



Report

Roland Berger

07.2020
LONDON / UNITED KINGDOM



The “new normal” in public transportation after COVID-19

FOCUS ON THE LONDON BUS MARKET

MANAGEMENT SUMMARY

T

he COVID-19 pandemic has forced the world economy into a severe, unprecedented slowdown, with repercussions rippling across all sectors. Due to lockdown policies across the world, transportation has been one of the first and most severely affected sectors, with major cities reducing their transportation services by up to 90%. After several months of battling the COVID-19 sanitary emergency, most Western economies are now planning for recovery and are progressively reopening restaurants, shops and offices.

Beyond the short-term impact, the crisis raises critical questions for the medium and long-term demand for urban mobility services, such as fears about sanitary conditions, and a shift to working from home. Urban mobility will need to adapt to this “new normal” situation, while operators may be faced with reduced funding from transportation authorities whose finances were already under pressure before the crisis.

To understand what might be the short, medium- and long-term consequences of this unprecedented crisis on urban transportation markets, it is crucial to have a global assessment of the ramifications for supply and demand. Over the longer term, the performance of public transportation modes and their ability to withstand the shock of the crisis must be assessed and reconsidered by market players in order to plan and implement new strategies.

In this new environment, Roland Berger has chosen to take a deep dive into one of the most mature liberalised public transportation markets in Europe, the London bus system, to understand the pre- and post-COVID situations and evaluate their short- to long-term consequences.

In this paper, Roland Berger presents:

- An overview of the London bus market before the COVID-19 outbreak, drawing from both insights on demand – through analysis of bus ridership and other underlying drivers in London – and supply – through a review of strategic and operational trends driving market players.
- Early insights of the repercussions from the COVID-19 crisis, and the potential evolution of the London bus market landscape into a “new normal” world.

CONTENTS

1/ PRE-COVID OVERVIEW OF LONDON'S BUS OPERATIONS – A MARKET ALREADY UNDER PRESSURE	6
1.1 Liberalised bus operations in London are performed by 10 operators under the supervision of the Transport for London authority (TfL)	
1.2 Demand for bus transport in London has been declining – as a result, TfL has reduced supply	
1.3 To defend their market positions, operators have been more aggressive in pricing recently, putting further pressure on their margins	
2/ POST-COVID – A PROBABLE INCREASE OF MARKET TENSIONS IN THE LONG TERM	14
2.1 Lockdowns and deconfinement phases have put strong pressure on public transportation systems in Europe, including London and may lead to structural changes in modal shares	
2.2 The COVID-19 crisis is expected to significantly impact TfL's finances; bus fares are likely to rise	
2.3 The COVID-19 crisis could accelerate the restructuring of the London bus market	
3/ ADAPTING TO THE “NEW NORMAL” IN LONDON: THE NEXT CHALLENGE FOR OPERATORS	16

1/

PRE-COVID overview of London's bus operations – a market already under pressure

1.1 / Liberalised bus operations in London are performed by 10 operators under the supervision of the Transport for London authority (TfL)

The London bus market has been fully privatised since 1995. Transport for London (TfL) is responsible for end-user relationship management, network planning, bus network infrastructure, maintenance, transportation contract tendering, and allocating the ~700 routes currently making up the Greater London bus network.

50% of the transportation authority's funding is derived from fares, while the rest comes from grants, borrowing/ cash reserves, congestion charges and specific project funding. Public authorities, such as the Mayor & London Assembly also have significant influence over public transportation policies, including travel fares and concessions.

Bus services are tendered out to private operators who are responsible for operating London routes within given performance standards; 10 operators are active in the market today, and 6 of them account for 92% of Greater London bus routes:

- Go Ahead plc (independent group operating bus operations across UK), Metroline (owned by ComfortDelGro Corporation) and Arriva (owned by Deutsche Bahn) stand out as market leaders, each holding more than 15% market share in number of routes
- Stagecoach plc (independent group), RATP Dev (RATP group), Abellio (owned by Nederlandse Spoorwegen) and Tower Transit (Transit Systems) are market challengers with market shares ranging between 5 and 15% of total routes
- CT Plus, Sullivan Buses and Uno are smaller operators, with portfolios of less than 20 routes each → **A**

Routes are allocated individually through a tendering system managed by TfL, which awards 5-year gross-cost contracts, with the potential for two years extension for good service performance. TfL is thus directly carrying the passenger revenue risk. Contractual revenue is based on mileage operated and overall reliability of the service; it is reviewed every year based on the theoretical inflation of the

