Encourage safe driving through best-in-class driver behaviour analytics

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Every company wants to keep its drivers and the public safe, manage and maintain its Operator Rating System (ORS) rating, and protect its reputation by ensuring a high standard of driving in company vehicles.

The question is how does a committed and safety-minded company promote safe driving? Does consistent use of best-in-class driver behaviour analytics based on data from an accurate on-board device make a difference, helping to reduce speeding and other poor driving behaviours?

The answer is yes.

Organisations that use EROAD's driver behaviour analytics have 38% fewer speeding events than organisations that don't view them at all.

SPEEDING FREQUENCY
EVENTS PER 100KM

■ Engaged with Driver Analytics
■ Unengaged with Driver Analytics

33.1

20.5

Speeding Frequency
↓ 38%

The challenge

The Ministry of Transport reports that in 2014, speeding was a contributing factor in 78 fatal crashes, 357 serious injury crashes and 995 minor injury crashes.

Speeding offences will negatively affect your ORS Rating, as well as any offence notice issued to you or your driver as a result of a crash. Speeding falls into the category of dangerous driving and is one of the types of offending that carries the highest penalty score.

There is also potential for investigation or prosecution by regulators. Under the Health and Safety at Work Act 2015 (HSWA), this could affect not only your company but you personally. This is because company directors and some senior managers are required to exercise due diligence to ensure that their company complies with the duties of the company, under the HSWA. The due diligence obligation on directors and senior managers requires them to ensure that the company has: (a) appropriate resources and process to eliminate or minimise risk to health and safety; and (b) appropriate processes for reviewing and considering information regarding incidents, hazards and risks and for responding in a timely way to that information.

Further, reduced ORS ratings may lead to lost business and inability to obtain insurance, while operational downtime and costs related to the accident will directly hit your bottom line if you are self-insured. Even if you have good third-party insurance coverage, you may have an excess to pay.

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Meeting the challenge with best-in-class driver behaviour analytics

Changing on-road driving behaviour takes time; the great news is that it is highly achievable.

EROAD has found a consistent attention to and monitoring of driving behaviour analytics is the key to improvement.

Customers who regularly interact with EROAD's Leaderboard have an average vehicle rating of **Four Stars**, compared with customers who did not; low engagement resulted in an average vehicle rating of **Three Stars.**

MEDIAN LEADERBOARD SCORE FOR AN ORGANISATION

■ High viewership
■ Low viewership

★ ★ ★ ★
★ ★ ★

80
70
60
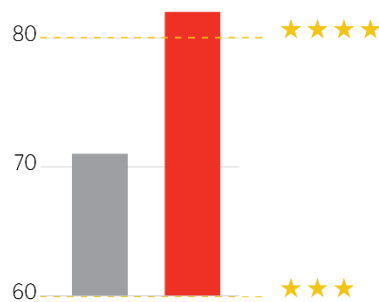
Make sure that you are using great analytics that will give your business the edge. Look for:

Benchmarking of your vehicles and drivers against those in other companies. The best analytics are based on big data analyses resulting from access to billions of driving kilometres, allowing you to compare your driver, vehicle and fleets' driving behaviour against the wider driving population. Is your driver the best in your company, or truly best of breed?

Intuitive and easy-to-read analytics. Sophisticated reporting shouldn't mean incomprehensible. Your team will come from a variety of backgrounds, and reports should surface key facts and insights in an accessible manner to have maximum impact and boost safety outcomes.

Feedback on risky driving behaviours in addition to speed. Harsh braking and sharp acceleration events can be leading indicators of overly aggressive driving, alongside failing to scan the road ahead. This could be a strong indicator of the need for targetted driver training.

Specific actionable insights. Give your driver trainer or fleet manager a head start as they coach the drivers. It's much more powerful to tell a driver '*Your fastest over-speed was 116kph near Urban Route 3, Wiri, Auckland at 21:42 on 1 June'* than merely offering generic feedback resulting in your driver having to remember or guess.

Monitoring sub-contractor or partner driving. To maintain a high standard of driving across all vehicles driving for you, often wrapped with your branding out there on the road, you need a view not only across your own drivers, but also any owner-operators carrying out work on behalf of your company. Such owner operators fall within the definition of 'worker' under the HSWA and the obligations on the company are the same as if the owner operators was an employee.

Organisational speeding trends. To monitor progress against targets, you need not only simple speed event count reporting, but also metrics that report how the frequency of speeding is trending over a month or quarter.

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Speed monitoring based on a leading map provider to submit speed limit corrections. A well-maintained source of road segment speed limits is essential for accurate speed monitoring. When road speed adjustments are made, are they quickly applied?

## Seven ways to boost safe driving across your organisation

To get the most out of the technology, the data it offers needs to become embedded into your daily fleet management practices: Your daily engagement makes a difference.

Tips to improve driving behaviour

1. Regular and consistent viewership of your company's driver behaviour analytics and trends. If you, as an owner, fleet manager or the person responsible for driver safety, aren't paying attention to whether driving is improving or deteriorating, why would your drivers?

2. Make easy-to-read over speed charts or other comparative driver analytics available to drivers as they go on and off their shifts. You can use a tablet, laptop or pin-up printouts.

3. Incorporate specific driver behaviour metrics into driver performance appraisals. Some tools, such as EROAD's Driver Insight, provide a ready to use, one-page summary of behaviour.

4. Identify key metrics of concern, such as highest over speed locations from EROAD's Over Speed Dashboard, and share them in toolbox meetings.

5. Roll out in-cab feedback tools such as EROAD's Drive Buddy to deliver timely on-the-road feedback.

6. Schedule key reports to be delivered to the fleet managers' inbox daily or weekly. Some days you and your team are just too busy to log in to the fleet management system.

