



May 9, 2017

Special Study on the
Regulatory and Technical
Issues Related to the
Deployment of Connected
and Automated Vehicles

Standing Senate Committee
on Transport and
Communications



AUTONOMOUS VEHICLES

Members Say

Members Say is an ongoing market research study by CAA National. The survey addresses current issues relevant to CAA's various lines of business and public affairs initiatives.

Sample

CAA commissioned Earnscliffe Strategy Group to conduct an online panel survey of 2,000 Canadians. The final sample was 2,010 respondents. The survey was in field from February 17th until February 24th, 2017.

Quotas and Weighting

Quotas were set for club region, age, and gender; weights were applied to ensure the sample matched the demographic composition of the general population.

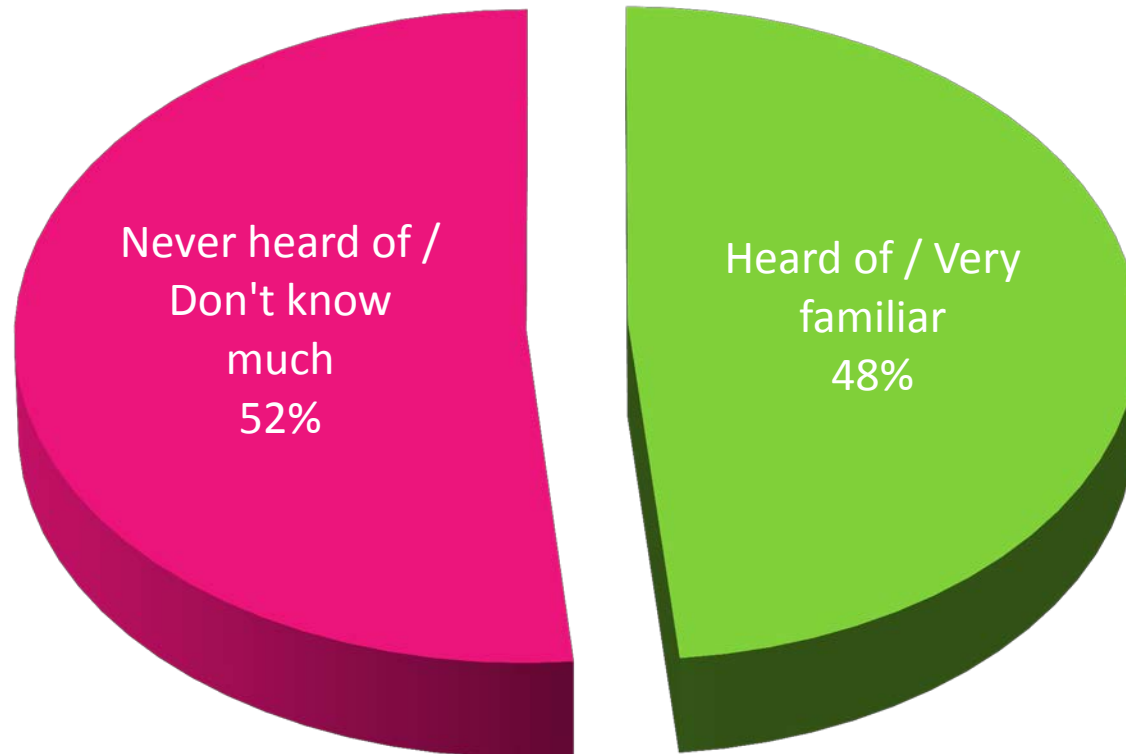
Analysis Notes

Questions were asked of all respondents, except where otherwise specified. Tracking results are shown for questions that have been asked in the past.

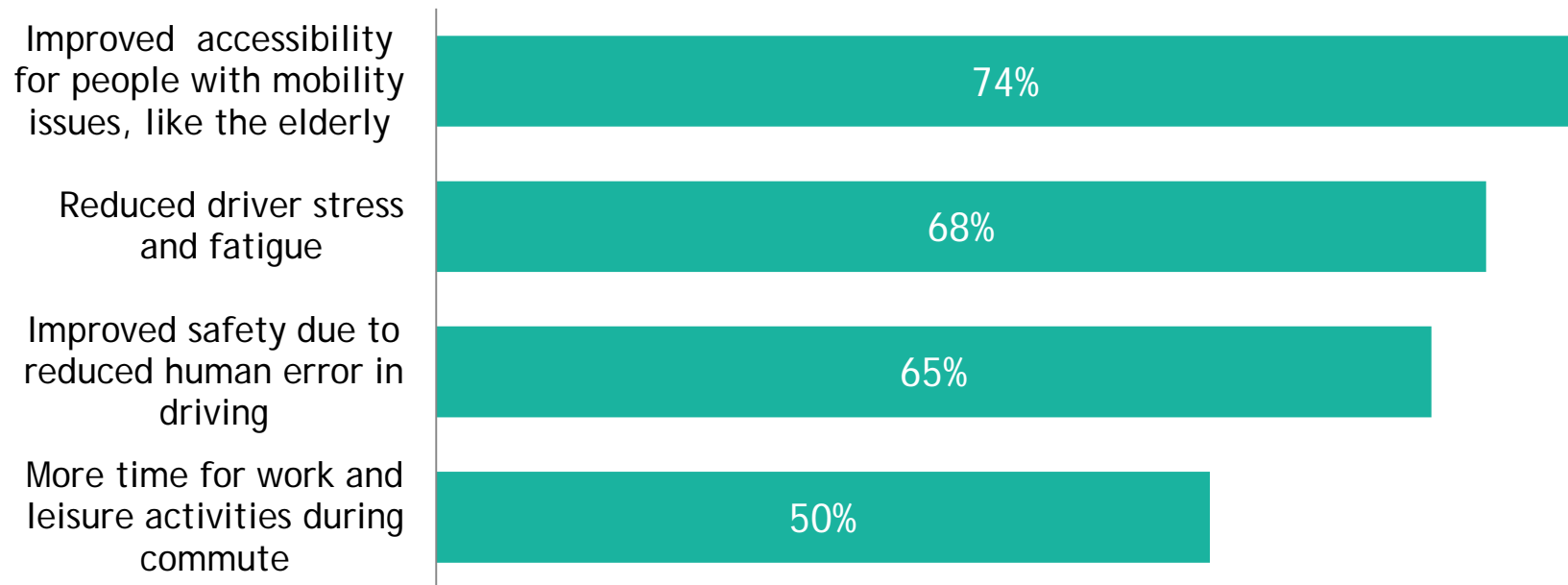
Familiarity With Driverless Cars



Q8. Next, we'd like to ask you some questions about automated vehicles. Vehicles that use this emerging technology are sometimes referred to as "driverless" vehicles. How familiar would you say you are with automated (i.e. driverless) vehicles?