Key figures

~700

routes currently making up the Greater London bus network



10 operators are active in the market today, and

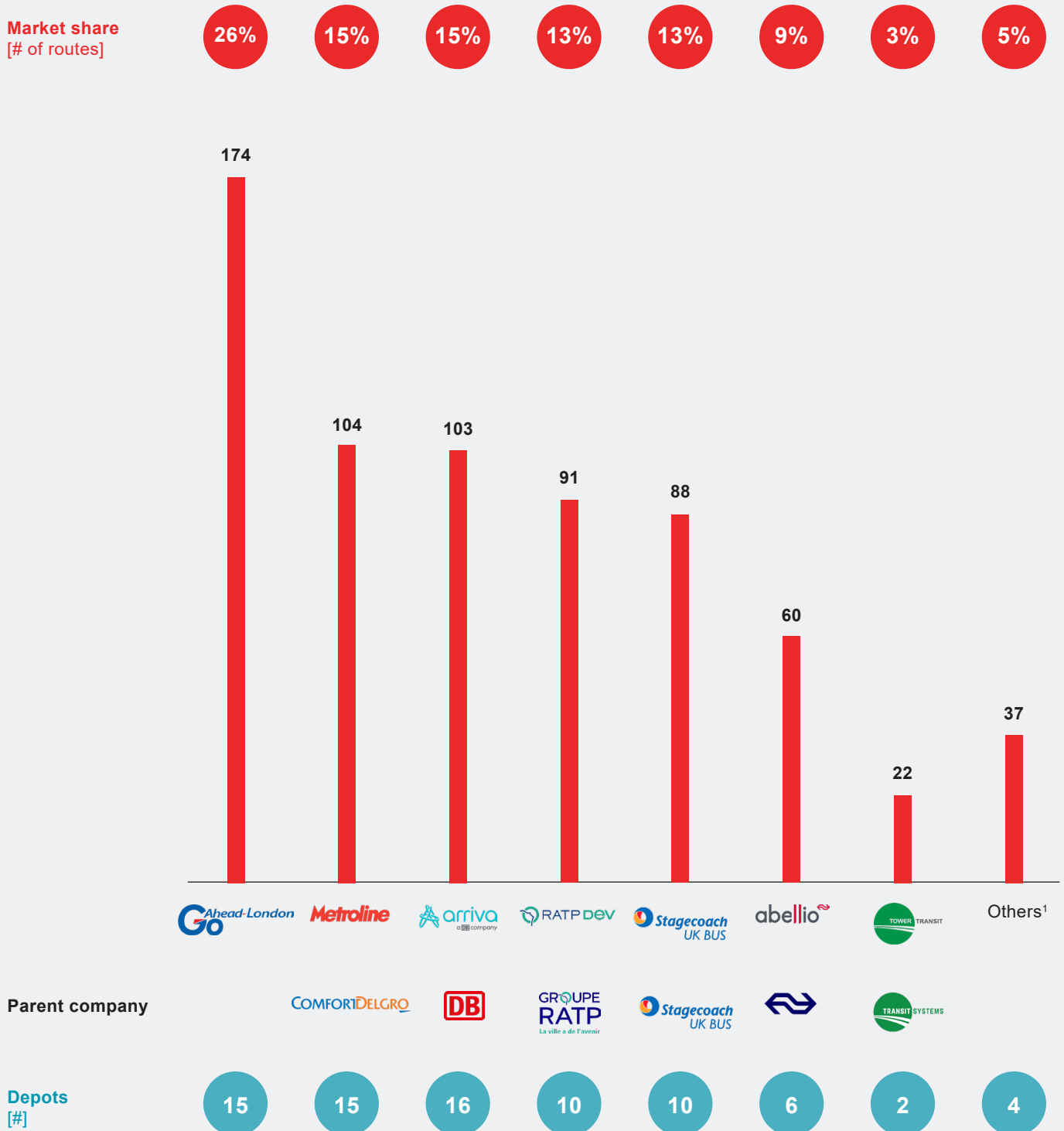
6 of them account for **92%** of Greater London operated bus routes



Source: Roland Berger

A / Overview of London bus operators [# of routes; as of January 2020]

Σ Total network = 679 routes (~9,000 buses)



Note: totals include recently won routes but not yet operated

¹ Others include CT Plus, Sullivan Buses and Uno.

