# Media Release

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### EASTLINK ANNOUNCES RESULTS OF FIRST ANNUAL VICTORIAN SELF-DRIVING VEHICLE SURVEY

More than 15,000 Victorian motorists participated in one of the world's largest surveys of attitudes to self-driving cars, and the results are in!

Self-driving car technologies such as lane keeping assistance are increasingly offered by the latest production cars in Australia. Hands-free driving on EastLink and other suitable freeways is expected within the next few years (subject to legislative changes).

EastLink is working in partnership with VicRoads, the Australian Road Research Board (ARRB), La Trobe University and RACV to identify opportunities to improve the compatibility between the latest self-driving car technologies and freeway infrastructure. Cars have been provided by a wide range of manufacturers including Audi, BMW, Honda, Lexus, Mazda, Mercedes, Mitsubishi, Tesla and Volvo.

To complement this trials program, EastLink with support from ARRB has now completed the first Annual Victorian Self-Driving Vehicle Survey. More than 15,000 Victorian motorists completed the survey, making it one of the world's largest surveys of motorists' attitudes to self-driving cars. Key survey results include:

- More than half of respondents are no longer considering a traditional petrol combustion engine for their next car. A third of respondents are now considering hybrid power as an option for their next car. A quarter are considering the 100% battery electric vehicle option. Is Australia now ready to set a final date for the sale of new petrol/diesel cars in favour of hybrid and 100% battery electric vehicles?
- The majority of respondents say they have very little or no knowledge of selfdriving cars. More and better information about self-driving cars needs to be provided to Victorian motorists.
- More than half of respondents want lane keeping assistance (also known as highway autopilot) in their next car, which should encourage manufacturers to continue to roll out this feature and ensure it works effectively on our freeways.
- Even though hands-free driving on our freeways is not yet available, one in three respondents already want this feature in their next car.
- The majority of respondents want their next car to be connected to a data network to receive traffic and road condition warnings, vehicle security and automatic emergency assistance.



#### Quotes attributable to Doug Spencer-Roy, EastLink spokesperson:

"EastLink's Annual Victorian Self-Driving Vehicle Survey is helping Victorian motorists by ensuring that road operators and car manufacturers better understand motorists' needs in relation to self-driving cars."

"More than 15,000 Victorian motorists completed the inaugural Annual Victorian Self-Driving Vehicle Survey, making this one of the world's largest self-driving car surveys."

"EastLink's survey shows that more than half of respondents are no longer considering a traditional petrol combustion engine for their next car. That's a massive change from traffic on our roads today, where the large majority of cars are powered by traditional petrol combustion engines."

"More than a third of respondents are already considering hybrid power as an option for their next car. A quarter are considering the 100% battery electric vehicle option for their next car, and the survey results forecast that this will continue to increase."

"The majority of respondents say they have very little or no knowledge of self-driving cars. With self-driving features such as lane keeping assistance and self-parking already available in the latest production cars from an increasing number of manufacturers and at lower price points, it's clear that more and better information needs to be provided to Victorian motorists."

"More than half of respondents say they want lane keeping assistance in their next car. The trials of self-driving car technologies on EastLink are helping to ensure this feature works effectively on Victorian freeways. We encourage all manufacturers to take part."

"Even though hands-free driving on our freeways and tollways is not yet available, the survey shows that one in three respondents already want this feature in their next car. We expect this demand to grow further as awareness of self-driving cars increases."

"EastLink's survey shows that a majority of respondents want their next car to be connected to a data network to receive traffic and road condition warnings, vehicle security and automatic emergency assistance. With assistance from road operators, telecommunication providers and others, car manufacturers can deliver useful services to improve road safety and help motorists navigate congestion better."

"Through the trials of self-driving car technologies on EastLink and the Annual Victorian Self-Driving Vehicle Survey, EastLink is preparing for hands-free driving."



#### SUMMARY OF SURVEY RESULTS

#### About the survey

- EastLink's first Annual Victorian Self-Driving Vehicle Survey was conducted online between Monday 11 September 2017 and Sunday 8 October 2017 (4 weeks duration).
- 15,047 motorists fully completed the survey.

