



# Tyne and Wear Metro: what passengers want from new trains

Summary report  
February 2017





# Forewords



Anthony Smith  
Chief Executive, Transport Focus

Transport Focus considers it essential to involve passengers in the design of new rolling stock at the earliest opportunity. While aspects related to train design often feature in our research about passengers' priorities for improvement to rail services generally, it is important that local and network specific factors are taken into account so passengers do not travel on trains that fail to meet both their existing and future needs. We have previously looked at other rolling stock design, most recently with Merseyrail in 2014. There are similarities and differences in each location.

Transport Focus' purpose is to secure the best possible deal for passengers. This joint project between Nexus and ourselves ensures that passenger views will be used to shape all stages of the procurement and delivery of the project, and that the design features and facilities passengers think new trains should incorporate are fully considered.



Tobyn Hughes  
Managing Director, Nexus

Our Metro Futures programme sets out bold and ambitious plans to invest in and secure the future of Metro over the next 20 years. This involves developing Business Cases for investment for:

- a new fleet of Metrocars to replace the current fleet;
- a continuation of our asset renewal programme to invest in Metro's infrastructure to 2035; and
- extensions to the current Metro network.

I am delighted that Transport Focus have worked with us to understand the thoughts and aspirations of our passengers in what they want to see in a new fleet of Metrocars. The outcomes of this research will play a significant role when it comes to designing and building a new fleet. We look forward to working with Metro passengers and stakeholders further over the coming months to ensure that their priorities have been captured and are picked up as we speak to train manufacturers in specifying and designing a new fleet of Metrocars for the 21st century.

# Background

The North East Combined Authority has recently agreed a strategy for investment in Metro and local rail to improve journeys for passengers and to kick start an expansion of high quality local rail for the region. The strategy sets out the case for more than £1 billion of new investment in the existing Metro system over the next 20 years.

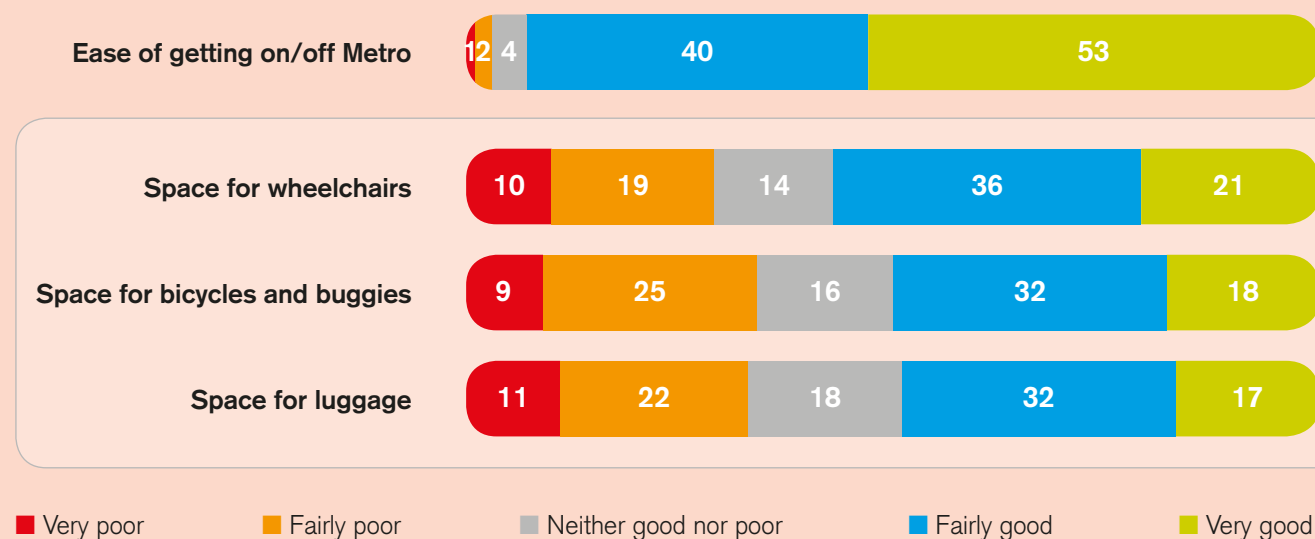
As part of this investment Nexus is developing a bid to central government for funding to replace its Metrocar fleet. The current fleet of Metrocars is approaching 40 years old and despite having had multiple refurbishments, is now nearing the end of its operational life. Nexus is particularly keen to ensure that the views of passengers are understood and incorporated. The passenger view has separately been collected by Nexus via a customer consultation exercise, by working alongside Newcastle University's 'Open Lab' to host pop-up events, and also by commissioning independent research, involving face-to-face interviews at Metro stations and focus groups with Metro passengers. The results of this independent research are summarised in this report.