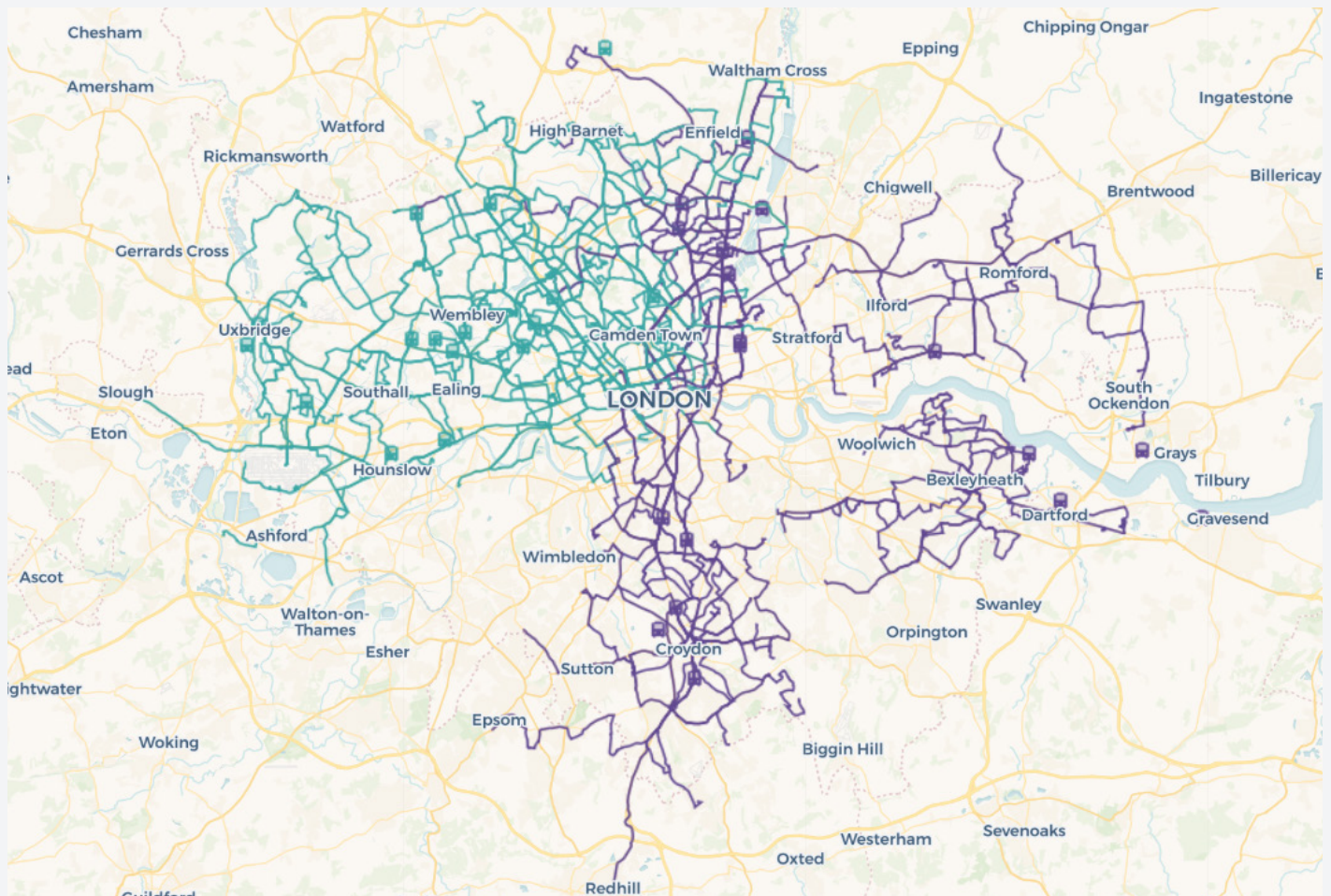
Source: TfL, Roland Berger

operators' cost base (CPA indicator), calculated by TfL. Today, tender evaluation and route allocation by TfL are based on best value for money – while service quality and safety are fundamental yardsticks against which bids are appraised.

In addition to contract payments based on miles operated, operators are incentivised on performance through bonuses and penalties, calculated through the comparison of service performance with Minimum Performance Standards (MPS), set for the duration of the contract and reflecting each route's individual characteristics.

The operators bid on a specific route from a given depot, and later operate it from there – in most cases. The proximity of a route to an operator's depot is key as it minimizes dead mileage (km operated without carrying any passengers) – thus optimising costs and allowing more competitive pricing in the tender process. Consequently, operators often tend to prioritise bids for routes near their depots. → **B**

B / Illustration of Metroline's and Arriva's route footprint [2019] showcasing route / depot proximity



— Metroline 🚌 depots Metroline — Arriva 🚌 depots Arriva

1.2 / Demand for bus transport in London has been declining – as a result, TfL has reduced supply

DEMAND

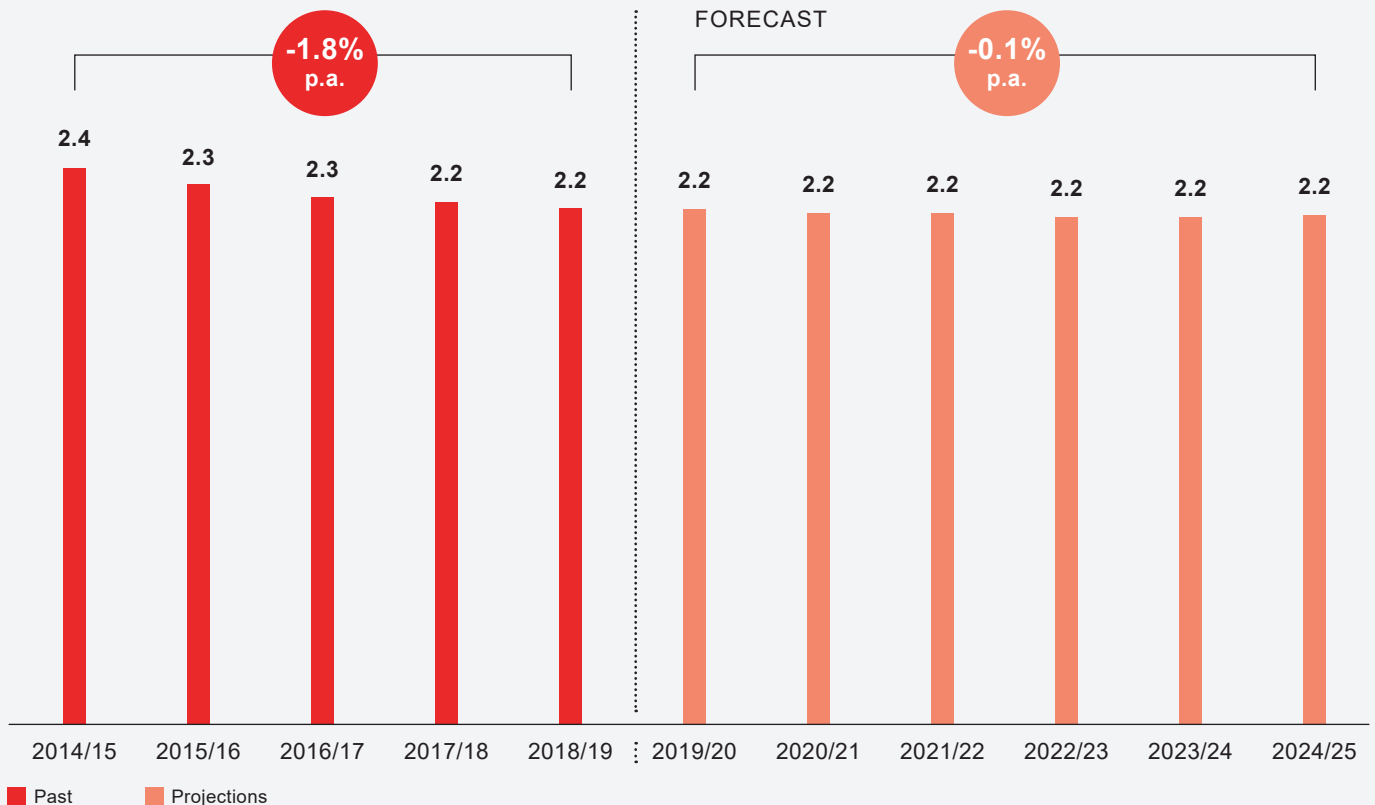
Since 2014, bus ridership has decreased by 1.4% p.a. in London. Before the COVID-19 crisis, TfL had forecast a slight improvement to a flat trend by 2025 – to be potentially reviewed downward due to the expected negative impact of demand in the coming months and, potentially, years. → C

