A Year with No Passengers

How COVID Impacted Rail Transit

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CENTRE >

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Projects

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The TSC Works Across Five+ Modes Through Nine Different Benchmarking Groups

► **Unparalleled experience and insight into how metros can be most successful for the long-term**

► **More than 25 years of public transport benchmarking across >100 providers globally**
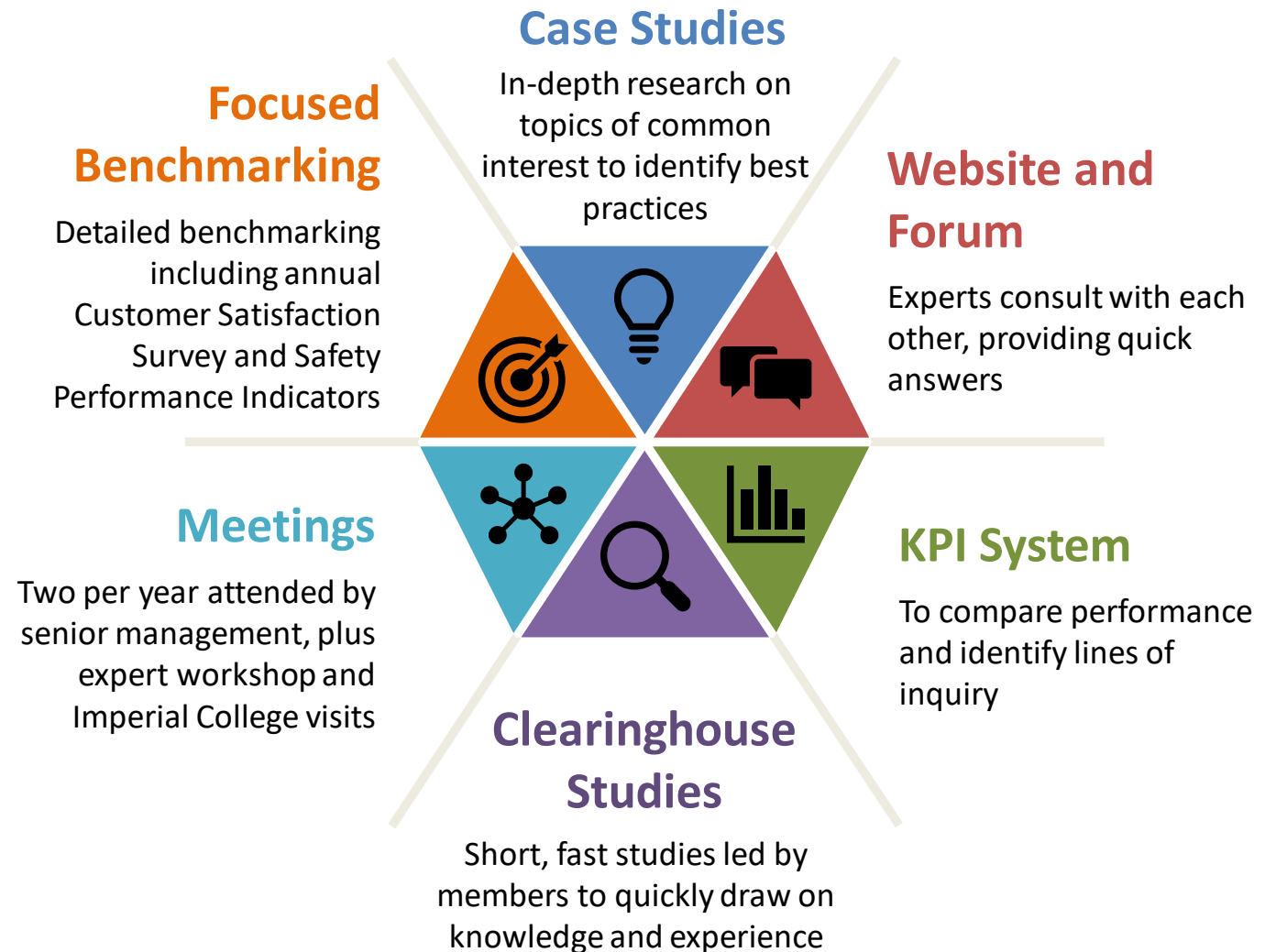
COMET Community of Metros

IBBG

ABBG

ISBERG
RIAMBIG
IMRBG
FLIRT

GOAL

ABG

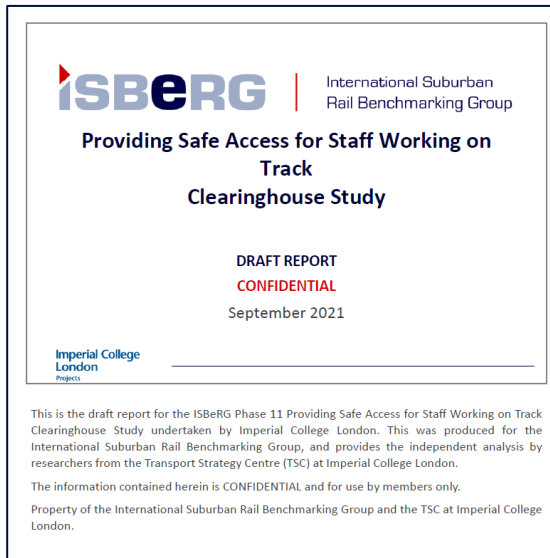# The Transport Strategy Centre is a Think Tank that Facilitates Benchmarking Across 30 Countries and Multiple Modes

