London Councils' TEC Executive Sub Committee

Future Mobility: Recognising and Seizing Opportunities in London

Item no: 05

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Summary: Technology is constantly developing and has a major impact on London's transport sector. New innovations and digitisation of transport in the capital could contribute in responding to environmental and population growth challenges, economic and social problems. The report therefore suggests a more active role for London Councils TEC to drive this policy agenda forward in London.

Recommendations: The Committee is asked to:

- Note and comment on the report
- Agree to set up temporary Task & Finish Groups with political oversight through London Councils TEC Executive Committee meetings
- Agree for car-sharing schemes to be the first focus area of the proposed Future Mobility Agenda

Future Mobility: Recognising and seizing opportunities in London

Introduction / Overview

1. Technological innovations are changing the way we live, communicate, work and commute. It should come as no surprise therefore, that technological evolution has a significant impact on London's mobility and its transport sector.

2. The sharing economy has already brought changes to the way we travel by introducing dockless bicycles and car sharing schemes across London. Smart mobility and the innovative use of open data[1] has made London's transport network more efficient and accessible. But setting aside the discussion on potential benefits and challenges that come with these innovations, one lesson seems to be clear – changes in transport sector require swift and practical policy responses from all layers of government.

3. Technology will continue to improve and develop. Autonomous cars are expected to be on roads more quickly than anticipated, improvements in drone technology resulted in a number of programmes testing the unmanned aircraft systems in urban areas[2], and smart city initiatives are changing the way cities are using artificial intelligence and big data to revolutionise transport links.

4. London needs to be prepared for the emergence of new disruptive technologies and business models that will continue to change the way people travel. The London boroughs play a crucial role in managing the transport network, and should therefore play a key role in analysing these issues and developing appropriate and timely policy frameworks to adequately prepare for the upcoming changes.

5. With the London mayoral election in 2020 only 18 months away and fast approaching, this could be a good opportunity to collaborate on this issue and develop positions for successful lobbying on behalf of London boroughs. Furthermore, other key stakeholders including but not limited to TfL, the GLA and the Department for Transport have been increasingly more active on transport innovations in the capital.

6. It is not to say that we have not been active in this area. At the London Councils Transport and Environment Committee (TEC) on 7 December 2017, members received a presentation from Laurie Laybourn-Langton, Institute for Public Policy Research (IPPR), on the future of London's transport in the Digital Age. Members noted the 'Transport in the Digital Age'[3] presentation and felt that this provided a useful discussion.

7. Following Laurie Laybourn-Langton's presentation, TEC members received a 'Smart Mobility and the Role of the Car Clubs'[4] report on 7 December 2017, which suggested a more active role for London Councils TEC in contributing to policy development for smart mobility, Mobility as a Service (MaaS) and car clubs to assist in tackling the air pollution

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[1] For instance, TfL's open data sources: https://tfl.gov.uk/info-for/open-data-users/our-open-data?intcmp=3671
[2] Such as the UAS Integration Pilot Program in the U.S. https://www.faa.gov/uas/programs_partnerships/uas_integration_pilot_program/
[3] https://www.ippr.org/files/publications/pdf/crossroads-choosing-a-future-for-Londons-transport_summary_March2017.pdf
[4] https://www.londoncouncils.gov.uk/download/file/fid/21717

problem in London. Members agreed to the report's recommendation to set up a car club working group with political oversight through London Councils TEC. Members felt that there was a need for a more detailed description of the working group.

8. In order to create the right regulatory environment for technological innovations in London's transport sector, we need to fully comprehend the benefits and risks of the potential changes; we have to identify key categories of future transportation and take into account a number of issues ranging from health and safety to sustainability and accessibility; and, finally, we have to establish a well-structured and detailed methodology to produce truly robust analysis on these issues.

Other Activity in the Area

9. In August 2017, the London Assembly Transport Committee launched an investigation to consider how technological advances in the transport sector will affect the travel of Londoners over the next decade to which London Councils responded[5]. The response included a look at 'mobility as a service', regulatory powers, horizon scanning, adoption of new technology, autonomous vehicles, dockless bicycles, droids and drones.

