



**COMMITTEE  
FOR BRISBANE**

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**Connectivity Sub-Committee survey:  
Summary of research findings on first and last mile connectivity**



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## Background

The Connectivity Sub-Committee (CSC) of the Committee for Brisbane (CFB) was tasked, over the past 18 months, with investigating and reporting on various aspects of connectivity in the greater Brisbane area (in terms of the 2032 Olympic and Paralympic Games, effectively South East Queensland). The CSC agreed to focus efforts on producing outcomes that would address lesser-discussed but nonetheless important aspects of connectivity, not only for the upcoming Brisbane Games but also to effectively service the rapidly growing greater Brisbane population.

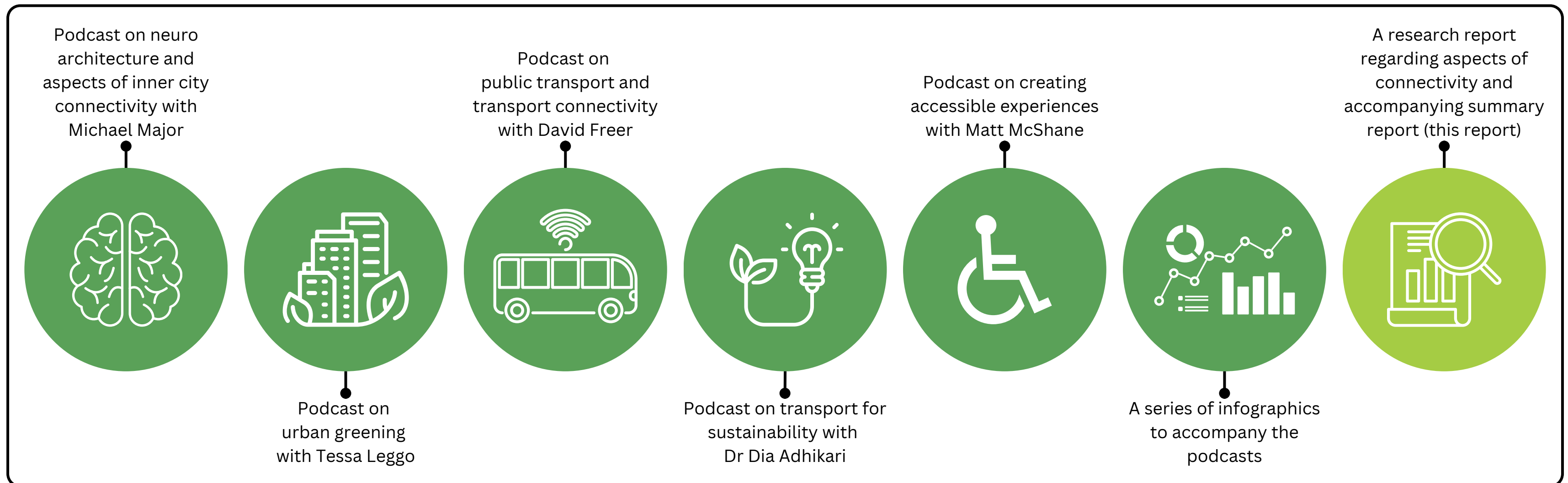
As part of the Connectivity sub-committee's (CSC) investigation, a research study was conducted by a university-employed CSC member to address attitudes of industry professionals to major infrastructure and related matters leading up to the Brisbane Games. The research consisted of a survey questionnaire that sought to gain insights into public attitudes to the experience of 'first and last mile connectivity'. Comparison of findings was conducted with findings from research conducted by a CSC member from the University of Queensland, highlighting potentially significant points of difference between the two sets of findings.





## Background

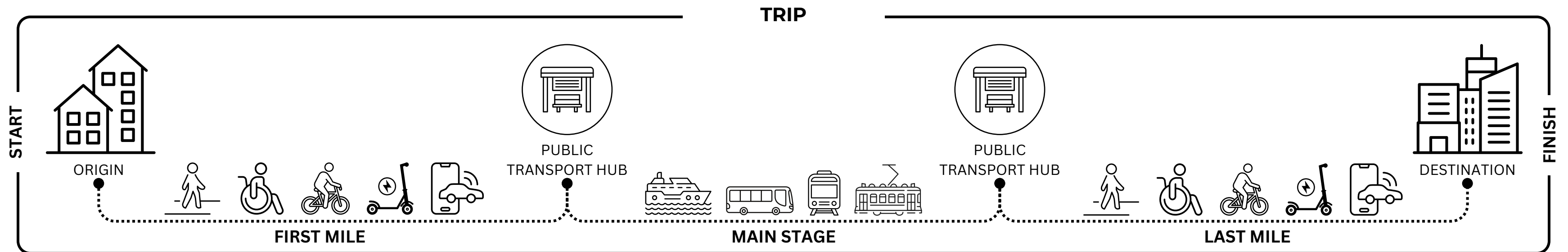
Other outputs as part of the CSC's efforts include a 5-podcast series with experts, delving into various aspects of connectivity, accompanied by a series of infographics summarising key takeaways from each podcast. These outputs can be accessed at the [Committee for Brisbane website](#).





# What is 'first and last mile'?

'First and last mile' is an internationally accepted term that describes the distance between one's origin or destination (e.g., home or place of employment) and the location(s) at which they would typically catch public transport (a public transport 'hub'). Academic literature states the first and last mile commute may consist of several modes of microtransit, including but not limited to walking, bicycle/scooter, electric bicycle/scooter, private vehicle, motorbike, feeder bus, or taxi.<sup>1, 2, 3</sup>



For the purpose of this study, we focused on the portion of journeys where survey respondents would walk, bicycle, or scooter to seek a better understanding of the first and last mile commuting experience of various categories of people.

<sup>1</sup> Kåresdotter, E., Page, J., Mörtberg, U., Näsström, H., & Kalantari, Z. (2022). First Mile/Last Mile Problems in Smart and Sustainable Cities: A Case Study in Stockholm County. *Journal of Urban Technology*, 29(2), 115–137. <https://doi.org/10.1080/10630732.2022.2033949>

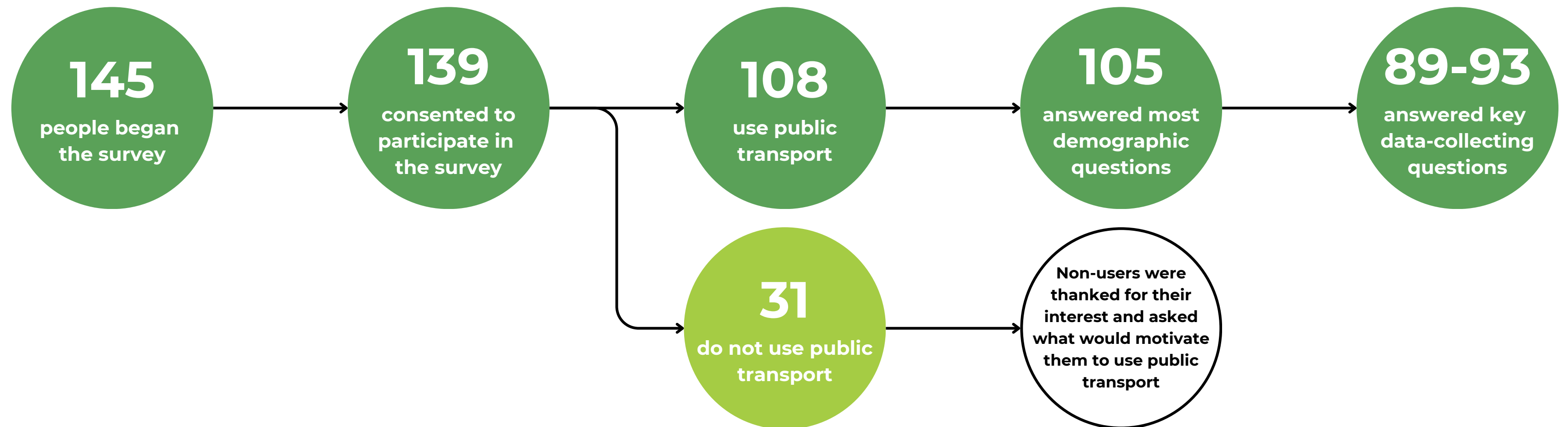
<sup>2</sup> Mohiuddin, H. (2021). Planning for the First and Last Mile: A Review of Practices at Selected Transit Agencies in the United States. *Sustainability*, 13, 2222. [10.3390/su13042222](https://doi.org/10.3390/su13042222).

<sup>3</sup> Venter, Christoffel. (2020). Measuring the quality of the first/last mile connection to public transport. *Research in Transportation Economics* (in press). <https://doi.org/10.1016/j.retrec.2020.100949>



## Survey responses

The following summarises the effective participant sample for the survey:



The sample was insufficient to declare a very high level of results reliability. Accordingly, this should be regarded as a pilot study that provided interesting insights into important questions regarding the use of public transport generally, and about first and last mile connectivity.



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# What would motivate non-users of public transport to choose public transport?



## IMPROVED ACCESSIBILITY AND COVERAGE

More bus stops and routes to reduce walking distances, expanded parking facilities, and improved access to connection points



## FREQUENCY AND RELIABILITY

Increased frequency of services, express options, and more punctual and reliable services



## CONVENIENCE AND CONNECTIVITY

Improved route connections, fewer transfers, and app and schedule integration



## COST

More affordable fares and cost-effectiveness compared to alternate modes of transport (e.g., driving)



## COMFORT AND CAPACITY

Comfortable rides and reduced crowding on services

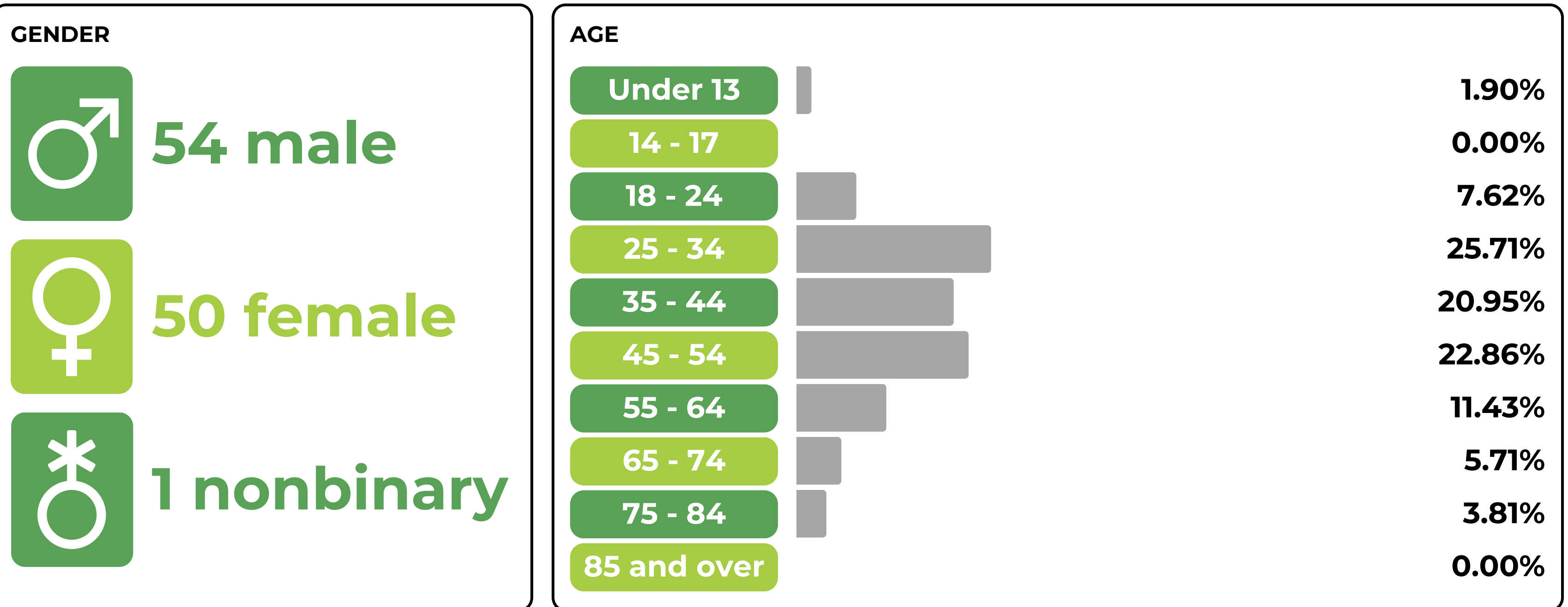


## SUSTAINABILITY

Increased focus on eco-friendly and sustainable transport options



## Demographics of survey participants who use public transport





## Category of survey participants

SURVEY PARTICIPANTS WERE ASKED WHICH OF THE FOLLOWING CATEGORIES DESCRIBE THEM (SELECT ALL THAT APPLY)