# Vehicle power

| How is your current vehicle powered? |      |
|--------------------------------------|------|
| Petrol                               | 80%  |
| Diesel                               | 17%  |
| LPG                                  | 2.1% |
| Hybrid                               | 1.5% |
| 100% Battery Electric Vehicle (BEV)  | 0.3% |

| What power preference/s do you have for your NEXT vehicle? |     |  |
|--|-----|--|
| Petrol   | 40% |  |
| Hybrid   | 34% |  |
| 100% Battery Electric Vehicle (BEV)                        | 25% |  |
| Diesel   | 24% |  |
| Don't know   | 18% |  |
| Other  | 3%  |  |

- Only 40% of respondents are considering petrol drivetrain for their next vehicle, whereas 80% of respondents have that option in their current vehicle.
- Respondents' preferences for hybrid power and 100% Battery Electric Vehicle (BEV) in their next vehicle dramatically exceed respondents' current usage of these options:
  - A third of respondents are now considering hybrid power as an option for their next vehicle (versus just 1.5% who have that option in their current vehicle).
  - A quarter of respondents are now considering 100% Battery Electric Vehicle (BEV) as an option for their next vehicle (versus just 0.3% who have that option in their current vehicle).

| Power preference/s for NEXT vehicle by when respondents expect to get their NEXT vehicle: |                       |         |          |  |
|---|-----------------------|---------|----------|--|
|   | Within next few years | 5 years | 10 years |  |
| Petrol  | 46%                   | 37%     | 30%      |  |
| Hybrid  | 36%                   | 36%     | 35%      |  |
| 100% BEV  | 23%                   | 29%     | 34%      |  |
| Diesel  | 29%                   | 23%     | 19%      |  |
| Don't know  | 12%                   | 19%     | 23%      |  |
| Other   | 3%                    | 3%      | 4%       |  |

The further into the future the respondent expects to get their next vehicle, the less likely



- they are considering petrol or diesel drivetrains as an option.
- The further into the future the respondent expects to get their next vehicle, the more likely they are considering 100% Battery Electric Vehicle (BEV) as an option.
- Do these results mean that Australia is now ready to set a final date for the sale of new petrol/diesel cars in favour of hybrid and 100% battery electric vehicles as has been done elsewhere (for example in Norway, UK, France and China)?

### Awareness of self-driving vehicles

| How much would you say you know about self-driving vehicles? |      |        |  |
|--|------|--------|--|
|  | MALE | FEMALE |  |
| No knowledge   | 6%   | 21%    |  |
| Very little knowledge  | 29%  | 54%    |  |
| Some knowledge   | 54%  | 24%    |  |
| Extensive knowledge  | 11%  | 1%     |  |

- Females are more than twice as likely to say they have very little or no knowledge of self-driving vehicles (75% for females versus 35% for males).
- Vehicle manufacturers and governments (including road authorities) need to continue to increase awareness about self-driving vehicles, features, benefits etc.
- Awareness campaigns need to consider the specific information needs of females.

# Future use of hands-free driving on a freeway or tollway

| In the future, could you imagine using hands-off driving on a freeway or tollway? |     |     |  |
|---|-----|-----|--|
| MALE FEMALE   |     |     |  |
| Definitely  | 42% | 20% |  |
| Maybe   | 36% | 43% |  |
| Definitely not  | 18% | 26% |  |
| Don't know  | 4%  | 11% |  |

- Male respondents are more than twice as likely to say they can definitely imagine using hands-off driving on a freeway or tollway (42% of males versus 20% of females).
- This indicates a significant opportunity for realising hands off driving on freeways and tollways, even though it is not yet possible.
- However tempering this, we note that there are more female respondents who can
  definitely <u>not</u> imagine hands-off driving (26%) than female respondents who can definitely
  imagine it (20%).
- We will track changes in this opportunity via this survey in future years.