10. In February 2018, the London Assembly Transport Committee published a report, 'Future Transport – How is London Responding to Technological Innovation?'[6]. The report focused on the impacts of technological change on London's transport sector, and made a number of recommendations to improve how to plan, monitor and respond to challenges and opportunities of technological change in the capital. In May 2018, Transport for London (TfL) responded to London Assembly Transport Committee Report on Future Transport[7].

11. In late July 2018, the Department for Transport launched a two-part consultation, 'Future of mobility call for evidence'. The first part of the consultation focused on the future of Urban Mobility Strategy, and the second one on the future of Mobility Grand Challenge.

12. TfL's Transport Innovation Directorate is leading work to monitor and plan for technological change in the capital, and London Councils' officers have been working closely with them on topics ranging from dockless bicycles to airborne drones.

13. It should be pointed out that the Mayor's Transport Strategy 2018[8] has been relatively silent on the innovations and technological change in the transport sector in London.

14. London Councils, together with the boroughs, TfL, the GLA and other stakeholders, has been working for over a decade to support the increase in electric vehicle (EV) use in London. Likewise, we have been and will continue to be engaged with key partners to help increase infrastructure for electric vehicles in the capital. The London Go Ultra Low City Scheme (GULCS) project is an example of key stakeholders working together to improve the environment for electric vehicle development[9]. Given the vast amount of

[5] https://www.londoncouncils.gov.uk/node/32705
[6] https://www.london.gov.uk/sites/default/files/future_transport_report_-_final.pdf
[7] https://www.london.gov.uk/sites/default/files/tfl_response_to_gla_future_transport_report_updated.pdf
[8] https://www.london.gov.uk/what-we-do/transport/our-vision-transport/mayors-transport-strategy-2018
[9] https://www.londoncouncils.gov.uk/our-key-themes/transport/roads/gulcs

work already being done by London Councils and it having its own separate governance arrangements that provide political oversight, Electric Vehicles will not be included into the Future Mobility Agenda but rather left as a separate work stream.

Key Focus Areas

15. This section presents the proposed focus of the project in alphabetical order. Please note that further additions are possible at any stage of the project cycle – subject to consultations with members.

Autonomous transport

16. There is a noticeable interest in the future of autonomous transportation both in London and across the globe with fully automated vehicles being presently tested in Singapore, Dubai, Boston and numerous other cities. Driverless vehicles have also received widespread support within the EU[10], with tests being held in cities such as Mechelen and Paris, and others lined up for trials including Geneva, Copenhagen and Luxembourg[11]. Here in London, the GATEway project[12] tested driverless pods providing a shuttle service around the Greenwich Peninsula, and a number of other boroughs have been actively preparing for further tests with expectations to hold supervised trials of driverless cars on London's roads in 2019. There also seems to be an academic consensus that driverless vehicles will be commonplace in the not too distant future. On the one hand, such change could make our roads safer, cleaner and more accessible. On the other one, if unsuccessfully managed, it could be unsustainable and have negative impacts on roads, parking infrastructure, social equality, etc.

17. Although driverless cars is the most often discussed category of autonomous transport, we would also like to include unmanned shuttle buses (autonomous mass-transit services), aerial vehicles (airborne drones), and droids (ground-based drones) into our Future Mobility Agenda. We believe that all of these categories are important to London's transport sector, and noticed that a number of private companies, TfL, the GLA and government departments are increasingly more interested in these technologies.

Car-sharing schemes

18. Car clubs in London provide access to shared vehicles on a pay-as-you-drive basis. Approximately 200,000 members across London[13] can use three main types of services: i) round-trips, ii) fixed one-way rides, and iii) floating journeys. Car clubs provide a real alternative to private car ownership in this way reducing habitual car use. Other potential benefits include freeing up parking spaces, environmental benefits, increased use of electric vehicles, reduced costs of travelling.

