

CHANGE OF THE BEHAVIOUR OF DRIVER BY AN OBC- LONG TERM STUDY

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- Analyse the results of the programme after six years
- Demonstrate that the behaviour of the drivers can be modified by coaching and understanding of the safety on board computer (OBC) programme
- Show different approaches that worked better across European organisations

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- Nippon Gases fleet is present in 13 countries in Europe
- Size of more than 500 trucks in more than 20 hauliers
- Last year 55 million of km were driven for bulk distribution in all Europe



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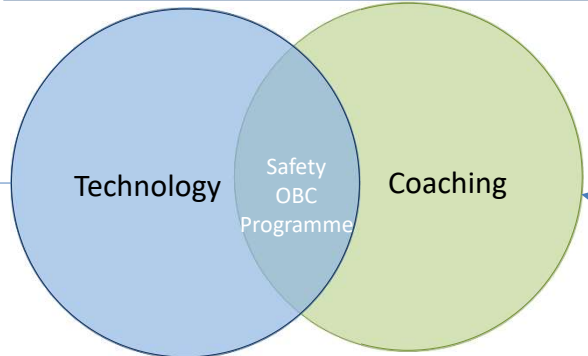


OBC
(On Board Computer)
Systems connected:

- Tachograph
- Vehicle electronics
- Driver ID
- Accelerometer
- Alcolock

Monitoring real time driving and recording critical events:

- **Overspeed**
- **Harsh braking**
- **Lateral acceleration**
- **RSS activation**



- **Real time coaching**



- **Individual coaching after each event**
- **General coaching**
 - ✓ Monthly scorecard (Green/Orange/Red)
 - ✓ Periodically training to all drivers

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Lateral acceleration

An event is registered when cornering g-force is out of range. It is the acceleration created when a vehicle corners and it tends to push a vehicle outward because of centrifugal force

RSS (Rollover Stability Support)

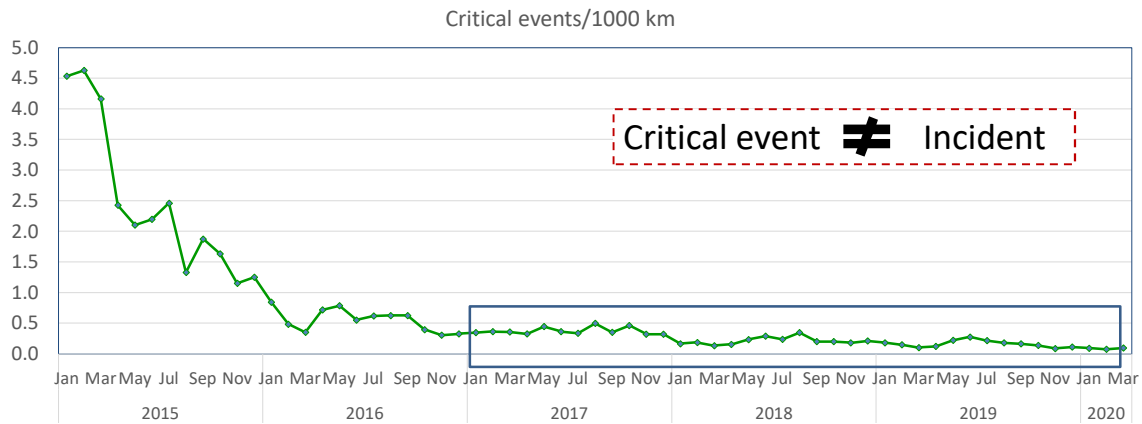
An event is registered when the system automatically applies trailer brakes as needed in order to reduce the risk of rollover and helps the driver bring the vehicle under control

© source: WABCO

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- Initial complaints by drivers. Final acceptance ends in better safety results
- Immediate coaching as key factor
- Monthly follow-up makes the difference
- Learning curve is reduced for new implementations

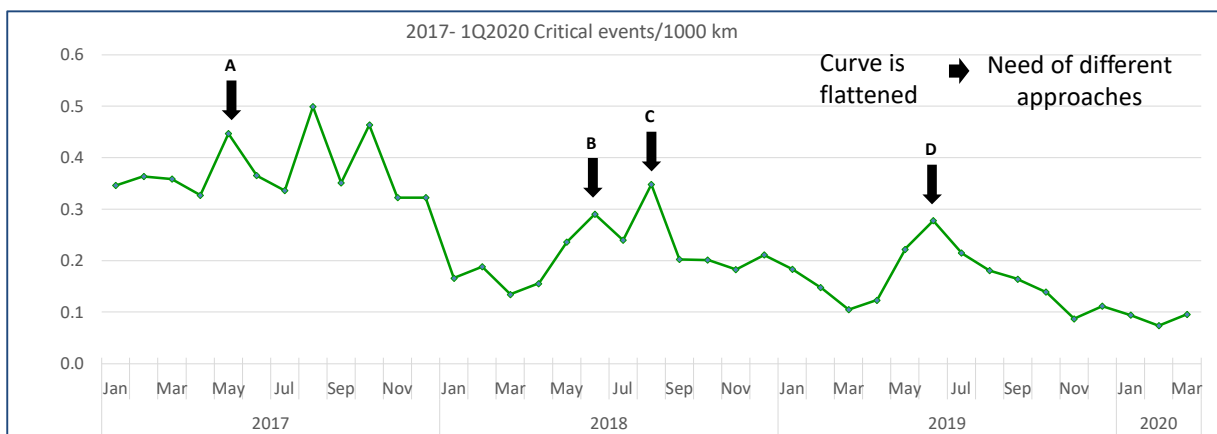
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* Results for Europe including Regions fully implemented

Winter Seminar 2021
Behavioural Safety

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(A) & (D) - Addition of new region to reporting (B) & (C) - Addition of new hauler to reporting

The rest of the variations in 2017-2020 can be attributed to seasonal variations and/or extraordinary situations.