# Safety and driver assist functions - current vehicle

| Does your CURRENT vehicle you use them?  | have any of                   | the follow              | ing safety or o          | driver assist                 | functions?              | If so, do                |
|--|-------------------------------|-------------------------|--------------------------|-------------------------------|-------------------------|--------------------------|
| you use them:  | MALE                          |                         |                          | FEMALE                        |                         |                          |
|  | Yes, but<br>I don't<br>use it | Yes,<br>and I<br>use it | Ratio of use : don't use | Yes, but<br>I don't<br>use it | Yes,<br>and I<br>use it | Ratio of use : don't use |
| Cruise control Set the speed for the vehicle to maintain   | 9%                            | 76%                     | 8:1                      | 21%                           | 56%                     | 3:1                      |
| Adaptive cruise control Set the speed for your vehicle to maintain, subject to keeping a set distance from the vehicle in front of you | 3%                            | 13%                     | 4:1                      | 5%                            | 8%                      | 2:1                      |
| Collision warning Warning given if an imminent collision is detected   | 1%                            | 13%                     | 13:1                     | 1%                            | 8%                      | 8:1                      |
| Blind spot warning Warning given if there is a vehicle in your rear view mirror blind spot   | 0.6%                          | 13%                     | 22:1                     | 0.4%                          | 9%                      | 22:1                     |
| Speed sign recognition Vehicle reads speed signs   | 0.8%                          | 5%                      | 6:1                      | 1%                            | 6%                      | 6:1                      |
| Lane departure warning Warning given when vehicle tyre veers onto line marking   | 1%                            | 10%                     | 10:1                     | 1%                            | 6%                      | 6:1                      |
| Lane keeping assistance Vehicle can automatically steer itself within the painted lines of a freeway lane                              | 0.8%                          | 5%                      | 6:1                      | 0.6%                          | 2%                      | 3:1                      |
| Automatic lane changing Vehicle will automatically change lanes on a freeway, if safe, upon indicating by driver                       | 0.3%                          | 0.7%                    | 2:1                      | 0.4%                          | 0.4%                    | 1:1                      |
| Automatic braking Vehicle will automatically brake if an imminent collision is detected  | 1%                            | 10%                     | 10:1                     | 1%                            | 5%                      | 5:1                      |
| Active parking assistance Vehicle can automatically steer itself into a parking space  | 4%                            | 5%                      | 1:1                      | 3%                            | 2%                      | 1:1                      |

- Female respondents are less likely to have the latest safety and driver assist functions in their vehicle.
- Even when they do have one of these features, female respondents are generally less likely to say they use it.



 Should vehicle manufacturers do more to encourage female motorists to want the latest safety and driver assist functions in their vehicles, for example by better educating female motorists about the benefits and usage of these functions?

# Safety and driver assist functions – next vehicle

| Which of the following automated functions would you want in your NEXT vehicle? |      |        |  |  |
|---|------|--------|--|--|
|   | MALE | FEMALE |  |  |
| Cruise control  | 88%  | 81%    |  |  |
| Set the speed for the vehicle to maintain                                       |      |        |  |  |
| Adaptive cruise control   | 79%  | 66%    |  |  |
| Set the speed for your vehicle to maintain, subject to keeping a set            |      |        |  |  |
| distance from the vehicle in front of you                                       |      |        |  |  |
| Collision warning   | 79%  | 79%    |  |  |
| Warning given if an imminent collision is detected                              |      |        |  |  |
| Blind spot warning  | 85%  | 86%    |  |  |
| Warning given if there is a vehicle in your rear view mirror blind spot         |      |        |  |  |
| Speed sign recognition  | 69%  | 66%    |  |  |
| Vehicle reads speed signs   |      |        |  |  |
| Lane departure warning  | 70%  | 62%    |  |  |
| Warning given when vehicle tyre veers onto line marking                         |      |        |  |  |
| Lane keeping assistance   | 62%  | 48%    |  |  |
| Vehicle can automatically steer itself within the painted lines of a            |      |        |  |  |
| freeway lane  |      |        |  |  |
| Automatic lane changing   | 45%  | 33%    |  |  |
| Vehicle will automatically change lanes on a freeway, if safe, upon             |      |        |  |  |
| indicating by driver  |      |        |  |  |
| Automatic braking   | 78%  | 71%    |  |  |
| Vehicle will automatically brake if an imminent collision is detected           |      |        |  |  |
| Active parking assistance   | 65%  | 67%    |  |  |
| Vehicle can automatically steer itself into a parking space                     |      |        |  |  |
| FUTURE SELF-DRIVING FEATURES NOT YET AVAILABLE:                                 |      |        |  |  |
| Fully self-driving on freeways only   | 42%  | 28%    |  |  |
| Vehicle can drive itself along freeways and tollways                            |      |        |  |  |
| Fully self-driving on all roads   | 35%  | 22%    |  |  |
| Vehicle can drive itself on all roads   |      |        |  |  |

