

GREATER THAN



CASE STUDY DRIVING TECHNIQUE IMPACT





GREATER THAN has since early 2004 made a case study in driving technique for all types of transports.

Made comparisons when

- Coaching drivers
- Giving only information to the driver
- Applying measurement only

How built in technology assist the driver in safer, more economic and environmental friendly driving.





CRITERIA FOR PARTICIPATING COMPANIES

- Policies for road safety, environment and working conditions in place
- Participants compensated GT for study
- Proven interest in improving quality of performance
- Proven interest in environmental and safety issues
- Well managed and good reputation
- And/or recommended through RHA





PARTICIPANTS

- 12 different companies
- Fleet size from 5 to 2,300 vehicles
- 430 drivers, 422 men and 8 women
- Age between 21 to 61 years
- 38 drivers with formal Eco-driving education





CONDITIONS & PARAMETERS

- 20 months
- Scandinavia
- Thru all 4 seasons
- Total 20 006 400 km driven (~500 laps around the equator)
- Over 520 000 driving missions completed and analysed
- Database contains 4 193 547 driving profiles





INTERVIEWS and statistics made by

- Greater Than S.A.
- Non dependent managing consulting companies
- Heavy Eco Driving International





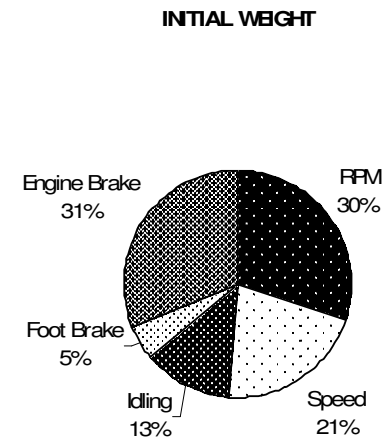
RESULTS – made in three stages

- 1 - Initial results
- 2 - Follow up results
- 3 - Continuous results



RESULTS – Initial results

- Average over consumption of fuel 13.23%
- Equivalent to 691,241 litres of fuel
- 1,770 tonnes of CO2
- Loss of € 585,555 (0,85/l)
- Best performing company 9.52%
- Worst performing company 22%
- Best performing driver 3.82%
- Worst performing driver 31.5%





RESULTS – Root causes for over consumption

- 33 % discipline – purely poor management
 - lack of understanding of impact, driver stress
- Technical skills 67% - lack of leadership
 - training, understanding and driver stress.
- Poor respect of own importance in society
- Lack of price pressure, market demand, legal directives and attitudes.





RESULTS – 3 months of GT coach-method

- 3 companies included (*)
- 45 drivers included
- Reduction of over consumption of fuel by 60%
- From 10.12% to 4.04% over consumption
- CO2 reduction by 90.3 tonnes
- Improved productivity by 5.8%
- 40% of drivers within “green target area” (3.3%)





RESULTS – After 3 months information

No change to leadership applied, drivers to improve by continuous information only

- 2 companies included
- 65 drivers included
- Reduction of over consumption of fuel by 12.9%
- Equivalent to 6,035 litres of diesel
- From 12.96% to 11.3% over consumption
- CO2 reduction by 15.45 tonnes
- Improved productivity by 0.7%
- 7.7% of drivers within “green target area”





RESULTS – Continuous results

Result after 14 months using GT coach-method, other and non scientific

“damage on vehicles significantly reduced”

“80% less accidents”

“average life time of front tyres improved by 30,000km”

“absences reduced dramatically”

“drivers enjoy employers interest in their job”

“I take pride in my job now”

“stress is taken of our shoulders”