The share of bus transportation in the public transport mix has been dwindling since 2014 due to adverse trends in the market's underlying drivers:

- Increased congestion in London, pushing average bus speed down in recent years (from 9.5 to 9.1 mph between 2014 and 2019) and causing longer journey times
- Increasing overall population wealth across London boroughs with a negative correlation to bus ridership as passengers tend to switch to other (more expensive) modes of public transportation such as the Underground (and Elizabeth line in the near future)

C / Evolution of number of bus trips in London [bn trips; 2014-2025¹]

Forecasts before COVID-19



¹TfL Fiscal Year spans from April 1st to March 31st.

Source: TfL business plan, Roland Berger

- Rising popularity of other transportation modes such as walking or cycling, promoted by TfL through the Healthy Street program (GBP 2.3 bn investment) and self-service electric scooters/bikes is also likely to trim bus transport's modal share → **D**

SUPPLY

In line with decreasing demand, TfL has started reducing supply by lowering scheduled mileage (-1% p.a. since 2016), by cutting routes or reducing Peak Vehicle Requirement (PVR) for others. Overall, total PVR has decreased by ~2% since 2016 – a decrease that's expected to continue and potentially worsen over the next few years, reflecting weaker demand.

Besides, the growing financial burden of bus operations – a structurally loss-making activity since the nineties – has encouraged TfL to seek further cost optimization for this sector. Pressure has mounted specifically on bus operations recently due to:

- The end of operating grants from the Department for Transport since 2017/18
- Decreasing fare revenue from passengers due to lower ridership → **E**

To achieve cost reductions, it will be crucial to lower operators' contract prices even more. In recent years, TfL's price sensitivity has increased significantly, as all market operators are considered to have leveled up in terms of quality of service. Price is thus becoming the only selection criterion for route tender awards.

But operators have not only been hit hard by TfL's price reduction policy in recent years; their costs have risen faster than inflation due to several factors:

Increased operational difficulties

- Congestion increasingly affecting bus reliability and, therefore, their Quality Incentive Contract (QIC) bonuses
- Bus driver shortages result in more overtime and interim employment for less reliable drivers who cause more road accidents (and/or incur more training costs)
- Increased claims for road accidents – partly due to the rising trend of legal offers for private individuals in UK involved in road accidents with buses

Increased investment due to TfL's electrification policy – as TfL pushes for a strong reduction in bus emissions by fostering fleet electrification:

