

SMART-IN-CAR



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IBM

Cloud dashboard available for 95% of existing car types







How to use the data to deliver valuable information?







Rijkswaterstaat benefits from road surface info

 Rijkswaterstaat and TU/E have concluded that in-car data can provide info on road surface

Potholes & Speedbumps



1xx Through a pothole

2xx Around a pothole







4xx Wider speed bump

3xx Narrow speed bump



5xx Raised surface UP



6xx Raised surface DOWN

7xx Speed hump



8xx Expansion joint





Smart phone app display *relevant* events

- Nokia's real time traffic
- Rijkswaterstaat dynamic max speed
- Events generated from CAN data, e.g.:
 - Fog, heavy rain
 - Road assistance car on rescue lane
 - Harsh braking more accurate traffic jam info ٠









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Cibatax drivers have really improved driving style

- In our zero measurement the most seen urban driving style score was 6.9 (on scale of 0 - 10)
- After stimulating the taxi drivers to improve their driving style, the most seen urban score improved with 10% (to 7.6)
- Those who scored in the zero measurement below 6 in urban areas, improved their average driving style score in the competition with 6%
- The 10 drivers who showed the highest urban improvement have on average improved their score with over 18%
- On Mercedes E Class car we monitored fuel consumption from the CAN bus
 - Almost 75% of these cars showed reduced fuel consumption in urban areas
 - The average of these reductions in fuel consumption was close to 5%
- Extrapolating to all passenger cars in The Netherlands this would save yearly 730 Million tons CO2 emission and 800 Million Euro fuel costs
- Effective driving style improvement for taxi drivers:
 - Shows better results in urban environments than on high ways
 - Can be best achieved with direct driver feedback
 - Really pays of in emissions and fuel savings

Successful SMART-In-Car World Tour









In-Car II has really stimulated innovation

- The innovation demonstrated is world wide well recognized and is expected to be deployed large scale in the coming years
- Our consortium wouldn't have achieved this without In-Car II
- Lessons learned:
 - Ask for real innovations, not for solving one mobility challenge: this will address the challenge **and** stimulate real 'exportable' innovation
 - It's too much a challenge to ask for real innovative solutions that are expected to be deployed large scale from day one



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