Informal document GRSG-110-19
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Agenda item 22.)

Submitted by the expert from Israel
Transport for London Video

Why?

Truck/Bus blind spots are bigger than you think!
Fatalities

GLOBAL STATUS REPORT ON ROAD SAFETY 2015

1.25 million road traffic deaths occur every year

#1 cause of death among those aged 15-29 years

World Health Organization
49% of all road traffic deaths are among pedestrians, cyclists and motorcycles.
Injuries

• 50 Million people incur nonfatal injuries each year from road traffic crashes.
• 92+ countries report policies to increase walking and cycling.
• More attention must be given to VRUs.
Nearly 840,000 blind spot accidents occur each year in the United States resulting in 300 fatalities.

During a recent five-year period, 374 bicyclists and 1,372 pedestrians in the U.S. were killed from impacts with large trucks.

32% of these 1,746 fatalities happened after an initial impact with the side of a truck.

37% of bicyclist fatalities happen on the right side when trucks impact bicyclists.

Nearly half of bicyclists and more than one-quarter of pedestrians killed by a large truck first impact the side of the truck.
30% of fatal accidents are between HGVs and VRUs which can be prevented by utilizing existing smart blind spot detection and advanced warning!
Market Conditions
“HGVs are substantially overrepresented in cyclist and pedestrian accidents. Between 2008 and 2012, 53% of cyclist fatalities in London involved lorries, though they make up only around 4% of the traffic.”

-Andrew Gilligan, London Cycling Commissioner

As of September 1st, 2015, all commercial vehicles over 3.5 tonnes must be fitted with minimum safety requirements
Understanding the danger of LGVs, Mayor Walsh signed ordinance requiring City agencies to contract only with vendors that meet minimum safety requirements.

- Boston Mayor Walsh Speaking at Vision Zero Event
New Jersey: Abigail’s Law

STATEMENT TO
SENATE, No. 2011

STATE OF NEW JERSEY

DATED: DECEMBER 21, 2015

The Senate Budget and Appropriations Committee reports favorably Senate Bill No. 2011.

This bill, designated "Abigail's Law," requires that all school buses manufactured on or after 180 days following the bill's enactment be equipped with sensors to alert a bus driver when a child walks in front or back of the bus. The bill provides that the design and installation of the sensor must conform to regulations to be promulgated by the State Board of Education, in consultation with the Chief Administrator of the New Jersey Motor Vehicle Commission.

As reported, this bill is identical to Assembly Bill No. 1455, as also reported by the committee.

Following the tragic death of 18 month-old Abigail Kuberiet, NJ requires safety sensors for school buses.
Mobileye Shield+

Our system is equipped with up to four strategically placed multi-vision smart cameras.

- camera 1
- camera 2
- camera 3
- camera 4
Delivery of Warnings

Custom independent alert display for each side camera
This proactive approach to retrofitting current bus fleets will allow transit agencies to improve safety and reduce losses in the near term, rather than waiting for collision avoidance equipment to become standard on new buses which could take 12 - 18 years based on the minimum expected life of a transit bus.

—Brian Viscusi, Senior Vice President, Alternative Markets, Munich Reinsurance America

The purpose of this safety pilot is to utilize innovative technology to prevent these collisions from occurring in the first place, thereby avoiding the devastating consequences these incidents can have on the injured parties and on the drivers.

—Jerry Spears, WSTIP
Large vehicles pose the largest threat to Vulnerable Road Users. A Smart City needs the best blind spot detection technology to prevent such crashes.
10% priority will be given to contractors who have run land transport and traffic safety management and quality systems (SI 9301), and to those whose cars have installed a “green box” - 

A system for monitoring the driver’s behavior when driving, and in whose vehicles are installed safety cameras, and in whose vehicles are installed positioning systems that enable outsider’s to track the vehicle’s location at any given minute.

The winning company’s vehicles intended to transport students must include a technological system that sounds an alert if children are left behind in the vehicle, which meets SI 6400 part 1, when a final device is determined by the SII with the approval of the Ministry of Transport. It must also include a technological system that sounds an alert on the deviation of a vehicle from the predetermined route, or when there is a pedestrian situated in front of, or alongside, the vehicle.

The Authority may give 5% priority to bidders who possess vehicles that have installed means of reducing pollution.
Both MTA and NYC owned HGVs are utilizing smart VRU blind spot detection and warning to reach their Vision Zero goals.

- NYC Mayor De Blasio Signs 11 ‘Vision Zero’ Bills Into Law
Blind Spot Detection and Warning

Artificial vision is the only technology which can identify **ALL** vulnerable road users (VRUs), and ignore inanimate objects and VRUs in safe zones. Providing a solution not only for the 6% of pedal cyclists fatalities involving HGVs, but the full 30% of VRU fatalities  (6% pedal cyclists, 15% pedestrians, 7% motorcycle rider and 2% moped riders)
Proposed Legislation
Proposed Legislation

• Vehicles over 3.5 tons should require a minimum of:
  o Collision avoidance technology on the front and sides of the vehicle.
  o VRU blind spot detection that can filter out inanimate objects
  o Directional warnings delivered to operator
  o Appropriate levels of warnings to the operator in a clear and intuitive manner
  o Increased intensity of warning as potential collision increases