## Key findings

### The provision of space in the carriage

The research clearly indicates that perception of space in the train is a key issue for passengers on the Metro. Passengers indicate that they are relatively dissatisfied with the extent to which the current Metro trains provide space for bicycles, buggies and luggage. This finding reflects that of similar research Transport Focus has conducted previously for Merseyrail in 2014<sup>1</sup>. While passengers are happy with the ease of getting on and off the Metro, trains can become congested and future designs should include features that encourage passengers to move down within the carriages.

#### Passengers' rating of aspects inside the carriage (%)



**Q Thinking specifically about the environment inside the carriages of Metro trains, how would you rate the following aspects?**

Base all with an opinion: 813 – 971

<sup>1</sup> <http://www.transportfocus.org.uk/research-publications/publications/future-merseyrail-rolling-stock-what-passengers-want/>



"When there is a lot of people everybody seems to congest towards the doors, and you haven't got time to get off the Metro before the doors close."

Frequent passenger

"Getting to the airport you've not got anywhere to put your cases. If you've got a couple with a big case they've got to take two sets of seats."

Frequent passenger

"I think there could be more for people with luggage, especially because I've used it before for going to the airport and... Longbenton. There's a lot of people travelling from the main central lines to Longbenton or to Tyne View Park who have suitcases, a lot of other people travel. There's just not that space for them."

Infrequent passenger

Passengers with visual and mobility impairments told us that they occasionally find it difficult to get on and off the trains. For those with visual impairments, it is sometimes difficult to see the gap between the train and the platform, while negotiating congestion near doors and relatively poorly signed priority spaces is sometimes problematic for those with mobility impairments.

Passengers mentioning the need for priority spaces, and highlighting the need for clear signage about its use, was similarly highlighted by users in the Merseyrail research.

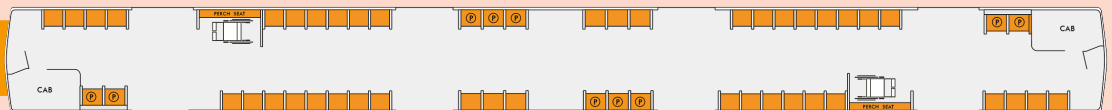
## Seating layout

Passengers identify the current layout of seats to be a key contributor to a lack of space within Metrocars. Against other designs, those featuring linear seating (along the length of the carriage) tend to be favoured as they are felt to provide plenty of space for luggage and for standing passengers.

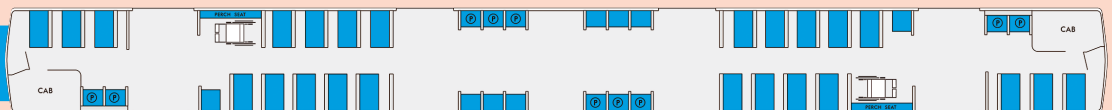
Linear seating designs are therefore seen to be most suitable for commuters. However, designs involving a greater mix of seating styles are favoured by those travelling outside of peak times because they offer a variety of seating options.

### Examples of potential new carriage layouts for Metro, as shown to passengers:

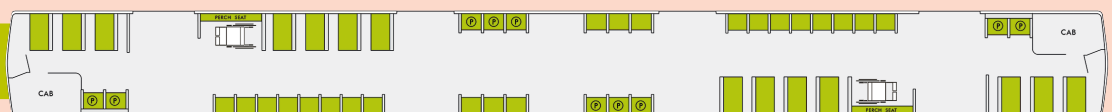
Linear seating



Mixed layout 1



Mixed layout 2





"I like [option] three because it seems that you've got more seats in the back, and people will sit together privately and you've still got a lot of space in the middle."

Frequent passenger

"I like the linear one, because if you do get on when it's really busy there are plenty of spaces to stand."

Frequent passenger

"I don't like the seats where there are two seats facing each other because you feel like you're on top of people."

Frequent passenger

"At the minute it's creating a bottleneck, where the seats come in together, so by removing that and having a linear module, you've got more space in the middle to manoeuvre."

Frequent passenger

"I like the first one with the seats up the side. It's actually busy times, they just look less claustrophobic."

Frequent passenger

## Should trains be a single carriage or remain as two carriages coupled together?

The possibility of designing new Metro trains as a 'single unit' (made up of one inter-connected carriage) as opposed to two coupled carriages as they are currently was discussed in focus groups. While single unit designs might offer advantages such as providing additional space where carriages are currently joined, Metro passengers tend to favour two-carriage designs.