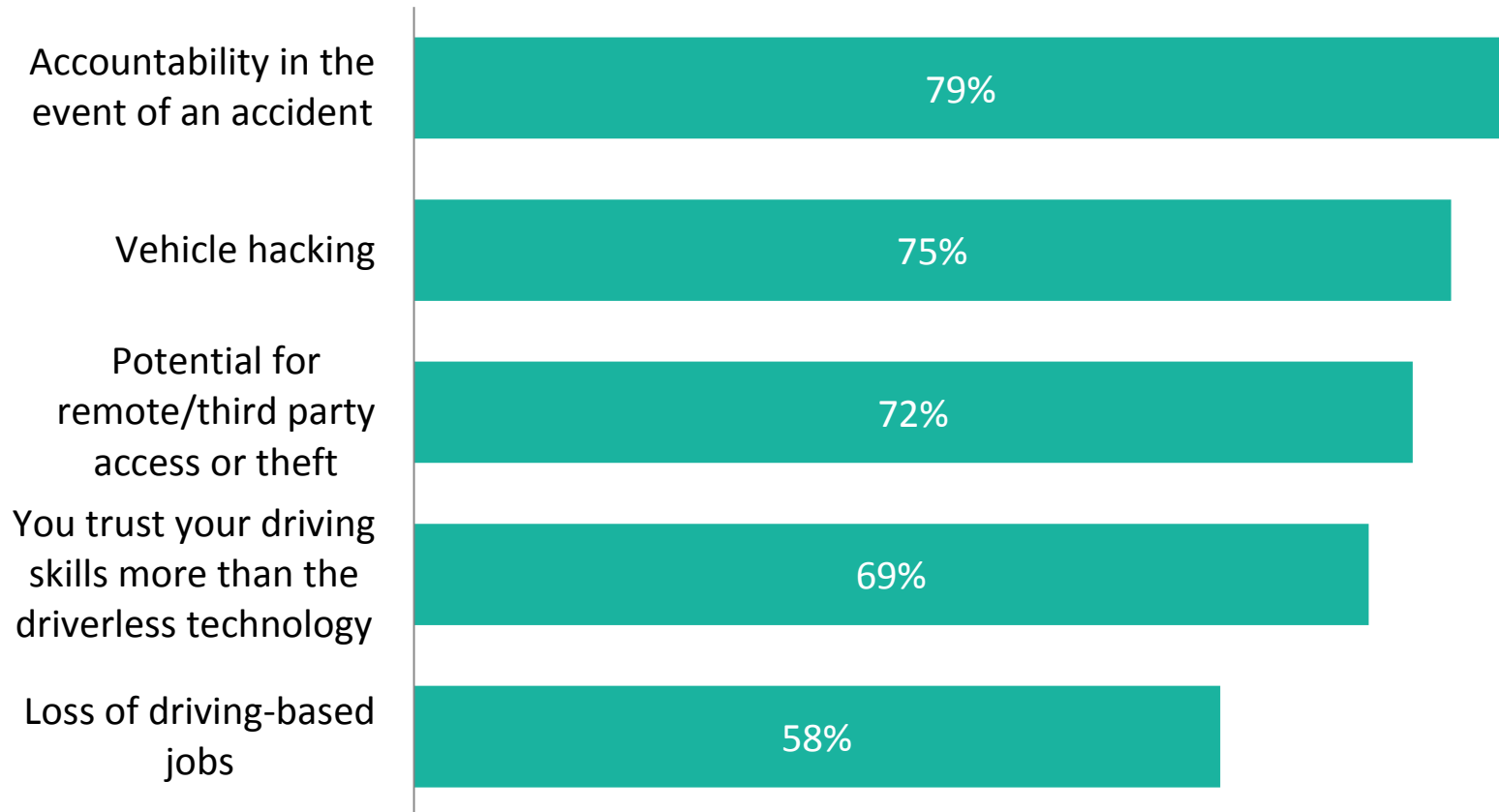
% of respondents who rated this technology as beneficial



Concerns About Driverless Vehicles



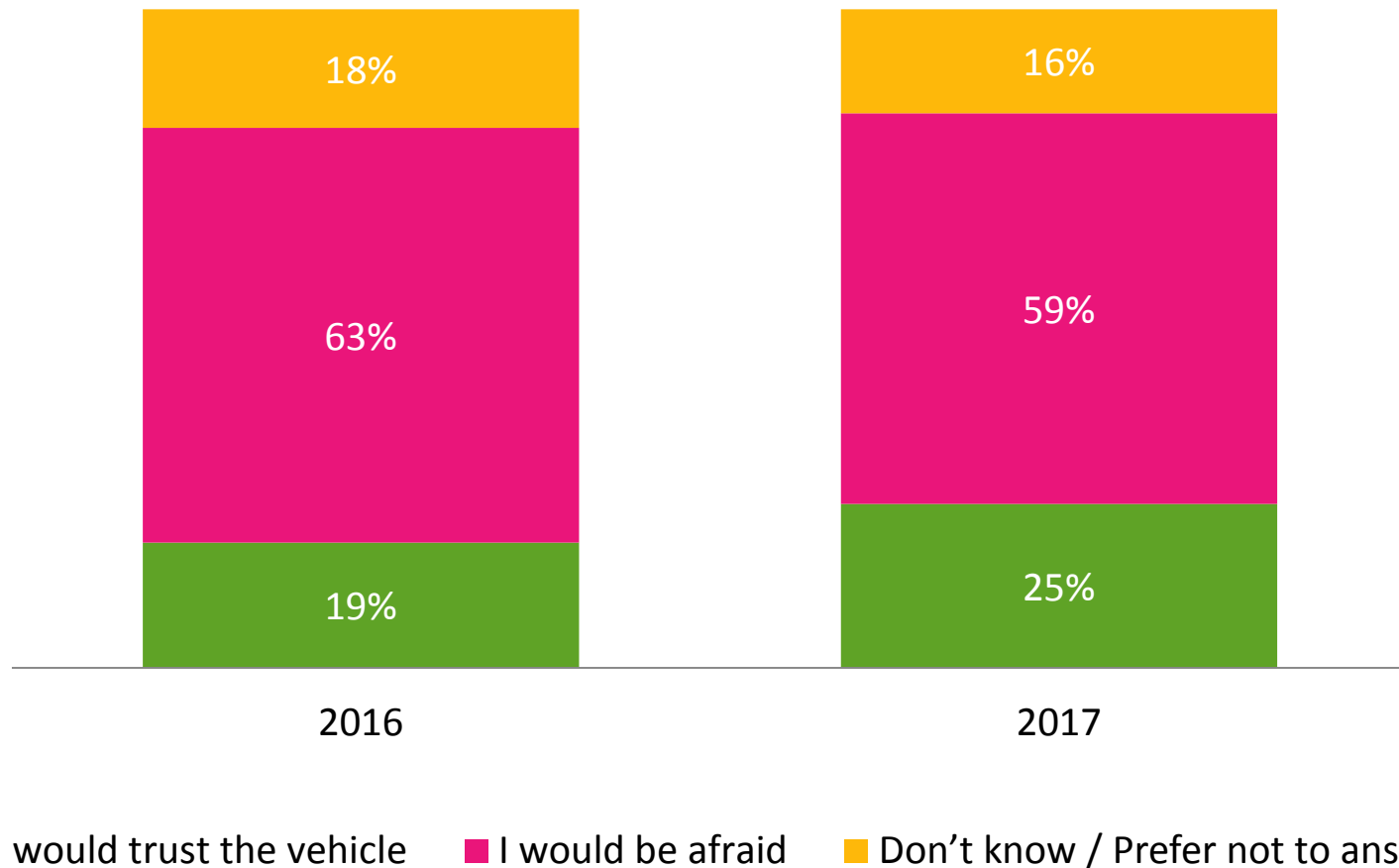
% of respondents who are concerned about this technology



