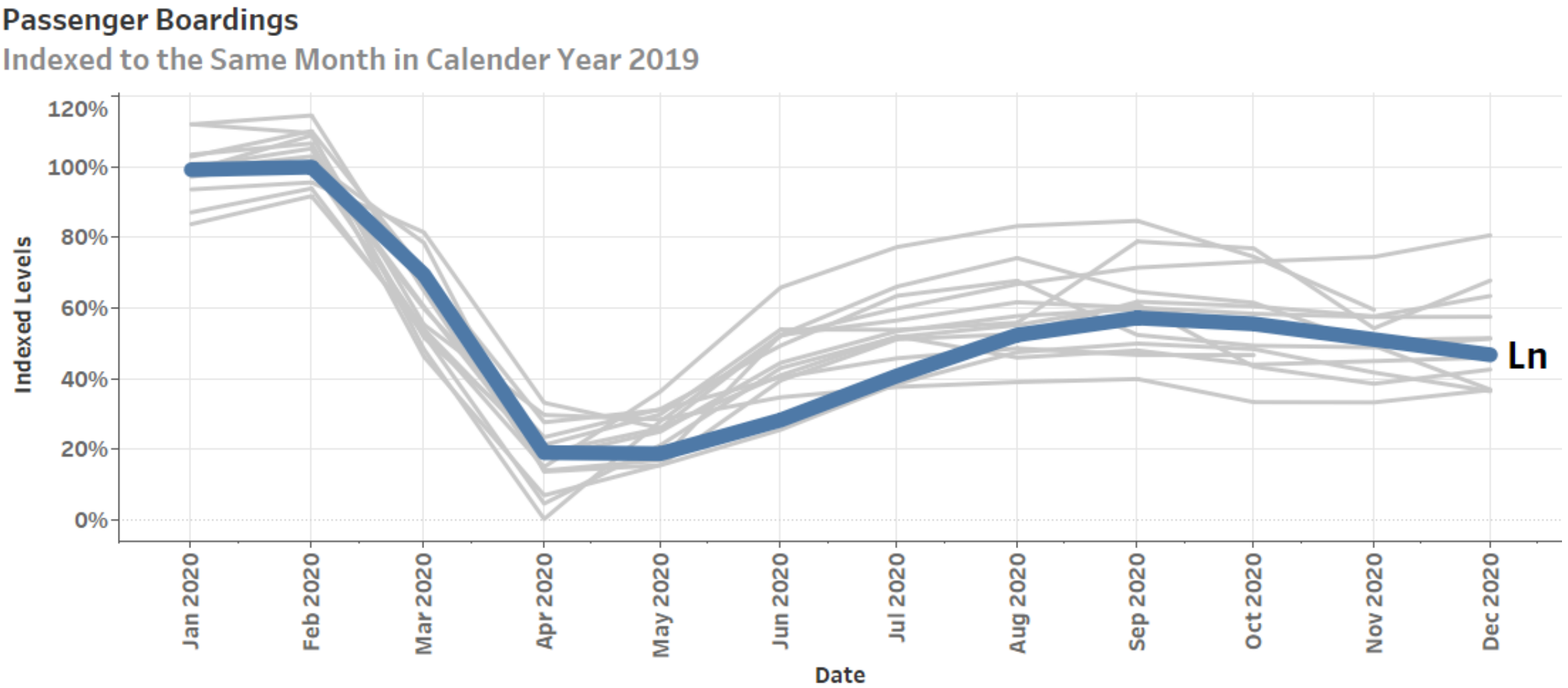
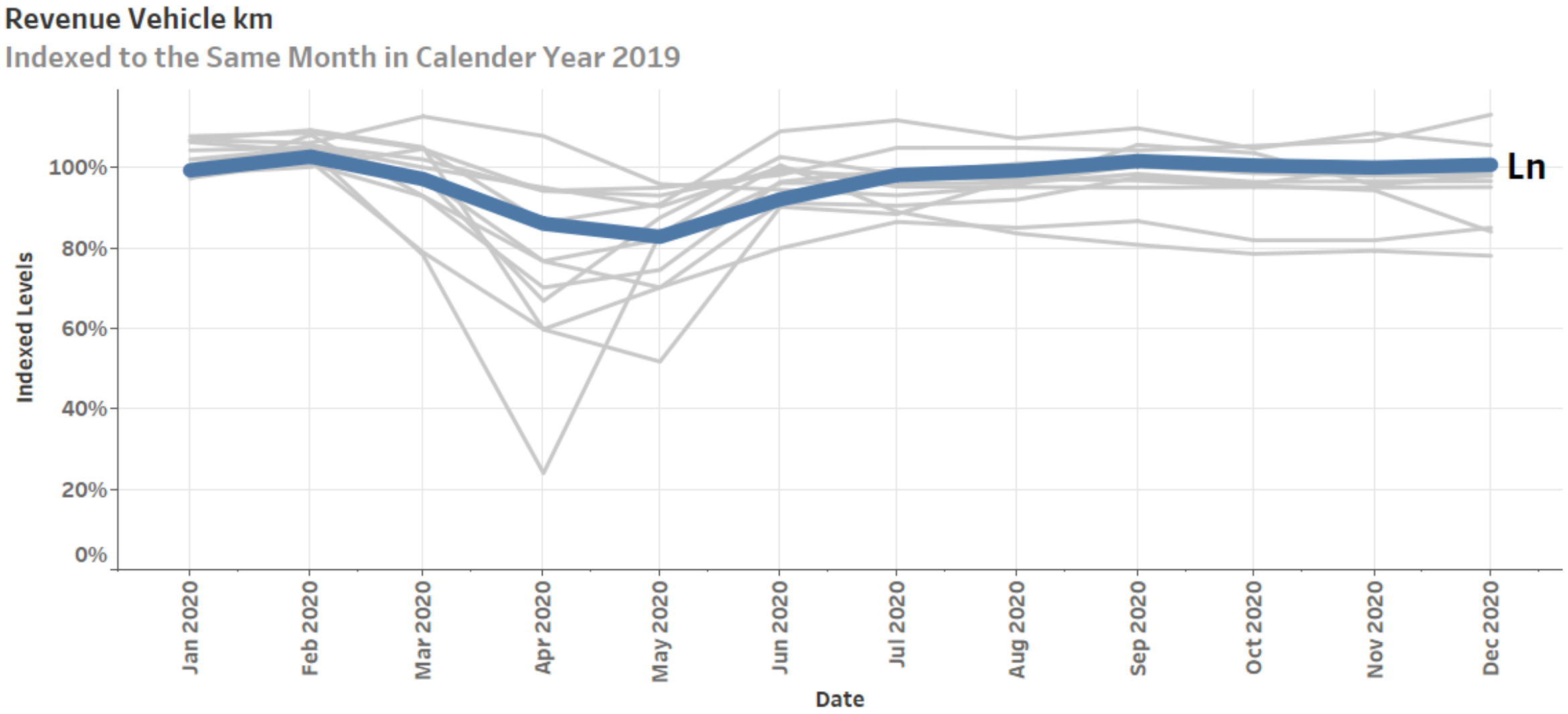
Impact of COVID-19 Pandemic on Bus Patronage – 2020