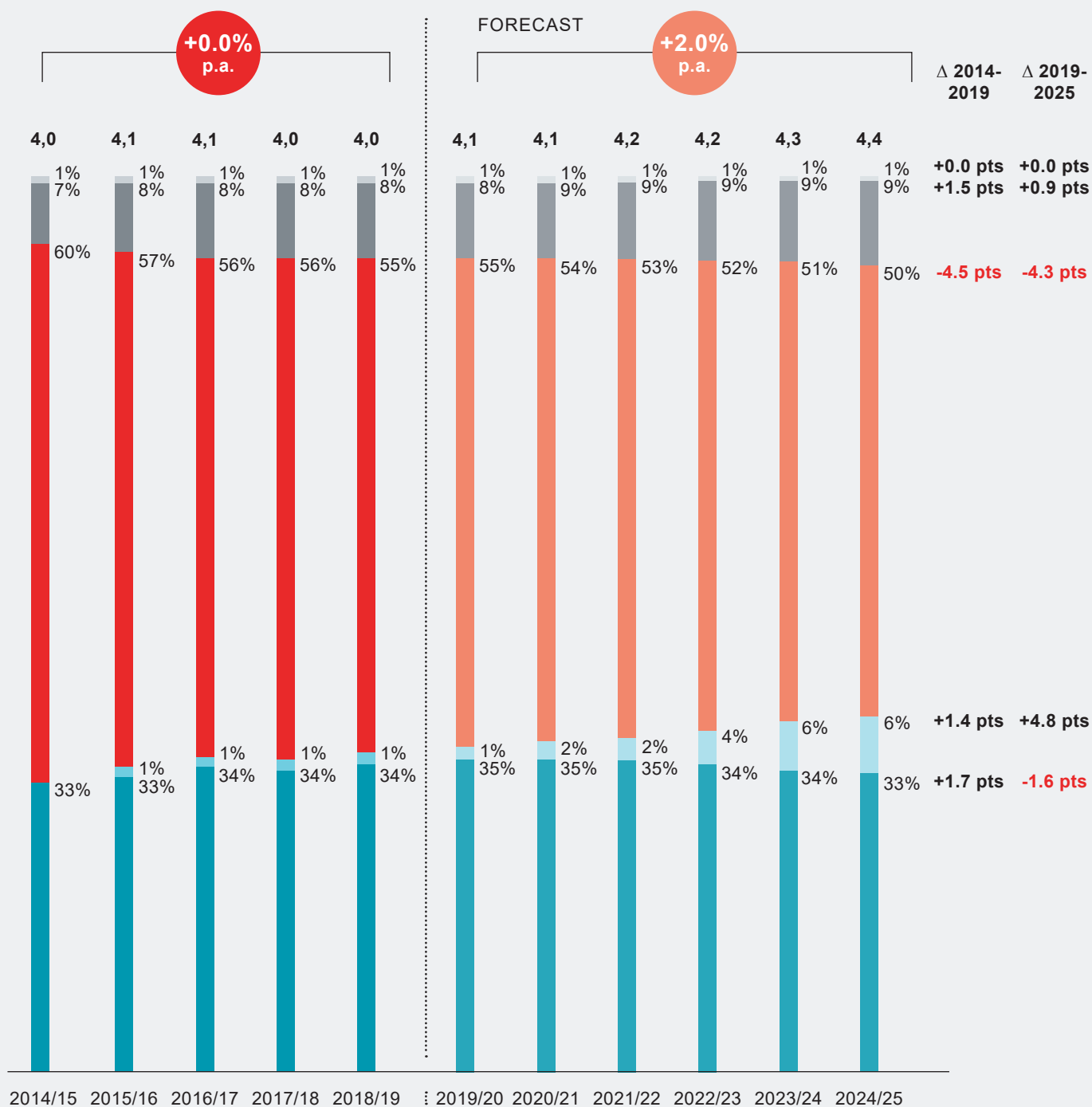
- Fleet upgrade by autumn 2020 to make all London bus routes at least Euro VI (85% of the fleet by the end of 2019)
- From 200 to 2,000 electric buses in 2025
- 100% zero emission buses by 2037

Tendering rules for operators have also evolved, with an obligation to include an electric option for future tenders for single-deck routes.

In line with decreasing demand, TfL has started reducing supply by lowering scheduled mileage, cutting routes or reducing Peak Vehicle Requirements.

D / Public transport's modal mix in London [m trips; 2014-2025¹]

Forecasts before COVID-19



■ London Underground ■ Elizabeth line² ■ Buses ■ Rail³ ■ Other⁴

¹TfL years goes from March year N to march year N+1.

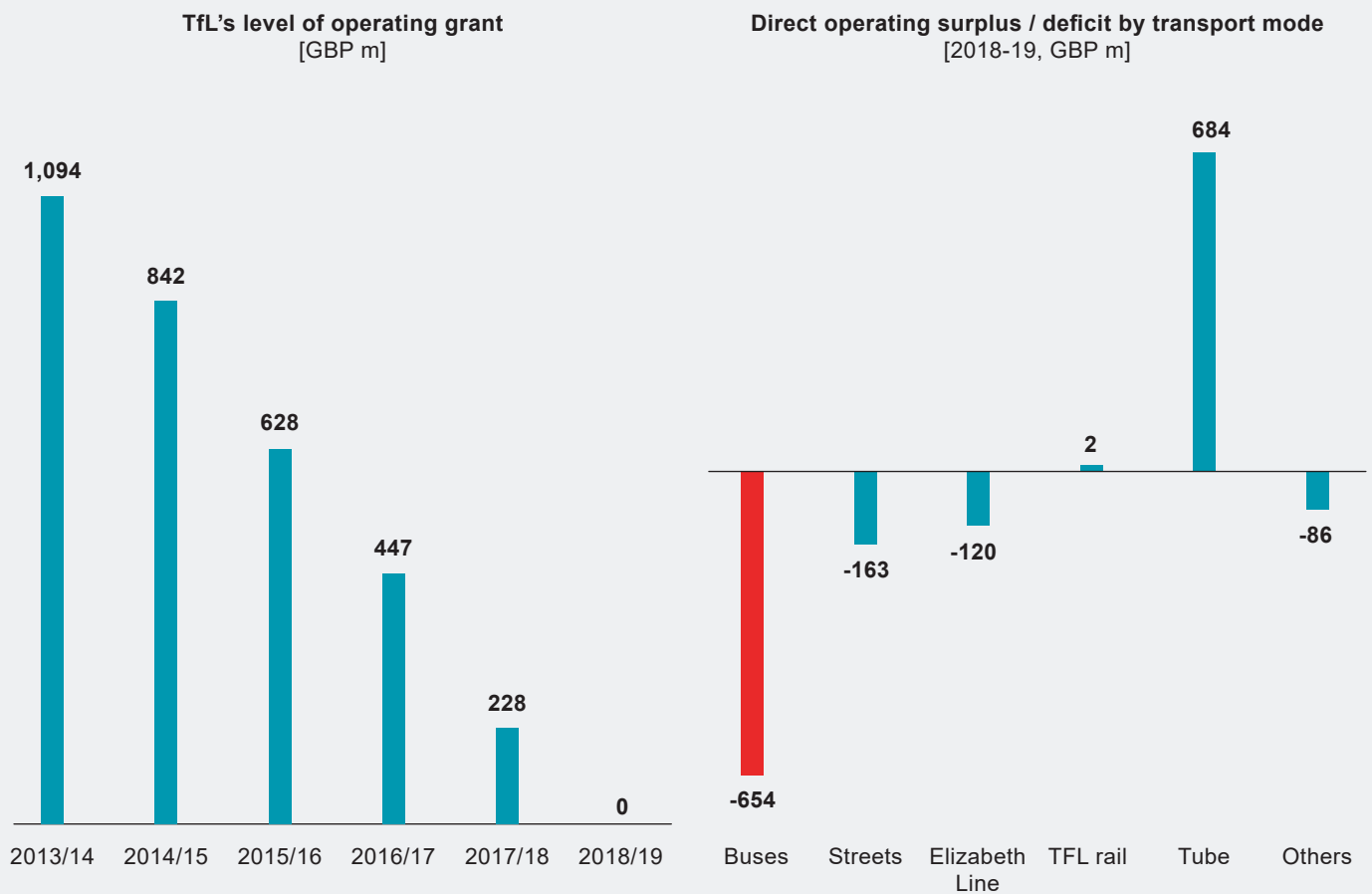
²Elizabeth line revenue since 2015 comes from operation of a line between Liverpool Street and Shenfield. Full opening of Elizabeth line is expected between September et December 2021.