Fear of Driverless Vehicles



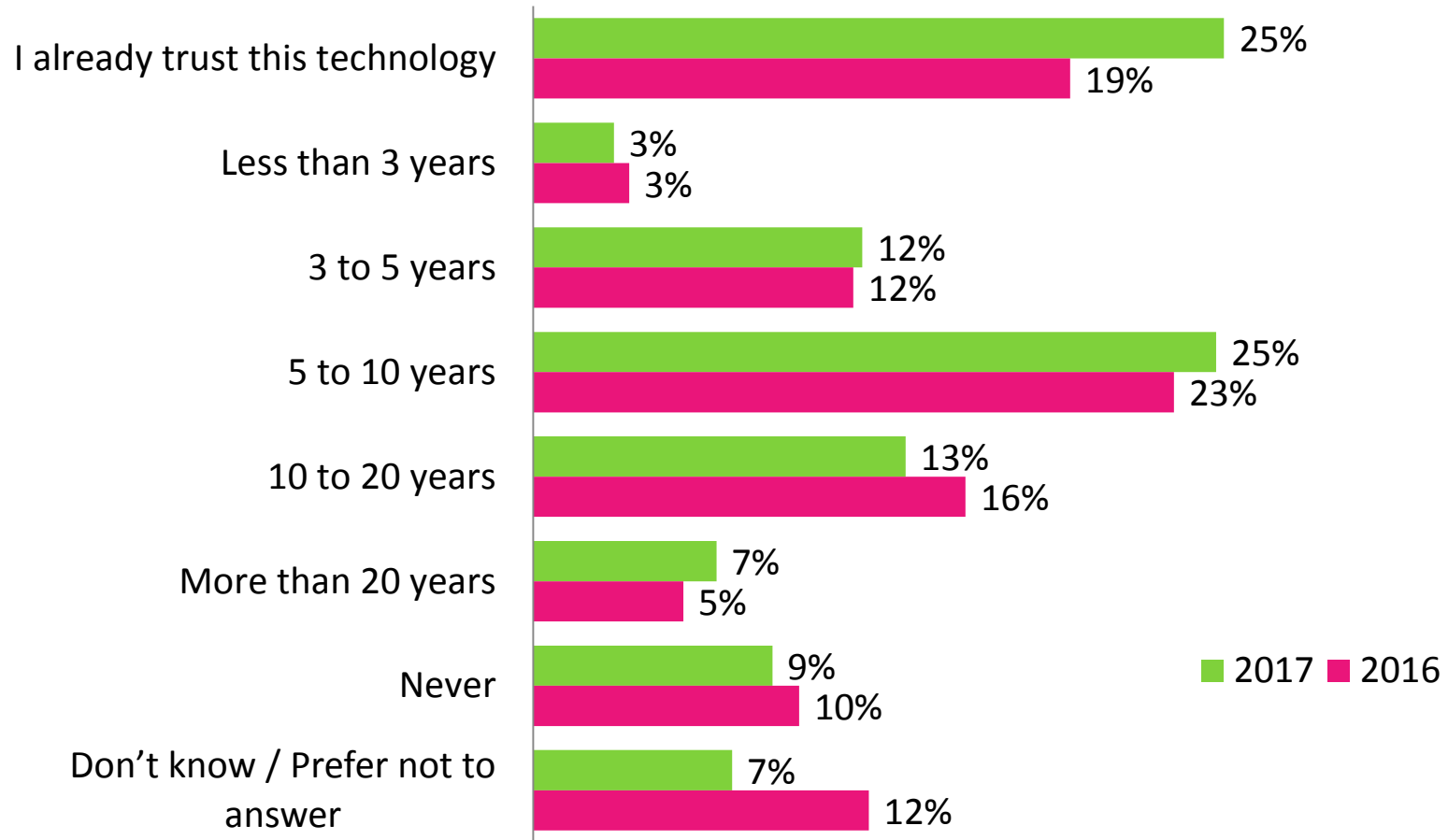
Q11. Would you trust a vehicle to drive itself while you are in it or would you be afraid?



Driverless Vehicle Trust and Readiness



Q12. How long do you think it will take for this technology to advance to a point where you would trust a fully driverless vehicle to drive itself while you are in it?





Vehicle Data Privacy

Why is new vehicle tech confusing?

The Building Blocks of Autonomy

Prepared by VISION SYSTEMS INTELLIGENCE

AUTONOMOUS SOLUTIONS



Level of Integration

PROCESSING



SENSORS



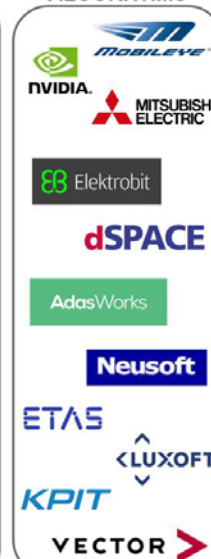
CONNECTIVITY



MAPPING



ALGORITHMS



SECURITY/SAFETY



DEVELOPMENT TOOLS



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Before being asked the set of questions about in-car data privacy concerns, respondents were shown the following preamble:

One of the striking things that people notice when they get into a new car is the amount of computer technology that automakers have built into them. Many new cars have built-in wireless connectivity that supports innovative vehicle diagnostics, communications and infotainment systems. To a large extent, cars are the new smartphone. You might have heard about OnStar but there are other systems that are even more advanced. Here are some examples of what these cars have that is built right into the vehicle:

Voice-activated systems to listen to and send text messages or emails

Voice activated in-vehicle controls (e.g. turn on the radio or play an MP3 file, adjust temperature)

Remote vehicle diagnostics that detect things like brake issues, battery life, engine efficiency, mechanical problems and notify the owner by text message or email

Extensive data collection about the vehicle, including where it has been, how it has been driven, what systems are being used and how in-vehicle components are working (or not working)

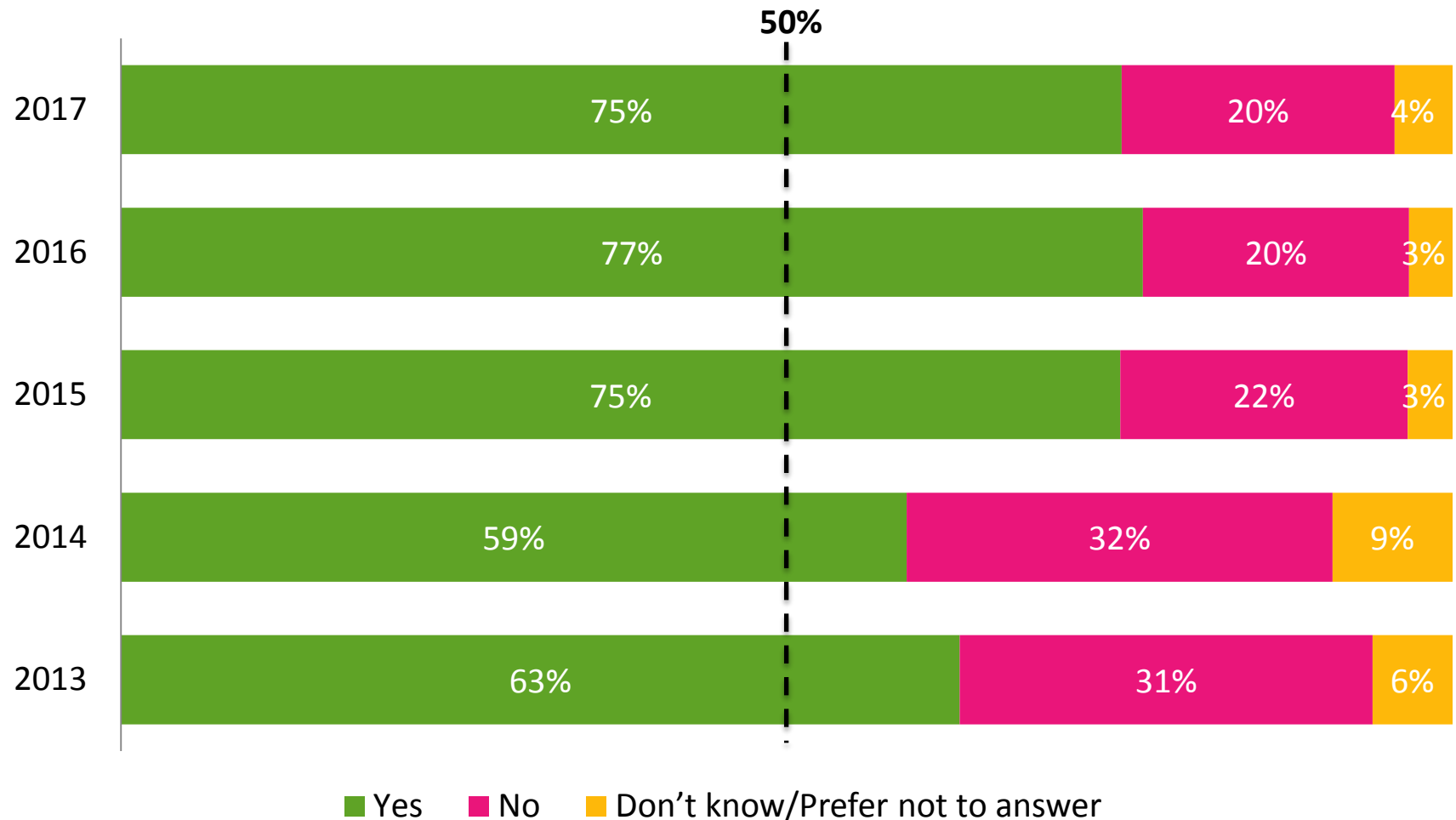
In essence, your vehicle is or will soon be collecting and transmitting all kinds of information on the state of your vehicle and what you do in the vehicle.