Note: mid-April to mid-June 2020 is estimated usage due to middle door boarding policy

Change in Bus Service During the COVID-19 Pandemic - 2020



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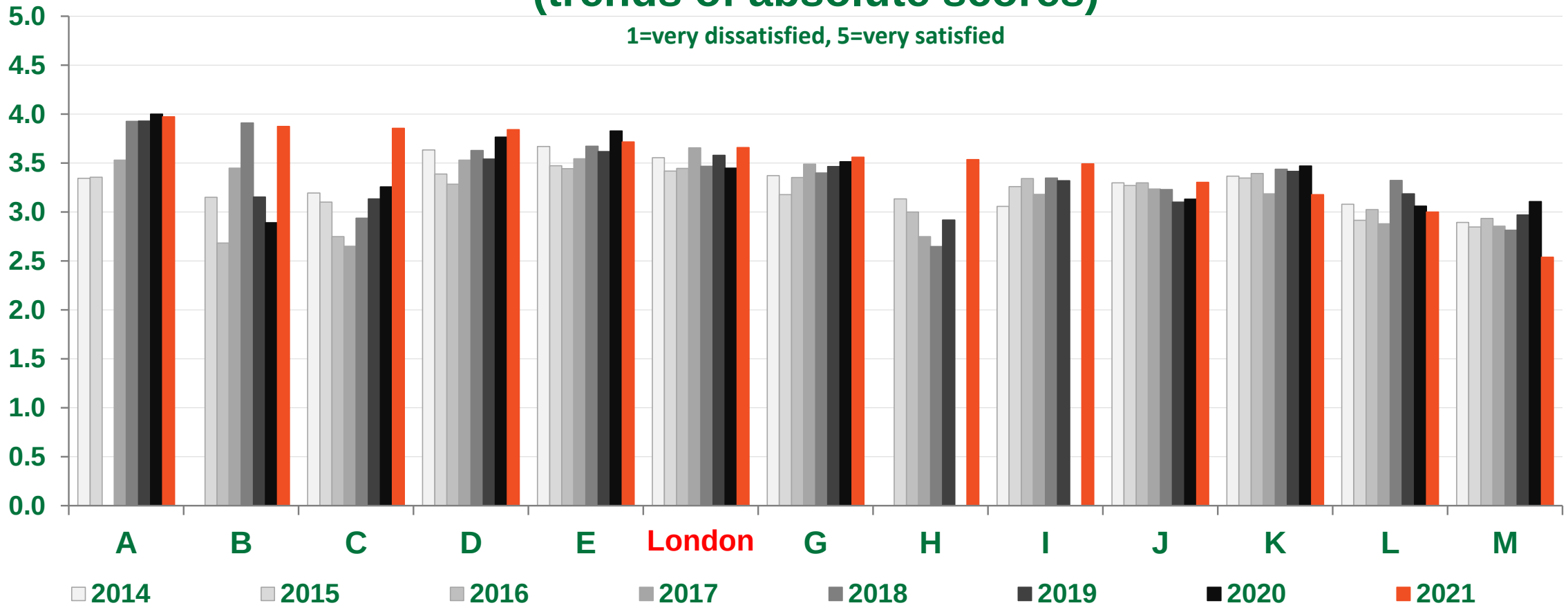
Customer Satisfaction