Passengers tend to feel that having two carriages offers a way in which to escape from anti-social behaviour, though passengers recognise that their opinion is generally formed because the current design is what they are used to. And, of course, the concerns about personal security and anti-social behaviour could be addressed in other ways in the design of new rolling stock.

"I think it's good having two carriages, because if you're waiting and there is a group of people going on, you know, that are maybe a bit drunk, or a group of teenagers, you can then just choose to go into the other carriage."

Frequent passenger

"Yes, I quite like the two, but again, that's just something that we've got used to over the years."

Infrequent passenger

"If you see a big group on one carriage, and you want to avoid that, you've got a choice to pick a different carriage."

Infrequent passenger

## Standing on Metro trains

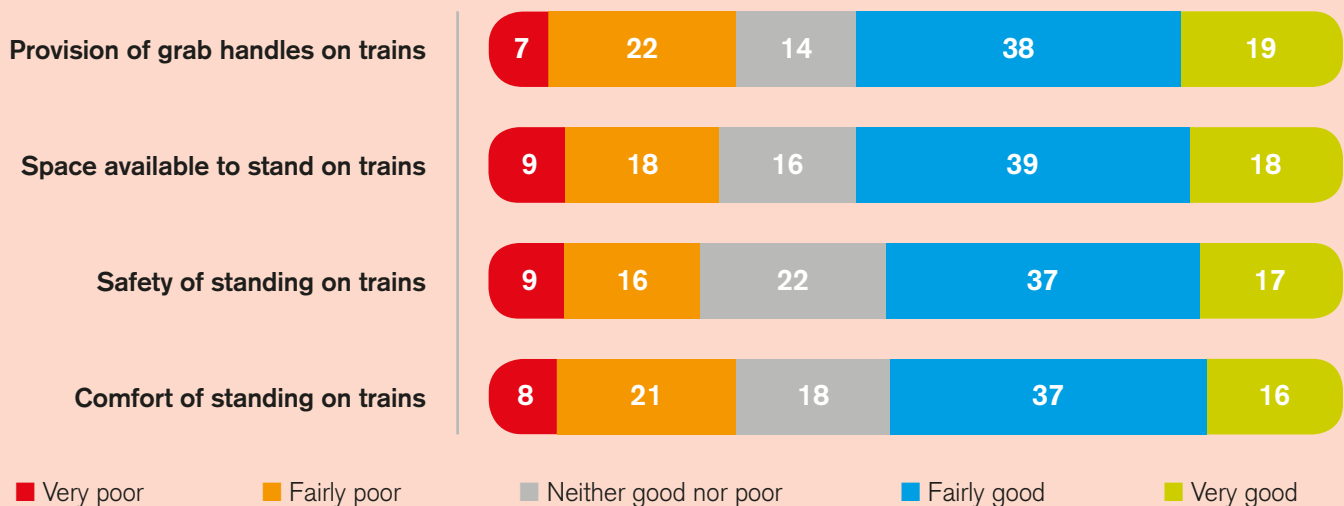
Around 16 per cent of passengers usually stand when travelling on the Metro. Amongst these passengers the provision of space available to stand in the current trains is rated relatively poorly and therefore is considered a priority for improvement. More than a quarter of those who usually stand rate the safety and the comfort of standing on Metro trains as poor.

Passengers feel that current Metrocars offer an insufficient number of grab-handles, and that the location of the pole (near the door) in current carriages was a cause of congestion. They therefore say that grab-handles should be provided throughout the train in order to encourage passengers to move down the carriage.

"If you're on the other side of these two and it's a bit rowdy on one, you can go on the other one, you know."

Frequent passenger

### Passengers' rating of aspects relating to standing on Metro trains (%)



**Q How would you rate the following in relation to standing on Metro trains?**

Base all who stand on trains with an opinion: 205 - 209

## Internal environment

Passengers tend to feel that the overall appearance of the current trains is outdated and that the design of future Metrocars offers a priority area for improvement which could be used to develop a sense of civic pride.

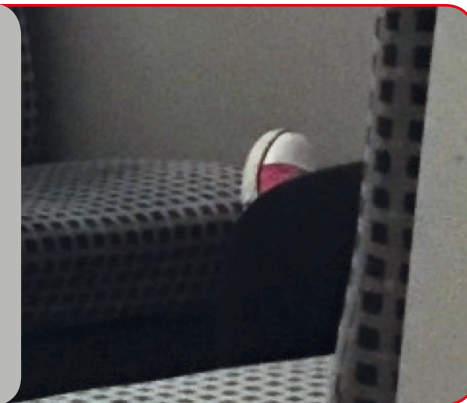
Similarly the cleanliness of seats and trains is seen as an issue. Passengers indicate a preference for leather type seats which they suggest could be cleaned more easily rather than the cloth-covered upholstery which is used currently. 48 per cent said they would like to see litter bins included as an additional feature on trains; the single most chosen new feature. This is a pattern we also saw in the previous work with Merseyrail.