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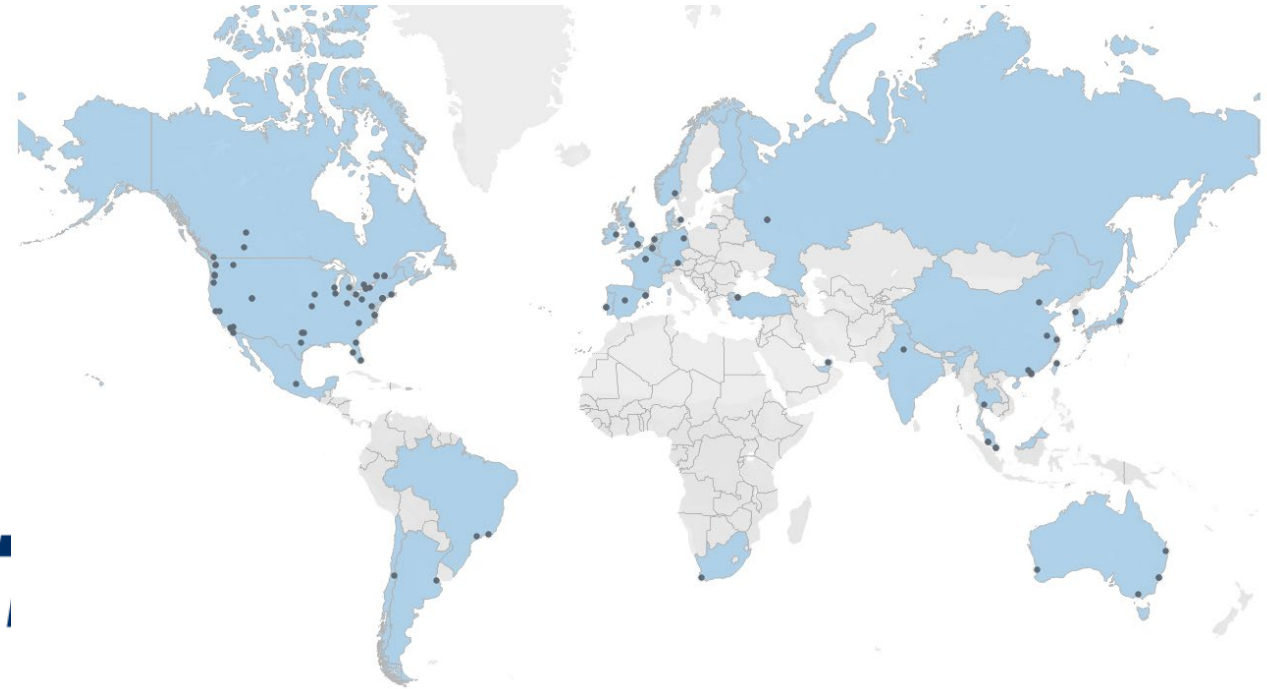
Benchmarking is a Structured Approach to Understanding Performance

▶ Comparing performance through data

▶ Sharing best practices via studies, meetings and forums

Focused Benchmarking

Detailed benchmarking including annual Customer Satisfaction Survey and Safety Performance Indicators

Case Studies

In-depth research on topics of common interest to identify best practices

Website and Forum

Experts consult with each other, providing quick answers

Meetings

Two per year attended by senior management, plus expert workshop and Imperial College visits

Clearinghouse Studies

Short, fast studies led by members to quickly draw on knowledge and experience

KPI System

To compare performance and identify lines of inquiry

Mixed Sources of Data in This Presentation

GLOBAL BENCHMARKING GROUPS

Some data shown is from the CoMET/ISBeRG and ABBG/IBBG Benchmarking Groups, covering transit operators across the globe.

GOAL BENCHMARKING GROUP

Some data shown is from the GOAL Light Rail Benchmarking Group, covering 14 light rail operators in the US and Canada.

FTA NATIONAL TRANSIT DATABASE

Some data is shown from the FTA's National Transit database and covers all transit agencies in the USA.

Benchmarking data is presented anonymously consistent with group protocols

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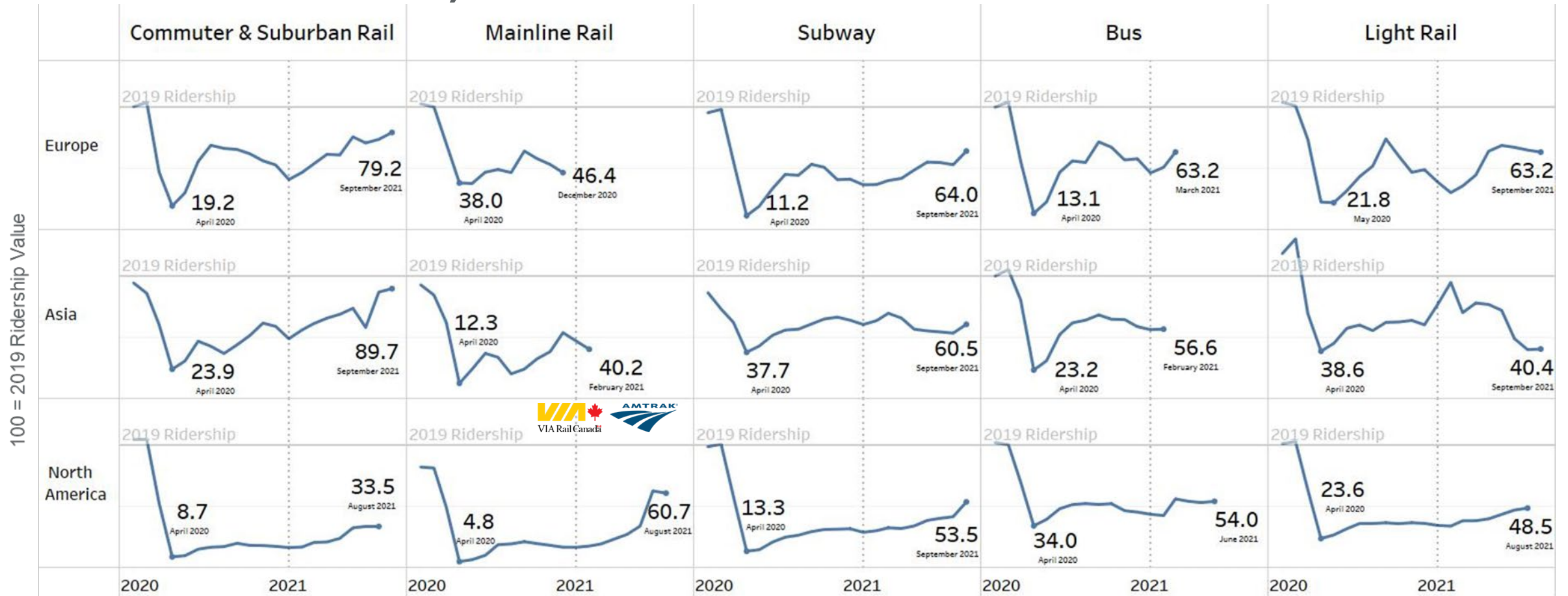
We Have Heard the High Level Issues Multiple Times