³DLR, Overground, Trams.

⁴Taxi, river services, public bikes, coach services...

Source: TfL business plan, Roland Berger

E / Evolution of TfL funding of London public transport operators



Note: Elizabeth line revenue since 2015 comes from operation of a line between Liverpool Street and Shenfield. Full opening of Elizabeth line is expected between September et December

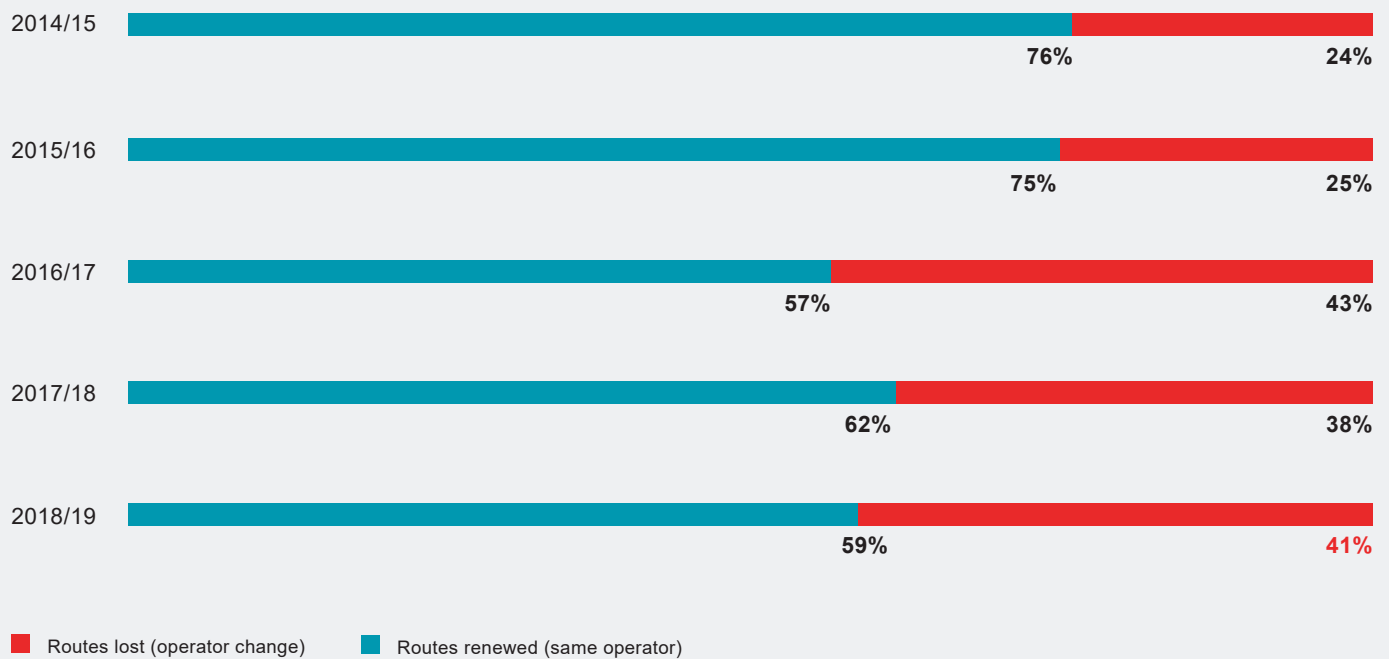
Source: TfL

1.3 / To defend their market positions, operators have been more aggressive in pricing recently, putting further pressure on their margins

In response to the worsening market conditions, operators tend to bid more aggressively to secure volumes, compensate for reduced profitability and cover, – at least partially – their depot overhead costs. Stiffer competitive pressure mechanically decreased the frequency of contract renewals i.e. incumbent operators winning routes they currently operate upon retendering (from 76% in 2015 to 59% in 2019), illustrating the growing difficulty of a given operator to renew its historically operated routes. → **F**

As a primary consequence, price levels per mile have decreased significantly: routes are renewed today at a price on average 5% lower than the previous bid 5-7 years ago – whilst operating costs have swelled by at least 2% per annum.