In-Car Data General Awareness



Q13. Before today, had you heard about these in-car technologies?

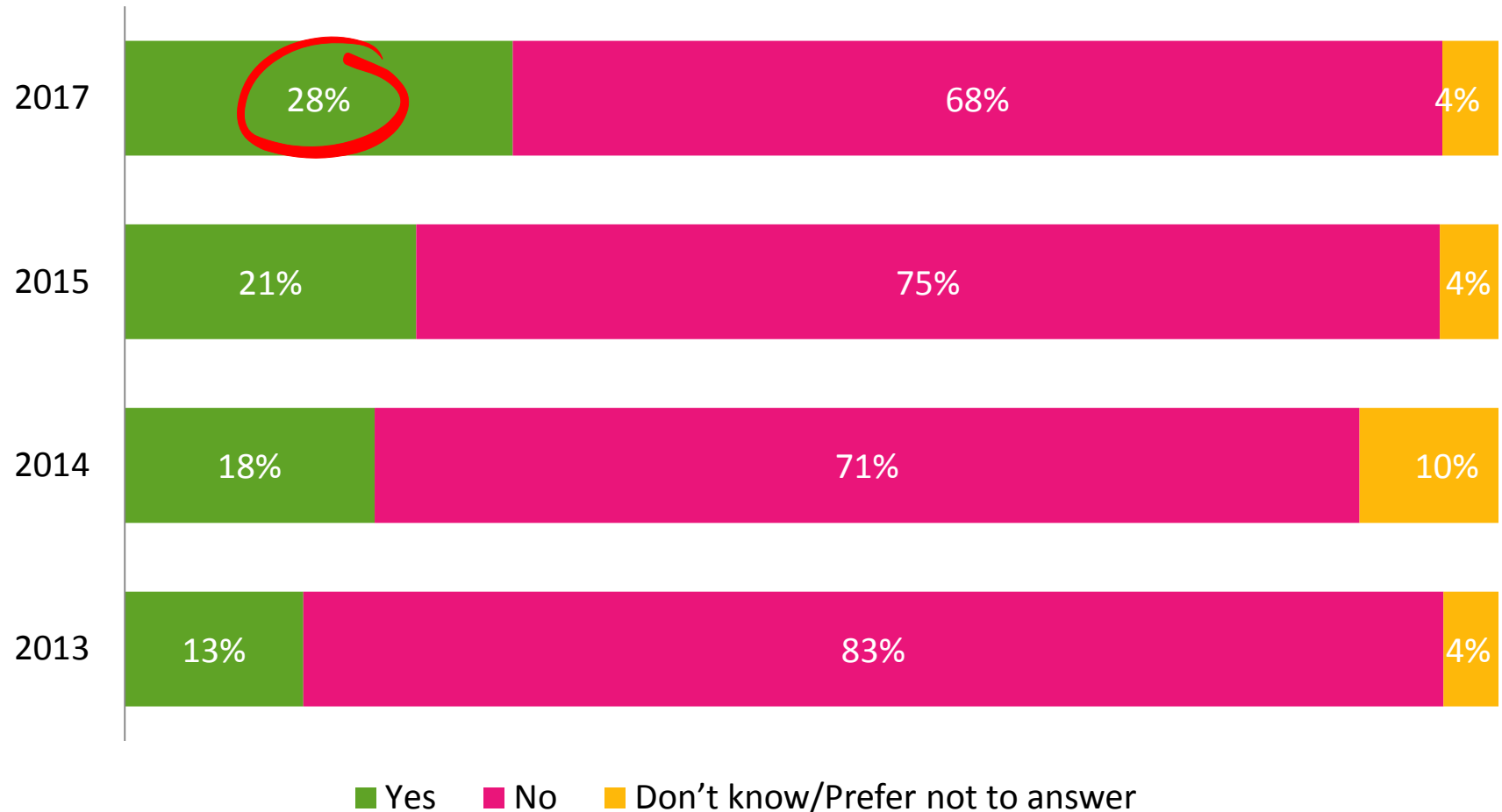
Awareness of in-car data technology has been stable since 2015.



Q14. Do you own a vehicle that offers these types of technologies today?

Ownership of vehicles with this technology is steadily climbing.