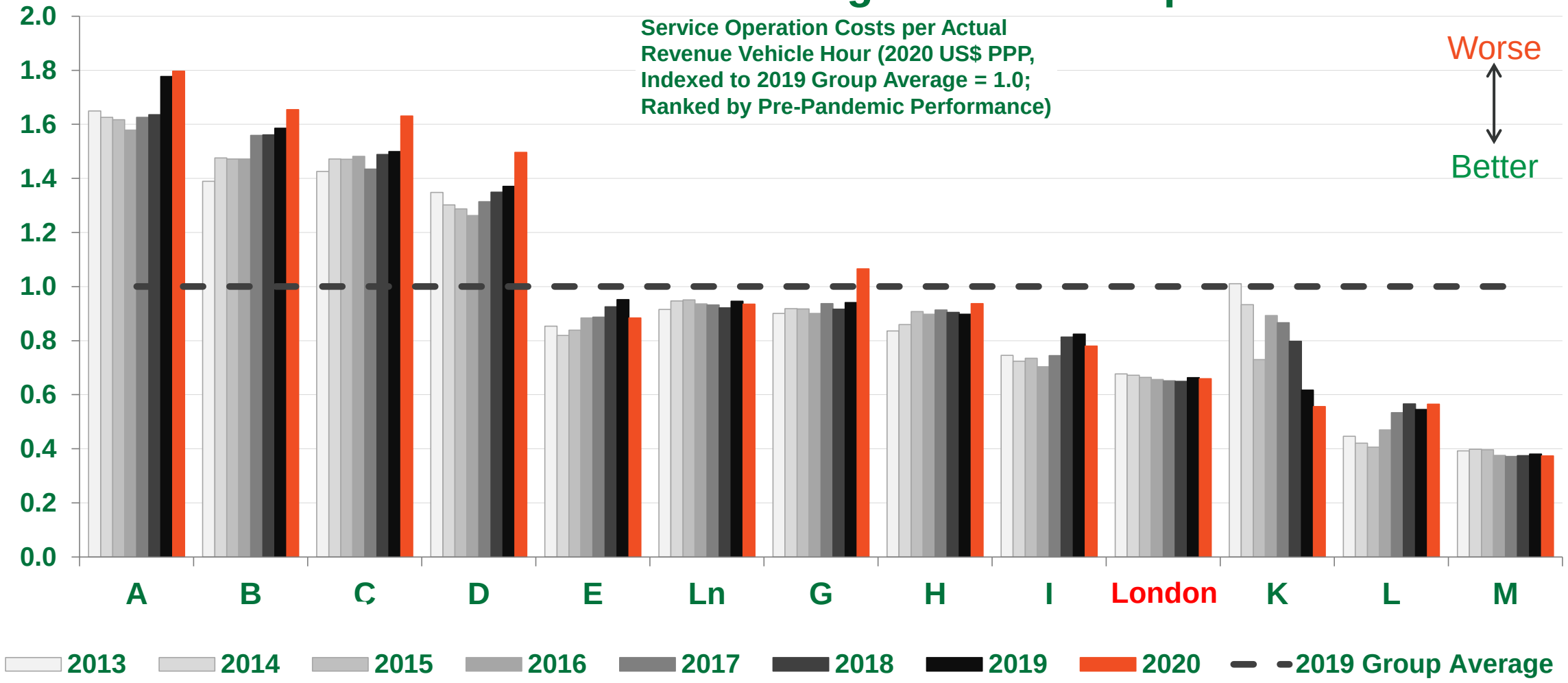
How satisfied are customers with their bus services? (trends of absolute scores)



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

Financial Efficiency: Cost per Vehicle Hour

How do costs of running services compare?