## Category of survey participants

SURVEY PARTICIPANTS WERE THEN ASKED WHICH OF THE CATEGORIES BEST DESCRIBE THEIR PUBLIC TRANSPORT USAGE





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## Category of survey participants

**These results indicates the majority (81.48%) of survey participants primarily use public transport to get to and from work**



**73.59%**

of survey participants use public transport at least once per week



# Public transport use

THE FOLLOWING PRESENTS FINDINGS REGARDING THE PUBLIC TRANSPORT USER PROFILE OF SURVEY PARTICIPANTS





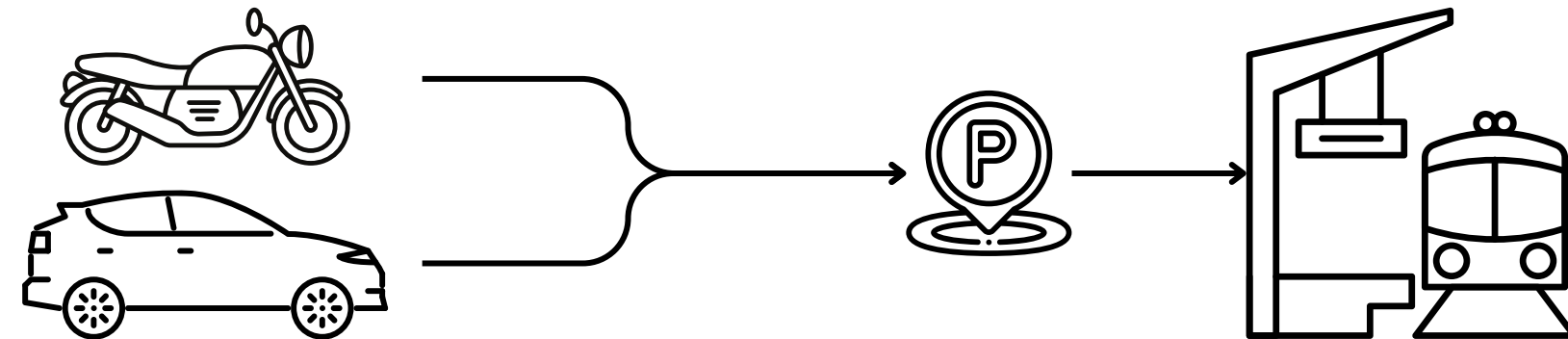
# Mode of accessing a public transport hub

SURVEY PARTICIPANTS WHO USE PUBLIC TRANSPORT WERE ASKED HOW THEY GET TO AND FROM A PUBLIC TRANSPORT HUB ON A TYPICAL DAY



Participant's most commonly used method of getting to public transport hubs was walking - used by **55.24%** of participants

The second most-used means of getting to public transport hubs was 'car or motorbike' - used by **37.14%** of participants



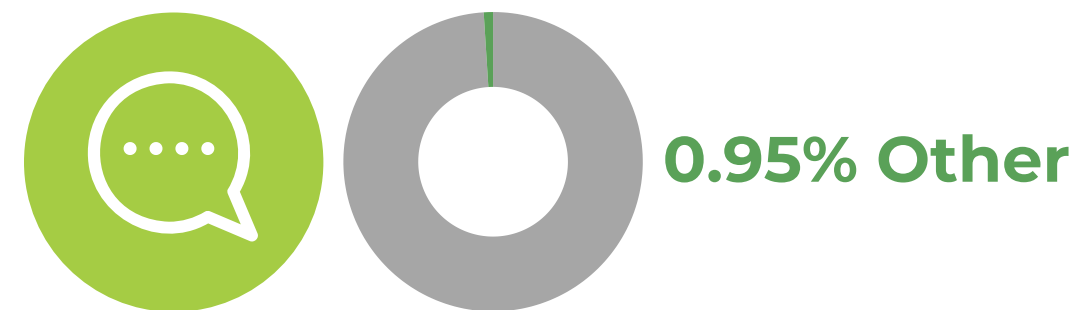
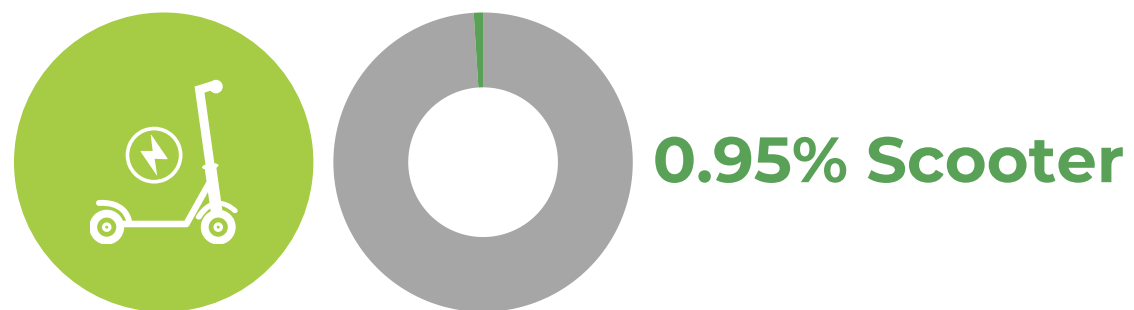
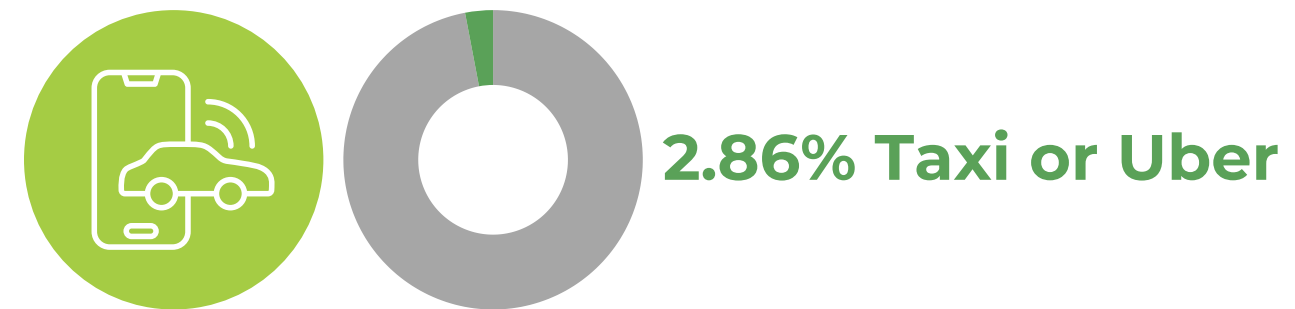
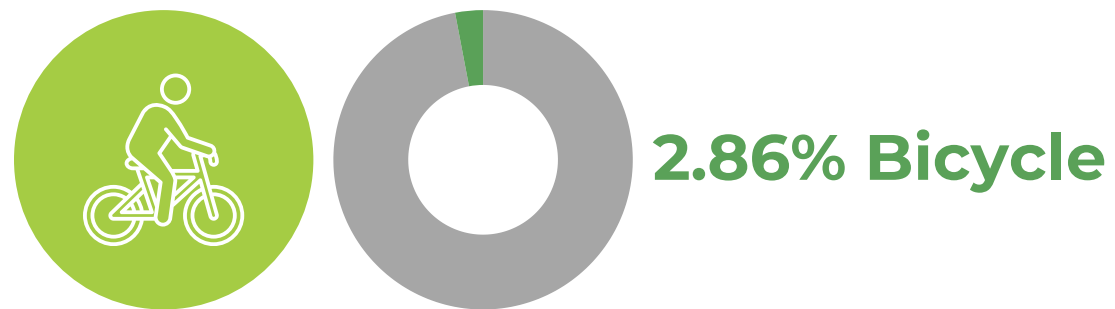
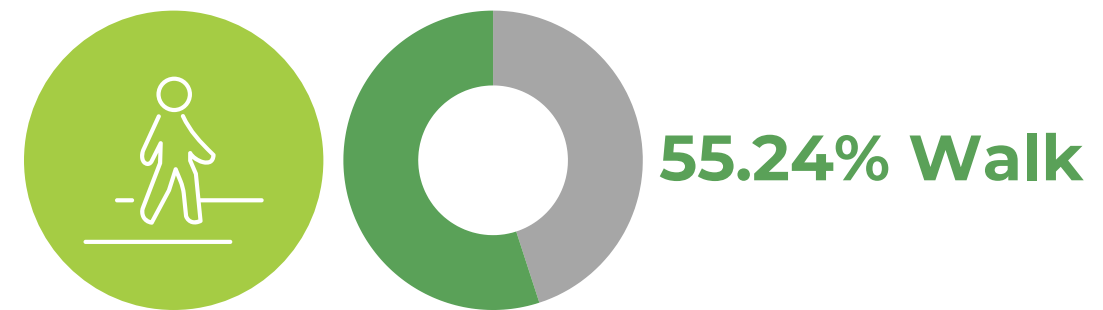
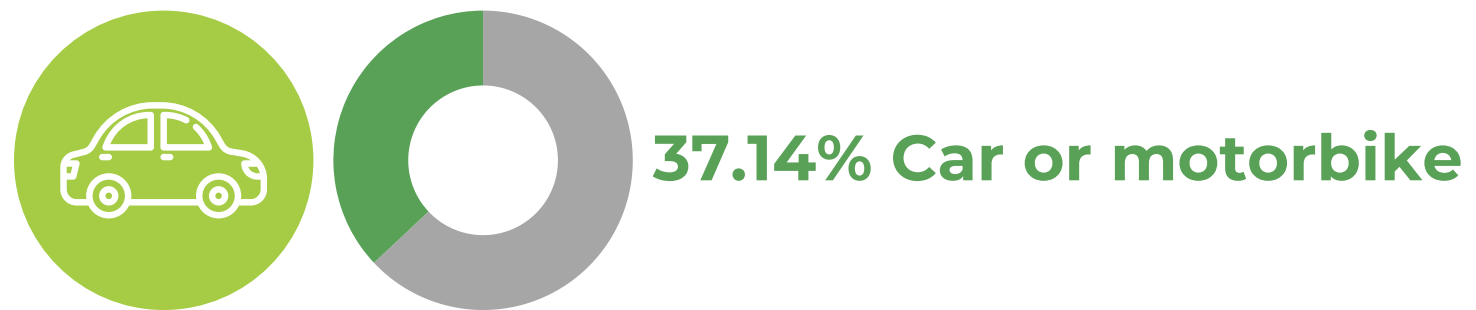
This might reasonably indicate a lack of satisfactory connection of public transport to major transport hubs



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# Mode of accessing a public transport hub

SURVEY PARTICIPANTS WHO USE PUBLIC TRANSPORT WERE ASKED HOW THEY GET TO AND FROM A PUBLIC TRANSPORT HUB ON A TYPICAL DAY





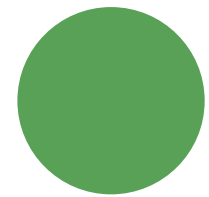
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**Survey participants who use public transport were asked to select the most relevant response to a series of statements about connectivity aspects of using public transport. The following slides are a summary of the results.**

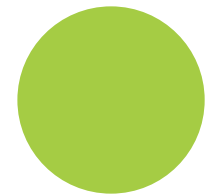


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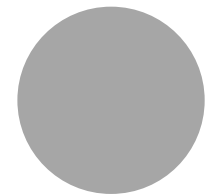
## Legend