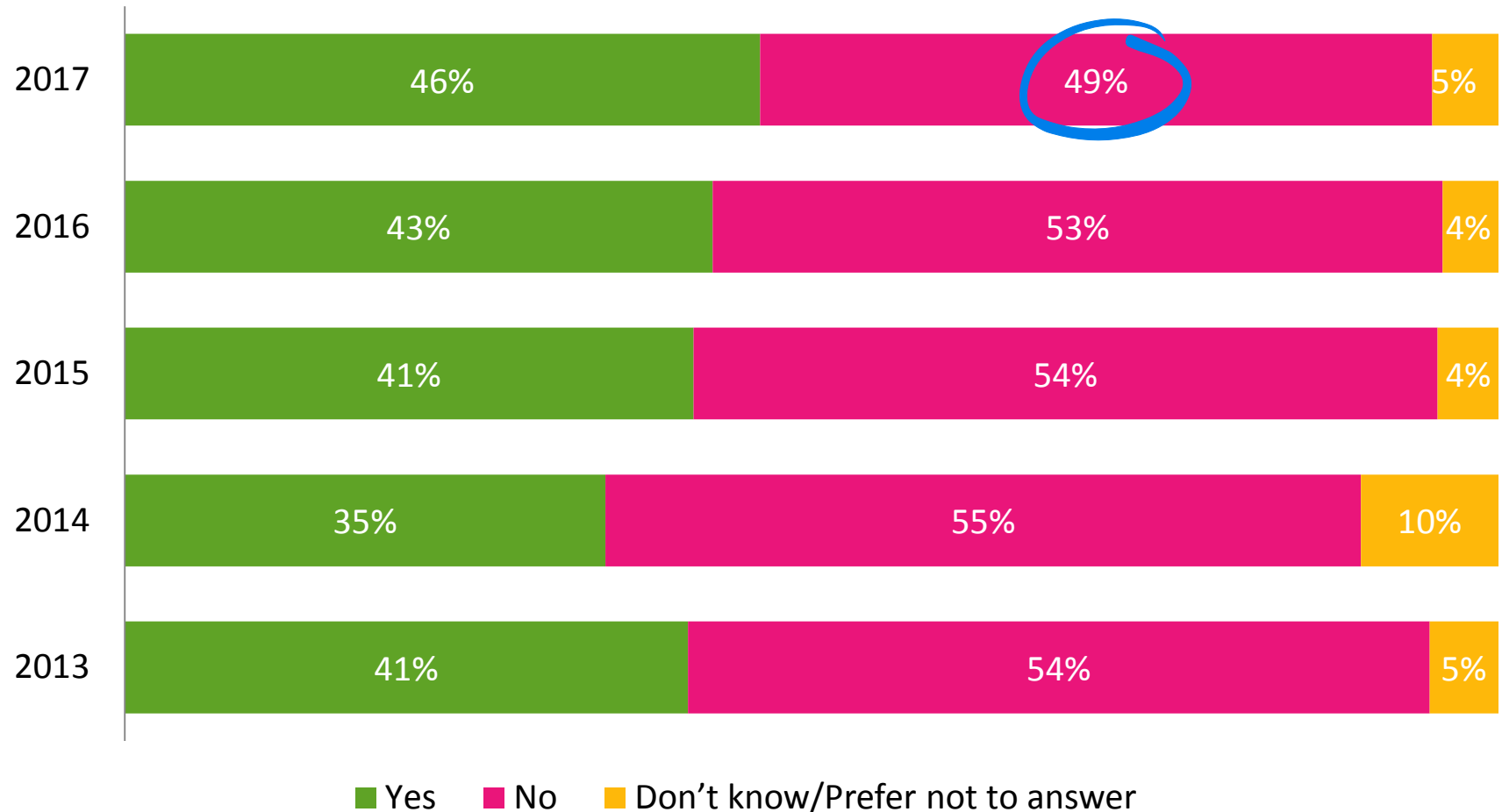
Note: This question was not asked in 2016.



Awareness of Range of Data Collected by Vehicles



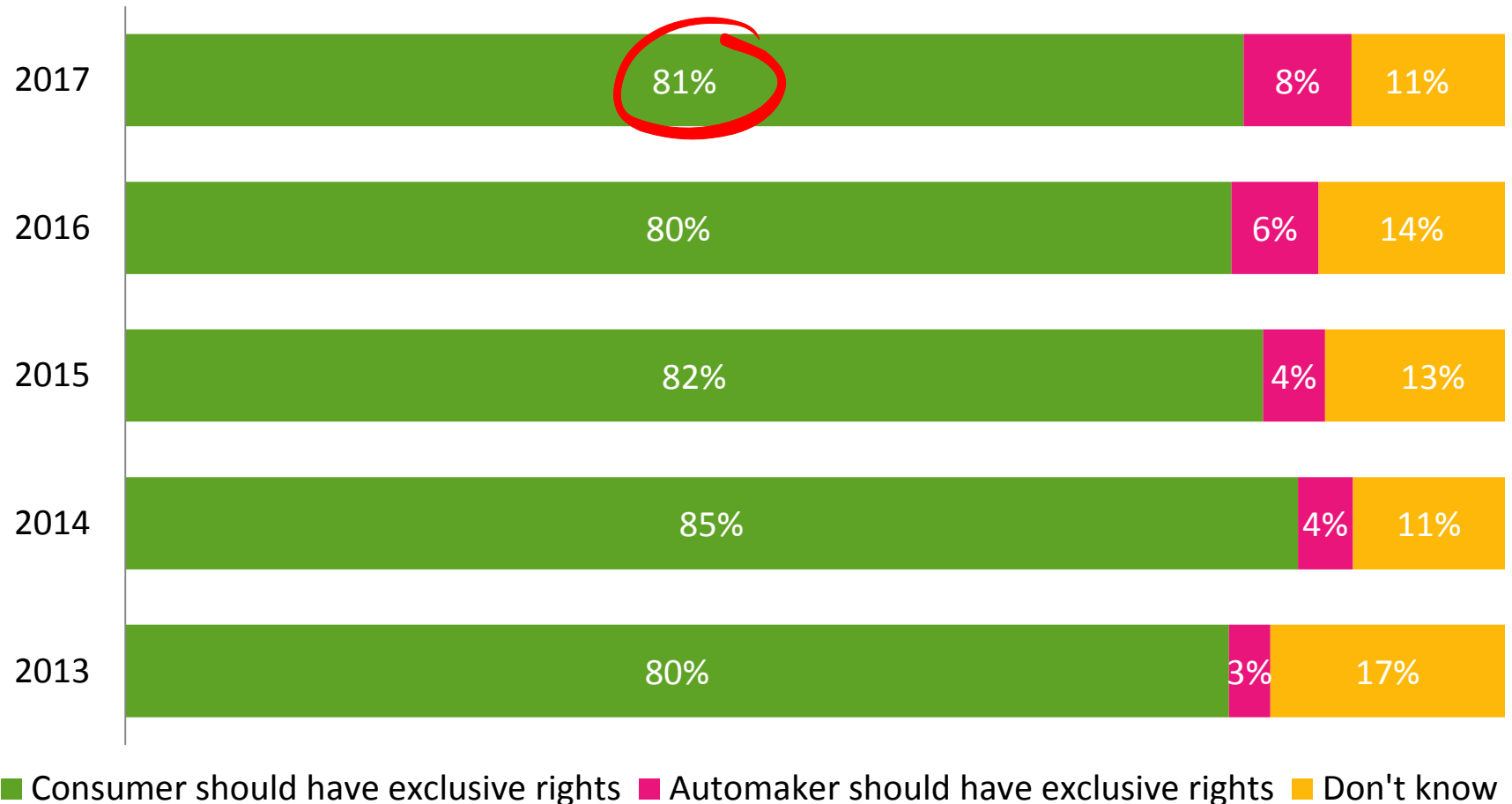
Awareness of the range of data collected by vehicles is gradually growing among Canadians, but around half still have no awareness of this.



Who should control in-car data?