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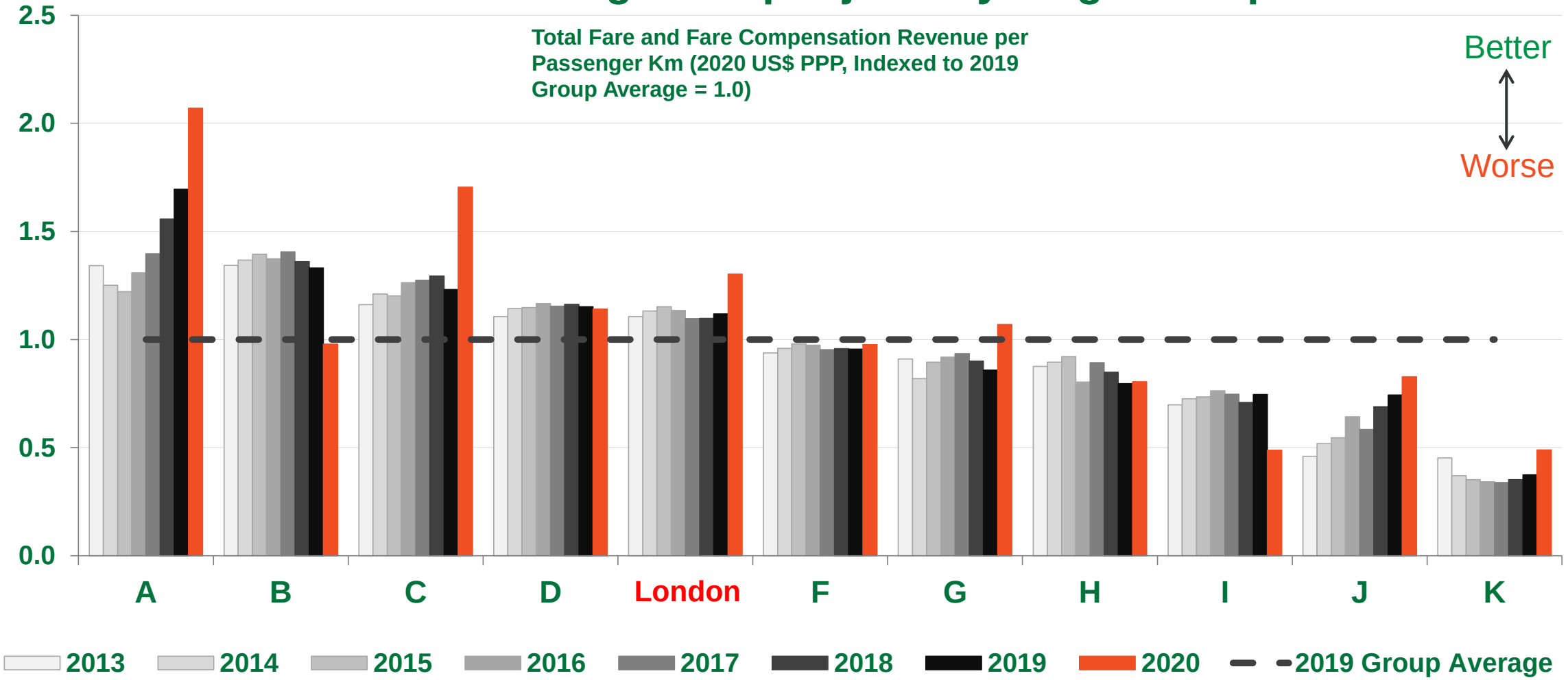
Fares: Balancing Affordability and Cost Recovery
**comparability impacted by pandemic fare policy, and fare support differences*

How does the average fare per journey length compare?