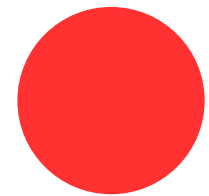
**Strongly agree**



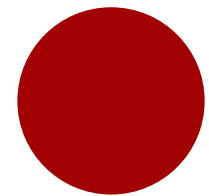
**Agree**



**Neither agree nor disagree**



**Disagree**

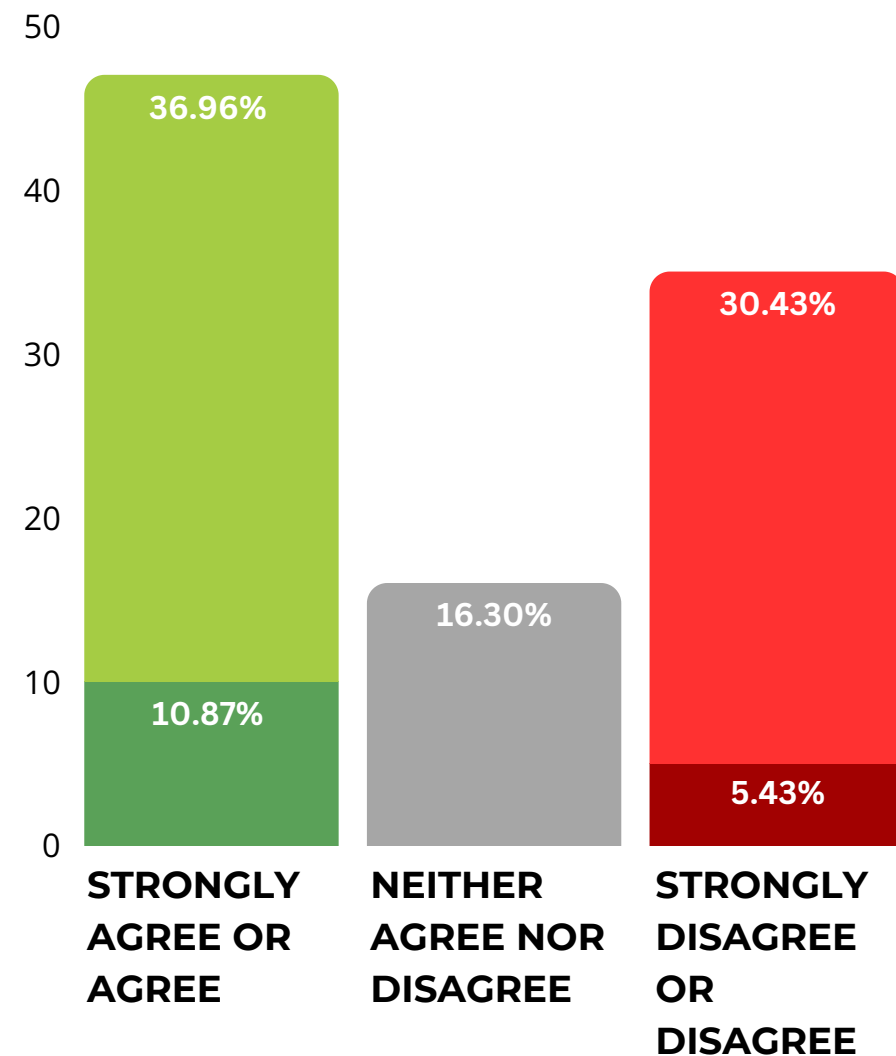


**Strongly disagree**



# Results summary: Question 1

## 1. BRISBANE'S FIRST AND LAST-MILE ACCESS BETWEEN MY ORIGIN AND THE PUBLIC TRANSPORT HUB MEETS MY EXPECTATIONS FOR A LIVEABLE CITY



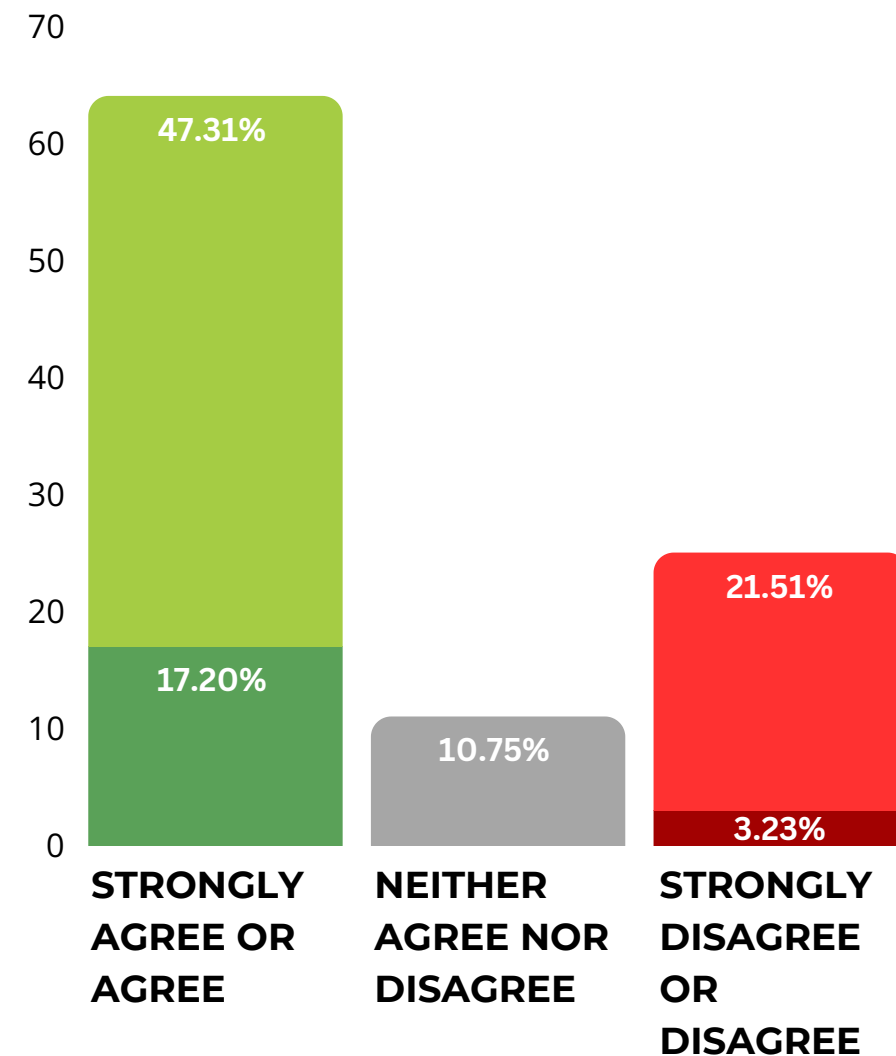
Ninety-two participants answered this with **44 (47.83%) agreeing or strongly agreeing** with the statement compared with **33 (35.86%) who disagreed or strongly disagreed**. The remaining 15 (16.3%) neither agreed nor disagreed.

**RESPONSES: 92**



## Results summary: Question 2

### 2. BRISBANE'S FIRST AND LAST-MILE ACCESS BETWEEN THE PUBLIC TRANSPORT HUB AND MY DESTINATION MEETS MY EXPECTATIONS FOR A LIVEABLE CITY



Ninety-three participants responded to the statement, with 60 (64.51%) either agreeing or strongly agreeing with it compared with 23 (24.74%) who disagreed or strongly disagreed with the statement. Ten (10.75%) took the neutral position.

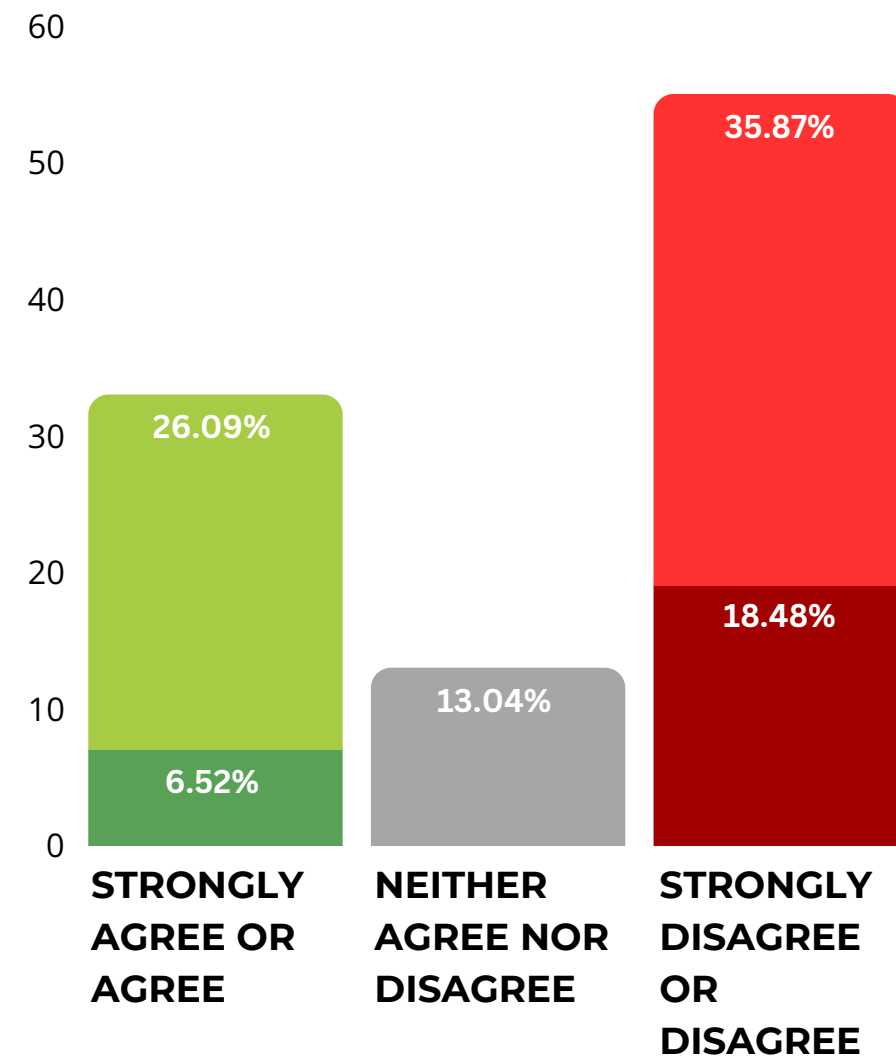
Comparing these responses with those to the previous statement, one might reasonably conclude **participants considered the connection between their destination public transport hub and their destination met expectations for a liveable city** by a factor of 1.35 more than did the corresponding link between origin and public transport hub.

**RESPONSES: 93**



## Results summary: Question 3

### 3. THE DISTANCE FROM MY ORIGIN AND THE PUBLIC TRANSPORT HUB IS A BARRIER TO ME USING PUBLIC TRANSPORT MORE OFTEN



Ninety-two participants responded, with the majority (54.35%) either disagreeing or strongly disagreeing compared with 32.61% who agreed or strongly agreed. Just 13.44% adopted the neutral position.

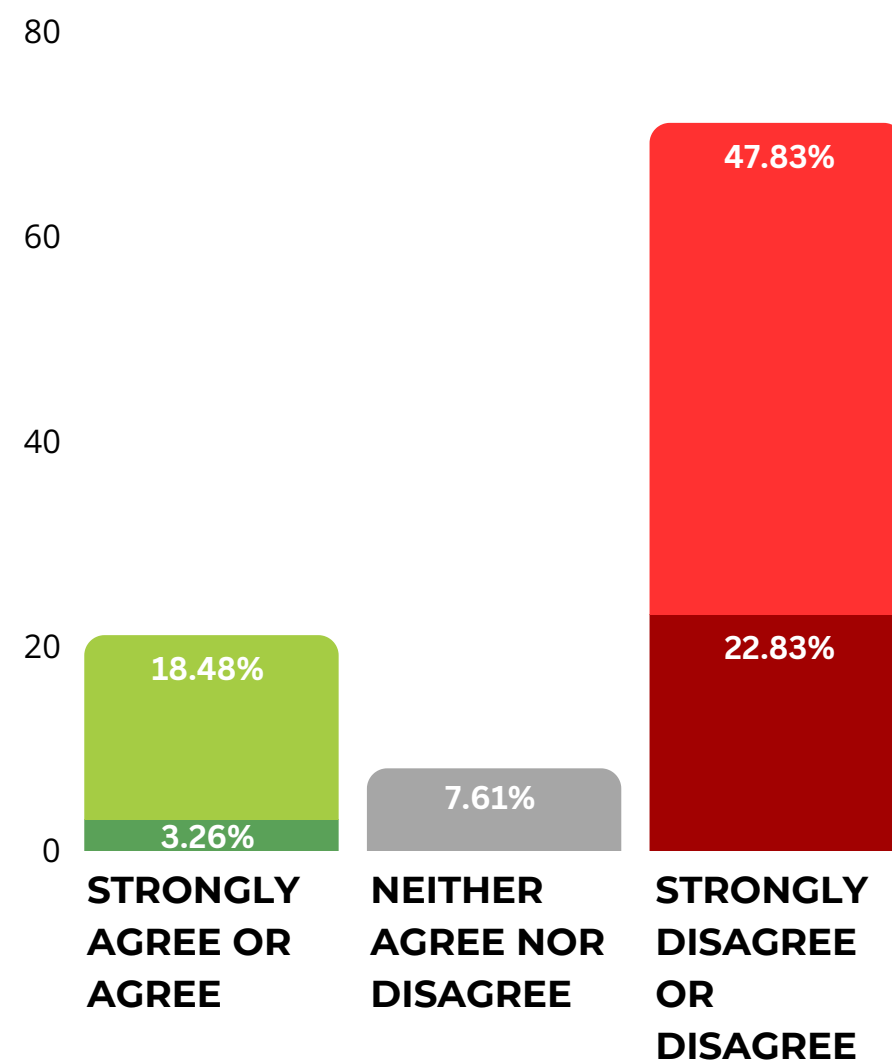
In other words, **nearly 67% more participants believed the distance from their origin to their public transport hub was not a barrier to them using public transport** (more often), than those who did.