Ridership is down

Service is down

Finances are in trouble

What else happened?
What happened to crowding levels, service quality, fare revenues and labor efficiency

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Global Ridership – North America Has Recovered the Least (of the Data We Have)
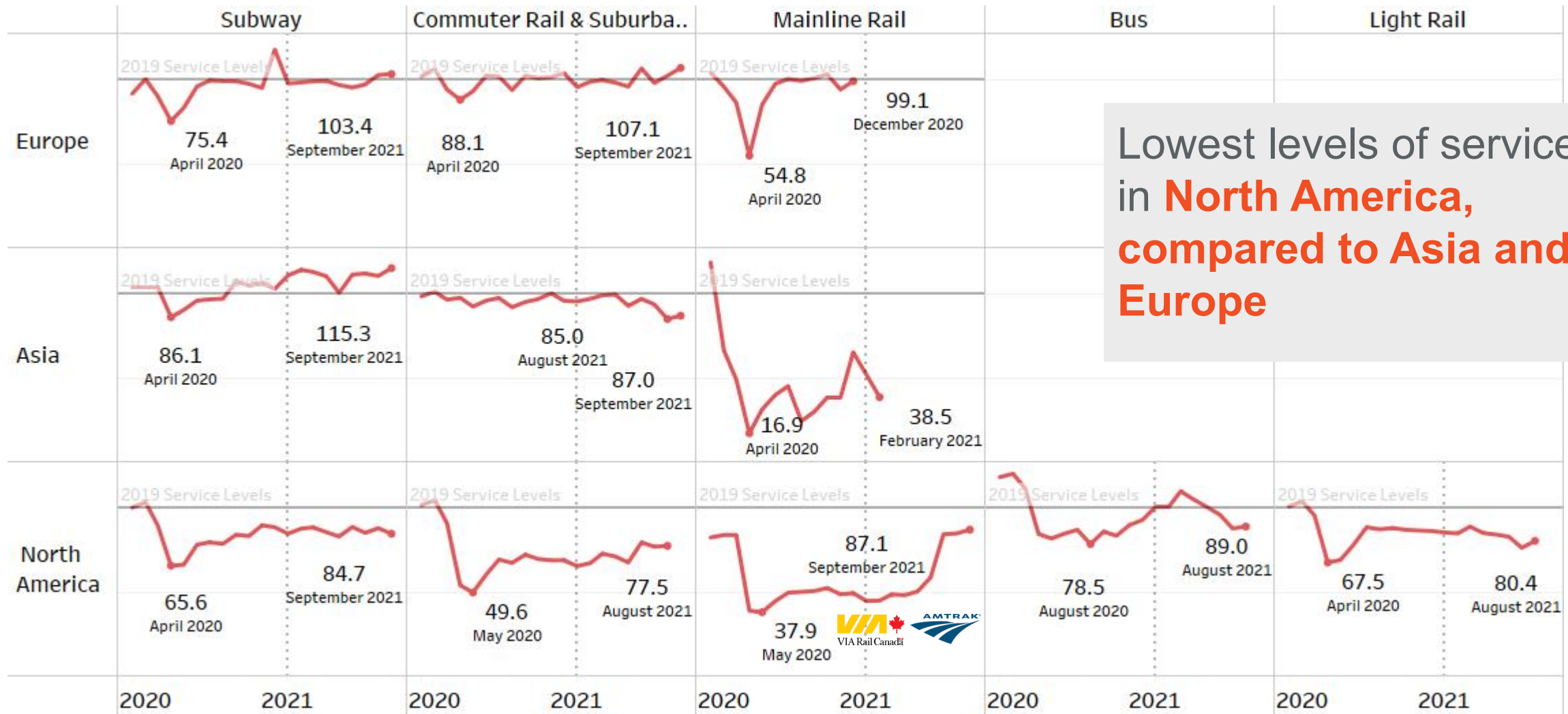

North America transit between **35 and 54 percent** of pre-COVID demand currently

Europe at **46 – 75 percent of pre-COVID demand** (some UK places reaching 80+% for fall)

Asia between **40 – 89% of pre-COVID demand**, falling with current wave

Global Service Levels Have Mostly Stayed Constant (to Aid in Social Distancing)
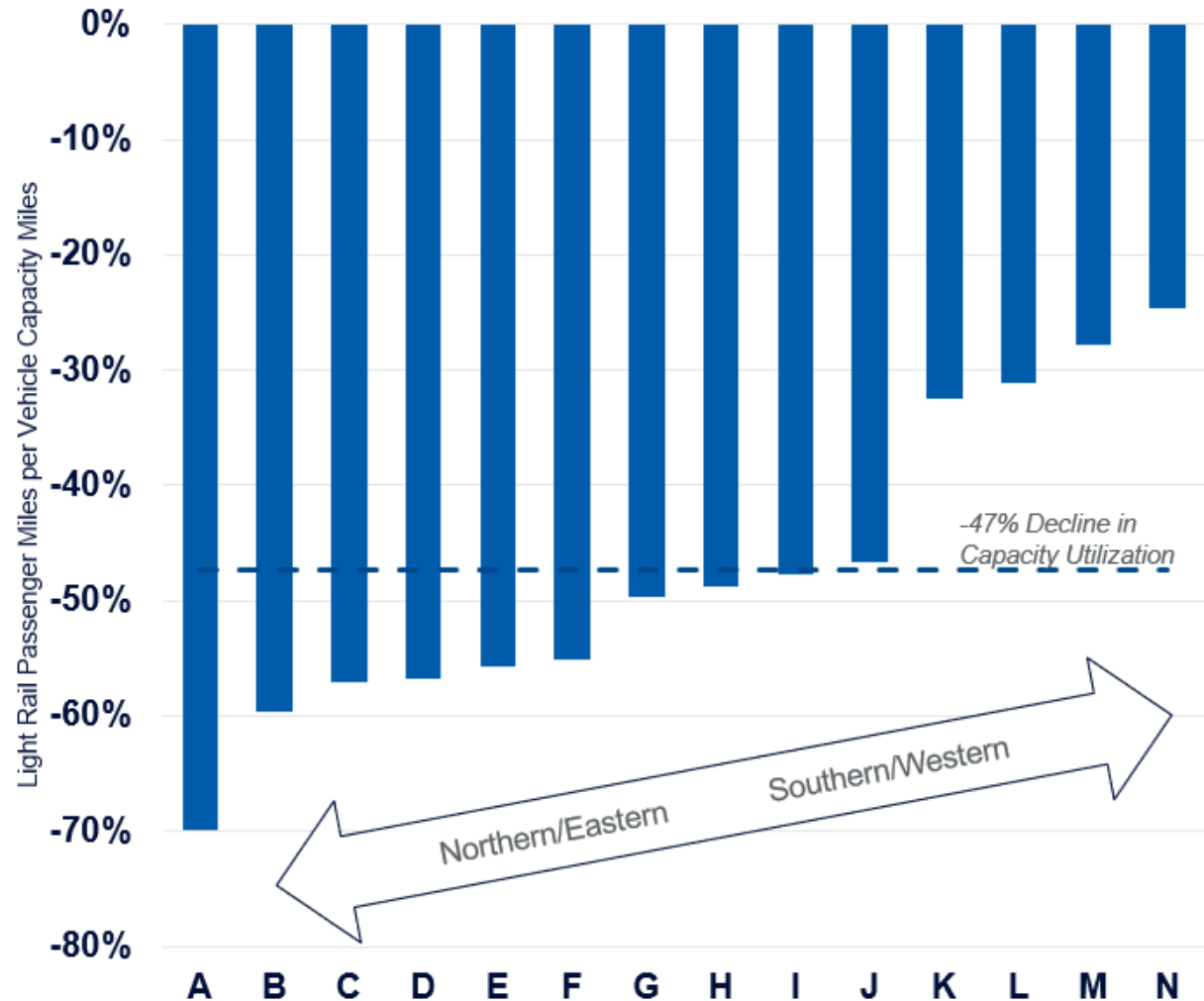