19. In September 2014 the Car Club Coalition was formed in the capital and represented car club operators, London Councils, GLA, TfL and key stakeholders. It aimed to form evidence based strategies by analysing various aspects of this new model of urban

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[10] https://ec.europa.eu/transport/sites/transport/files/3rd-mobility-pack/com20180283_en.pdf
[11] https://navya.tech/en/press/navya-announces-a-new-milestone-in-its-development-four-years-after-it-was-created/
[12] https://gateway-project.org.uk/
[13] https://como.org.uk/wp-content/uploads/2018/06/Carplus-Annual-Survey-of-Car-Clubs-2016-17-London.pdf

mobility, and drive the growth of car club members in London. Facilitated by TfL, the Coalition has developed a Car Club Strategy for London[14]. However, there has been no clear ownership in implementing any of the recommendations outlined in the Strategy, and the group has not continued to meet.

20. A number of London boroughs and car club providers have contacted London Councils and expressed their disappointment with such situation. The car club sector could become a mainstream mode of sustainable transport in London but there are significant challenges to achieving this goal such as varying policy approaches across boroughs, lack of engagement and support from key stakeholders, low awareness and visibility, lack of integration with other means of travel, lack of clear research on potential benefits, etc. London Councils TEC is well-placed to play a stronger role in understanding the complexities of the situation and helping to shape this policy agenda forward.

Demand-response schemes and services

21. A 'demand responsive' system is a flexible, shared and user-oriented form of public transport. It is designed to provide transportation services in low-demand-areas and is based on the needs of customers (pick up locations, times, destinations, etc.). TfL has announced potential trials for demand-response bus service to enhance London's public transport network[15]. These trial services, for nine passengers or more, would not replace any existing TfL services but rather work as a test for innovations in ride-booking technology that can be used to create new TfL bus schemes.

22. A recent study[16] by Community Transport Association and Institution of Mechanical Engineers identified a number of benefits of such scheme. It could potentially make the transport system more accessible and inclusive by making it more localised and user-oriented; optimise the number of vehicles used on the roads; improve resilience and sustainability by reducing the use of private vehicles; and increase overall connectedness of the network. That being said, there are significant challenges to be taken into account such as cost-effectiveness, data-related risks, effective structure of services, successful cooperation between local residents and service providers, and inter-connection with already existing services. London boroughs should play a key role in analysing these challenges and ensuring that they are properly addressed by TfL and other stakeholders.

Smart mobility and 'Mobility as a Service' (MaaS) platforms

23. Smart technologies and the better use of data could allow us to make significant positive impacts on the efficiency, environmental performance and safety of our transport networks. In fact, London has been a leader in the area of smart mobility for a long time as seen with the development and use of the Oyster smart ticketing, congestion charging, the release of real time travel information for buses, and the launch of the London Data Store.

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[14] http://content.tfl.gov.uk/tfl-car-club-strategy.pdf
[15] https://tfl.gov.uk/info-for/media/press-releases/2018/march/tfl-exploring-whether-a-new-demand-responsive-tfl-bus-service-could-complement-existing-bus-network
[16] https://ctauk.org/wp-content/uploads/2018/05/The-Future-of-Demand-Responsive-Transport-1.pdf

24. Smart Mobility helps to create a more efficient transport system in London by using technology and data to plan the most effective ways to commute, whilst at the same time reducing its negative effects, such as congestion and air pollution.

25. Mobility as a Service (MaaS) is an innovative approach to transport and is powered by smart use of data. It aims to establish a single platform connecting separate transport methods across London, and is built on transport system integration. UCL Energy Institute's study (2015) outlined a number of benefits of such systems including travel cost and time reduction, better service experience and more effective and cheaper transport system. It also concluded that MaaS is a potentially feasible product for London and "can well serve London transport market and contribute to Londoner's quality of life"[17].