**RESPONSES: 92**



## Results summary: Question 4

### 4. THE DISTANCE FROM THE PUBLIC TRANSPORT HUB AND MY DESTINATION IS A BARRIER TO ME USING PUBLIC TRANSPORT MORE OFTEN



Ninety-two participants also responded to this statement. 70.66% of participants either disagreed or strongly disagreed with the statement and just 21.74% agreed or strongly agreed. Only 7.61% took a neutral position. This could reasonably be interpreted as:

- 3.25 times as many participants who indicated a dissatisfaction with connections between their destination hub and their final destination place actually experienced satisfaction with that part of their journey;
- Substantially more participants were more satisfied with the journey from terminal transport hub to their destination than were satisfied with their journey from their day's origin point to the transport hub.

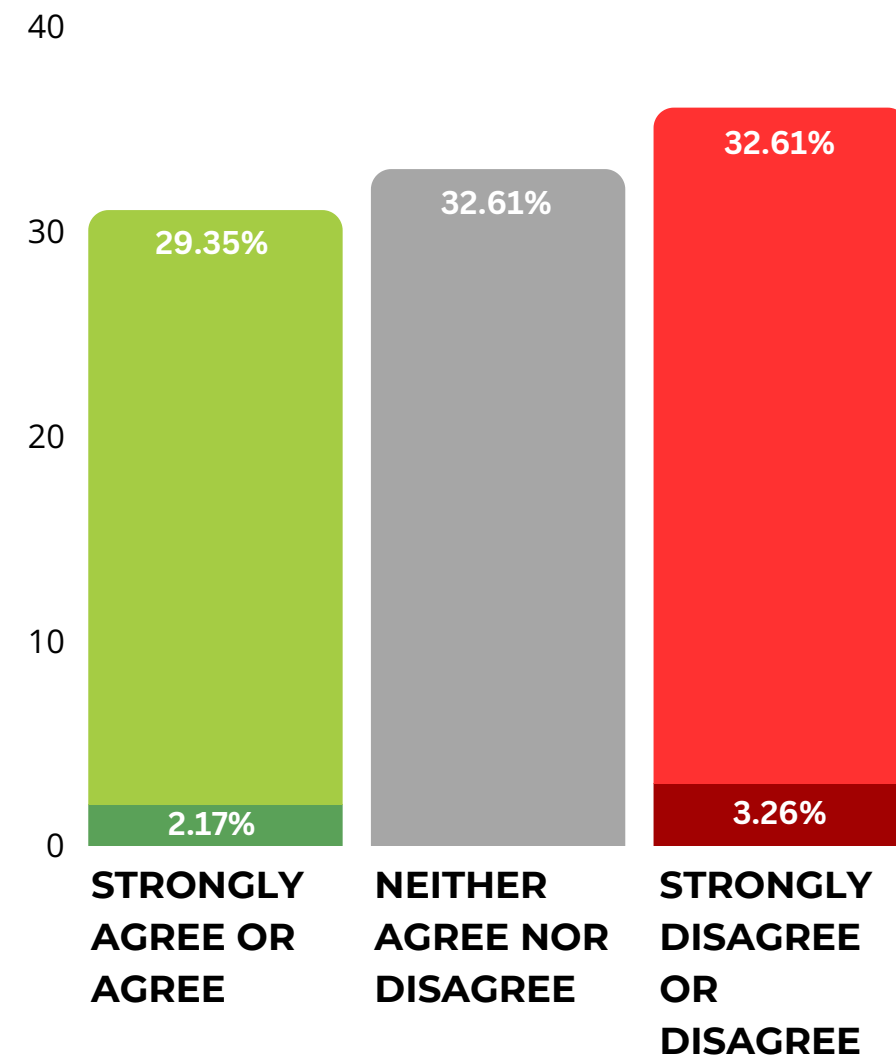
In other words, **participants were substantially more likely to see their connection between origin and hub as a barrier to using public transport than their connection from final destination to hub for their return journey.**

**RESPONSES: 92**



## Results summary: Question 5

### 5. DURING MY JOURNEY, THE CURRENT QUALITY OF CONNECTIONS BETWEEN MODES OF PUBLIC TRANSPORT (E.G., BUSES MEETING TRAINS, ETC.) GENERALLY MEETS MY EXPECTATIONS



There were ninety-two responses to this question with 31.52% of participants agreeing or strongly agreeing, 35.87% disagreeing or strongly disagreeing, and 32.61% expressing a neutral position.

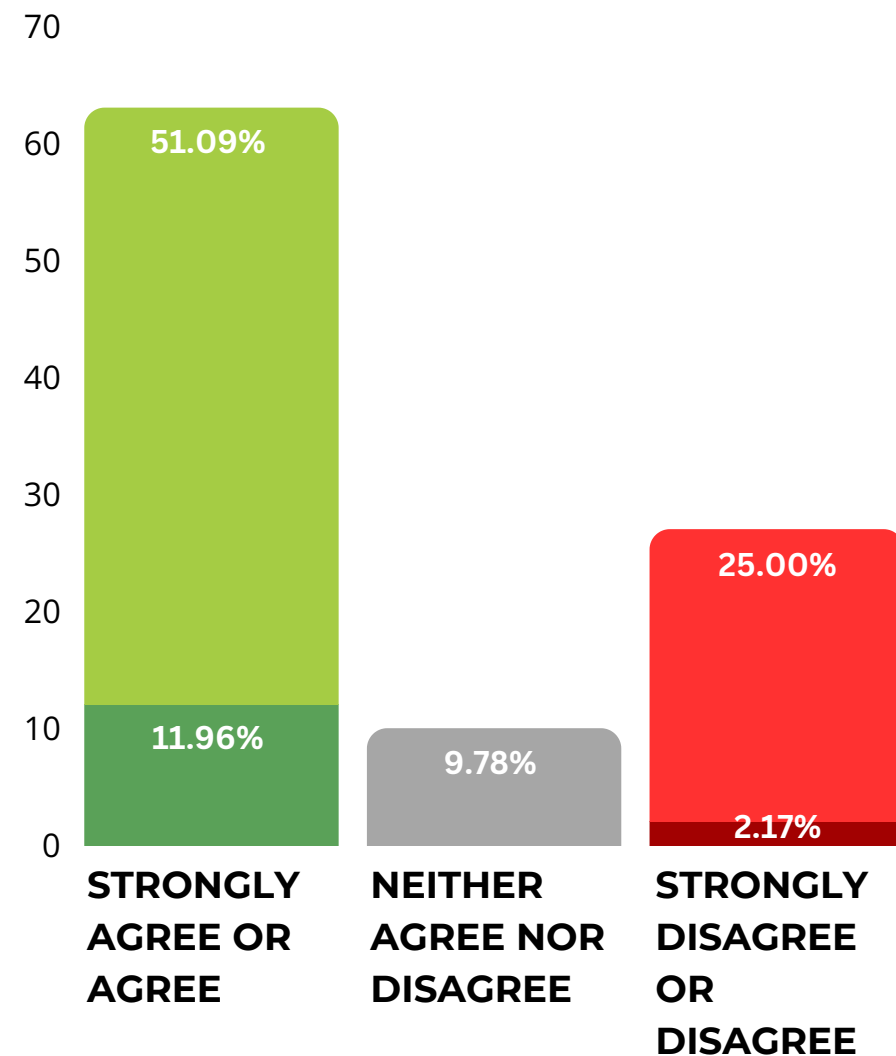
In other words 68.48% of participants either strongly disagreed, agreed or remained neutral regarding the proposition, and therefore one reasonable conclusion might be that **there is still considerable work to be done on connection with public transport hubs if people are to find public transport more attractive than they currently do.**

**RESPONSES: 92**



## Results summary: Question 6

### 6. I DO NOT HAVE PERSONAL SAFETY/SECURITY CONCERNS WALKING/CYCLING/SCOOTERING TO/FROM THE PUBLIC TRANSPORT HUB(S) I WOULD USE



Ninety-two participants responded to this statement; 61.05% agreed or strongly agreed with the statement compared with 27.17% who disagreed or strongly disagreed; 9.78% expressed a neutral position.

With participants not expressing concerns (70.83%) outnumbering those who did by a factor of 2.61, one might conclude this should not be regarded as a major problem with our transport connectivity system.

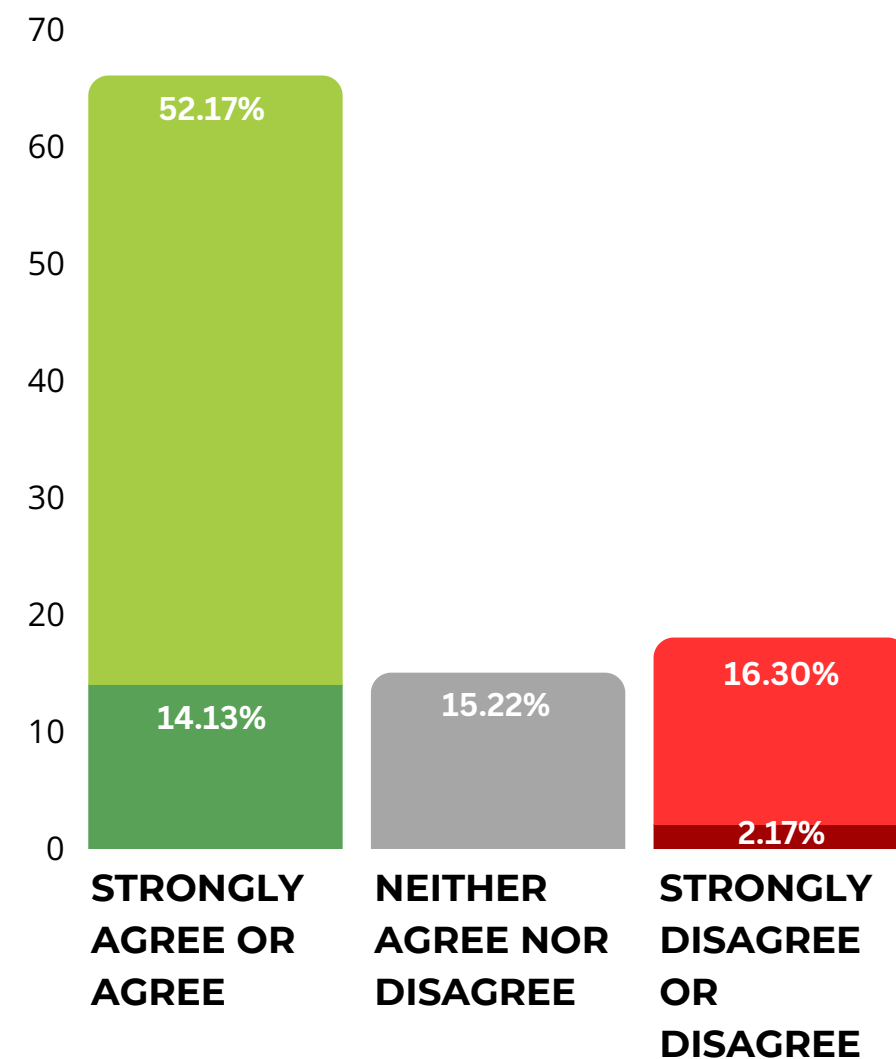
However, in the context of preparing our city to be presented as one of the world's most liveable for the Brisbane 2032 Games and beyond, a better position to take might well be **there is still substantial work to be done to improve connection security between origin location and transport hubs locations.**

**RESPONSES: 92**



## Results summary: Question 7

### 7. I DO NOT HAVE PERSONAL SAFETY/SECURITY CONCERNS WAITING AT THE PUBLIC TRANSPORT HUB(S) I WOULD USE



Responses to this question appear encouraging with 66.30% of respondents (92) either agreeing or strongly agreeing with the statement and 18.47% disagreeing or strongly disagreeing; 15.22% of participants neither agreed nor disagreed.