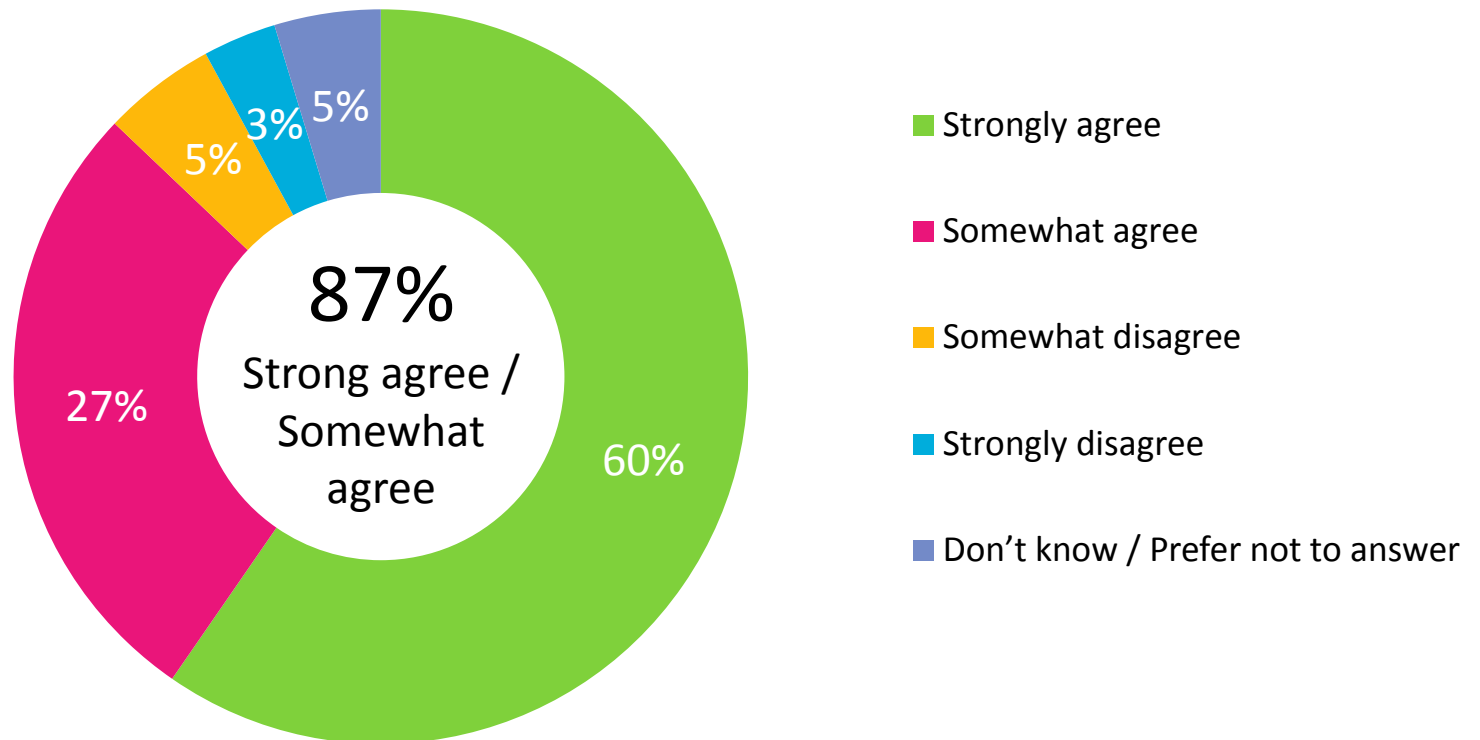


Perceptions of data access control rights are stable, with most Canadians believing that the consumer should have control.



Q17. Some people believe that should data be collected, then the consumer should be able to decide with whom it is shared. To what extent do you agree with this statement?

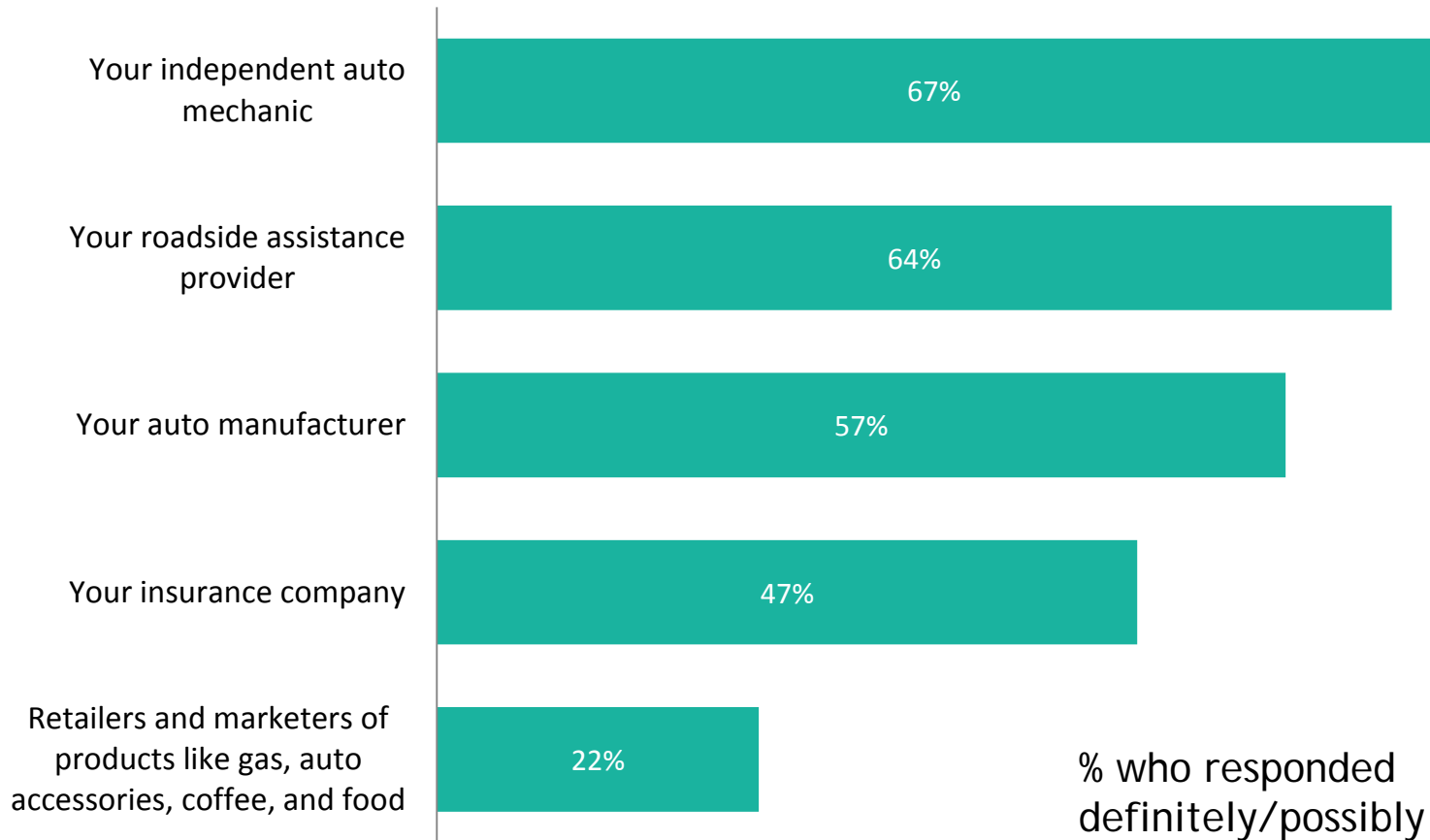
Nearly 9 in 10 Canadians agree that the consumer should decide.