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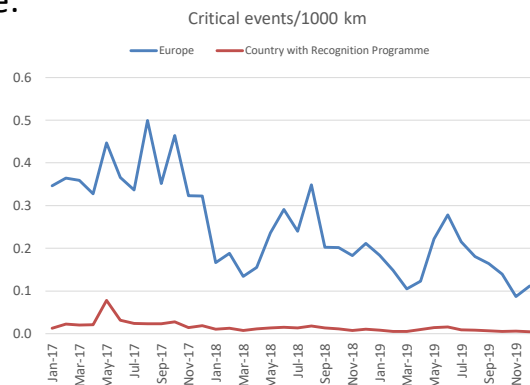
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- [Implement a recognition programme. Successful in one region and adapted in others](#)
- [Focus on comprehensive understanding by drivers of how the system works](#)
- [Apply more restrictive limits](#)
- Combination of different approaches applying best practices



Well-established recognition programme:

- Programme based on good performance recognition, not punishment
- Driver with good scoring receives a bonus
- Main results:
 - Good safety performance
 - Lower complaint rate
 - Reduced number of critical events
 - Reduced number of vehicle damages



* Results for Europe including Regions fully implemented

Implement a variation of recognition programme:

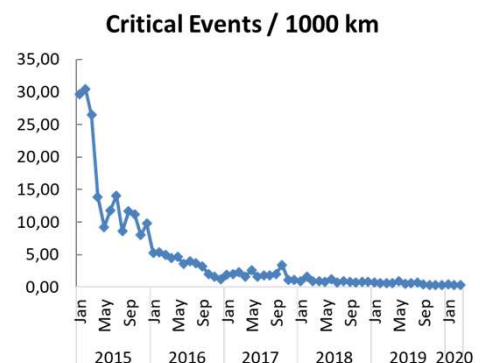
2020			
Haulier Ranking		Country	Events/1000 km
1	Haulier A	Germany	0.003
2	Haulier B	Sweden	0.038
3	Haulier C	UK-Ir	0.045
4	Haulier D	Italy	0.071
5	Haulier E	Benelux	0.083
6	Haulier F	Norway	0.227
7	Haulier G	S&P	0.249
8	Haulier H	Italy	0.281
9	Haulier I	Sweden	0.665

* Green: above average, red: more than 4 times the average

- Monthly haulier league across Europe
- Main goal for countries: be on the green side
- Each driver recognition programme is based on an agreement between each country and their hauliers
- Main results:
 - ✓ Reduced number of critical events
 - ✓ Increased involvement of haulier in the programme getting also better safety results

Focus on comprehensive understanding by drivers of how the system works

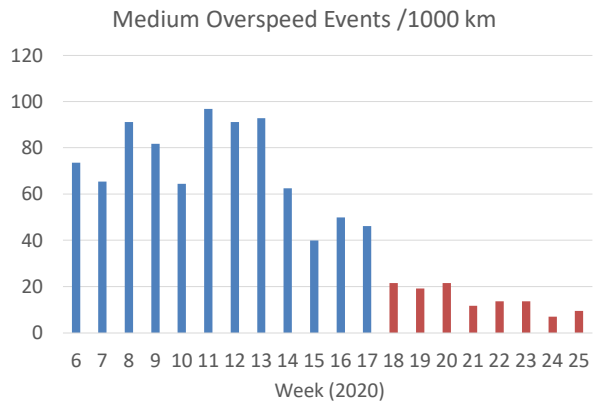
- Less excuses from drivers
- Drivers work more relaxed and more focused
- Drivers understand better the impact of their behaviour in results. Mainly in lateral acceleration
- Feedback from drivers to improve OBC system



Some regions could adapt initially more restrictive limits:

- Adjust the alarms for overspeed from 83 km/h to 80 km/h
- Also louder sound to warn the driver
- Immediate impact, not popular action
- Improve driver's attention
- Hauler and driver communication is a key factor for the successful implementation

(Red columns after implementation)



- Confirm that focus on driver is important, not only the technology in place
- Immediate coaching and monthly follow-up makes the difference in all stages of the programme
- Comprehensive understanding by drivers of how the system works is a key factor to improve results
- Continuous improvement programme. Best practices are shared across Europe
- Feedback from drivers helps to identify areas of improvement



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Documents referenced

EIGA Ref.	Document title	Link
Info TS 07	Human Behaviour within Transport Operations	www.eiga.eu
Info TS 10/19	Recognition Programmes	www.eiga.eu

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