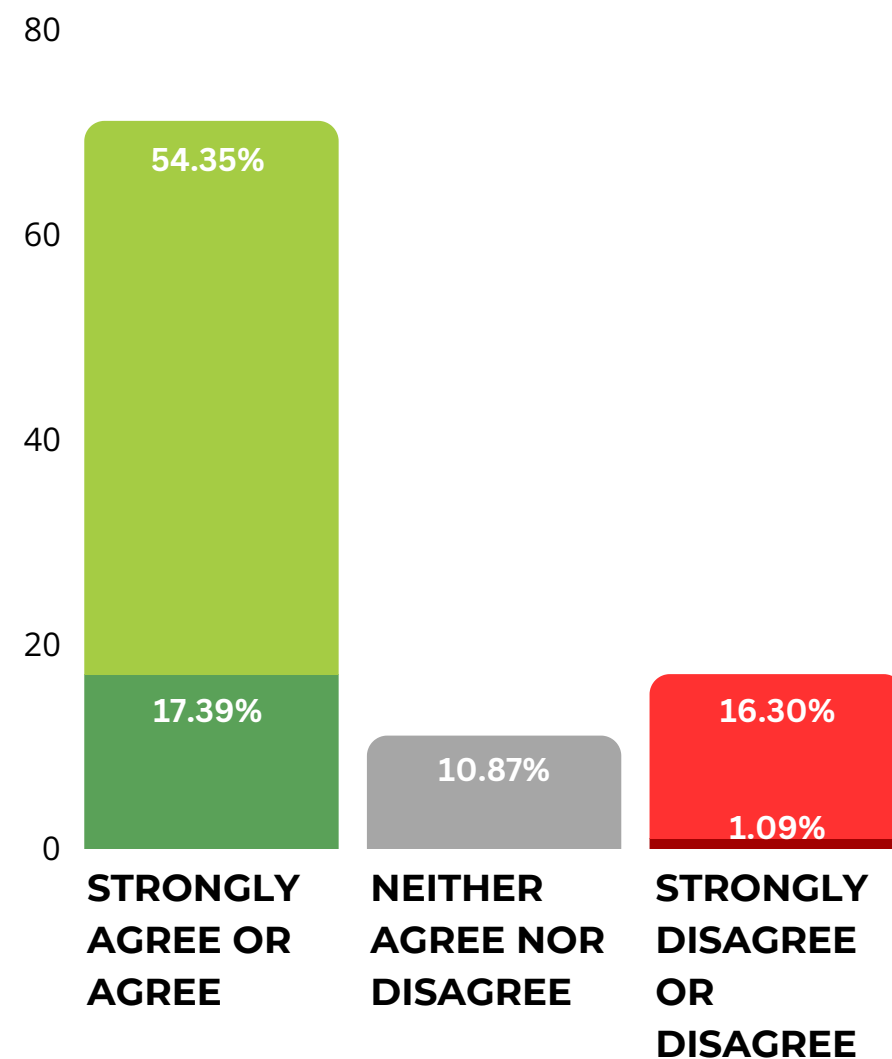
In other words, 3.59 times as many participants expressed not having safety concerns as indicated they had them. While those responses might appear encouraging, **to have nearly one in five commuters feeling unsafe during their daily commute should not be regarded as acceptable in modern society.**

**RESPONSES: 92**



## Results summary: Question 8

### 8. WHEN I INTEND TO USE PUBLIC TRANSPORT, IT IS EASY TO FIND INFORMATION ABOUT SERVICES AVAILABLE



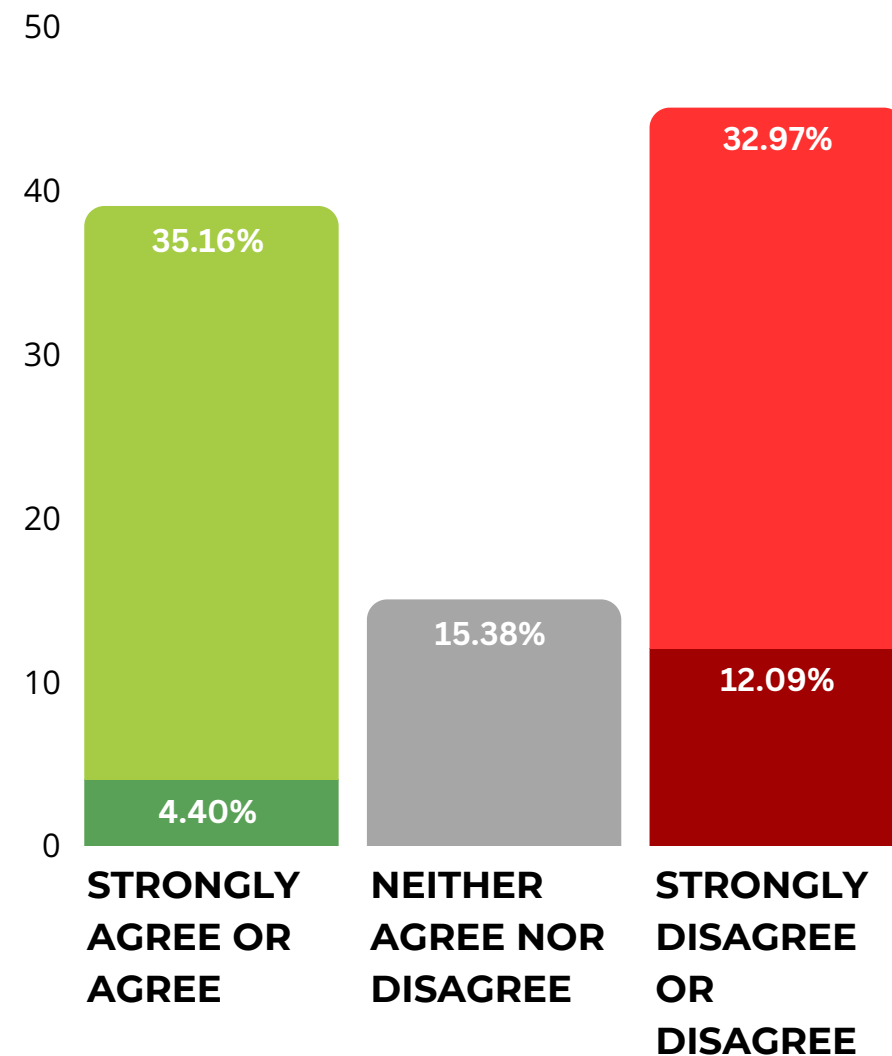
Ninety-two participants responded to this statement and 71.74% agreed or strongly agreed with it. Only 17.39% disagreed or strongly disagreed, with 10.87% taking the neutral position. A result like this, indicating four times more satisfaction with ease of finding transport services information than dissatisfaction, might reasonably be considered a strong outcome. However, with the Brisbane Games and an anticipated doubling of the SEQ population on the horizon, **a sensible attitude might be to adopt change that might lead the almost 11.00% of neutral (undecided?) people towards agreement with the statement.**

**RESPONSES: 92**



## Results summary: Question 9

### 9. I FIND FREQUENCY OF SERVICE TIMES OF PUBLIC TRANSPORT TO BE SATISFACTORY



Of the 91 participants who responded to this statement, 45.06% either disagreed or strongly disagreed with it compared with 39.56% who agreed or strongly agreed. The neutral position was taken by 15.38%.

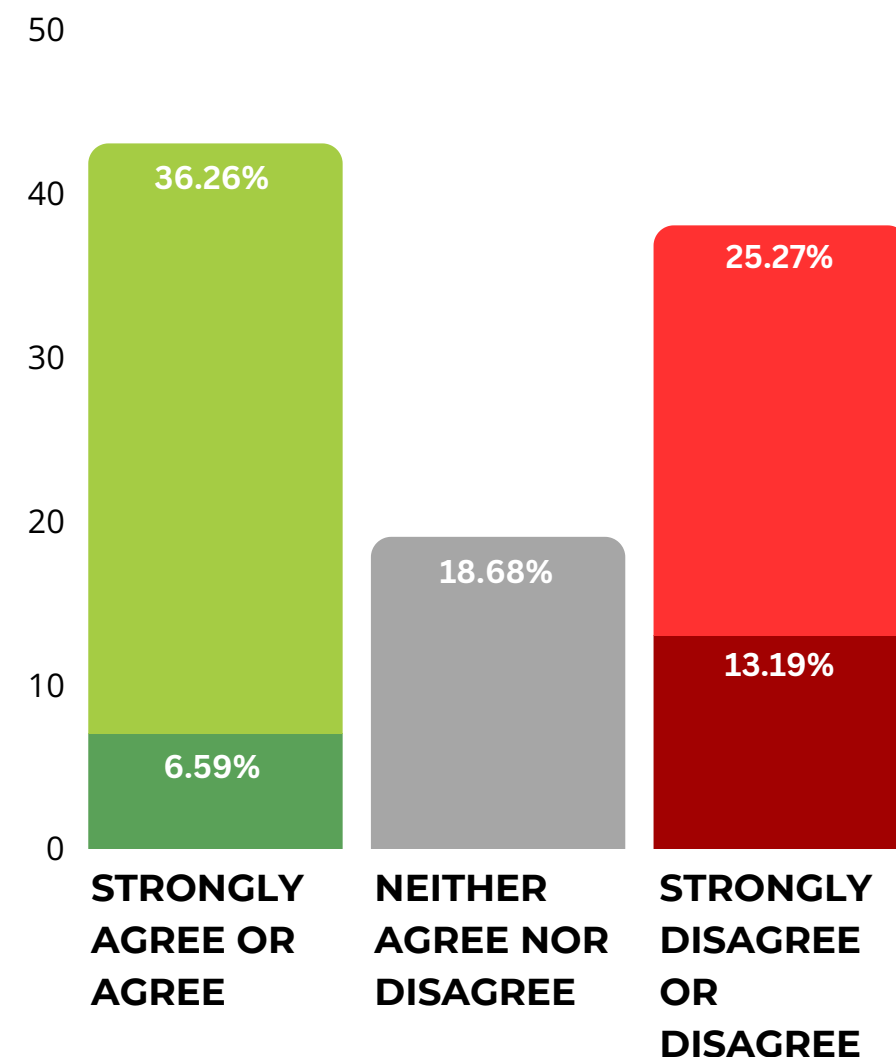
Given 60.44% of participants either disagreed at some level with the statement or remained neutral (potentially undecided) on the matter, **it is reasonable to conclude this should be an area to be addressed by government in the near future.**

RESPONSES: 91



## Results summary: Question 10

### 10. I FIND FOOTPATH QUALITY TO BE SUFFICIENTLY COMFORTABLE FOR WALKING/SCOOTERING/CYCLING TO/FROM PUBLIC TRANSPORT HUBS



Again, 91 participants responded to this statement. Less than half (42.85%) agreed or strongly agreed with it, meaning well over half (57.15%) indicated they disagreed or strongly disagreed with it or were undecided between agreement and disagreement.

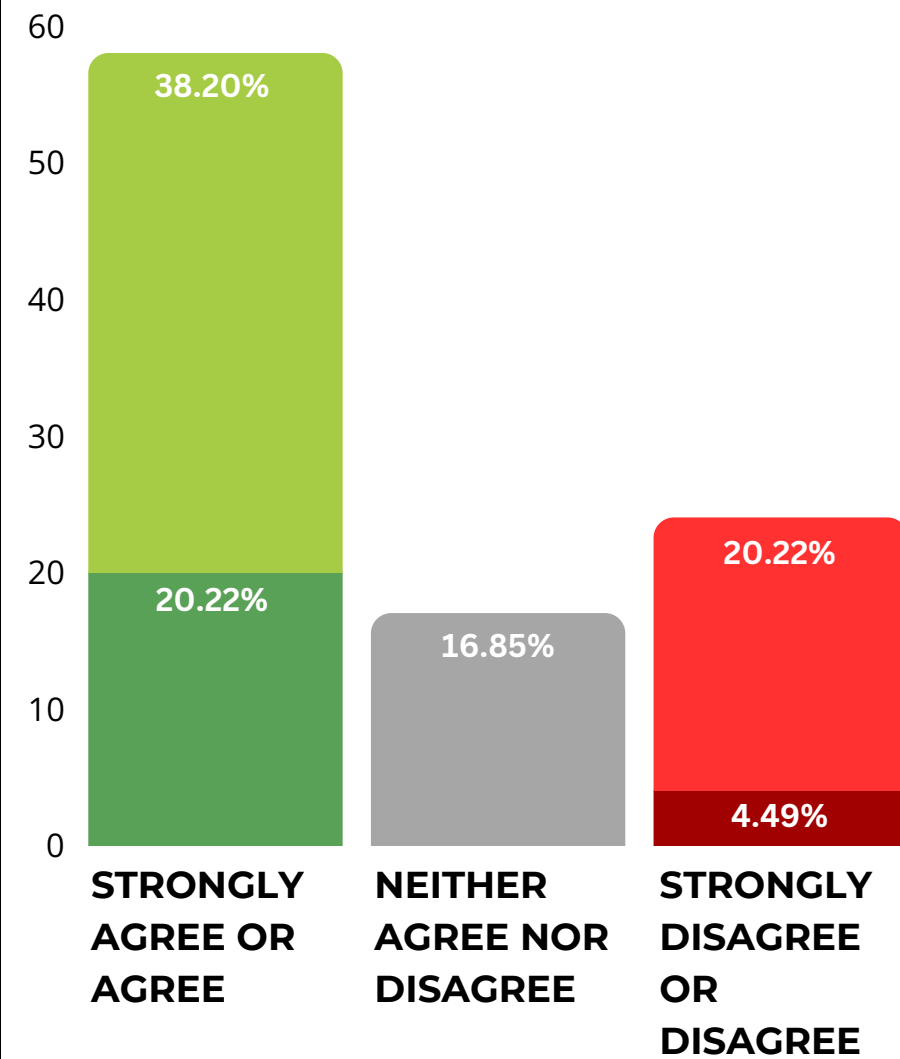
Anecdotal data from discussion with some participants indicated **most dissatisfaction was regarding the footpath quality between residences and departure transport hub** with few having any issue with the quality of footpaths between destination transport hub and total journey destination. This could be a huge challenge to overcome, but if governments are serious about convincing people to use public transport more frequently, it might be a positive step towards achieving that objective to **improve the quality of footpaths within suburbs serviced by public transport.**

