

# New technology - What are we doing differently 2 years on

John Woodrooffe
Presented to:
IRTENZ

August 20, 2019

Woodrooffe Dynamics Ltd

Slide 1

# Safety Technologies Examined

- Stability control
- Lane keeping/departure
- Over speed alert system
- Adaptive cruise control
- Electronic logbooks
- Forward collision control and braking
- Automatic transmission
- Disk brakes
- In-cab facing cameras
- Forward facing cameras.

### Participating fleets

```
A – 111 trucks; 130 drivers;
```

B – 619 trucks; 852 drivers

C – 218 trucks; 123 drivers

D - 37 trucks; 29 drivers

E – 100 trucks; 95 drivers

F - 204 trucks; 307 drivers

G – 434 trucks; 587 drivers

#### Technology Investment Improves Fleet Safety



# Safety Technology Content Ranking

Safety Technology	Type	Ranking
Highly Effective Technology		
Stability control	Independent	High
Forward collision control and braking	Independent	High
In-cab cameras with forward facing with coaching	Dependent	High
Adaptive cruise control	Dependent	High
Disk brakes	Independent	High
Electronic logbook	Dependent	High
Speed monitoring with GPS (identifies speed zones)	Dependent	High
Effective Technology		
Lane keeping/departure	Independent	Moderate
Automatic transmission	Independent	Moderate
Forward cameras with coaching	Dependent	Moderate
Non- Effective Technology		
In-cab cameras with forward facing no coaching	Independent	Low
Forward cameras no coaching	Independent	Low

#### Electronic logging device capabilities

- Data keeps dispatchers up to date on driver and delivery status
- Provides early identification of potential HOS violations
- Identifies drivers who are already in violation (real time)
- Provides data on available hours left per driver to complete jobs
- Determines if driver hours contribute to inefficient vehicle use
- Supports comprehensive driver coaching programs
- Continually assess job assignments to improve efficiency

### Electronic logging device capabilities

- Ability to create customizable driver task lists
- Integration with dispatch systems resulting in automatic flow of trip information, status updates, and completed forms
- Turn by turn navigation that takes into account vehicle road restrictions such as weight, length, width, and height, as well as hazardous materials (HAZMAT) routing

# Electronic logging devices (ELD)

- Originally conceived to track driver hours of service
- The addition of GPS and communications has upgraded it to a vehicle system reporting tool
- It will likely become the central node for truck communications when mandated

### Crash rate Vs technology (trends)

- The more technology the lower the crash rate.
- The more involvement in driver coaching the lower the crash rate
- Forbidding cell phone and texting use is very strongly correlated to better fleet safety performance.
- There is strong correlation between drivers who value the presence and benefits of forward looking and in-cab cameras with better fleet safety performance.
- Electronic logging devices rank among the highest in terms of overall benefit to the transport system.



#### **Thank You**

John Woodrooffe Principal, Woodrooffe Dynamics

Phone: (613) 513-8886 | Email: jhfw@woodrooffe.com

Woodrooffe Dynamics Ltd

Slide 10