Note: data available for 11 of the 13 members

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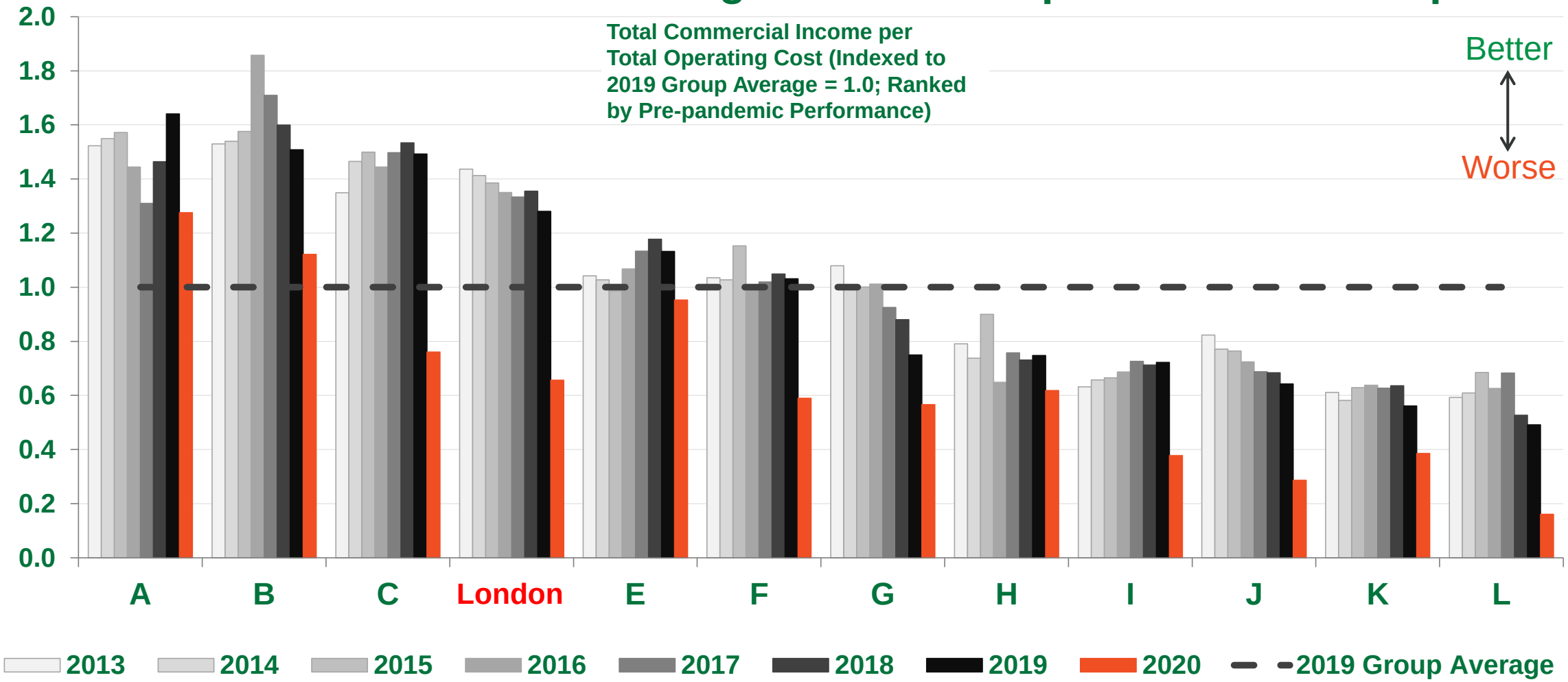
Commercial Recovery Ratio

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



Note: data available for 12 of the 13 members

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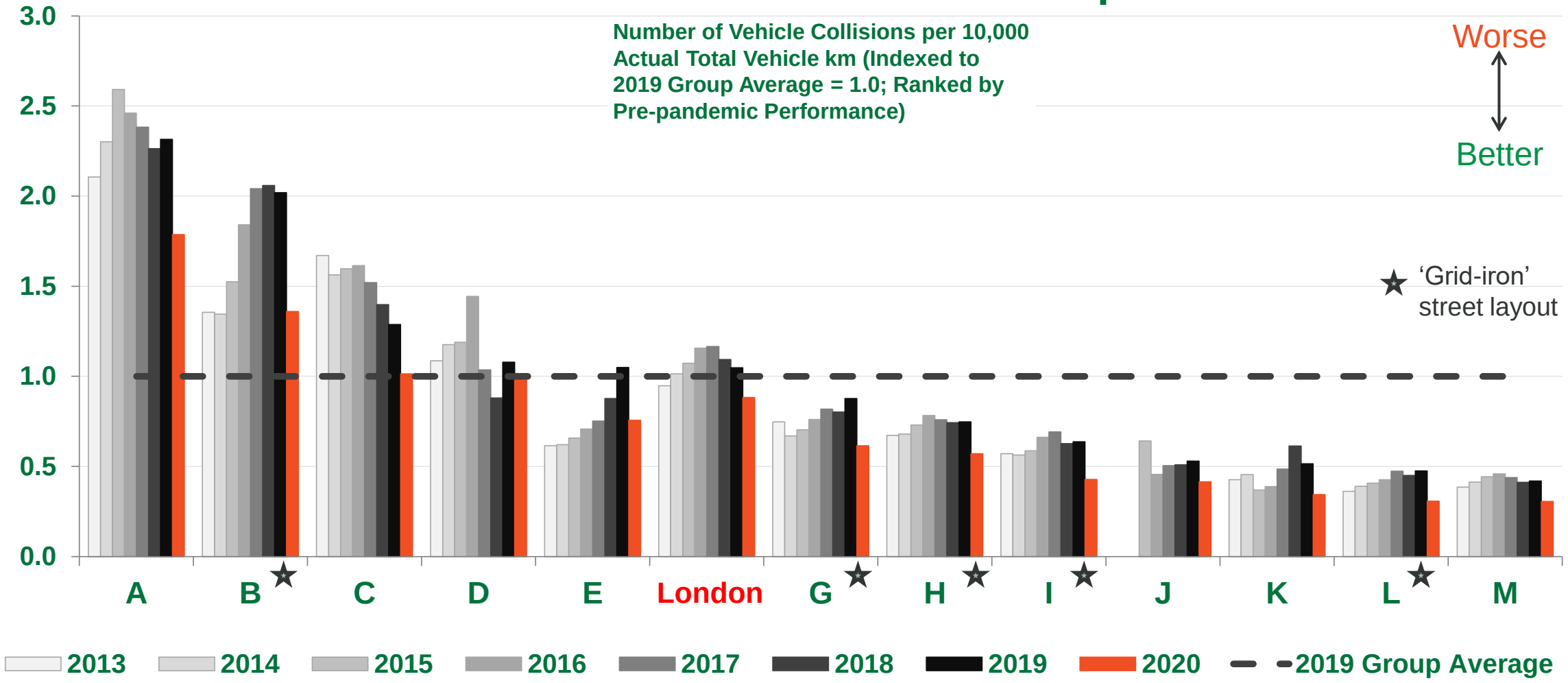
Collisions per Vehicle km