RESPONSES: 91



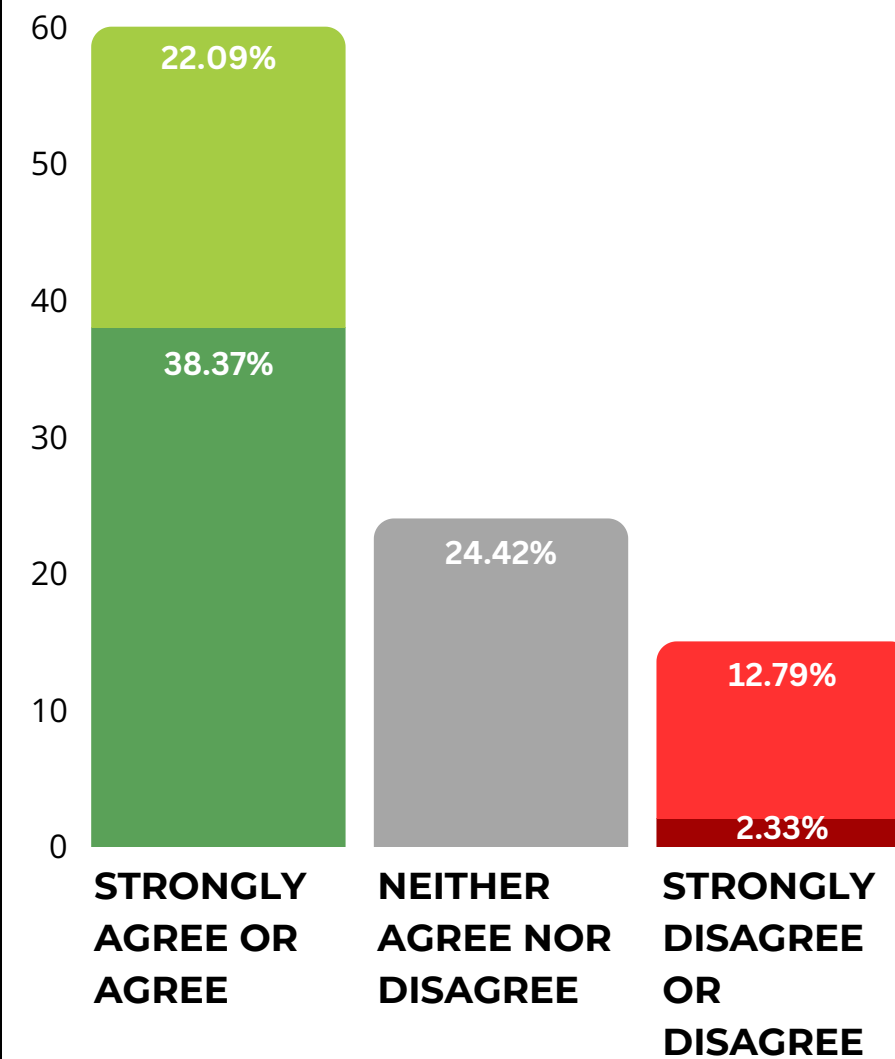
## Results summary: Questions 11 & 12

**11. I BELIEVE THE COST OF TRIPS ON PUBLIC TRANSPORT TO BE REASONABLE**



RESPONSES: 89

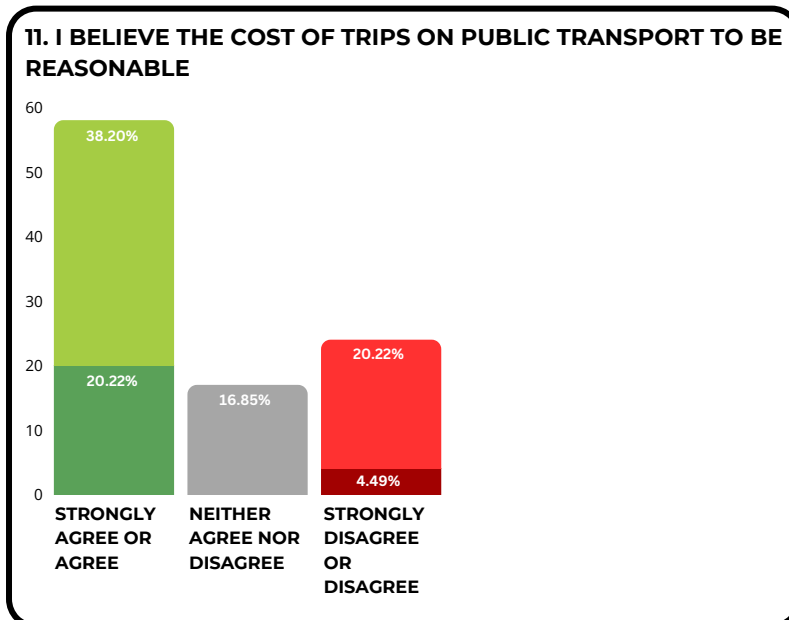
**12. I WILL USE PUBLIC TRANSPORT MORE OFTEN DURING THE 50C TICKET INITIATIVE TRIAL**



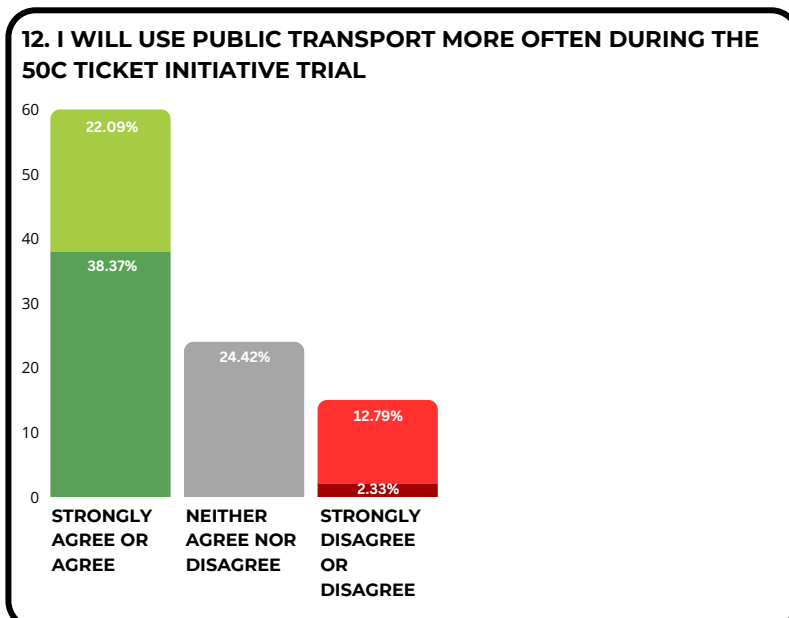
RESPONSES: 86



## Results summary: Questions 11 & 12



RESPONSES: 89



RESPONSES: 86

These two statements were presented separately on the survey document. Eighty-nine participants responded to the first statement and 86 to the second. This difference in participant numbers suggests that the following comments should be read with that difference in mind. It was considered useful to combine the analysis of the results for these statements.

The **majority of participants (58.42%) agreed or strongly agreed that the cost of public transport fares was reasonable**, and **60.46% agreed or strongly agreed they would use public transport more during the 50 cent fares trial period**; 24.71% disagreed or strongly disagreed fares were reasonable, but only 15.12% disagreed or strongly disagreed they would use public transport more during the 50 cent fare trial. Interestingly 24.42% adopted the neutral position in response to the second statement, while the corresponding result for the first was 16.85%.



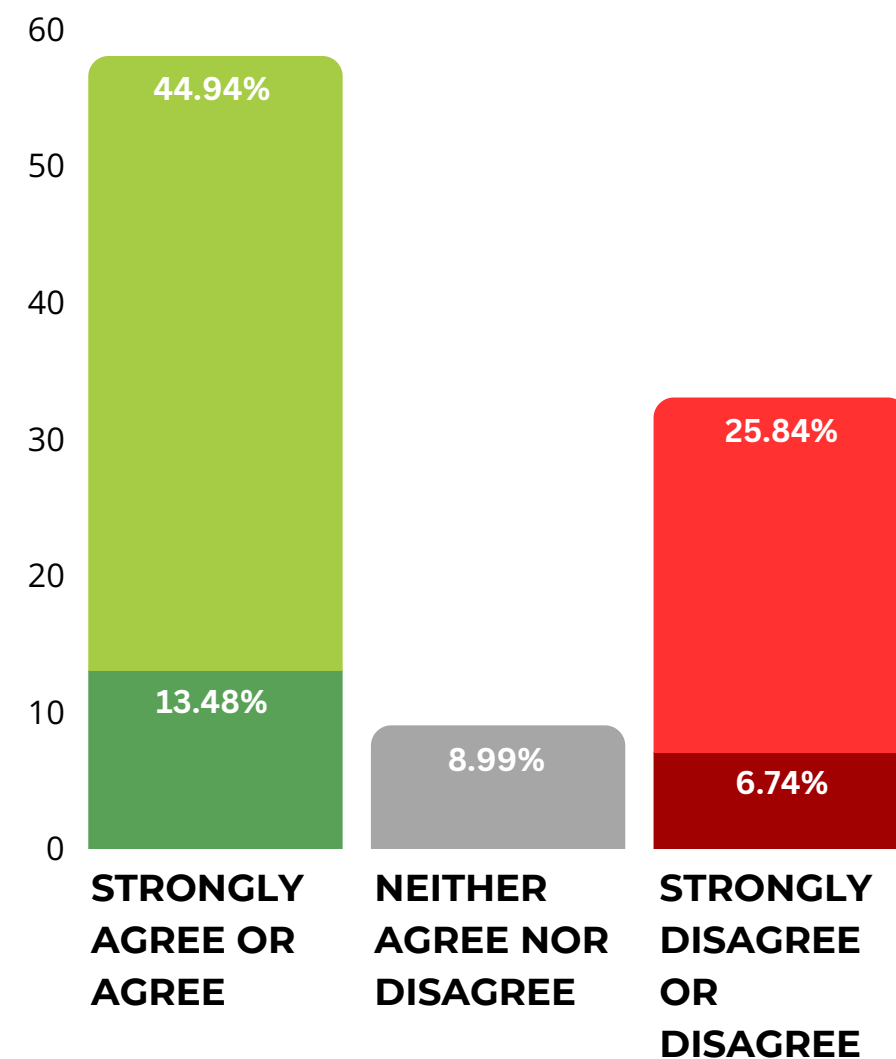
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**Survey participants who use public transport were asked to select the most relevant response to a series of statements regarding using public transport. The following slides are a summary of the results.**



# Likert-scale results summary: Question 1

## 1. I USE PUBLIC TRANSPORT BECAUSE OF ITS CONVENIENCE (E.G., CLOSE TO HOME AND/OR WORK)



Agreement or strong agreement with this statement was indicated by 58.42% of participants compared with disagreement or strong disagreement being the indication from 32.58%; 8.99% selected the neutral response.