Lowest levels of service in **North America, compared to Asia and Europe**

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Comparing Ridership and Service Levels, Can Estimate Change in Crowding (Capacity Utilization) for Light Rail Agencies
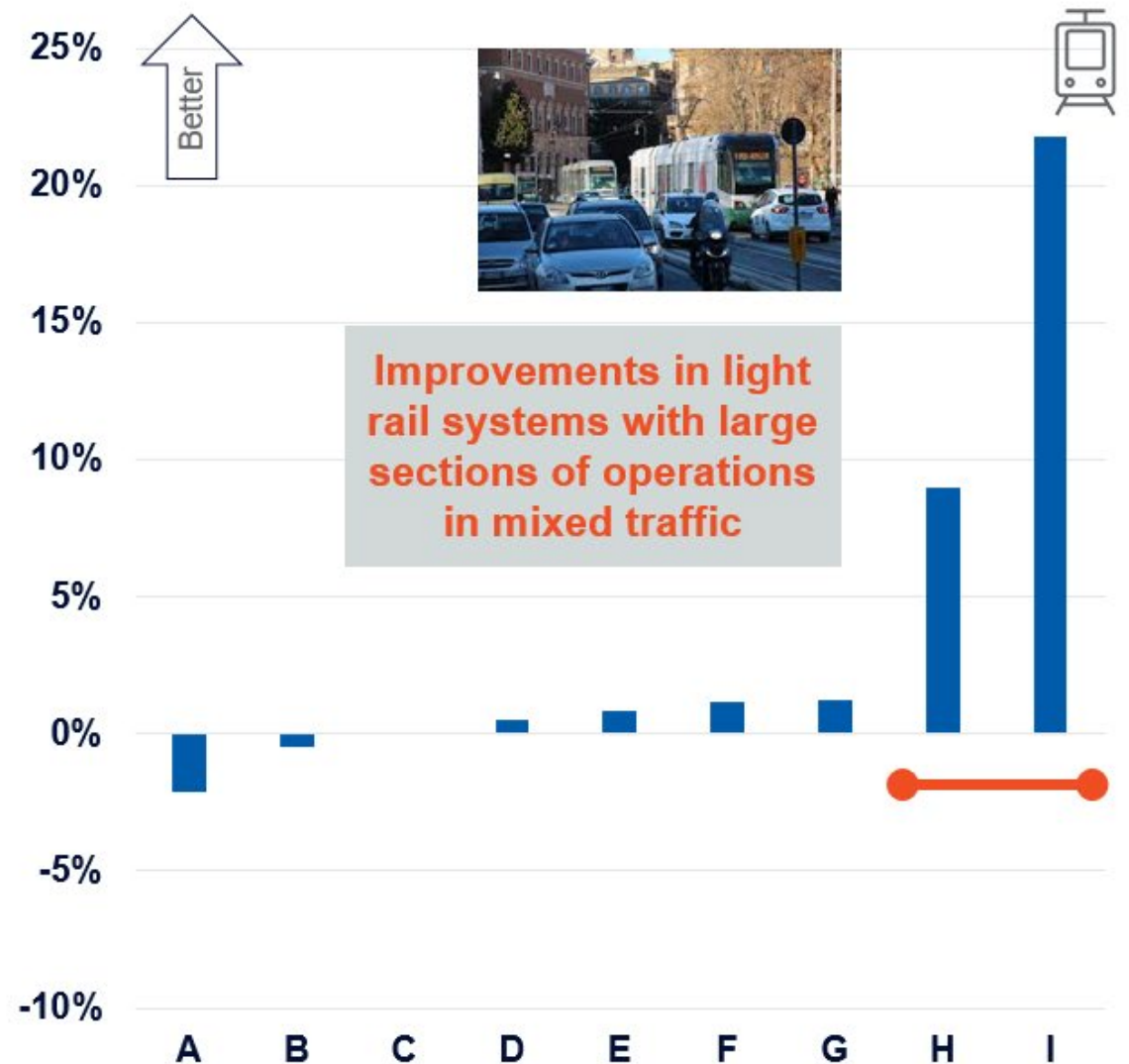
▶ Many members set capacity limits of 1/3 of normal to aide in social distancing, impacted crowding

▶ Similar declines in capacity utilization world-wide, particularly where service levels were retained at pre-pandemic levels

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Changes in On-Time Performance – North American Light Rail versus Global Subways

Improvements in reliability for subways with high ridership density

Better

Improvements in light rail systems with large sections of operations in mixed traffic