Upon reflection however, passengers identify that litter bins may not provide an appropriate solution to improving the environment, as they could become smelly, dirty or a security risk.

As with litter bins, while passengers also mention air conditioning as a feature they would like to see installed, the issue becomes more contentious upon reflection. Participants at focus groups acknowledged that a range of views and tolerances to different temperatures exist, and that therefore the installation of air conditioning would not be universally welcomed.

"I was on one a couple of weeks ago and somebody must have had their feet on the seats, and I ended up with dirt all over the back of my jeans."

Frequent passenger



"A bin could potentially be a security risk."

Frequent passenger



### Features passengers would most like to see on Metro trains (%)

#### Top three features

Litter bins	48
Wi-Fi in the carriages	39
Air conditioning	29

**Q** Which three of the following features which could be included on Metro carriages in the future would you most like to see?



## Connectivity and Wi-Fi

After litter bins the provision of Wi-Fi is the new feature most commonly selected by passengers to include on future Metrocars. Passengers specifically mention the availability of Wi-Fi on some local buses and indicate that this feature, alongside the provision of charging points for small devices, is becoming a basic expectation for people using public transport.

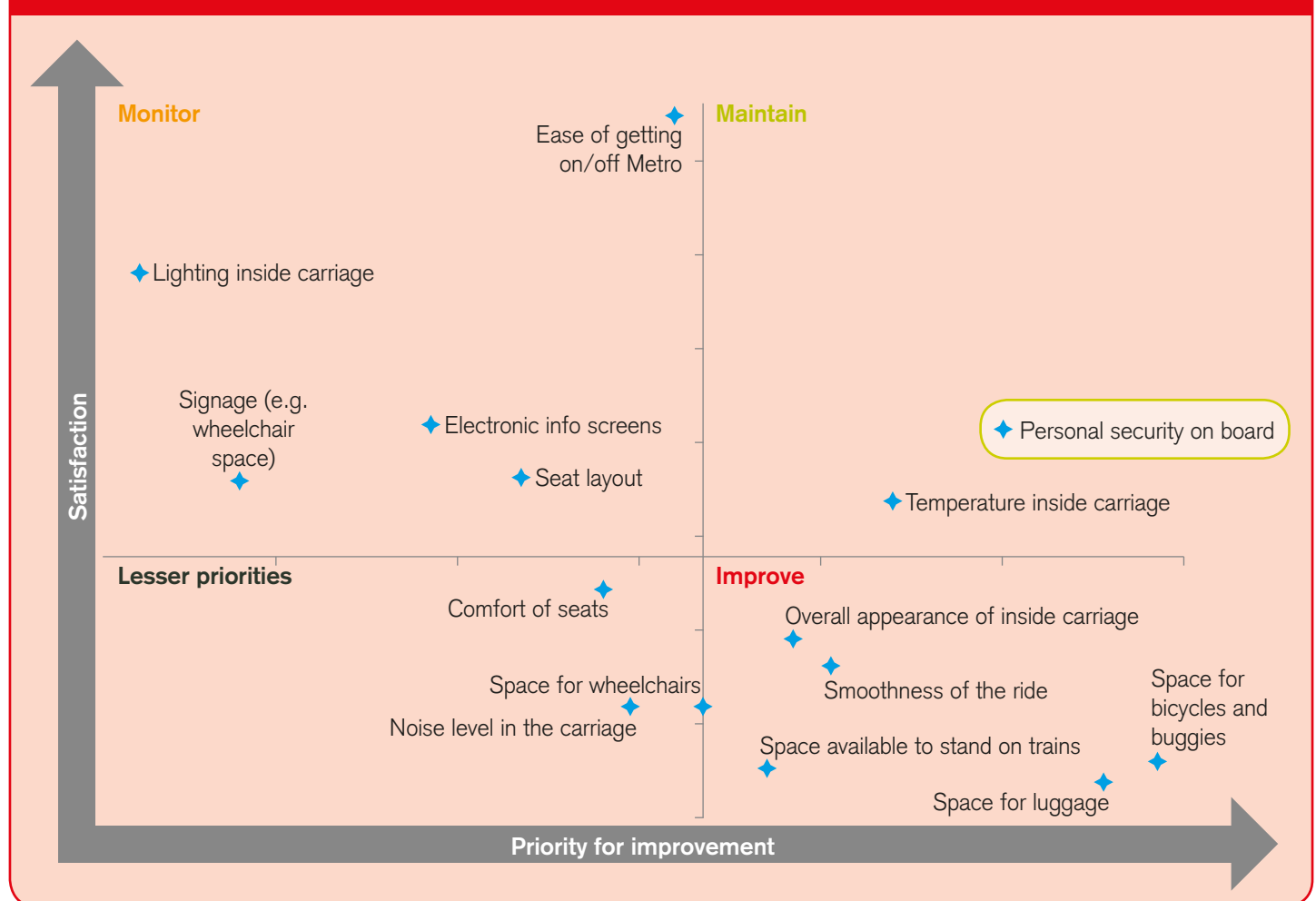
"Everybody has technology don't they, so, if you're on a journey and you're using it constantly, you think, 'Oh, I'll just plug it in the mains.' Everybody's looking for an outlet, aren't they?"