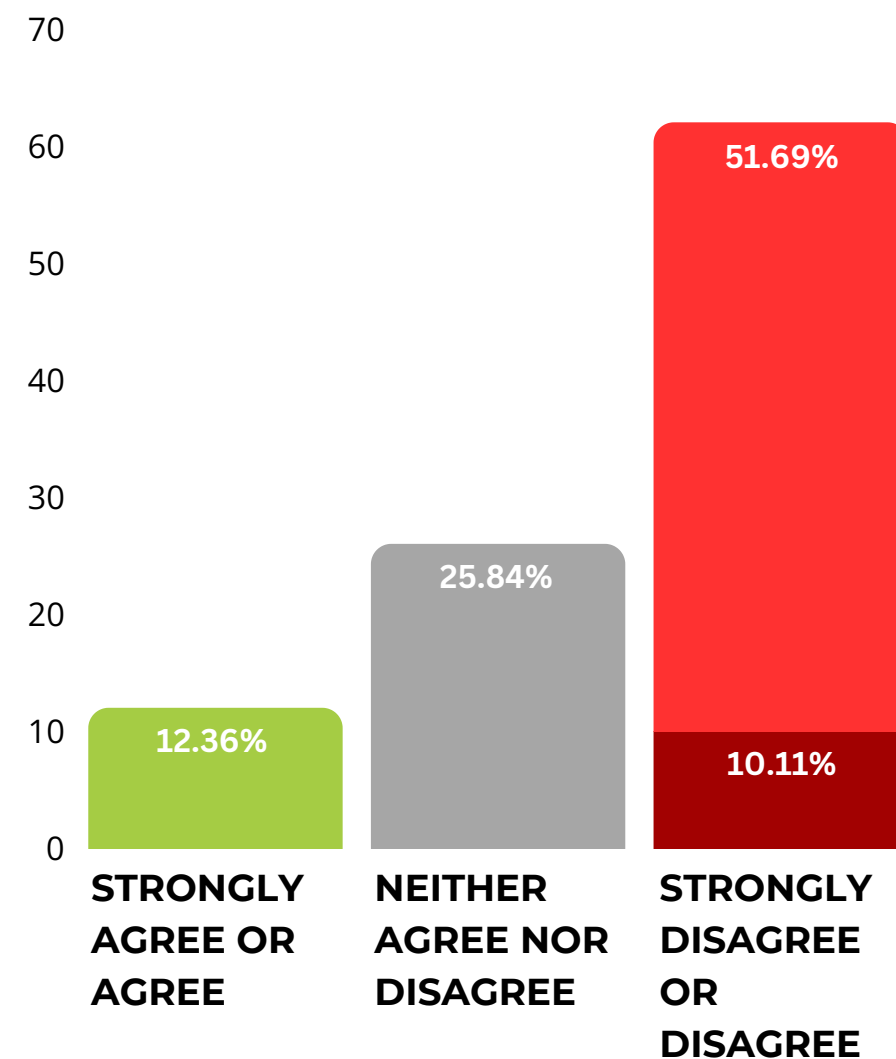
Expressed another way, 1.79 times as many participants were in some level of agreement with the statement, as disagreed with it. This might reasonably raise a question as to whether the response might be seen to reflect (to some extent) an attitude behind responses to the statement regarding **footpath quality** in the previous set of statements (i.e., 57.15% indicated a dissatisfaction with the quality or did not indicate either satisfaction or dissatisfaction with it). However, it must also be recognised it could indicate several other things, including **distance of residence or work (as examples) from a transport hub, and lack of convenient connecting transport.**

**RESPONSES: 89**



## Likert-scale results summary: Question 2

### 2. I PRIMARILY USE PUBLIC TRANSPORT BECAUSE OF THE FREQUENCY OF SERVICES



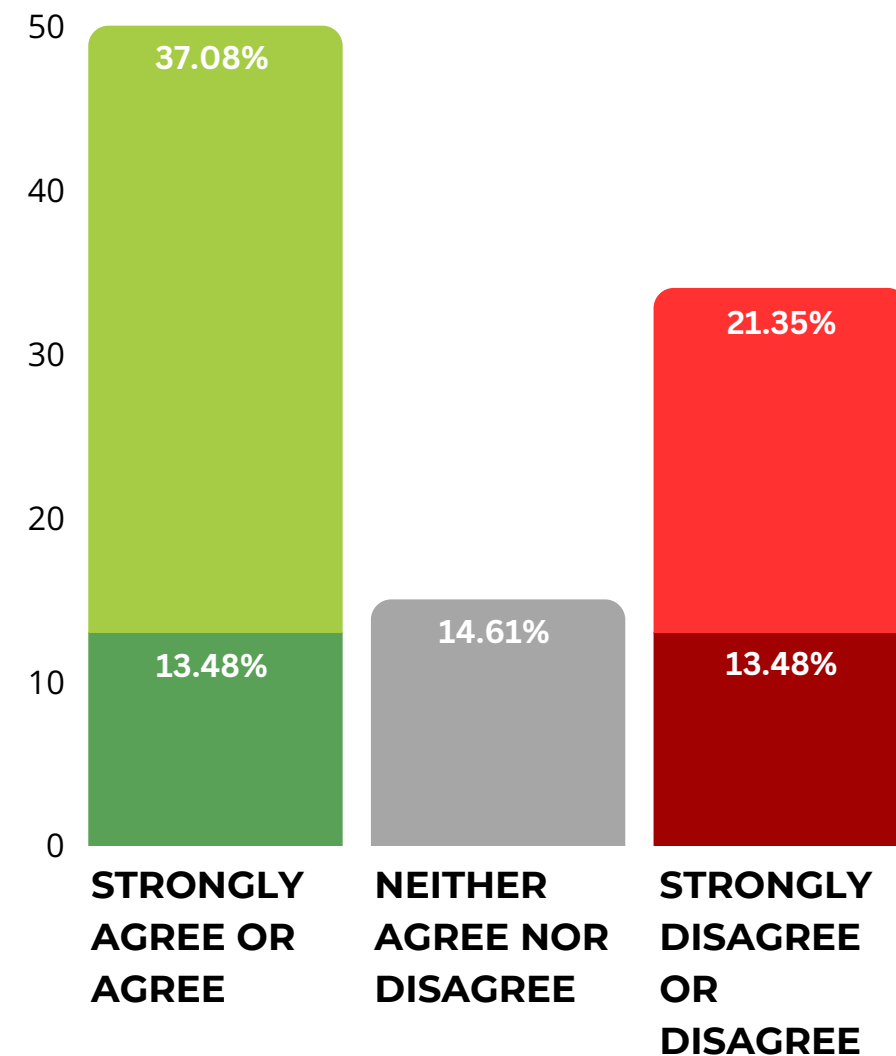
The responses to this statement seem to strongly contradict those to the ninth statement from the previous set, which also was related to frequency of services. Of the participants who responded to this statement, 61.80% disagreed or strongly disagreed and 12.36% agreed. No participant strongly agreed, and 25.84% remained neutral.

In other words, a substantial 87.64% had some level of disagreement with the statement or appeared indecisive. This is curious in light of approximately 40% agreeing or strongly agreeing with the statement they found service frequency satisfactory (see comments regarding responses to previous set of statements), but the stronger response to this related question reinforces that this is a matter to which **government attention should be focussed as we approach the Brisbane Olympics.**



## Likert-scale results summary: Question 3

### 3. I USE PUBLIC TRANSPORT BECAUSE IT HELPS ME CONTRIBUTE TO ENVIRONMENTAL SUSTAINABILITY



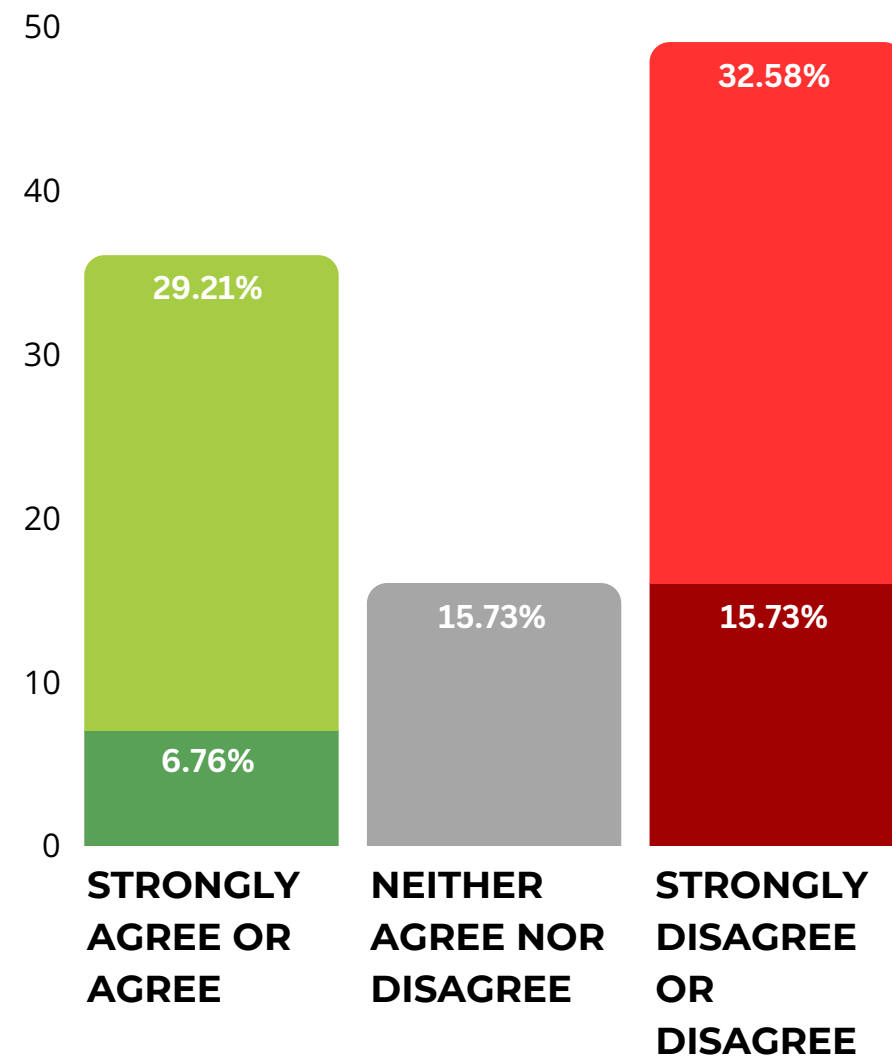
This statement attracted a notable level of agreement or strong agreement (50.56%) compared with 34.83% who disagreed or strongly disagreed, and 14.61% who selected the neutral response.

RESPONSES: 89



## Likert-scale results summary: Question 4

### 4. I USE PUBLIC TRANSPORT BECAUSE OF THE TIME IT CONSISTENTLY TAKES TO REACH MY DESTINATION



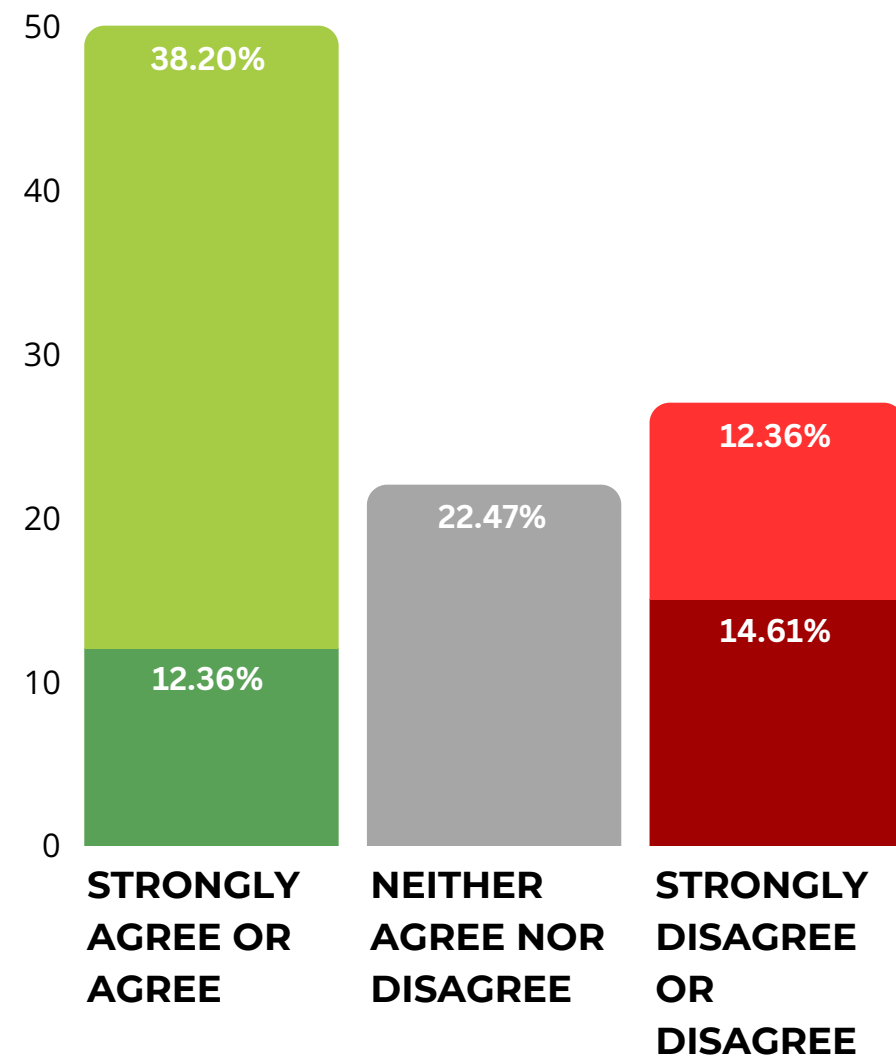
Among participants who committed to a response of some level of agreement or disagreement with the statement, the percentages were 35.95 and 48.31 respectively, with 15.73 adopting the neither agree nor disagree position. In other words, **participants in the disagreeing categories outnumbered those agreeing** (at some level) by a factor of 1.34.