How does the collision rate compare?



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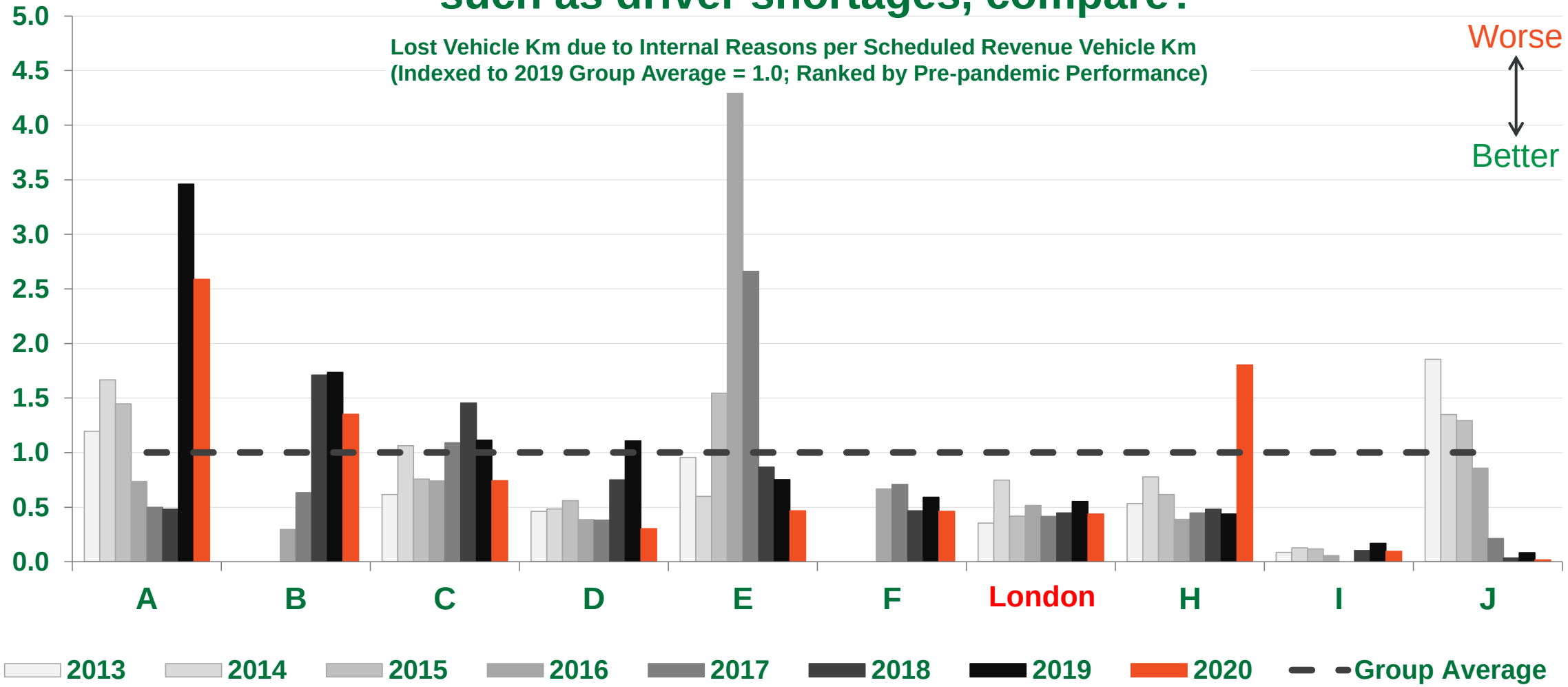
Lost Vehicle Km (Internal Reasons)

