

at Harris Corp., a contractor. In 2012, the Department of Defense issued a directive banning the use of fully autonomous...

it can be used on the battlefield. "People in industry will continue to develop those systems...

better if meant to be used in a way that discriminates between targets in the chaos of battle.

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Best Pitch for Self-Driving Cars:

By Orr Hirschauge

JERUSALEM—Automotive executives touting self-driving cars as a way to make commutes more productive or relaxing may want to consider another potential marketing pitch: safety. "If you want to create a car technology with mass adoption, it needs to be about safety," says Amnon Shashua, chairman of Mobileye NV, a fast-growing supplier of assisted-driving technology. "Positioned as a comfort feature or as something that is cool to have, the autonomous car would not make it to the mass market."

Jerusalem-based Mobileye develops machine-vision chips and software. According to Mr. Shashua, its chips by 2018 will be used on a car that takes over steering if the driver has a heart attack, falls asleep at the wheel or becomes otherwise incapacitated. He declined to comment on the manufacturer or how its vehicle would monitor the driver's condition. Mr. Shashua said such technology could be via a smart wristband, or biometric sensors in the seat.

In 2013 there were 543 fatal crashes in the U.S. involving drivers who were ill at the time of the crash, including those suffering from diabetic reactions, seizure, heart attack, high or low blood pressure, and fainting, according to data by the National Center for Statistics and Analysis, an arm of traffic safety regulator National Highway Traffic Safety Administration.

An earlier study found driver incapacitation to be the sole or main cause of 6.4% of 723 crashes sampled. In 4.4% of the crashes, the driver fell asleep and in 2% the driver experienced a seizure, a heart attack or a blackout.

Mr. Shashua said the right message and mission will be important to paving the way for autonomous vehicles. While auto



Mobileye's Amnon Shashua, right, said a focus on safety is key. The firm supplies...

man operators to read the paper or answer text messages. "Comfort doesn't interest the regulator," he said. Driverless-car technology faces an uncertain regulatory environment. While development of systems that let cars drive themselves is rapidly evolving, regulators in major automotive markets haven't yet set full policies to govern public use. Still, regulators' embrace of smart safety features like emergency braking before collision and lane-departure alerts has already turned Mobileye into one of the industry's more influential players. It remains much smaller than auto-supply giants such as Delphi Automotive PLC or Bosch GmbH, but Mobileye's technology have driven annual sales to \$143.6 million in 2014 from \$19.2 million in 2011. Researchers at Boston Consulting Group said earlier this year that self-driving cars would be a reality in a decade and a piece here." Mr. Rosekind said. "There are so many moving pieces here." There are plenty of headaches regulators to iron out in

Singapore Startup GrabTaxi Raises \$400 Million to Seek Ride-Hailing Edge Over Uber

By Rick Carew

HONG KONG—China's sovereign-wealth fund is fast becoming a major source of capital for Uber Technologies Inc.'s rivals in Asia.

China Investment Corp., the \$740 billion sovereign fund, is putting money into Southeast Asia ride-hailing startup GrabTaxi after an earlier bet on Uber, according to a person familiar with the situation.

The sovereign-wealth fund, in recent years a big investor in commodities, was part of an investing group that put money into China's Didi Kuaidi Joint Co. last month, valuing the taxi app at \$15 billion. At that time, Didi Kuaidi said it was looking to raise "a further few hundred million dollars from new investors before the final closing in the coming month."

Now, the fund, known as CIC, is joining other investors in a nearly \$400 million fundraising round for Singapore-based GrabTaxi, a person with knowledge of the matter said. The new fundraising round, which is expected to have its "second close" in the coming days, values GrabTaxi at between \$1.6 billion and \$1.8 billion, including the fresh funds, that person said.

GrabTaxi raised more than \$200 million for its "first close" from investors, led by U.S. hedge fund Coate Management LLC. The Wall Street Journal reported early last month.

Venture-capital fundraisings often have a first and second close to accommodate different investors' timetables. CIC joins other big financial backers in pouring money into Asian startups that are trying to win an edge as fast-expanding Uber



GrabTaxi, founded by Anthony Tan, is valued at between \$1.6 billion and \$1.8 billion.

also expanded its car-hailing service to include motorcycle taxis, offering a service called GrabBike in Vietnam, Indonesia and Thailand.

From its launch in Singapore, GrabTaxi now operates in 22 cities across six Southeast Asian countries, and plans to use the fresh funds from the latest fundraising round to expand in Southeast Asia, a populous region that is home to some 600 million people and fast-growing markets such as Indonesia and the Philippines.

Mr. Tan has close ties with the auto industry. His grandfather was a taxi driver,

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Venture-capital fundraisings often have a first and second close to accommodate different investors' timetables.

CIC joins other big financial backers in pouring money into Asian startups that are trying to win an edge as fast-expanding global industry leader Uber makes forays into their markets. Japan's **SoftBank Group Corp.** and U.S. hedge fund **Tiger Global Management LLC** have also written big checks to help

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Mr. Shashua said the right message and mission will be important to paving the way for autonomous vehicles. While auto makers developing such cars have noted they would lead to safer roads, some have also said driverless cars would allow hu-



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Researchers at Boston Consulting Group said earlier this year that self-driving cars would be a reality in a decade and a common sight within two decades, BCG estimates the potential market for autonomous vehicles to reach \$42 billion by

2025. Carlos Ghosn, chief executive of Renault SA and Nissan Motor Co., said in a July interview that while autonomous features such as self-braking or lane-keeping alerts will get more sophisticated, the marketing focus will be on the array of benefits, including safety.

"All these technologies will move much faster than the regulator," Mr. Ghosn said.

Mark Rosekind, head of the U.S. National Highway Traffic Safety Administration, says the agency is reviewing federal vehicle-safety rules to see if they conflict with autonomous driving capabilities.

"Part of what we're trying to figure out with all this new technology is: Are there places where innovations are going to run up against federal regulations?" Mr. Rosekind said. "There are so many moving pieces here."

There are plenty of headaches for regulators to iron out in coming years, and some auto makers have attempted on their own to help sort out the ques-

their product." The rivalry has waxed periodically at times. Last year, the

Solar Firm

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