

<b>Submission No.</b>	<b>54</b>
<b>Organisation Name or Name of Submitter</b>	<b>Cormac McKay and Aeravai - Autonomous Electric Road and Air Vehicle Association of Ireland</b>

<b>Item No.</b>	<b>Section Ref.</b>	<b>Page No.</b>	<b>Observation Statement</b>	<b>TII Response</b>
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**Letter Re: Cormac McKay Aeravai - Autonomous Electric Road and Air Vehicle Association of Ireland - Submission to An Bord Pleanála- MetroLink Dublin**

1	Observations - Project Cost	3 and 4	<p>It is still unclear whether this will stay in full public ownership or if a PPP (public private partnership) contract may be signed with a private operator/s? as some of these PPP's have not worked out very well for the taxpayer, with shortfall in projected use and profit made, being subject of contract clauses. An Agreement governing traffic growth on the M3 and Limerick Tunnel, guaranteed the Government will pay if traffic growth doesn't reach it and that the taxpayer should pick up the bill for shortfalls. It would be my fear because Metrolink will be obsolete transport technology by the 2030's and unfavoured by the general public that its use may not hit expected or projected passenger numbers and any shortfall in expected profit or repayment of bonds and funding will be expected to be paid by the taxpayer. It would be my opinion that this €250 million on consultants should be written off as a bad learning experience and that future projects should not be conducted or financed in this manor, as the NTA/TII clearly lacks the experience to deliver such a project and should never have been financed by the taxpayer and instead expenses for plans or proposals should be paid for by competition by the expected contract deliverers.</p>	The Procurement Strategy for MetroLink does not form part of this Railway Order Application.
2	Observations -Obsolete technology	5	<p>What this means is how people travel in the 2030's will be drastically different to today and the speed of adoption of these advancements in transport could be exponential. Instead of travelling to Dublin Airport by rail, you may be travelling by passenger drone, eVtol in the air or Autonomous RoboTaxi on the ground and these may be a more desirable form of travel than disjointed public transport and underground rail. This may cause adverse reactions on projected passenger numbers travelling on Metrolink making its commercial viability questionable with Dublin Airport being one of its major justifications for the project. In fact Dublin Airports own passenger numbers may decline significantly in the 2030's with the emergence of smaller electric aviation aircraft that can take off and land from anywhere in the country no longer needing passengers to travel to Dublin airport at all, for the majority of short haul travel and the IAA, EU and UNECE global regulators are currently making the rules for deployment of these technologies.</p>	<p>The need for the Project is presented in detail in Chapter 3 (Background to the MetroLink Project). Chapter 7 (Consideration of Alternatives) also presents details on the consideration of alternative technologies for the Project. Passenger demand on MetroLink has been modelled for the years 2035 Opening Year, Opening Year + 15 Years, and Opening Year +30 Years to determine the long term viability. TII will continue to monitor emerging alternative technologies, and the potential impact these may have on passenger demand for MetroLink.</p> <p>As outlined in Appendix A9.4 Transport Modelling Report, in order to ensure that the Project can operate efficiently and deliver benefits into the future, forecasts have determined the likely future levels of demand on Dublin's transport system. The existing and committed public transport provisions do not serve the existing or future demand in the key nodes of Dublin Airport and Swords, with many public transport services operating at or over capacity by 2035. These forecasts have been based on planning datasheets from the NTA which forecast population, employment and education growth across the region. Whilst there is a degree of risk associated with making these predictions, they are projected in coordination with the Regional Assemblies and the Local Authorities to incorporate their housing and growth priorities. In addition, forecasts at Dublin Airport are based on the central growth forecast from the DTTAS report 'Review of Capacity Needs at Ireland's State Airports' and the Central Statistics Office (CSO) 2016-2019 Aviation Stats' TAM05, which outlines forecast passenger growth at Dublin Airport to 2050 for Low, Central and High growth scenarios.</p>
3	Observations - Alternative technological proposal	6 to 12	<p>One of the alternative proposals by myself is to copy of what is currently under construction in Las Vegas by a company called The Boring Company using underground smaller affordable vehicle tunnels and Autonomous RoboTaxis. One of the disadvantages of a Metro is that they are notoriously expensive to build per km and require large station blocks, these are extremely disruptive, time consuming and labour intensive to construct and many in other cities have had unforeseen delays on completion dates. The Boring Company's solution avoids these pitfalls with smaller tunnels and smaller stations or no need for stations at all with entrances into the tunnel network from street level for direct door to door service. This solutions was brought to the attention of the National Transport Authority at a number of public consultations and meeting with public reps. Unfortunately I did seek an FOI to verify this and included it in submission but no records of questions asked at meetings were kept the by NTA.</p>	TII have no comment to make on discussions between the submitter and NTA, or any proposals made at those meetings.
4	Observations	13	<p>Because of the nature of this project it will take considerable long time to complete and similar projects have taken years longer than expected.</p>	TII as the Government Agency responsible for delivering MetroLink, are committed to expediting the delivery of this transformative project on receipt of an Enforceable Railway Order.