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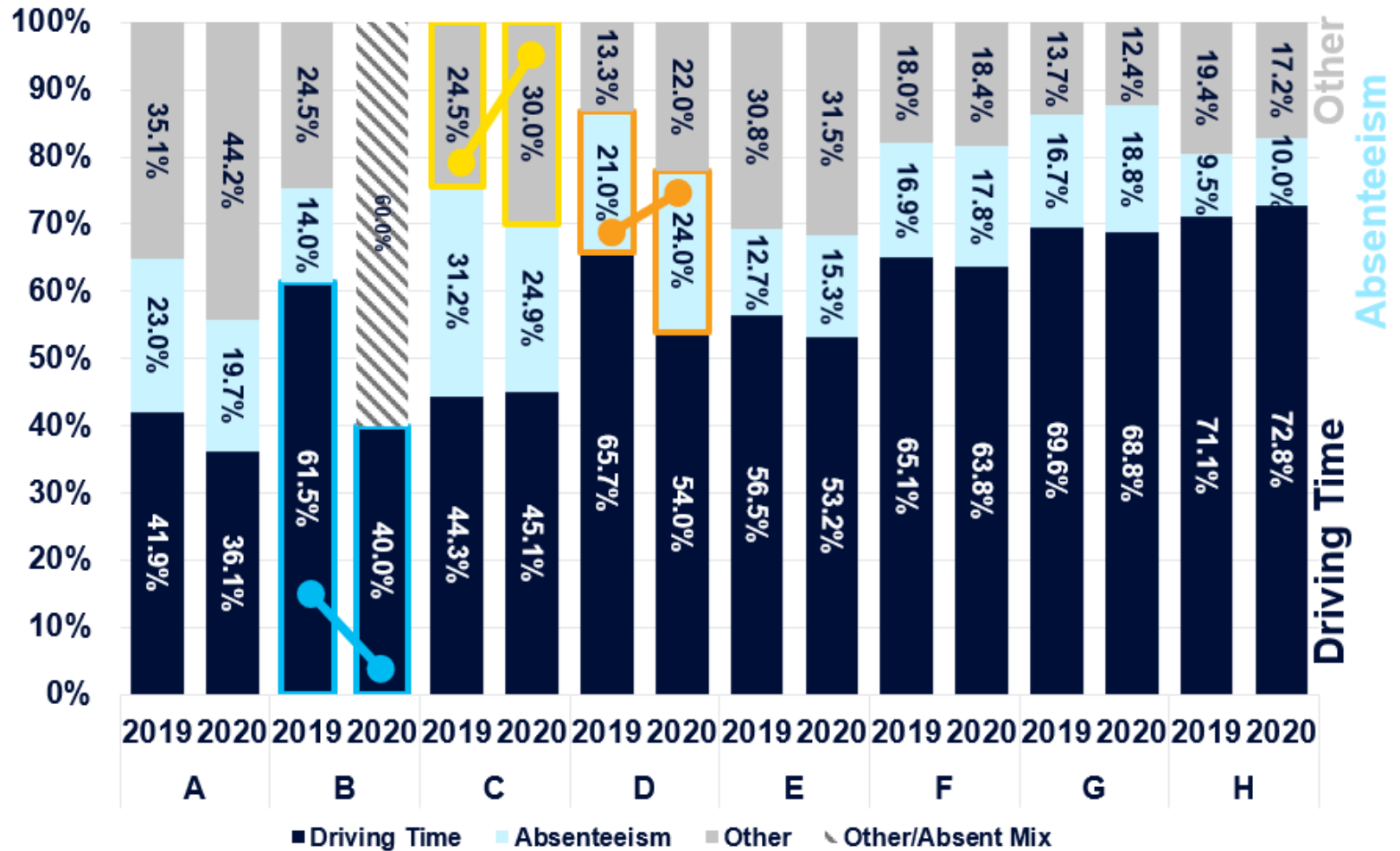# Light Rail Vehicle Operator Productivity – How Much Time is Spent Driving a Train

LRV Operators spent **54.2% of their time driving in 2020**, compared with **59.5% in 2019**

Change was due to:

Drop in **driving time**

Increase in **non-driving time**

Increase in **absenteeism**

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Light Rail Cleaning Costs per Vehicle Mile Went Up – But not for All

▶ **Cleaning costs** per vehicle mile went from **$0.58 to $0.85** per vehicle mile.

▶ Some agencies saw no increase in costs due to already robust cleaning or use of other staffers

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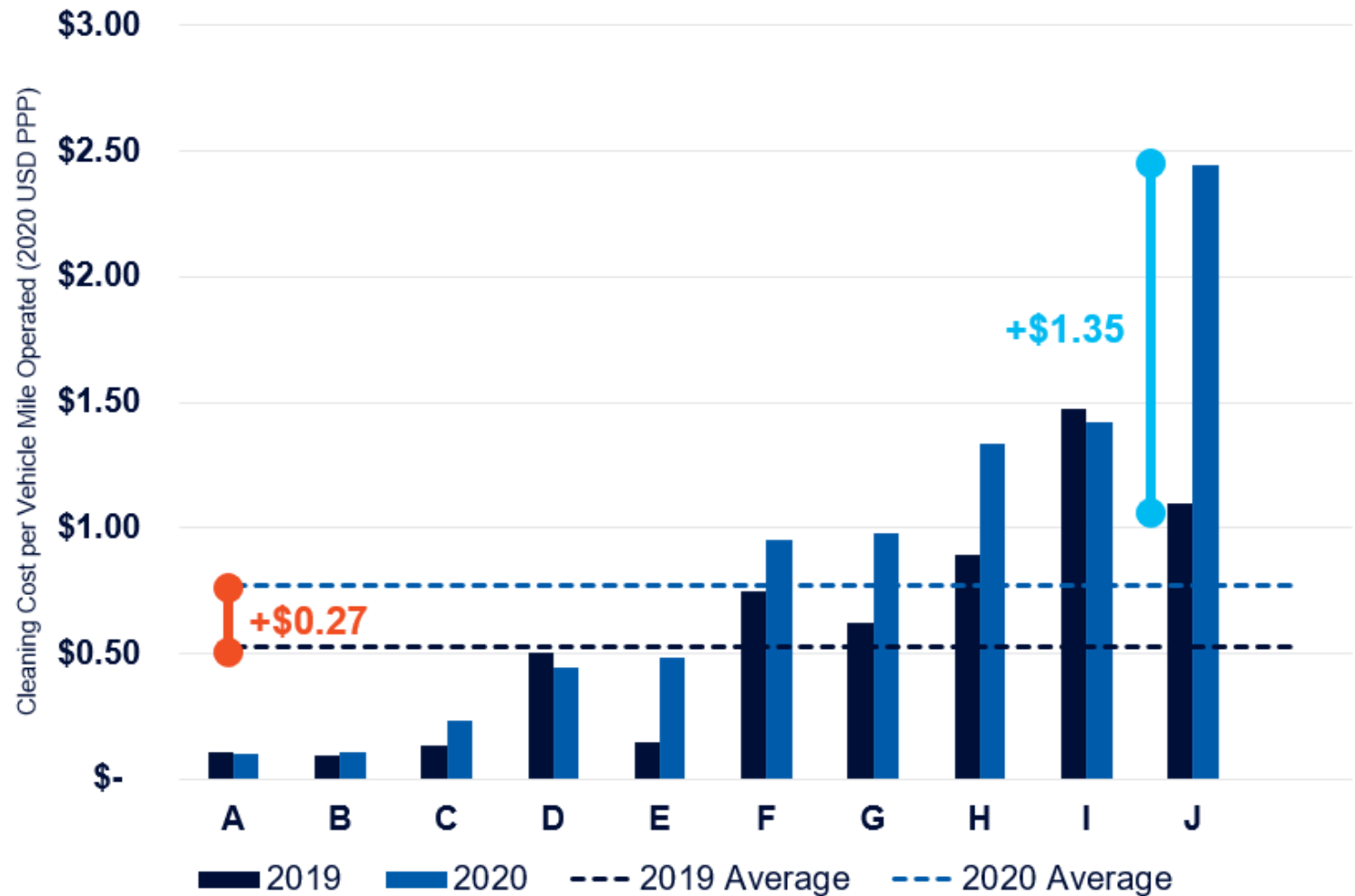
Fiscal Changes – Change in Light Rail Fare per Passenger Boarding