F / Share of route renewals vs losses during re-tendering [# of routes; 2015-2019]



Source: TfL

Price pressure has extended to electric bids as well – with several recent electric bids being priced at the same level or lower than the previous bid for Diesel/hybrid vehicles 5-7 years before, barely allowing operators to cover the cost of electrification.

As a result, market players' EBIT margins have gradually declined in recent years, with market leaders' margins falling to 6-8%, while smaller players register EBIT margins of 0 to 5%. And they're still falling. This situation raises the question of the viability of current market conditions for incumbent players (decreasing ridership indirectly translating into price pressure, increasing investments, and now COVID-19) and their ability to withstand the crisis and adapt.

One key potential outcome of current market trends is consolidation of operators over the longer term, in line with the history of the London bus market: in the early nineties, more than 50 individual companies were competing for London bus routes, which had recently been opened to competition. By the end of the decade, a first wave of takeovers and contract losses led to a steep fall in the number of operators. Another consolidation wave in the 2000s led to a further shrinkage of market players down to today's 7 main operators.

Considering London's bus market history and the major disruption from the unprecedented COVID-19 crisis, a shift away from the current market structure - now relatively stable for almost a decade - therefore seems plausible under the new paradigm described above.

2/

POST-COVID – a probable increase of market tensions in the long term

2.1 / Lockdowns and deconfinement phases have put strong pressure on public transportation systems in Europe, including London and may lead to structural changes in modal shares

Starting in March 2020, lockdown measures in Europe have had an unprecedented impact on all economies, with transportation, tourism, catering and retail being among hardest hit sectors. For most cities across Europe, public transportation services have been slashed to minimum levels, only allowing transportation for essential workers. In London, Underground journeys have fallen by 95% and bus journeys by 85%.

By May 2020, many European countries started introducing lockdown-easing measures: freedom of movement, gradual reopening of non-essential shops and restaurants. In line with the progressive lifting of lockdowns, transportation services have been increasing, even if transportation authorities are still encouraging people to work from home when possible and to avoid public transport, especially at peak hours.

In London, public transport capacity has been rising since May 18. TfL has published a list of sanitary guidelines including a face covering recommendation, minimum distancing of 2 meters, use of contactless payment and an enhanced cleaning regime across all services. Other operational measures include middle-door boarding for London buses (except for single-door buses) to keep passengers and drivers safe, or queuing at the entry of certain stations at peak time.

Meanwhile, TfL and London Mayor Sadiq Khan have made strong pitches to promote cycling and walking as major alternative transport solutions:

London's "Streetscape plan" was implemented to rapidly transform London's streets to accommodate a possible ten-fold increase in cycling and a five-fold increase in walking as lockdown restrictions are eased.

The Plan focuses on 3 key areas:

- The rapid construction of a strategic cycling network, using temporary materials, including new routes to reduce crowding on the Underground and train lines, and on busy bus corridors (e.g. along Euston road, a six-lane highway skirting the northern edge of the city centre)
- A complete transformation of local town centers to enhance where possible safety for cyclists and pedestrians on local journeys, such as wider footways on high streets, and more space to queue for shops

For most cities across Europe, public transportation services have been slashed to minimum levels, only allowing transportation for essential workers. In London, Underground journeys have fallen by 95% and bus journeys by 85%.

- Reducing traffic on residential streets, creating low-traffic neighborhoods right across London to enable more people to walk and cycle as part of their daily routines

Another announcement, highlighting what may be one of the world's most ambitious municipal car-free initiatives, limits the use of main arteries to buses, pedestrians, and cyclists, for main central London streets between London Bridge and Shoreditch, Euston and Waterloo, and Old Street and Holborn. Cars and lorries may also be banned from Waterloo Bridge and London Bridge in a second stage.

2.2 / The COVID-19 crisis is expected to significantly impact TfL's finances; bus fares are likely to rise

In 2019/20, 47% of TfL's expected income was generated by transport fares, amounting to GBP 4.9 bn. These revenues are now significantly compromised, but the bus system still costs GBP 600 m per month to operate. In order to ensure service continuity over the short term, Sadiq Khan negotiated a GBP 1.6 bn bail-out from the UK government (GBP 1.1 bn in grants, GBP 0.5 bn in loans) which could keep TfL running until the end of the summer.

TfL's deficit due to COVID-19 is estimated at GBP 4 bn; it will thus be covered only partially, while strategic projects have been temporarily put on hold. In order to further compensate for the expected loss, London public transport users may soon begin to carry part of the extra financial burden.

TfL's deficit due to COVID-19 is estimated at GBP 4 bn [...] London public transport users may soon begin to carry part of the extra financial burden.

2.3 / The COVID-19 crisis could accelerate the restructuring of the London bus market

The COVID-19 crisis is expected to have a significant impact on future travel behaviour. According to an early survey during lockdown conducted among 1,500 people in the UK¹, 20% of bus commuters felt they will use public transport less after lockdown. Among these people, 57% say they will reduce their use of public transport due to fear of illness and 27% declare they have found other ways of making their journeys.

On the supply side, the negative effects underlying the deterioration in market conditions for bus operators in London are expected to continue and worsen. TfL is likely to trim its offer through line cuts and Peak Vehicle Requirements (PVR) reduction in line with falling demand. Besides, and due to the increased financial pressure, TfL is unlikely to relax its efforts to further reduce contracted prices in future bus operation tenders.