In-Car Data Access

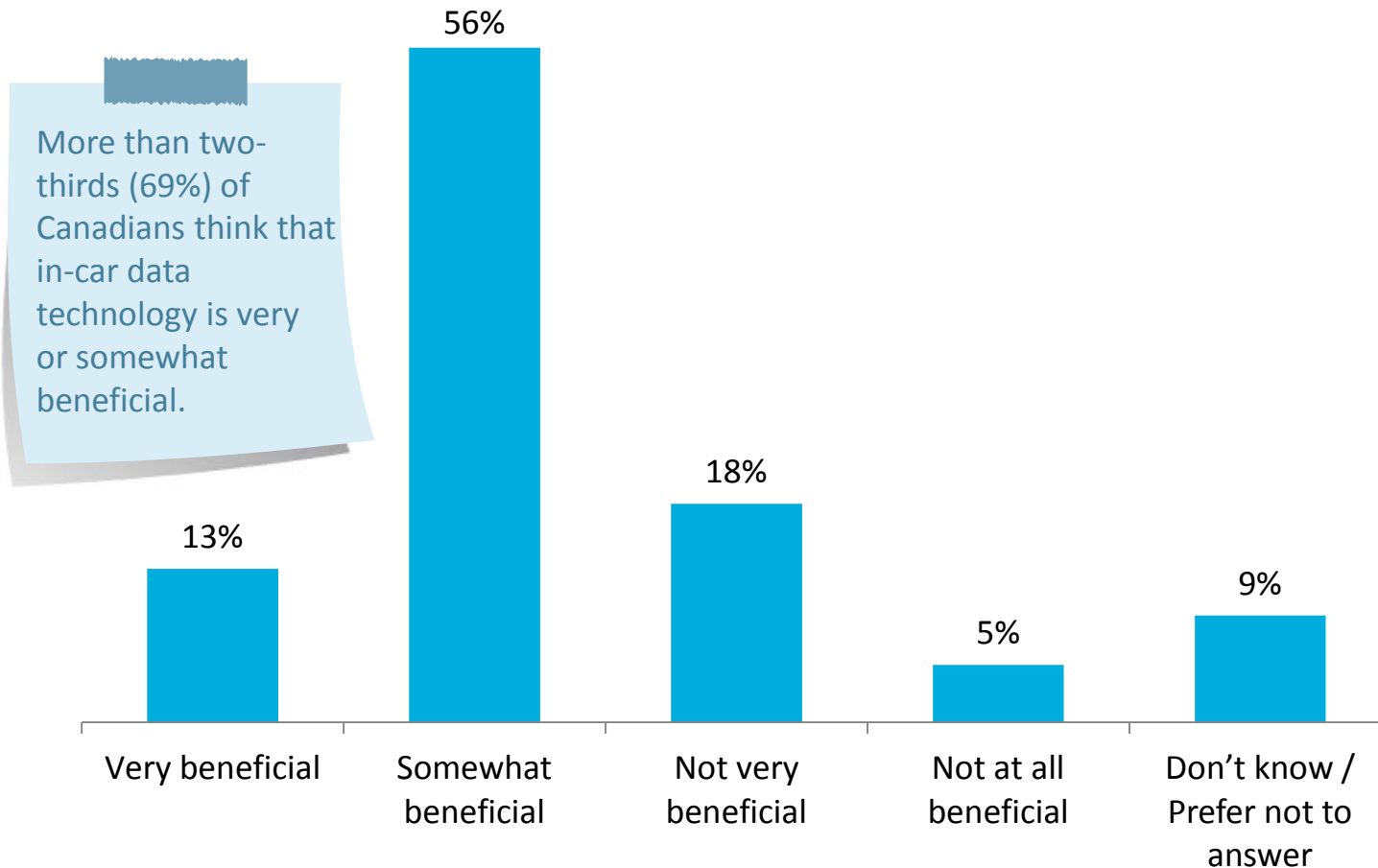


Do you think the following organizations should be allowed to have access to certain data that comes from your vehicle?

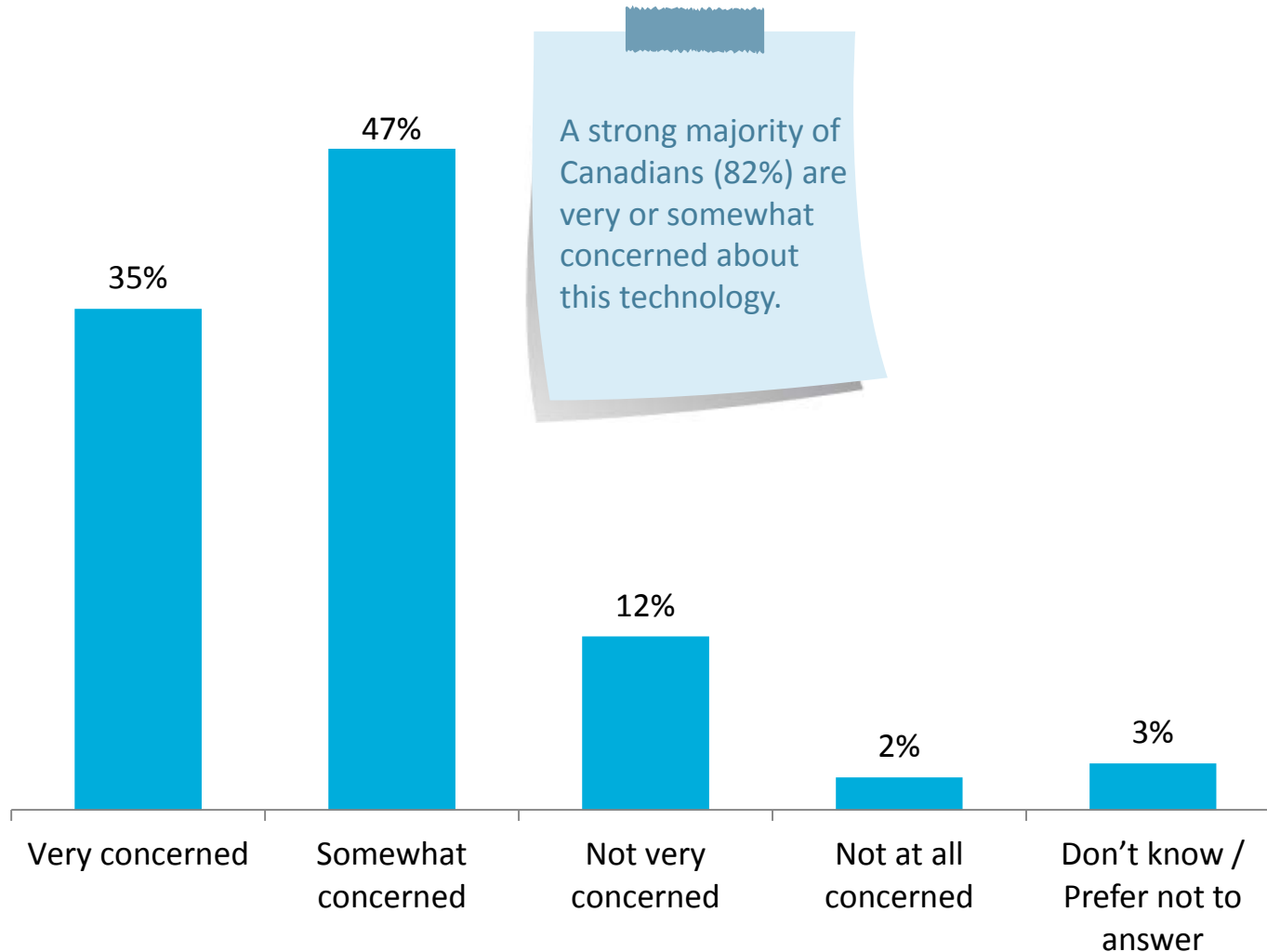


% who responded
definitely/possibly

Q19. Based on what you know about this new technology, how beneficial do you think it is for consumers?



Q20. How concerned are you about the privacy risks of this new technology?



In-Car Data Concerns



Q19. Based on what you know about this new technology, how beneficial do you think it is for consumers?

Q20. How concerned are you about the privacy risks of this new technology?