▶ Average light rail far per passenger declined from **$1.10 to $1.05**

▶ Free fares led to large declines in revenue per passenger

▶ Pre-paid passes, fare capping, other fare policies led to higher fares for some agencies

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Less Declines in Fares per Passenger Internationally Due to Fewer No Fare Periods (Rebates/Discounts Instead)

► **Fare rebates/discounts to attract passengers** back to transit resulting in lower fare per passenger

► Impact of **fare capping and passes** on overall fare per passenger

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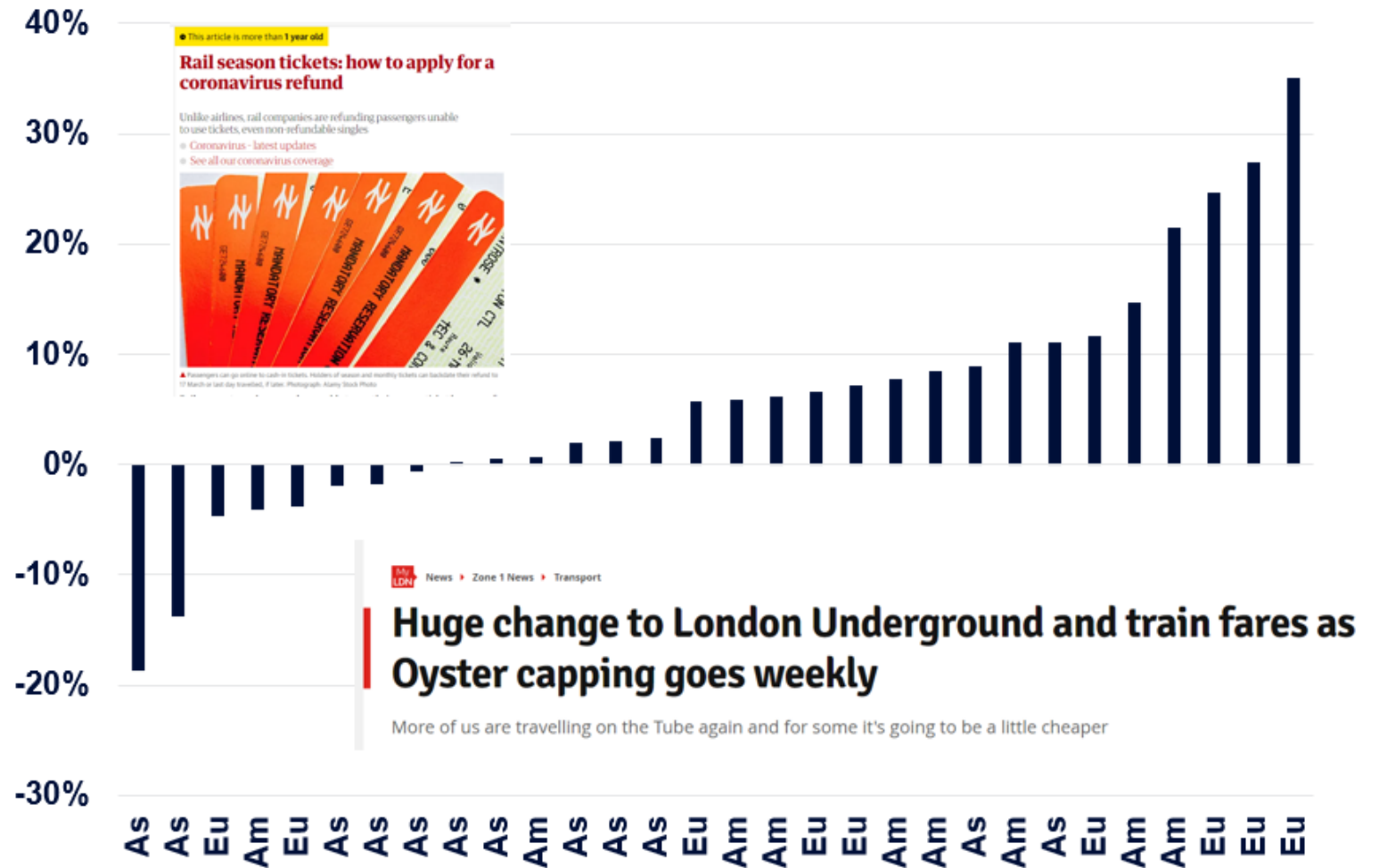
Costs Breakdown in Light Rail in USA and Canada Has Remained the Same, Subsidy Has Increased Significantly