¹ Systra, April 2020

Further reduction in the bus offer raises a structural issue for operators – who are already suffering from significant spare capacity across their depot:

- Players may try to reduce capacity across their depots to optimize their saturation – key to covering fixed costs
- However, with contracts being tendered on a per route basis, operators faced with falling volumes will most likely have difficulty in quickly optimizing overhead costs without vacating an entire depot
- Closing depots would undoubtedly relieve operators from part of their fixed costs. But on the other hand they would lose opportunities to win new routes in specific areas – especially as setting up new depots is complex due to factors such as land values and planning consent. It may also result in additional dead kilometres as routes are transferred to and operated from further depots

Furthermore, conditions that are likely in the post-COVID-19 “new normal” operating environment will probably generate additional recurring costs and investments for bus operators in London, putting further pressure on their finances:

- Tighter hygiene requirements, e.g. social distancing in buses, translating into additional costs for bus modifications (middle-door boarding, drivers sanitary protection, floor signage) and extended cleaning services
- More complex and potentially more expensive procurement of buses and parts as suppliers struggle through the crisis; For example, Wrightbus – manufacturer of the “New Routemaster” bus (a new hybrid diesel-electric double-deck bus recently introduced) – recently announced redundancies in order to help the company through the economic slowdown
- Potential acceleration of the shift to bus electrification as the authorities increase efforts to promote a cleaner city that’s better adapted to cycling and walking. These potential developments could thus accelerate the restructuring of the London bus market by fostering initiatives to improve operators’ resilience. In the following section, we analyse the potential initiatives that operators could explore to adapt to the “New Normal” in the London Bus market

On the supply side, the negative effects underlying the deterioration in market conditions for bus operators in London are expected to continue and worsen [...] but Further reduction in the bus offer raises a structural issue for operators – who already suffer from significant spare capacity across their depots.

3/

Adapting to the “New normal” in London: the next challenge for operators

The “New Normal” of the London bus market may be an opportunity for operators to rethink their positioning and adapt to new market conditions. Several considerations thus appear critical for operators to successfully overcome the ongoing crisis and adapt to the deeper, structural changes they are facing:

- **Elaborate route portfolio strategies:** as competition intensifies, operators must make more and more difficult financial and operational decisions to keep growing in a shrinking market. This requires market players to rethink their route portfolio strategy, and clarify their targets in the short, mid and long term, while remaining consistent with the location of their assets and their current capabilities.
- **Invest in risk management, scenario planning and end-to-end, long term, demand-related forecasting:** while operators do not carry the passenger traffic risk, monitoring the evolution of demand is key to understand the structural evolution of the market – and its consequences on supply. Including demand related KPIs in strategic, financial and operational forecasting thus becomes critical.
- **Accelerate operational excellence initiatives:** as pressure on margin increases, leaner operations become key to enable sustainable value creation. Typical operational excellence levers include:
 - Optimization of route scheduling
 - Depot footprint optimization
 - Increase of maintenance efficiency: predictive maintenance, fleet harmonization, streamlining of processes, smart fleet management, etc.
 - Optimization of procurement costs
 - Reduction of claims
 - Digitization of processes
 - etc.
- **Establish a long-term electrification strategy, in partnership with TfL:** with TfL’s ambition to electrify buses in London by 2037, it is key for operators to implement a long-term investment strategy enabling optimize both operational and financial impact. The coordination with TfL is key to clarify and share the costs of electrifying the infrastructure within and outside depots.
- **Consider alternative value creation levers:**
 - Strategic moves such as consolidation to reinforce operators’ positioning and unlock operational synergies
 - Depot valorisation beyond bus operations (e.g. real estate development)
 - Expansion outside London, e.g. in other metropolitan areas which are considering transitioning to a franchised model for their bus services (e.g. Greater Manchester).

The “New Normal” of the London bus market may be an opportunity for operators to rethink their positioning and adapt to new market conditions.

CONCLUSION

The London bus market is a typical example of a public transportation system already facing structural challenges that have been magnified by COVID-19. The post-crisis new normal operational environment will require a new balance regarding the necessary upcoming investments, risk sharing and financing of the system. It also implies ensuring that bus operators can withstand the initial shock of the current crisis and its ripple effects over the next few years by launching several key initiatives pertaining to their strategic positioning and operational excellence. Anticipating the “New Normal” in the London bus market is key – and in the best interests of all stakeholders: transportation authorities, operators, and - ultimately - passengers.

AUTHORS



Didier Bréchemier

Global Head of Transportation, Logistic & Tourism

+33 1 53 67 09 26 didier.brechemier@rolandberger.com



Balder Kai

Partner

+44 203075 - 1119 kai.balder@rolandberger.com



Félicien Ridel

Consultant

+33 1 70 92 89 86 felicien.ridel@rolandberger.com

PRESS CONTACT

We welcome your questions, comments and suggestions
www.rolandberger.com

This publication has been prepared for general guidance only. The reader should not act according to any information provided in this publication without receiving specific professional advice. Roland Berger GmbH shall not be liable for any damages resulting from any use of the information contained in the publication.

© 2020 ROLAND BERGER GMBH. ALL RIGHTS RESERVED.

ROLAND BERGER, founded in 1967, is the only leading global consultancy of German heritage and European origin. With 2,400 employees working from 35 countries, we have successful operations in all major international markets. Our 52 offices are located in the key global business hubs. The consultancy is an independent partnership owned exclusively by 230 Partners.

Publisher:
ROLAND BERGER GmbH
Sederanger 1
80538 Munich
Germany
+49 89 9230-0