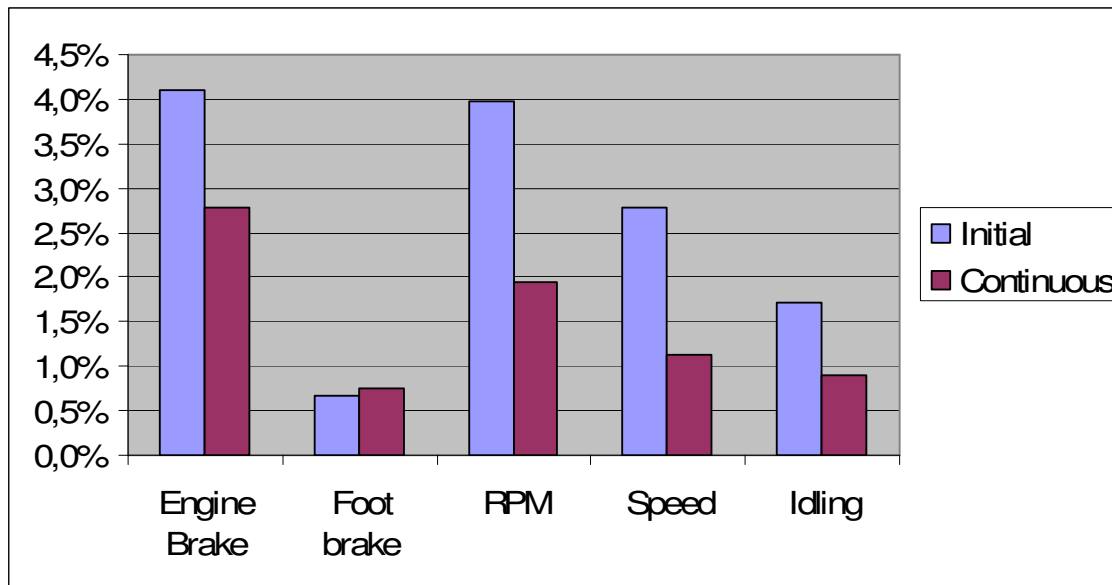




RESULTS – Continuous results

Total group behaviour after 24 months (2004 – ongoing)

Cost save potential (%) for initial and continuous period.



3.4.2 Total group behaviour after 24 months (2004 – ongoing)





CONCLUSIONS - Self improvement

**By supplying information to allow drivers to self improve;
you achieve...**

- Small impact on fuel consumption
- Small impact on productivity
- Small impact on emissions
- Worsened working conditions
- Reduced profitability





CONCLUSIONS - Active leadership

**By applying active leadership;
you achieve...**

- Improved performance
- Improved working environment
- Sustainable improvements
- Increased productivity
- Increased profitability





CONCLUSIONS - Over all

- Drivers are ready to change and improve
- Management lacks the skill in how to lead and coach
- > 90% of drivers, across the board are very positive
- > 75% of drivers have “will and skill” to reach “green area” with active training
- < 25% will reach “green area”; extended coaching, additional eco-drive training
- Young drivers ; better education but require efficient leadership
- Older drivers have less education but are easier to coach
- Verbal information and information displayed in cabin has no or limited impact
- Self improvement activity is shown not to work in this business either
- Impact of Eco driving education; 1 to 3 months
 - supports continues skills development.
- Type of vehicle driven or other surrounding conditions, no impact on behaviour
- Fuel consumption is not a correct measure of driver skill

1.1.3 Over all





CONCLUSIONS - Vehicle built in technology

- Drivers does not have proper education for use of technology
- Automatic gear box, cruise control etc. makes drivers less concentrated
- Displays, informative text, GPS etc. assist the driver but disturb driving technique
- Hidden technology assist drivers; anti spin, ABS braking, distance keeping assistance.





CONCLUSIONS SUMMARY

Achievements when coaching & training drivers

- Safer driving (~80% less accidents)
- Environmental driving (~10% less CO2 pollution)
- Economical driving, (~10% fuel saving and ~12% other savings).





OBSTACLES

Market consists of 2 categories:

- Relatively well managed and profitable – don't “need” the improvement
- Poorly managed don't understand nor can afford to change

Why?

- Lack of price pressure, poor customer requirements and legal directives





KEY SUCCESS FACTORS

- Owners/management to “buy in” to continuous improvement
- Education of coaching skills of leaders
- Understanding of the importance of a continuous improvement philosophy
- Understanding of drivers importance and impact on P&L, environment and safety
- Get drivers to understand above and how they can improve