Bicycle-sharing schemes

26. Dockless cycle hire schemes have been active in London since July 2017 and we continue to work with TfL and the London boroughs to make sure that these schemes work for the boroughs and help them reach their transport objectives. Other vehicle sharing schemes are likely to come to London in the short term, such as electric bikes and scooters. Given that there has been a lot of engagement on this topic between TfL, London Councils and the London boroughs[18], we are not proposing to change the current set-up and have already presented two reports on this to full TEC. However, to bring it in line with this process, we will endeavour to present reports to the TEC Executive for consultation and input going forward.

Summary

27. All of these different categories of future transport are important and London Councils will be engaging with them in the future. However, as it was outlined above, in the new agenda we would like to place a particular focus on some of the areas. This is to allow us to avoid duplicating the work of other groups and focusing on an area where there is little public policy at this stage. Below is a chart providing a brief summary of the categories that fall into our proposed Future Mobility Agenda and the ones that do not. It also highlights new and existing work streams.

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[17] https://www.ucl.ac.uk/bartlett/energy/sites/bartlett/files/fs-maas-compress-final.pdf
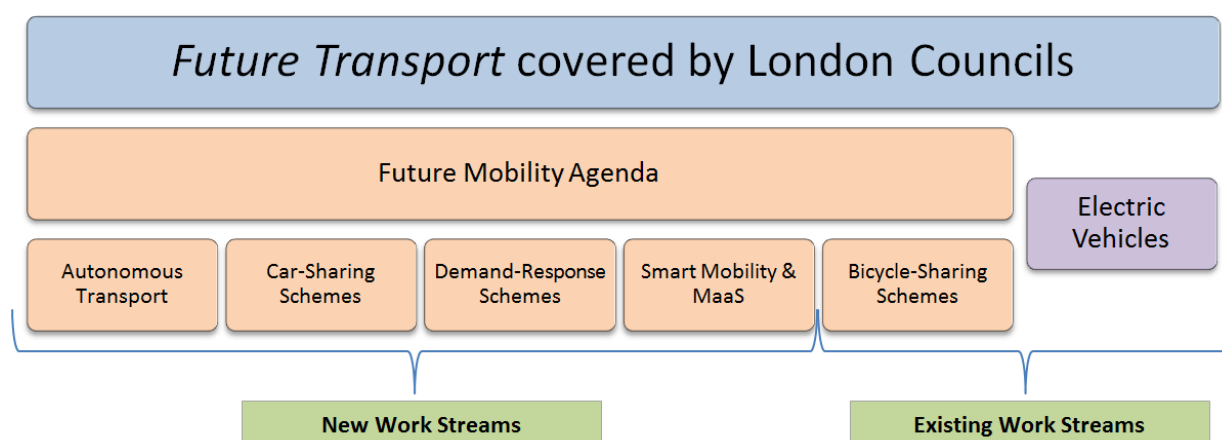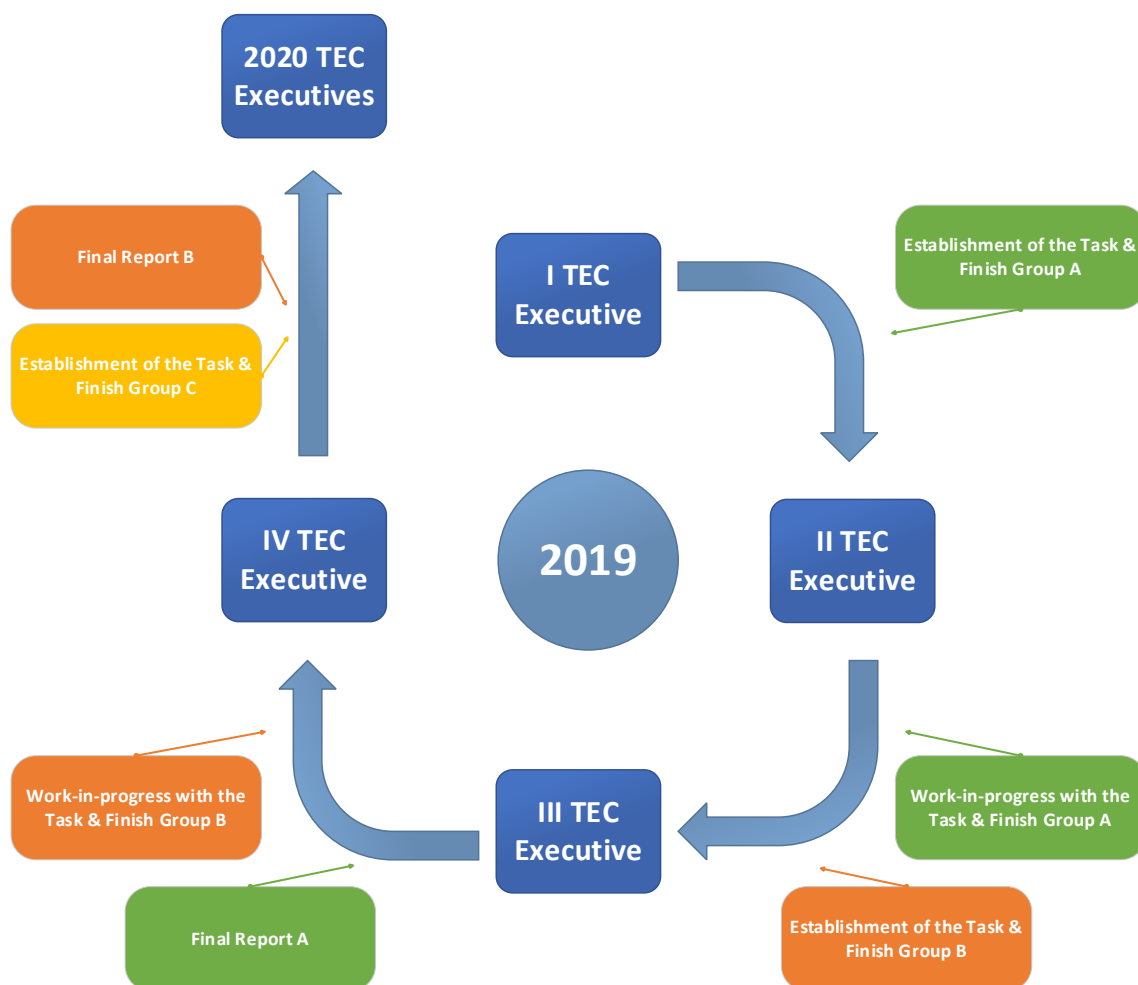
[18] There is already an established and active group looking into this issue, TfL's Dockless Bikes Working Group

