

IHS Automotive

Automotive Technology Research

Emerging Technologies

Autonomous Cars- Not if, but when

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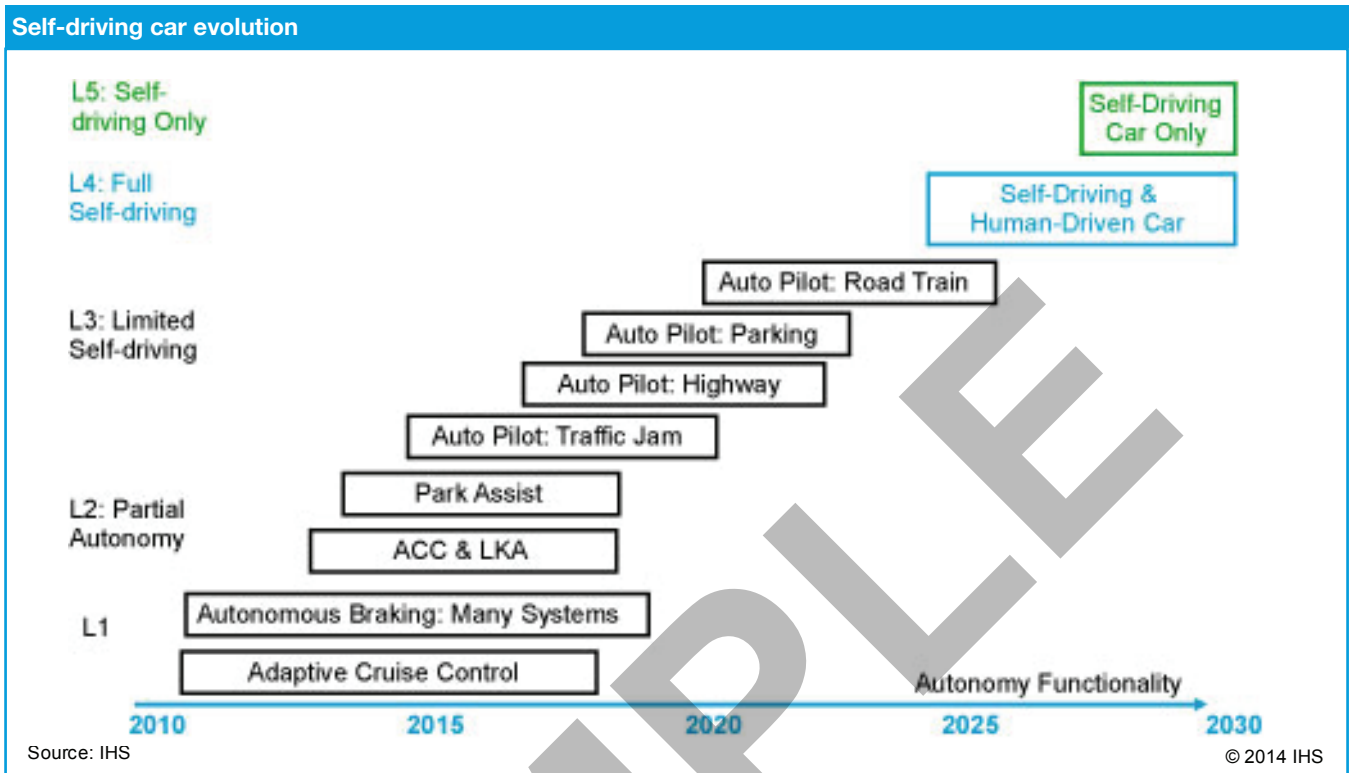
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The next table draws a few key conclusions about the impact of autonomous auto technology as it eventually leads to self-driving cars. The opportunities are very large as nearly all of autos in use are likely to become self-driving cars or self-driving commercial vehicles sometime after 2050.

Key conclusions about the impact of autonomous auto technology		
	Take-away	Comments
Opportunity	SDC can replace 90%+ of all cars on the road between 2025-2055+	Will happen faster in USA, W. Europe and other developed countries
	SDV can replace 90%+ of all LCVs and M-HCVs from 2025-2055+	Will happen faster in USA, W. Europe and other developed countries
SDC cost	Initial high price premium	Luxury autos only first 5 years
	Rapid SDC price decline	Mid-range autos after 5 years
	Affordable after 10+ years	Entry autos after 10+ years
	Mass availability after 15 years	Will vary by regions
Positive impact	Declining accident rate	Major society benefits
	Declining traffic congestion	Additional benefits for all
	Declining air pollution per auto	Benefits for all regions
	Door-to-door mobility for more people	Last mile solution for mass transit
Potential barriers	Delays from slow legal framework	Need a champion to lead legal activity
	Delays from government regulation	NHTSA is key in USA
	Horror stories from poor products	Poor products will slow deployment
Tech Risk	Software reliability & testing	All auto software need better reliability
	Cyber-security	Need built-in hardware & software security

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The cost of self-driving car functionality will start in the \$7,000 to \$10,000 range in 2025 and will be used in luxury cars first. Over the following decade, self-driving cars will spread to all segments except the lowest cost versions in the developed countries. Other regions will see slower deployment of self-driving cars.