Infrequent passenger

## Personal security

Instances of passengers feeling unsafe on trains is relatively rare. However, when they occur these instances can have a significant impact. Accordingly findings indicate that though passengers are generally happy with personal security on trains, they also mention it as a priority issue for improvement in the design of future Metrocars.

### Passengers want efforts to ensure personal security maintained



Passengers most frequently associate personal security on trains with anti-social behaviour such as swearing and aggressive behaviour, people putting feet on seats, and littering. Passengers mention several possible solutions to the issue including a more frequent staff or police presence, and better monitoring such as use of a live CCTV feed.

*"Put guards on when it's crowded, like on match day or Saturday afternoons."*

Frequent passenger

*"Jobs at night throwing chips and cans about. There should be guards in to stop them."*

Infrequent passenger

## Information and signage

Passengers are generally happy with the current provision of signage and electronic information screens on Metro trains. The information they feel should be provided include: next stop and journey duration, news related to the local area, and live images of the carriage in order to prevent anti-social behaviour. The use of CCTV and making its presence obvious to passengers are measures which are welcomed with passengers elsewhere, as well as in this work.

Passengers with hearing impairments are also generally satisfied with the current provision of signage and information screens on trains, though they indicate that it would be important to provide visual information of calling-points and final destination on future trains. Similarly, passengers with impaired sight are generally happy that announcements on trains are clear.

*"Travelling on the Metro doesn't give me a problem. I can hear the announcements fine as they are in a loud clear voice."*

Passenger with hearing impairment

Passengers also say that the signage indicating priority seating and spaces for wheelchairs could be improved on future Metrocars as this is a factor in preventing these seats and spaces being offered to those who require them.





# Conclusions and recommendations

While the research suggests some clear recommendations for the design of future Metrocars, it also indicates that on some issues a variety of opinion exists. It is therefore important that Nexus regularly and clearly communicates with passengers up to the introduction of the new rolling stock about what the new design offers, and how passengers will need to adapt their behaviour accordingly.

## Space, seating layout and standing

- Design trains which encourage people to move down within the carriage
- A range of types of seats should ideally be available, but definitely use linear styles to provide space for those standing and to encourage people to spread out and not cluster by the doors
- Install more grab handles or poles for those standing which extend further throughout the carriage
- Consider spaces to store luggage or other bulky items.

## Internal environment

- Make future designs more modern looking and theme in such a way to develop civic pride
- Use materials, particularly for seats, which can be cleaned easily
- Provide Wi-Fi in carriages and consider charging points for small devices – although future technology trends may need to be catered for.

## Personal security

- If possible consider additional staff or police presence or ways in which the driver can intervene to prevent anti-social behaviour
- Install an obvious CCTV system which makes it clear to those likely to exhibit it that anti-social behaviour is being monitored.

## Information and signage

- Provide next stop, destination, and journey length information both by announcement and visually so this is clear to all passengers
- Improve signage for priority seating and spaces to ensure that these are used by those who most require them.

## How we carried out this research

Passenger priorities for the design of future rolling stock on the Metro were collected at the end of September and in early October 2016 in three ways:

- face-to-face interviews with almost 1,000 passengers as they exited Metro stations
- a series of six focus groups with different types of Metro passengers
- in-depth interviews with passengers with sight, hearing or mobility impairments.

Transport Focus commissioned Chime, an independent research agency to conduct this project.



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Transport Focus is the operating  
name of the Passengers' Council

This research was carried out by  
Chime Insight and Engagement

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