Proposals and Methods

28. Given the complex nature of the subject, there would be a large number of discussion areas taken into account when analysing each of the above-mentioned topics, including but not limited to the following: accessibility, affordability, automation in jobs, car ownership, data safety, environmental concerns, equal distribution of benefits across the society, health & safety risks, monopolisation of markets, parking concerns, population growth in the capital, public opinions/expectations, preparation for transport innovations amongst Councils in London, sustainability, traffic congestions and others.

29. In order to successfully navigate such a complex area of study, we would need i) high-level input from London Councils Members and we suggest using the existing TEC Executive Committee, and ii) knowledge and insights from borough officers and other key expert stakeholders (TfL, GLA, government departments, businesses, etc.).

30. We would give regular updates to Members at LC TEC Executive meetings and ask for their views and support in: a) identifying key priorities for London boroughs from the list of topics included in the Future Mobility Agenda; b) noting and commenting on the progress of work we have done so far.

31. We would also establish temporary topic-focused Task & Finish groups to provide a truly robust discussion and analysis. These groups would be made up of borough officers, experts, partners and key stakeholders.

32. Finally, we would produce a report about the topic area, informed by the Task and Finish groups work and present it to TEC Executive and, depending on the nature of the discussions, full TEC. Potential outcomes could include:
    - Drafted policy positions for boroughs to consider
    - Broader policy recommendations
    - Action plans
    - Research documents

Full Project Cycle.