- Demand for the latest safety features is high, in particular collision warning, blind spot warning, lane departure warning, automatic braking.
- Two thirds of male and female respondents want active parking assistance in their next vehicle.
- 62% of male and 48% of female respondents want lane keeping assistance (also known as highway autopilot) in their next vehicle, which should encourage vehicle manufacturers to continue to roll out this feature and ensure it works effectively on Victorian freeways.
- Demand for automated vehicle functions is generally slightly lower among female respondents than males.
- Looking to future self-driving features that are not yet available:
  - 42% of male and 28% of female respondents want fully self-driving on freeways and



- tollways in their next vehicle
- 35% of male and 22% of female respondents want fully self-driving on all roads in their next vehicle.
- There is significant demand for these features already, even though they are not yet available.
- We will track changes in this demand via this survey in future years.

#### **Connected vehicles**

| Do you want your NEXT vehicle to be connected to a data network for the following reasons? |                    |        |  |  |
|--|--------------------|--------|--|--|
|  | DEFINITELY WANT IT |        |  |  |
|  | MALE               | FEMALE |  |  |
| Traffic warnings   | 62%                | 54%    |  |  |
| Real time information on traffic congestion or road incidents                              |                    |        |  |  |
| Road condition warnings  | 63%                | 58%    |  |  |
| Real time information about weather, roadworks and other road                              |                    |        |  |  |
| conditions   |                    |        |  |  |
| Vehicle security   | 70%                | 62%    |  |  |
| Ability to identify a stolen vehicle and disable it for recovery                           |                    |        |  |  |
| Automatic emergency assistance   | 51%                | 51%    |  |  |
| Automatic contact to emergency services when the vehicle detects an                        |                    |        |  |  |
| accident   |                    |        |  |  |
| Entertainment  | 38%                | 41%    |  |  |
| Online music, podcasts, spoken books   |                    |        |  |  |

- There is strong demand for connected car features.
- A clear majority of male and female respondents "definitely want" their next car to be connected to a data network for traffic warnings, road condition warnings and vehicle security features.
- Half of male and female respondents "definitely want" their next car to be connected to a data network for automatic emergency assistance.
- Four in ten male and female respondents "definitely want" their next car to be connected to a data network for entertainment.



#### **About EastLink**

www.eastlink.com.au

EastLink's 40 kilometre road network is the largest privately operated freeway network in Victoria. EastLink is the major north-south transport artery in Melbourne's east, connecting the Eastern, Monash, Frankston and Peninsula Link freeways. EastLink is Melbourne's fastest road and safest freeway, with traffic averaging 250,000 vehicles per day.

EastLink is a leader in transport sustainability, with the lowest toll prices in Australia, 480 hectares of landscaping, 4 million native trees, shrubs and plants, more than 60 wetlands that treat road surface rainwater run-off before it is released to local waterways, the 35km EastLink Trail shared use path, distinctive public architecture and public artworks. GRESB awarded EastLink the top "5 star" rating for Infrastructure Sustainability in 2016 and 2017.