

# Quality: Case Study

## [CS-002] Improving Quality & Safety with Cognitive Assessment

Established 2022  
Edmonton, Alberta, Canada

---

Copyright © 2025 Neurapulse  
All rights reserved



# Driving Fleet Performance: Key Insights from Impirica’s Cognitive Assessments

## Transform Fleet Safety, Retention, and Efficiency with Cognitive Fitness

As the transportation industry faces mounting pressures to improve safety, reduce costs, and retain top drivers, Impirica’s cognitive assessments are transforming fleet management. Explore our case studies to see how cognitive evaluations enhance safety, driver quality, retention, and operational efficiency, providing actionable insights for fleet leaders.

CASE STUDY [001]

## Safety

### Summary

Safety is critical in the fleet industry. Learn how a 1,537-driver fleet **reduced collisions by 8% and preventable accidents by 7%** using Impirica’s cognitive assessment to identify high-risk drivers.

CASE STUDY [002]

## Quality

### Summary

Hiring the right candidates is key to a high-performing fleet. This case study shows how two fleets **screened 10,500 candidates** with Impirica’s cognitive assessment, **improving driver quality, performance, and retention.**

CASE STUDY [003]

## Impact

### Summary

Safety technology needs to demonstrate measurable impact. Learn how three fleets **reduced collisions, improved passenger safety, and minimized financial exposure** with Impirica’s cognitive assessments.

CASE STUDY [004]

## Retention

### Summary

Driver retention is a costly challenge. This case study shows how a fleet **improved retention by 7.17%, saving \$340,000 annually** by using Impirica’s cognitive assessment to select more resilient candidates.

CASE STUDY [005]

## Savings

### Summary

Every dollar counts in fleet operations. This case study shows how a **fleet of 2,100 drivers saved \$590,000 annually** by improving hiring and reducing collisions with Impirica’s cognitive evaluation.



# CASE STUDY [002]

## Quality

### Overview

Two leading commercial fleets, one with over 2,100 drivers and the other with over 1,600 drivers, integrated Impirica's cognitive assessment into their pre-hire screening protocols. Over the course of their partnership, these fleets collectively **screened 10,500 pre-hire candidates** to ensure the selection of safe, capable drivers.

### Implementation

Impirica's cognitive assessment was incorporated as a key component of the pre-hire screening process for both fleets. By assessing candidates' cognitive abilities, the fleets aimed to proactively identify individuals who were **more resilient commercial drivers** and more likely to demonstrate superior driving behavior once employed. Likewise, they sought to identify higher-risk drivers who were less likely to be successful during the initial training, exhibit high-risk behavior while driving, or quit within the first six months post-hire.

## High Quality Drivers: Improving Driver Quality & Fleet Safety with Cognitive Assessment

### Key Findings

#### Improved Candidate Quality

Fleet managers reported a **"significant" improvement in the quality of drivers hired** through Impirica's cognitive screening process. Candidates screened through the assessment performed better during driver training and ultimately demonstrated better on-the-job performance compared to those hired prior to using Impirica's screening.

#### Real-World Driving Improvements

Fleet managers also noted a "general" improvement in real-world driving performance as they monitored these drivers on an ongoing basis. This underscores the lasting impact of Impirica's assessment in fostering safe and effective driving behaviors.

#### Reduced Risk

By screening 10,500 pre-hire candidates, both fleets **minimized the likelihood of onboarding drivers with undetected cognitive impairments**. This proactive approach significantly contributed to safer operations and reduced incidents on the road.

#### Better Driver Retention

The cognitive assessment helped identify candidates who were more likely to succeed in their roles, **reducing turnover within the first six months post-hire**.

#### Impact

The adoption of Impirica's cognitive assessment in pre-hire evaluations has delivered measurable benefits for these fleets, including:

- **Higher driver competency from the start**
- **Improved training and on-the-job performance**
- **Better real-world driving outcomes**
- **Enhanced safety and reduced turnover**
- **Greater confidence in the hiring process**

## Conclusion

This case study demonstrates how Impirica's cognitive assessment can elevate hiring standards and foster safer driving practices. By screening candidates for cognitive readiness, commercial fleets can achieve significant improvements in driver performance, safety, and operational efficiency. The partnership with Impirica has proven to be a valuable investment in driver quality and fleet safety.

# Take the next step in workforce safety.

Unlock your 14-Day Trial of Neurapulse and Elevate  
Your Fleet with Top-Quality Drivers!

[neurapulse.com](https://neurapulse.com)