33. We would follow the direction shown by LC TEC Executive Committee Members and, as shown in the graph below, start a three-stage project cycle. During the first stage, we would establish a new Task & Finish group. We would invite borough officers, experts, partners and key stakeholders to join the group in order to facilitate an in-depth discussion and analysis of a particular matter (for instance, car clubs in London). During the second stage, we would work closely with the Task & Finish group by facilitating regular conversations and analysing key issues of the chosen topic. During the third stage of the project, we would produce a final report on the issues discussed. This report would outline the work we have done, show an analysis of risks and benefits, and provide a number of policy recommendations for London.

2020 TEC Executives

Final Report B

Establishment of the Task & Finish Group C

I TEC Executive

Establishment of the Task & Finish Group A

IV TEC Executive

2019

II TEC Executive

Work-in-progress with the Task & Finish Group B

Final Report A

III TEC Executive

Work-in-progress with the Task & Finish Group A

Establishment of the Task & Finish Group B

Next focus area – Proposal

34. The first new topic area we propose to analyse is the car-sharing schemes. As it was outlined above, London Councils has been approached by a number of stakeholders, including the boroughs, TfL and car clubs, with concerns that London boroughs are not responding successfully to the challenges car clubs are facing. Therefore, there is a clear need of an urgent analysis of the current situation and a united response from the London boroughs.

35. Further to this, given that we have already been working on the issue of dockless bikes[19], we propose to continue to work on this and produce a report for the next TEC Executive Committee held on 7 February 2019.

Full Project Cycle – Example

36. If the TEC Executive Members support the new Future Mobility Agenda and the proposed topic areas, London Councils' officers will start working in accordance with the following timeline. As shown in the graph below, between TEC Executive Meetings on 15 November 2018 and 7 February 2019, we would establish a new Task & Finish Group focusing on the car-sharing schemes, and produce a report on the progress on dockless bicycles in London.

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[19] Currently we are at the Stage 2 of the full project cycle (i.e. Work-in-progress with the TfL's Dockless Bikes Working Group)

37. Following this, between TEC Executive Meetings in February and July 2019, we would work with the Car-Sharing Task & Finish Group, and establish a new Task & Finish Group on a new topic (we would consult TEC Executive in February about the next topic).

38. Between TEC Executive Meetings in July and September 2019, we would produce a final report on car-sharing schemes and the work we have done on it, and start working with a new Task & Finish Group on the topic agreed with TEC back in February.

39. Finally, between TEC Executive Meetings in September and November 2019, we would finalise the report on the topic agreed with TEC Executive in February, and establish a new Task & Finish group to analyse the next topic area agreed with TEC Executive in September.