**RESPONSES: 89**



## Likert-scale results summary: Question 5

### 5. I USE PUBLIC TRANSPORT TO AVOID STRESS/REDUCE STRESS LEVELS



Over half the participants of (50.56%) agreed or strongly agreed with this statement, compared with 26.97% who disagreed or strongly disagreed with it. The neutral position was expressed by 22.47%.

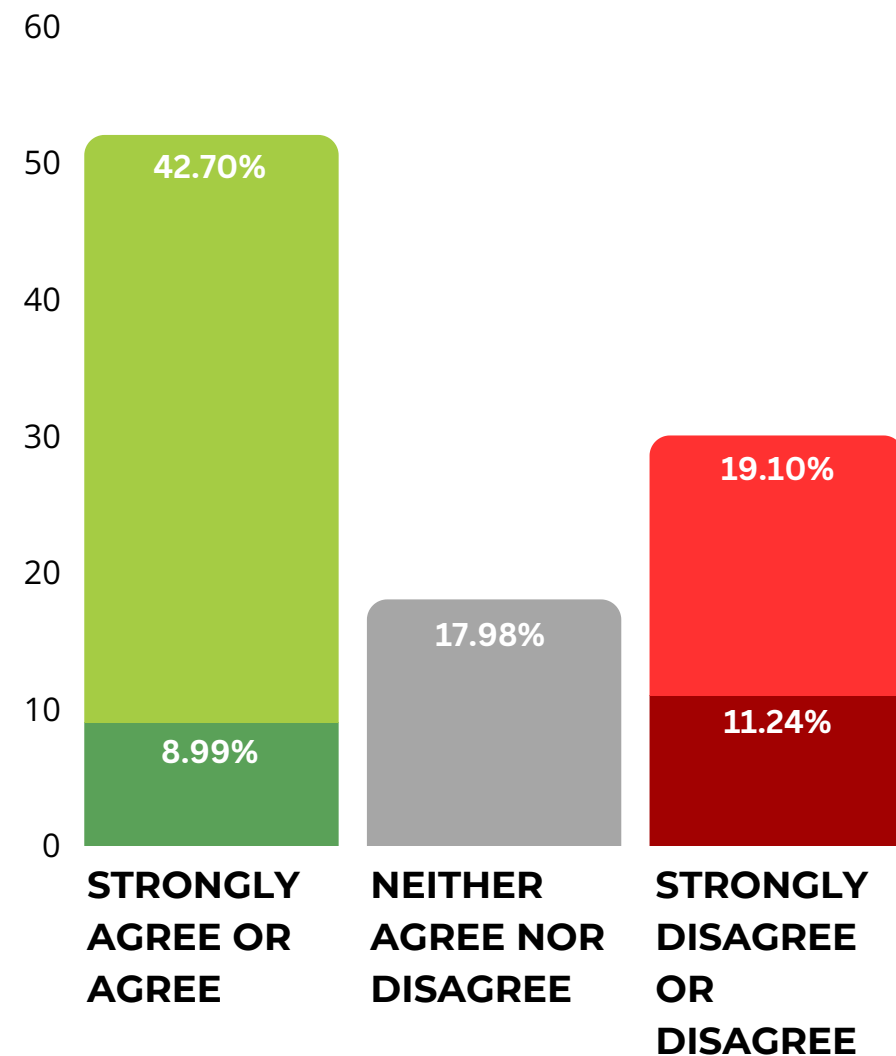
Put another way, the **number of participants in the agreement categories above outnumbered those in the disagreement categories** by a factor of 1.87.

**RESPONSES: 89**



## Likert-scale results summary: Question 6

### 6. I USE PUBLIC TRANSPORT BECAUSE IT ALLOWS TIME TO READ, WORK, ETC.



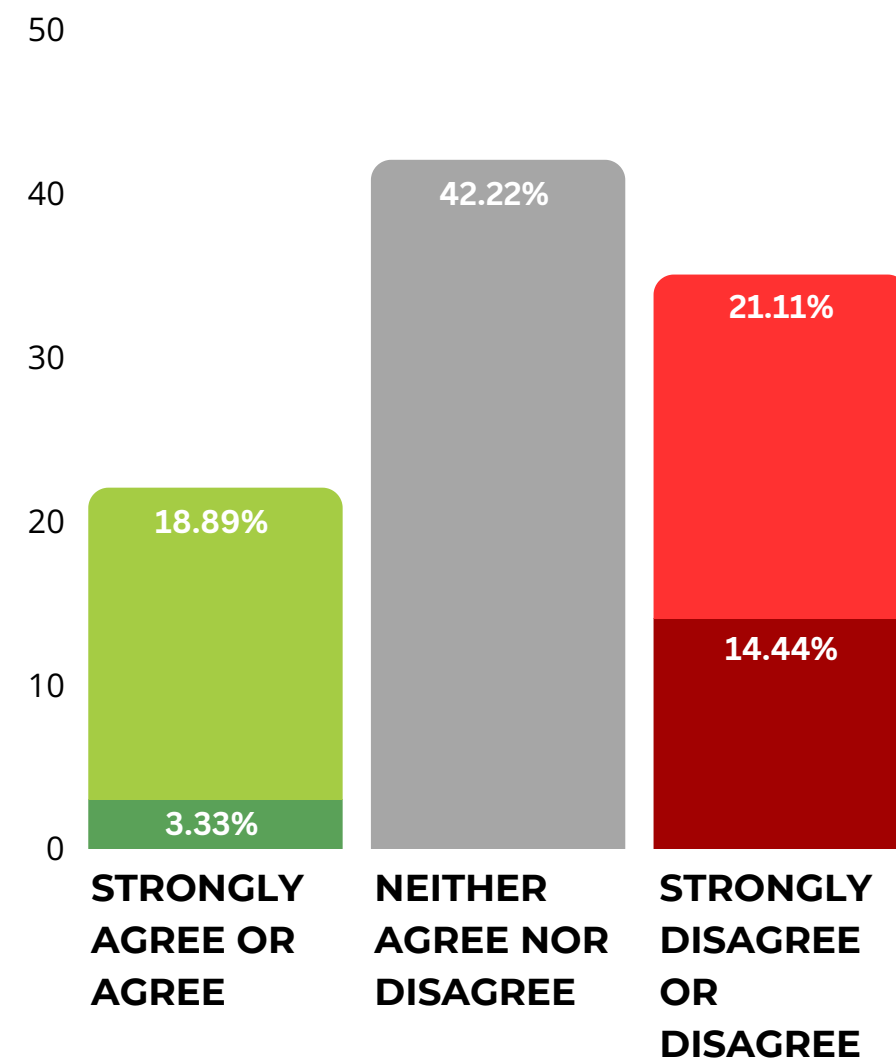
The responses to this statement were **not substantially different from those to the previous statement** in terms of participants who (at some level) either agreed or disagreed, with the percentages being 51.69 and 30.34 respectively; 17.98% of participants selected the neutral response.

**RESPONSES: 89**



## Likert-scale results summary: Question 7

### 7. I USE PUBLIC TRANSPORT BECAUSE IT AFFORDS SECURITY AND SAFETY ON SERVICES



The highest response to this statement (42.22%) was in the neutral position; 35.55% disagreed or strongly disagreed, compared with nearly one quarter (22.22%) who agreed or strongly agreed.

A pertinent observation here is that **77.78% did not choose to use public transport because of security and safety of services.**

**RESPONSES: 90**



# What would improve first and last mile travel?

SURVEY PARTICIPANTS WHO USE PUBLIC TRANSPORT WERE ASKED TO SELECT ALL ITEMS THEY FEEL WOULD IMPROVE THEIR FIRST AND LAST MILE OF TRAVEL



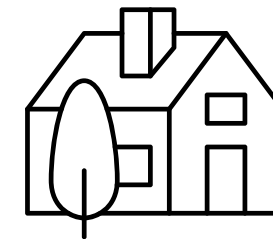
41 participants selected  
**'Better connection times with feeder services'**

41 participants selected  
**'Shade and clear level pathways to transport hubs'**



38 participants selected  
**'Increased frequency of feeder services'**

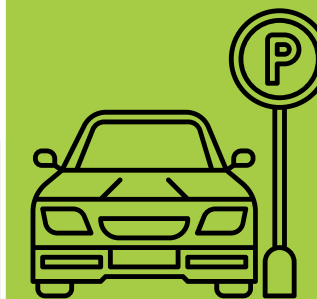
36 participants selected  
**'More locations for feeder services in suburbs to connect with transport hubs'**



33 participants selected  
**'Upgraded and improved access including sidewalks and road crossings'**



32 participants selected  
**'More parking at transport hubs for cars, motorbikes, bicycles or scooters'**



14 participants provided additional suggestions (provided on the next page)





COMMITTEE  
FOR BRISBANE

# What would improve first and last mile travel?

OTHER SUGGESTIONS PARTICIPANTS PROVIDED TO IMPROVE THEIR FIRST AND LAST MILE OF TRAVEL INCLUDE:



## **BICYCLE ACCESSIBILITY**

Secure parking for bicycles, ability to bring bicycles on public transport, and more segregated cycle paths



## **SAFETY AND COMFORT**

Improved lighting on pathways, cooler or shaded options, and lower speed limits around pedestrian crossings



## **SERVICE EXPANSION**

24 hours service or longer operating hours, especially for express routes connecting outer suburbs and key transport hubs



## **IMPROVED FEEDER SERVICES**

More consistent and timely feeder services, with additional bus connections to rail and cross river rail



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# Top cities for effective first and last mile connectivity

SURVEY PARTICIPANTS WHO USE PUBLIC TRANSPORT WERE ASKED TO PROVIDE EXAMPLES OF CITIES AROUND THE WORLD IN WHICH THEY HAVE EXPERIENCED OR HAVE KNOWLEDGE OF GOOD FIRST AND LAST MILE CONNECTIVITY. THE MOST COMMON RESPONSES WERE:



**London, England**



**Sydney, Australia**



**New York City, USA**



**Melbourne, Australia**



**Paris, France**



**Tokyo, Japan**



# Suggested advocacy points

## THE FOLLOWING ARE ADVOCACY RECOMMENDATIONS FOR THE COMMITTEE FOR BRISBANE RELATING TO FIRST AND LAST MILE CONNECTIVITY:

- That Brisbane City Council be provided with a copy of the report to ensure the Council has a thorough understanding of areas within their jurisdiction that might require attention
- That the Committee for Brisbane recommends to the Brisbane City Council, and potentially any relevant Queensland Government Department and other Councils in the 'greater Brisbane'/South East Queensland region, that they undertake further research regarding first and last mile connectivity and take action as necessary in response to findings, particularly in relation to:

- |   |   |
|---|---|
|  Quality of access paths between homes and public transport hubs   |  Emphasising to the public the environmental benefits of taking advantage of the 50 cents public transport fares                                 |
|  Enhancing connections, including frequency and timing of connections, between various modes of public transport |  Potentially investigating reducing duration of travel, especially for longer journeys, especially longer rail journeys                          |
|  Security on public transport services   |  Ensuring there is sufficient parking at rail stations in particular, given the anticipated doubling of the SEQ population between 2020 and 2050 |
|  Frequency of public transport services offered  |  Ensuring there is sufficient secure storage for cycles and scooters at public transport hub   |



COMMITTEE  
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# Contributors

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