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



Note: data available for 10 of the 13 members

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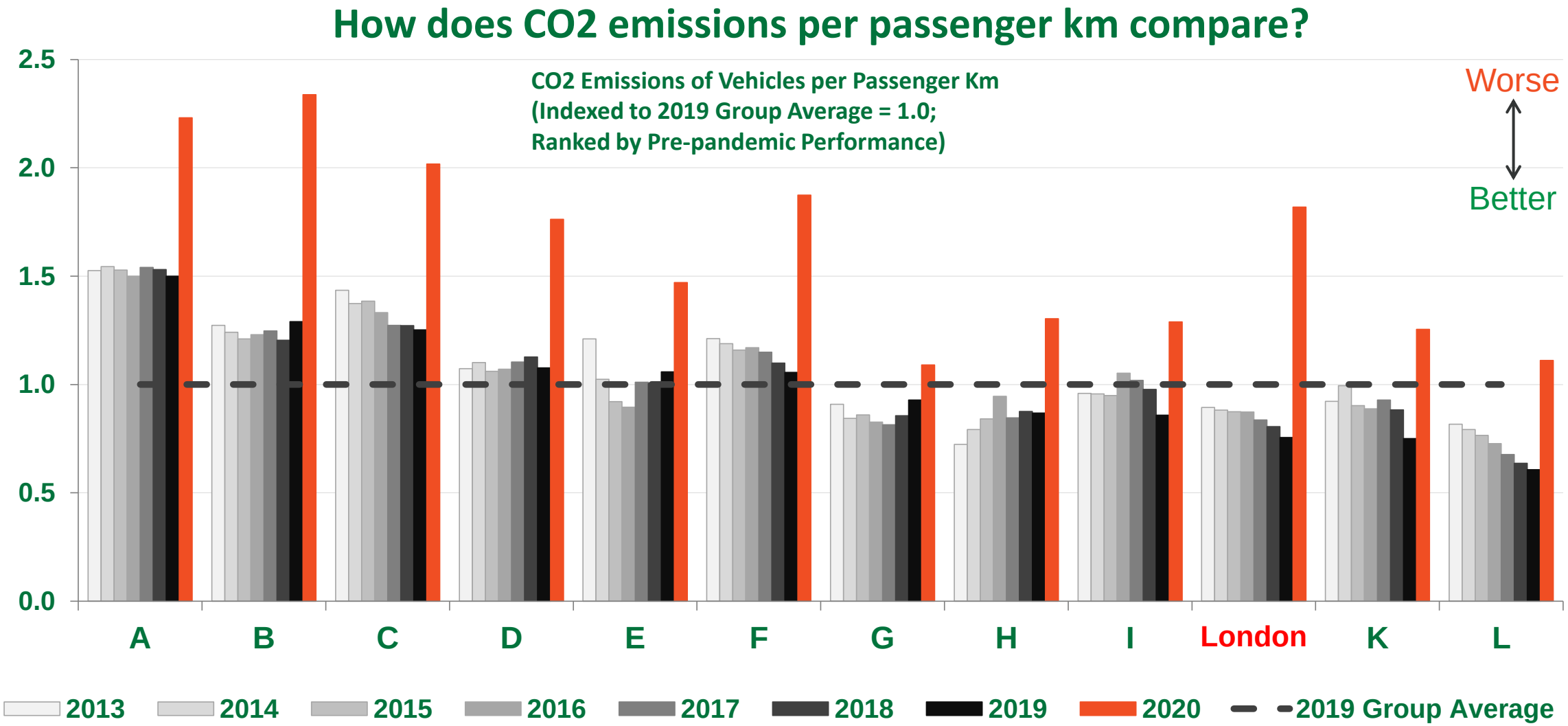
CO2 per Passenger Km