40. There is the opportunity to increase the time spent on topic areas if felt necessary, but the aim is to have a relatively swift and intensive look at each policy area in turn.
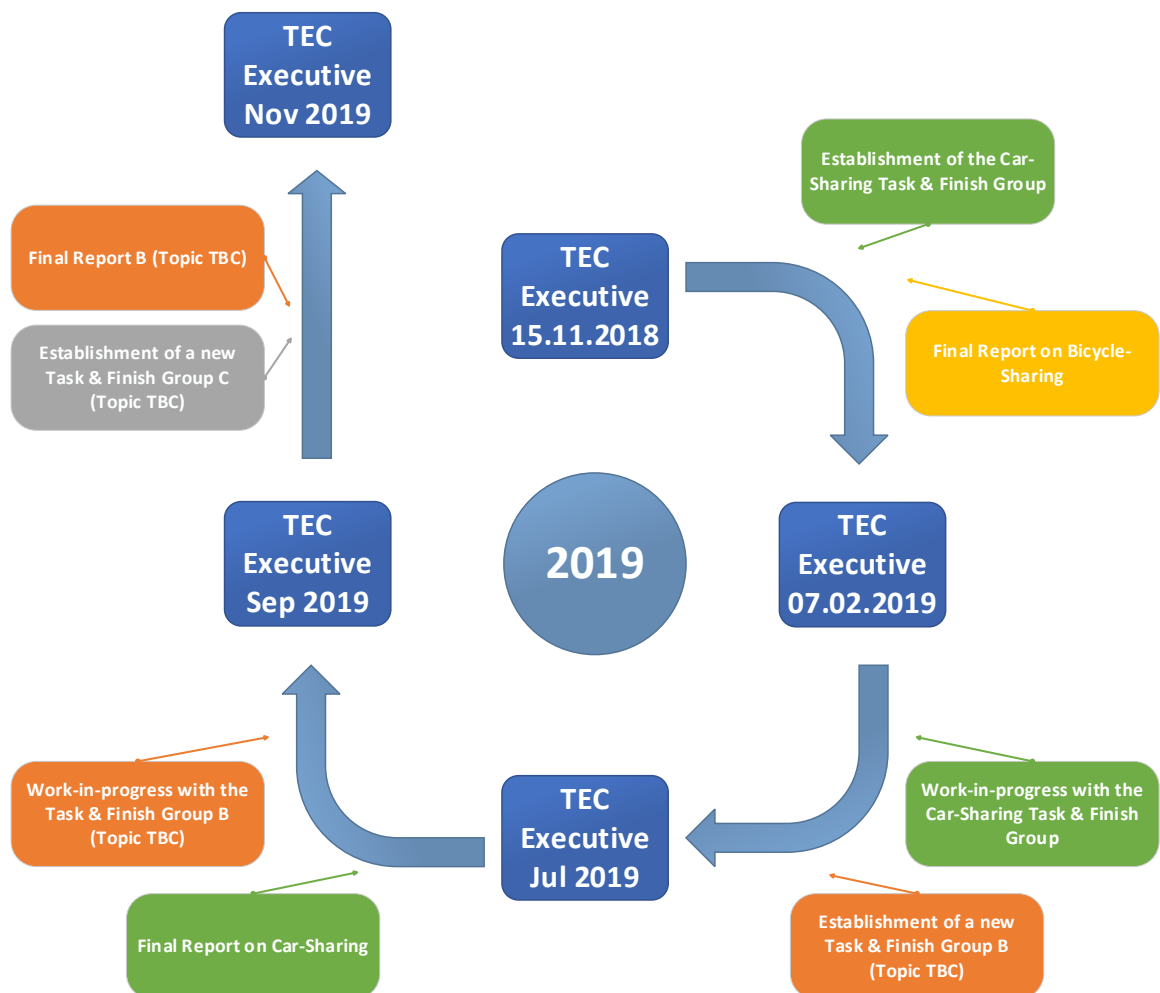
Conclusion

41. London is entering a time of rapid technological change in the transport sector. Autonomous transport, bicycle and car sharing schemes, demand-response services, EVs and developments in smart mobility platforms could bring enormous benefits and make London a cleaner, safer and better-connected place to live.

42. London boroughs and London Councils TEC should play a decisive role in driving this innovation agenda forward. In order to do so, we propose a new Future Mobility Agenda, which will aim to analyse key issues and forge a consensus amongst boroughs and key stakeholders.

43. The first new topic area to be analysed by London Councils' officers should be car-sharing schemes. LC officers should also finalise the bicycle-sharing work stream and produce a report for TEC Executive meeting on 7 February 2019.

Recommendations
The Committee is asked to:
- Note and comment on the report
- Agree to set up temporary Task & Finish Groups with political oversight through London Councils TEC Executive Committee meetings
- Agree for car-sharing schemes to be the first focus area of the proposed Future Mobility Agenda

Financial Implications
The main financial implication to London Councils arising from this report would be officer time spent on the project.

Legal Implications
There are no legal implications to London Councils arising from this report.

Equalities Implications
There are no equalities implications to London Councils arising from this report.