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5	Observations - Construction consequences	13	There will be a number of unpalatable consequences from the construction of this Metro proposal including a number homes need to be vacated and demolished, along with a community leisure centre and a historical landmark.	<p>The EIAR has assessed the impacts of both the construction and operation of MetroLink. As detailed in Chapter 11 (Population and Land Use), the proposed Project will require the acquisition of numerous land and property interests in both public and private ownership including a range of residential and commercial properties that are occupied. A Land Acquisition Strategy (LAS) has been prepared by TII which sets out the arrangements proposed for the provision of information and assistance to the residential owners / occupiers of land and property subject to compulsory purchase for the delivery of MetroLink. The LAS establishes the arrangements in place for communication and engagement with all affected parties, the assistance and supports that will be available to residential and commercial property owners including on acquisition and relocation. Details regarding the Land Acquisition Strategy can be found in section 21.6.1.3 of Chapter 21 (Land Take), with the document publicly available at the following website: <a href="https://www.metrolink.ie/en/your-property/land-acquisition-strategy/">https://www.metrolink.ie/en/your-property/land-acquisition-strategy/</a></p> <p>TII will continue to work with DCC in relation to the development of an alternative sports and recreational facility to replace the Markiewicz leisure centre and intends to fund the alternative. However, TII does not have control over that development, which is part of DCC's function to provide public sport and recreational facilities in its function area. DCC may or may not be in a position to deliver it in parallel with the MetroLink project. Accordingly, the Board should assess the MetroLink project on the basis that the alternative may not be available. The impact would then be significant, but nonetheless one that would not outweigh the strategic scale long term benefits that MetroLink will deliver.</p>
6	Observations - Health effects	13	One of the developing worries regards underground rail is the potential health effects of the air pollution on underground Metros. Heavy rail in general has some emerging health concerns that the Irish authorities are still only beginning to investigate and become aware of. With the most significant being noise pollution and its long term health effects, this project proposes to link up with other heavy rail as a core principle of its interconnectedness.	<p>Potential impacts to air quality as a result of the Project have been assessed and presented in Chapter 16 (Air Quality), with Chapter 10 (Human Health) detailing potential health impacts and benefits associated with the Project. Modal shift from road transport to MetroLink has the potential to reduce air pollution health risks in the city centre. Extensive assessments have been undertaken as part of the EIAR process to understand the potential impacts of air quality on the communities and mitigation measures have been developed to manage identified impacts. These measures will include the establishment of an air quality baseline, and implementation of measures in collaboration with other key stakeholders as required to ensure air quality and noise limits are adhered to.</p> <p>The MetroLink design will respect passenger comfort and will implement mitigation measures to mitigate potential noise and vibration impacts to ensure limits are adhered to during both the construction and operational phases.</p>
7	Observations - Unrealistic behavioural change	14	There seems to be an ideological lack of understanding of why a majority of the general public does not use or will not use public transport and the expectations that delivery of this project will encourage people out of private cars and on to it may be unrealistic and the behavioural change will not be realised to justify the proposal going ahead especially with the coming advancements in transport technology and alternative options such as on-demand door-to-door RoboTaxis.	<p>Please refer to response item 2. As detailed in Chapter 9 (Traffic and Transport), the baseline modal split for trips within the Greater Dublin Area (as informed by relevant planning documents) indicates that 66% of trips from Fingal/Dublin Fringe to the City Centre are made by public transport. Similarly, for trips within the Canal Cordon into Dublin City Centre, over 53% are made by public transport (bus, rail and Luas), demonstrating the current behaviours of the population within the Greater Dublin Area. Extensive transport modelling has been undertaken to determine passenger demand on the project. The model has indicated that there will be significant growth in public transport usage in trips to and from zones around the alignment, with a corresponding reduction in private car trips.</p>