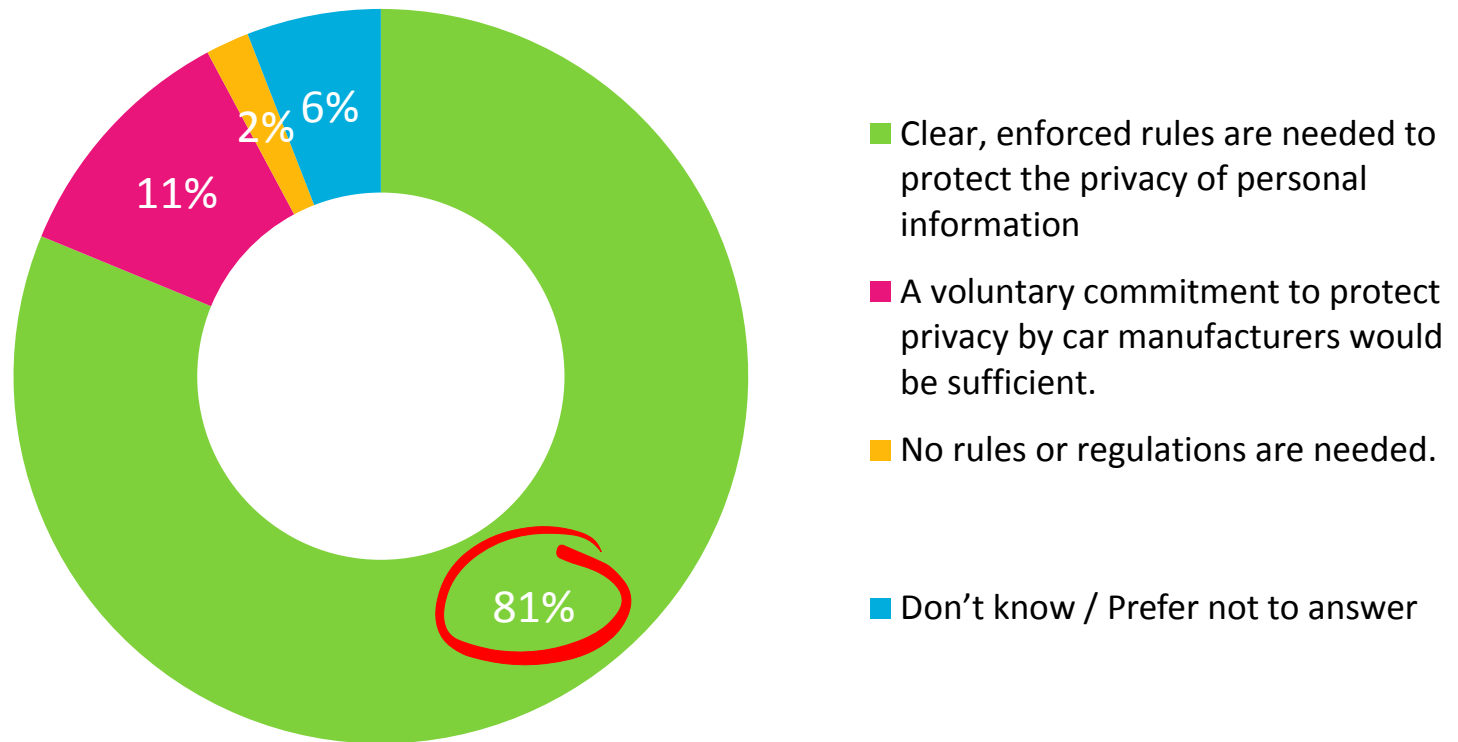


65%

Even among those who see this technology as beneficial, still have concerns about it.

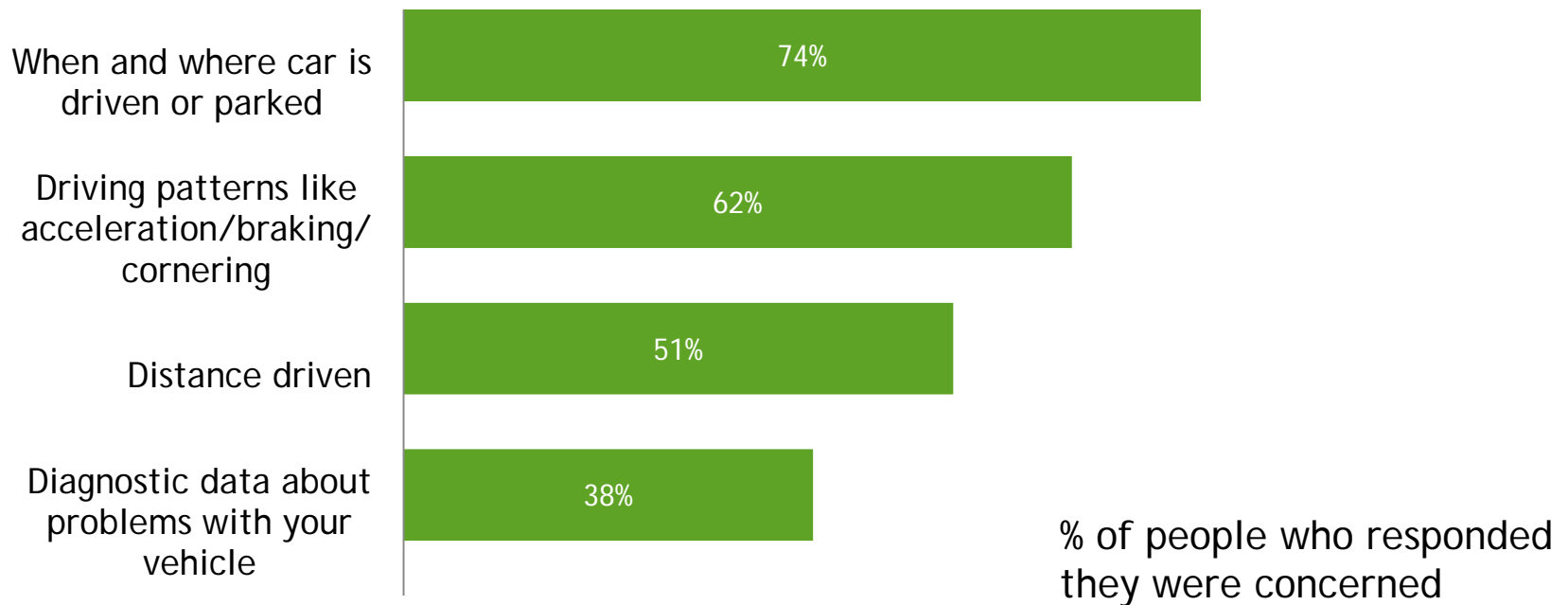
We used a crosstab analysis to look at Canadians' perceptions of this technology's benefits and their level of concern about it. Most Canadians see the technology as beneficial, but also have concerns about the privacy risks.

How should in-car data be protected?



The majority of Canadians (81%) feel there is a need for clear, enforced rules to protect the privacy of personal information.

Concern about sharing one's data declines with data considered less private.



Key Issues

- Vehicle technology
- Consumer acceptance
- Reliance on government architecture (rules, infrastructure, etc.)
- How will AVs and 'dumb' cars co-exist safely?
- Who controls vehicle information?
- Moral/ethical concerns
- Insurance industry implications

Thank you

Ian Jack

Managing Director, Communications and Government Relations
Canadian Automobile Association (CAA)

ijack@national.caa.ca

613-247-0117 x2007

Jason Kerr

Director, Government Relations
Canadian Automobile Association (CAA)

jkerr@national.caa.ca

343-998-6679