Note: data available for 12 of the 13 members

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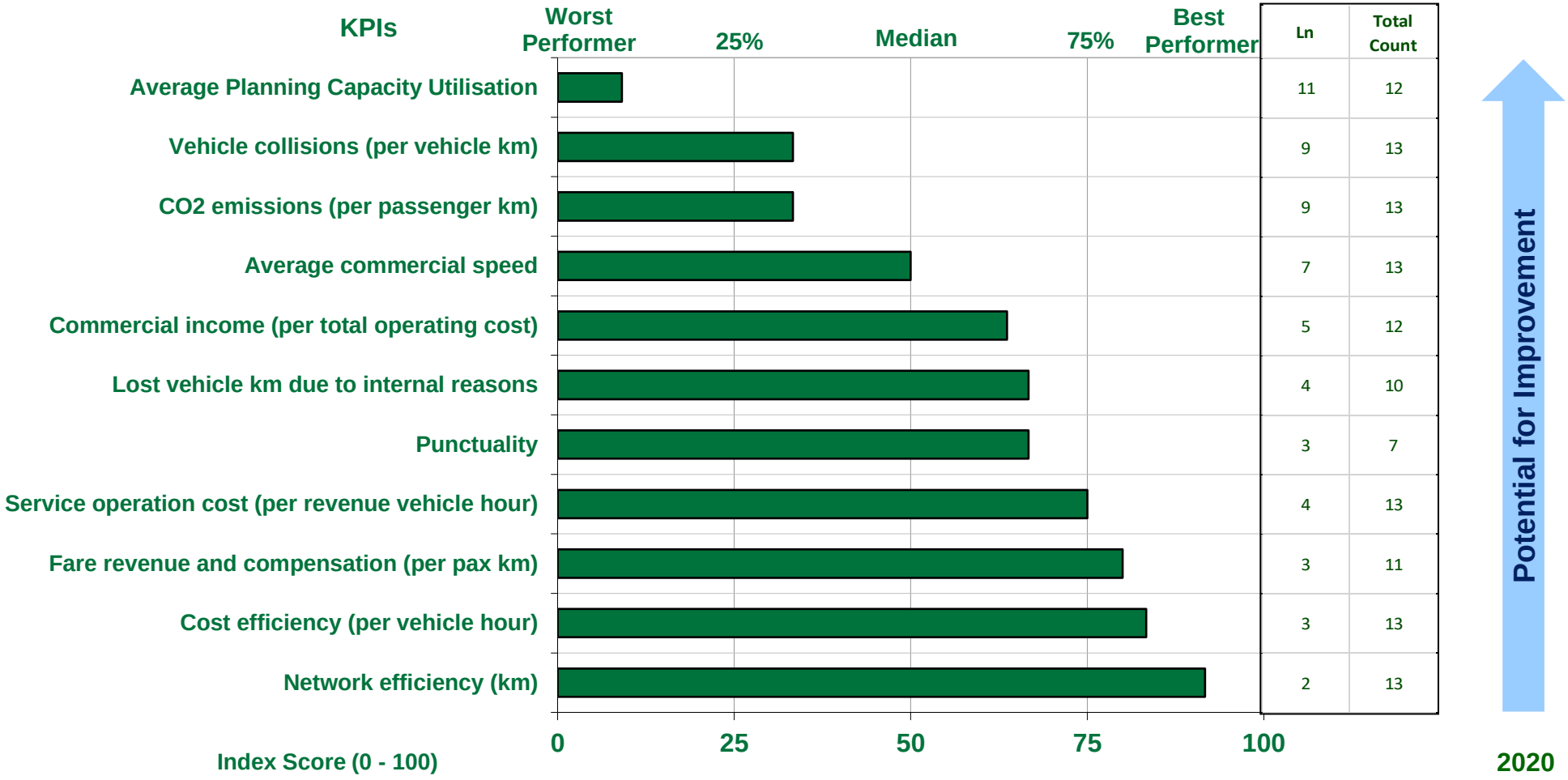
Performance Dashboard (absolute): How Does London Buses Rank Relative to Other Group Members on Several Dimensions in 2020?

- **During the Pandemic**. Relative performance of London Buses to other organisations, but due to variety in pandemic measures organisations are difficult to compare



Concluding comments: Pandemic Has Significant Impact on 2020 Metrics, including for London Buses

- All organisations' performance for 2020 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
  - Due to middle door only boarding in mid-April to mid-June 2020, total ridership for London Buses for those months are estimated

- Commercial speed, a key driver for efficiency, increased during the pandemic due to reduced congestion and lower dwell times.
  - 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.

- Ridership recovery levels
  - London Buses experienced longer periods of low ridership during the early pandemic period
  - By September 2020, London Buses recovered to almost 60% of pre-COVID levels, which is around the IBBG group average

Concluding comments: Pandemic Has Significant Impact on 2020 Metrics, including for London Buses (2)

- Low Ridership and Hence Low Asset Utilisation but Good Availability:
  - Buses were significantly less occupied during the pandemic due to reduced demand and capacity restrictions; however, the latter was necessary to ensure social distancing
  - London Buses, like most members, quickly returned to full service after the initial pandemic period in order to facilitate social distancing
  - London Buses was able to maintain service availability performance (e.g. low lost vehicle kilometres) despite the pandemic-related staffing challenges

- Challenging financial period due to the pandemic:
  - Service operating cost per revenue hour increased in 2020 as can also be observed for many other members
    - This was expected given the fixed staffing costs and the reduction in service during the early pandemic period
  - London Buses still has the 4th lowest cost per vehicle hour and in 2020 the 5th lowest subsidy requirement compared to other international peers (compared to 4th lowest in 2019)

Concluding comments: London Buses Show Large Impact on Metrics due to COVID-19 but Changes Match Group Trends (3)

- Good continuous improvement in environmental performance until 2019, but performance in 2020 significantly impacted by the pandemic:
  - Overall carbon emissions are similar for 2020;
  - However, all members saw CO2 emissions per passenger km performance worsen in 2020 due to the reduced demand and social distancing requirements

- Vehicle collisions further reduced, but more opportunity for improvement
  - 2020 saw continued reductions in collisions/km, a 24% drop compared to 2017 levels, even though commercial speeds increased.
    - Generally lower vehicle collisions rates world-wide rates due to lower overall traffic levels
  - 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.
  - Safety is a key focus area for IBBG Members, including London Buses. 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.