7. Reward great driving to foster positive and safe competition. Use driver ranking analytics such as EROAD's Leaderboard to identify the top driver for the week and incentivise with vouchers, or inclusion in a more formal driver rewards programme.

After introduction of EROAD's driver behaviour analytics, engaged customers saw an average 12% decrease in speeding frequency between expected control and actual outcome.

CHANGE IN NUMBER OF SPEED EVENTS PER 100KM

- 2015
- 2016 expected control outcome
- 2016 actual outcome

Speeding Frequency
↓ 12%
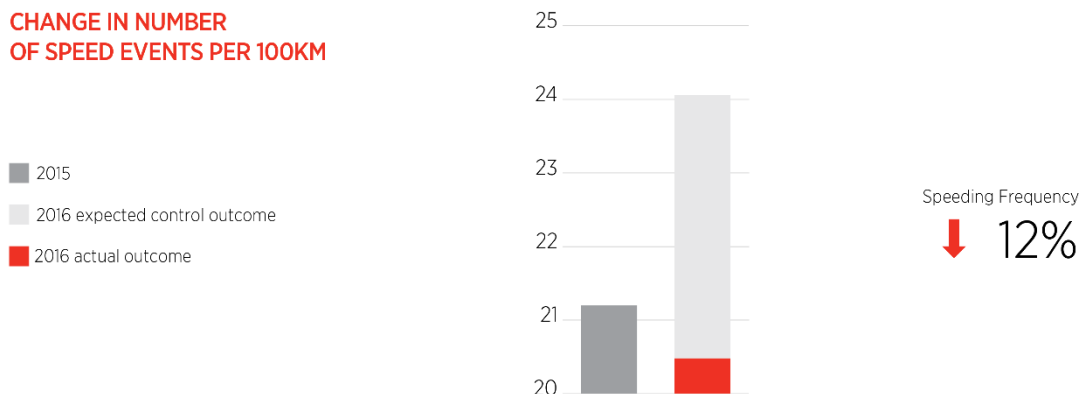
Your in-vehicle device should be accurate, trusted, powerful

Great driver behaviour analytics starts with the quality of the in-vehicle device in your driver's cab.

If you're seeing straight lines all over your maps, not journey lines that actually follow the roads, then the quality of your data and reporting is going to be second-rate.

Questions to ask your technology partner

How accurate is the location reporting of the in-vehicle device?
For fine-grained and precise reporting on driver behaviour events, the in-vehicle device should report back frequently.

Has accuracy been independently verified?
Has the unit's accuracy been verified by an independent third party or regulator, and within what +/- percentage accuracy?

Is the in-vehicle device secure and tamper evident?
Accurate event reporting requires a unit which is secure, with no 'missing kilometres.' If the driver is tampering with the unit to mask journeys or other poor behaviour, you need to know.

Does the in-vehicle device provide an easy-to-use driver ID solution?
Reporting needs to be available on driver performance (versus truck performance) for increased accountability. With a simple driver ID solution, driving behaviour measures can be embedded into appraisals, and training can better-targetted.

Can the in-vehicle device deliver real-time feedback to the driver?
Units that deliver real-time safety information to drivers through visual and audible alerts in a safe manner, provide feedback when drivers are best able to adjust their driving – when they're out on the road.

"Behavioural science research has shown that the right influences and the right information can help a road user make smart and safe decisions about how they drive and behave on the road. The road user will ideally get these influences and information at the right time." National Road Safety Committee, March 2016.

What is your provider's up-time?
You want to know where your vehicles are, and what they are doing all of the time. A professional technology provider will not have regular outages. Look for up-time north of 99.9%.

How does your provider support you in real time when you have questions?
If you have a query, you want it by answered by knowledgeable help desk staff working in the same time zone as you and who spend time developing strong relationships.

Let's get going

Safe driving programmes, partnered with the best fleet management technology, deliver measurable benefits above and beyond improving driving and reducing incidents.

Further benefits include improved fuel consumption, reduced wear and tear on vehicles and reduced insurance cost.

EROAD can partner with you on this journey, supplying world-class technology and analytics to deliver the highest degree of accuracy and the most measurable improvements you want to drive through your fleet.

- Since EROAD was established in 2000, its in-vehicle hardware device 'Ehubo' has tracked billions of travel kilometres across the globe.
- Highly accurate event reporting is driven by EROAD's trusted, intuitive, accurate, powerful Ehubo.
- EROAD's tamper-evident Ehubo continuously transmits encrypted data via the cellular network.
- Our Leaderboard benchmarks driver behaviour against the EROAD driving population, so you know whether your driver is good or great.
- Driver behaviour analytics expose potential problem areas and trends, and deliver actionable insights about speeding, harsh braking and sharp acceleration.
- EROAD's easy-to-use driver identification solution allows accurate monitoring by showing which driver is in which vehicle for greater driving accountability.
- The EROAD solution achieves an industry-leading 99.98% service uptime.
- The EROAD solution has received an independent, unqualified opinion by the Oregon Secretary of State Audit Division. This state government audit concluded that the EROAD technology platform was accurate and reliable. Additionally the New Zealand Transport Agency's audit of the Ehubo confirmed distance to be accurate within +/-0.5% accuracy compared to a mechanical odometer.

Study

EROAD studied the effect of EROAD engagement on driver behaviour in June 2016 across 1344 organisations for the periods prior to and after the introduction of EROAD's driver behaviour analytics including the Leaderboard, Insights and Driver Safety Reports. Authored by Gareth Robins, EROAD Analytics Engineer.

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