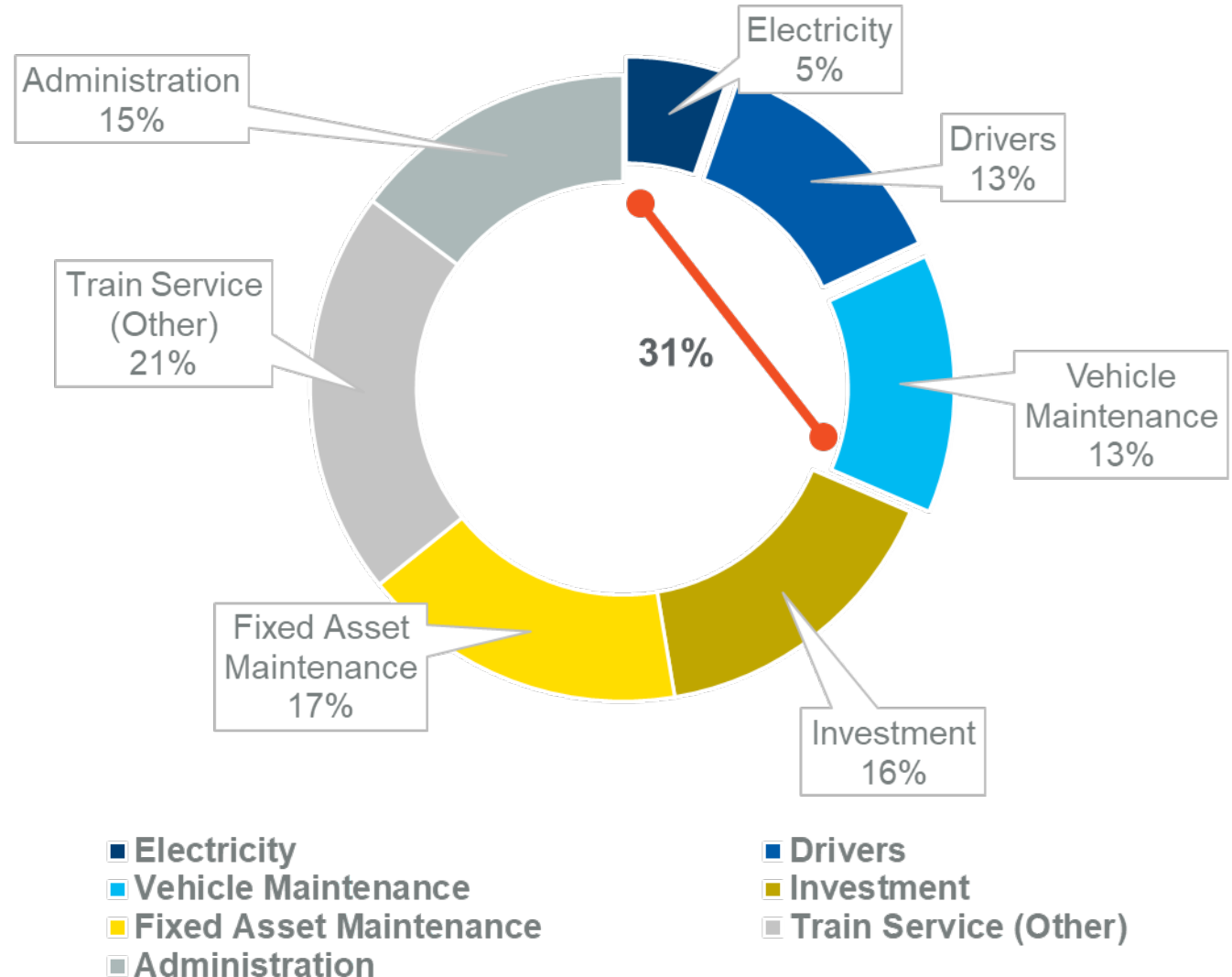IMPERIAL COLLEGE LONDON PROJECTS

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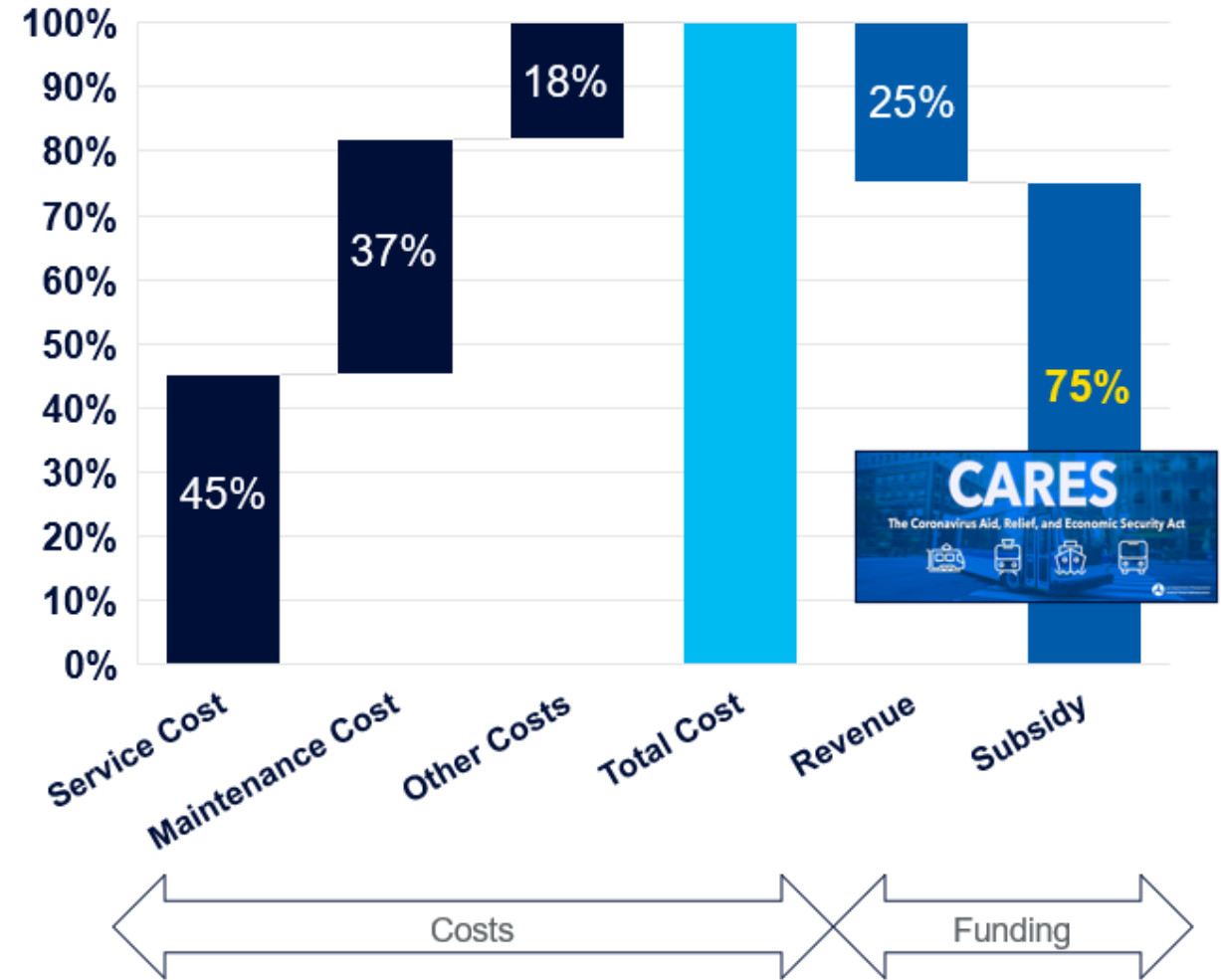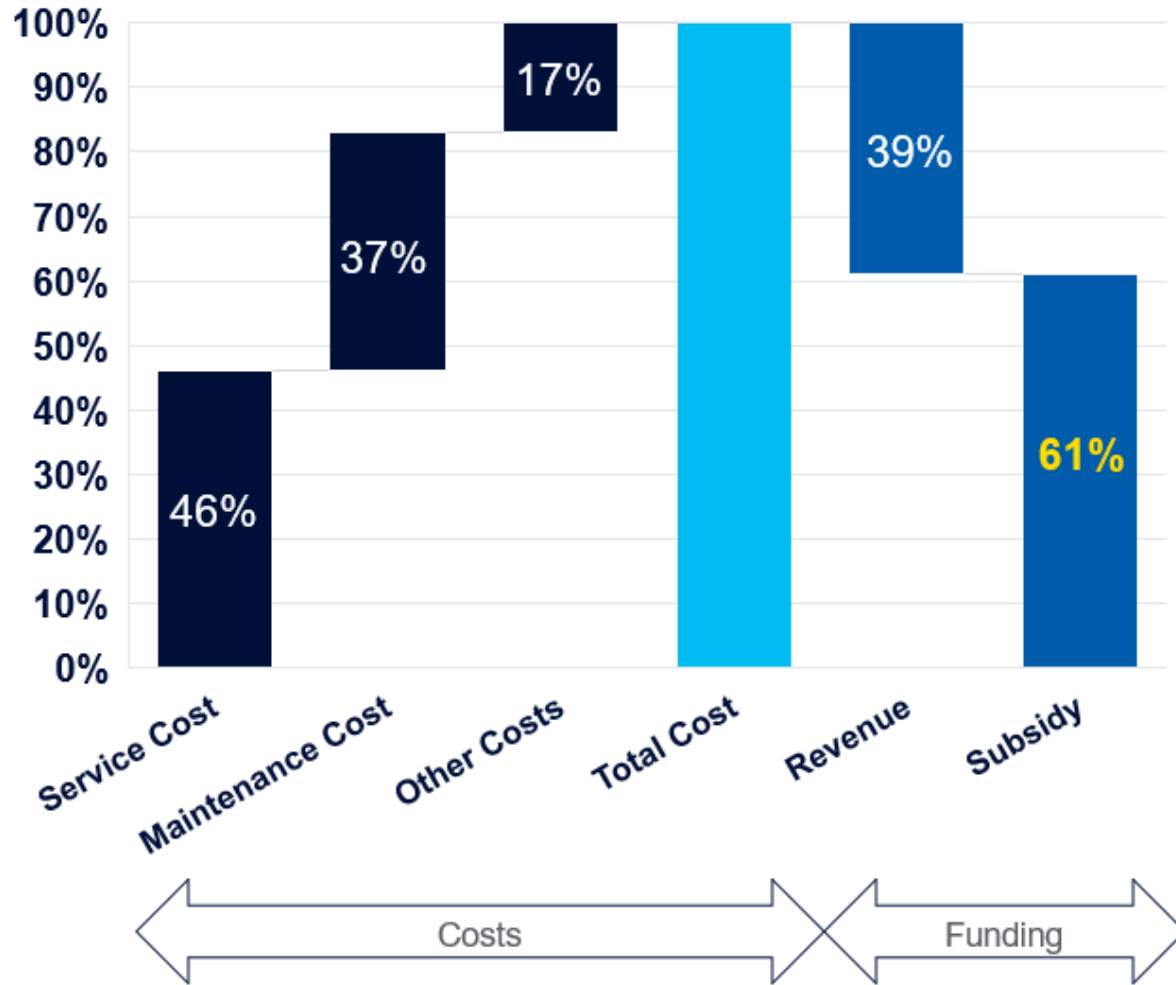
Cutting Service Can Only Impact 31 Percent of Total Costs (and Drives Down Revenue)

Reducing service can only ever impact **31 percent** of total operating costs for light rail service

Maintenance/investment of fixed assets covers **33 percent** of total costs (deferring these items only increases expenditure need in future)

Based on average for all GOAL members in 2019

Electricity 5%

Drivers 13%

Vehicle Maintenance 13%

Investment 16%

Fixed Asset Maintenance 17%

Train Service (Other) 21%

Administration 15%

31%

- ■ Electricity
- ■ Vehicle Maintenance
- ■ Fixed Asset Maintenance
- ■ Administration
- ■ Drivers
- ■ Investment
- ■ Train Service (Other)

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Conclusions

▶ Pandemic is a potential catalyst for change

▶ Has provided perspective on the strengths and weaknesses of our transit systems

▶ Its not all bad news - Alex Barron will be discussing international impact and how some transit properties are looking to the future at the Rail Transit CEO meeting

What has been the impact (North America)

How transit agencies are adapting and looking to the future

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Thank You

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https://www.imperial.ac.uk/transport-studies/transport-strategy-centre/

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