



Fact sheet – Autonomous vehicles

Number 10, 2014

This fact sheet complements content in the [Autonomous Vehicles infographic](#) that is part of the [Tranzinfo Hot Topics series](#). New content was added to the infographic in December 2014.

The image shows a grid of four fact sheets, each with a 'Tranzinfo Hot Topic' header. The sheets are:

- AUTONOMOUS VEHICLES:** Discusses 4 levels of automation (0-4) and includes a 'This Hot Topic deals with impacts relating to levels 3 and 4' section.
- AUTONOMOUS VEHICLES Policy:** Covers 'Testing and licensing', 'Guidance', and 'From technology to policy'.
- AUTONOMOUS VEHICLES Infrastructure:** Features sections for 'Shipping the future: Australia', 'Shipping the future: NZ', 'Shipping the future: US', 'Shipping the future: UK', 'Ask the experts', and 'Ask the auto industry chiefs'.
- AUTONOMOUS VEHICLES Freight and other modes:** Includes 'Driverless freight trains', 'Robotaxi', 'Long distance', and 'Unmanned shipping'.

Contents:

- [Guidance & policy documents](#)
- [Surveys & opinion](#)
- [Technology](#)
- [Some recent milestones](#)
- [Websites and blogs](#)

Guidance & policy documents

[Autonomous vehicles in Texas](#)

University of Texas at Austin, 2014

Examines AV technology, policy considerations, and their potential for the Texas Department of Transportation.

[Autonomous vehicle implementation predictions: implications for transport planning](#)

Todd Litman, Victoria Transport Policy Institute, June 2014

Examines the impact that autonomous vehicles could have on travel demands, transport planning and policy.

[The future of mobility: scenarios for the United States in 2030](#)

RAND Corporation, 2013

Develops scenarios to enable transport planners to anticipate possible opportunities and risks in preparing for autonomous vehicles.

[Back to top](#)

Surveys & opinion

[Self-driving cars: are we ready?](#)

KPMG, 2013

A discussion of the results of focus group research conducted in the US on consumer sentiment about autonomous vehicles.

[A survey of public opinion about autonomous and self-driving vehicles in the U.S., the U.K., and Australia](#)

University of Michigan Transportation Research Institute, 2014

Drivers in the three countries surveyed generally feel positive about autonomous vehicles and their potential benefits, though Americans express more concern about matters such as safety and data privacy.

[IEEE survey reveals mass-produced cars will not have steering wheels, gas/brake pedals, horns, or rearview mirrors by 2035](#)

IEEE news release, July 2014

The IEEE has released the results of a survey of expert opinion on the future of driverless cars.

[Google's founders on the future of health, transport and robots](#)

The Guardian, 7 July 2014

Sergey Brin and Larry Page have given an interview in which they covered a range of topics and trends, including comments on the impact of driverless cars.

[The \(rubber\) stamp for autonomous driving](#)

Drive.com.au, May 2013

A survey commissioned by Cisco found a high level of trust for driverless cars among motorists worldwide.

[Autonomous cars demand a shift in automotive design, says Nissan R&D exec](#)

Transport Evolved, July 2014

According to the director of Nissan's Silicon Valley research centre, automakers need to focus more on software development than hardware to design self-driving cars that can not only understand and mimic how humans drive.

[Back to top](#)

Technology

[How Google's Self-Driving Car Works](#)

IEEE Spectrum, October 2011

An overview of how the car works, with videos of road tests.

[Autonomous vehicles for safer driving](#)

SAE International, 2013

A compendium of papers covering successful demonstrations of autonomous vehicles, ongoing projects, and discussions of the future of autonomous vehicles.

[Human factors evaluation of Level 2 and Level 3 automated driving concepts: concepts of operation](#)

National Highway Traffic Safety Administration (NHTSA), July 2014

Defines the different levels of automation, the operator vehicle interactions, and system components.

[Self-driving cars will bristle with sensors](#)

CNET, September 2013

An overview of the many sources of data, such as lasers, radar, and stereo cameras used by computers in autonomous vehicles.

[Hands Free Heaven](#)

Parking Professional, Volume 29, Issue 6, 2013

Examines the latest advances in driverless vehicle technology and their likely impact on parking.

[For Google's self-driving cars, learning to deal with the bizarre is essential](#)

San Jose Mercury News, 12 November 2014

Google has discovered that driverless cars need to take on some human characteristics on the roads to be successful.

[Back to top](#)

Some recent milestones

[Driverless cars set to be tested in four English cities](#)

BBC News, 3 December 2014

An outline of the driverless vehicle projects to be launched in four UK cities. [Click here](#) for more information on the Greenwich project.

[Working with industry on a 'self-driving' car](#)

University of New South Wales press release, 26 February 2014

Profile of a partnership between UNSW and a car sharing service provider.

[Daimler unveils new driverless truck in Germany](#)

TheTrucker.com, 3 July 2014

Daimler Trucks has unveiled a self-driving truck capable of speeds of up to 85 km/h.

[Google's self-driving car passes 700,000 accident-free miles, can now avoid cyclists, stop at railroad crossings](#)

ExtremeTech, April 2014

Google has released a new video showing the latest software improvements to its autonomous vehicle.

[Demonstrating a driverless future](#)

National Science Foundation press release (US), 24 June 2014

Carnegie Mellon University's new driverless car is the result of more than a decade of research and aims to showcase the latest technology in this area.

[Town built for driverless cars](#)

MIT Technology Review, 3 October 2014

An urban setting with complex intersections, lane markings, mechanical pedestrians and construction crews has been built in Ann Arbor, Michigan, as a testing ground for automated and connected vehicles.

[First driverless vehicles for public launched in Singapore](#)

ScienceDaily, 21 October 2014

Researchers from the Singapore-MIT Alliance for Research and Technology (SMART) and the National University of Singapore (NUS) have developed driverless buggies for public use as part of a trial.

[Back to top](#)

Websites and blogs

[Driverless Transportation](#)

A website with the latest news, publications and upcoming events.

[General Motors-Carnegie Mellon Autonomous Driving Collaborative Research Lab \(AD-CRL\)](#)

Established in 2008. Site includes news and videos.

[Intelligent Control Systems Laboratory \(Griffith University\)](#)

Established in 1991. The Laboratory researches the use of sensors, electronics, and control-and-decision-making software used in vehicles and robots.

[Driverless car market watch](#)

A blog which draws attention to the latest advances in the field.

[Self-driving economy](#)

A blog focusing on the economic aspects of driverless vehicles.

[Singapore-MIT-Alliance for Research and Technology](#)

The [Future Urban Mobility Group](#) works on technological advances in urban transportation.

[Back to top](#)

This fact sheet was produced by the ARRB Group Library, part of Tranzinfo, the Australian and New Zealand network of land transport libraries.

Australia

Air Services Australia
ARRB Group, MG Lay Library
Centre for Automotive Safety Research Library
Commonwealth Department of Infrastructure and Regional Development Library
Hargrave-Andrew Library, Monash University
Hobart City Council Corporate Library
Jacobs Library
Main Roads Western Australia Library
Queensland Department of Transport and Main Roads Library
Transport Library, Transport for NSW
SA Department of Planning, Transport & Infrastructure Library
SMEC Library
Tasmanian Department of State Growth Library
University of Tasmania Launceston Campus, incorporating former Australian Maritime College Library
Victorian Government Library Service
WA Department for Transport Library

New Zealand

Ministry of Transport Library
New Zealand Transport Agency Library
Opus International Consultants Library
Traffic Design Group