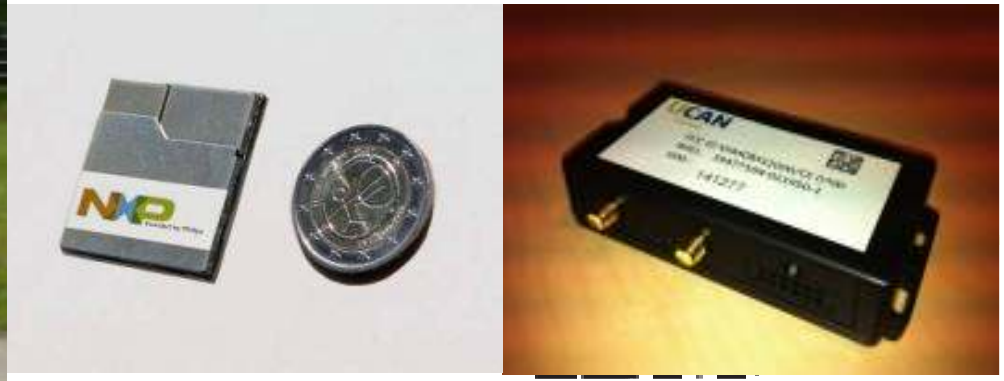
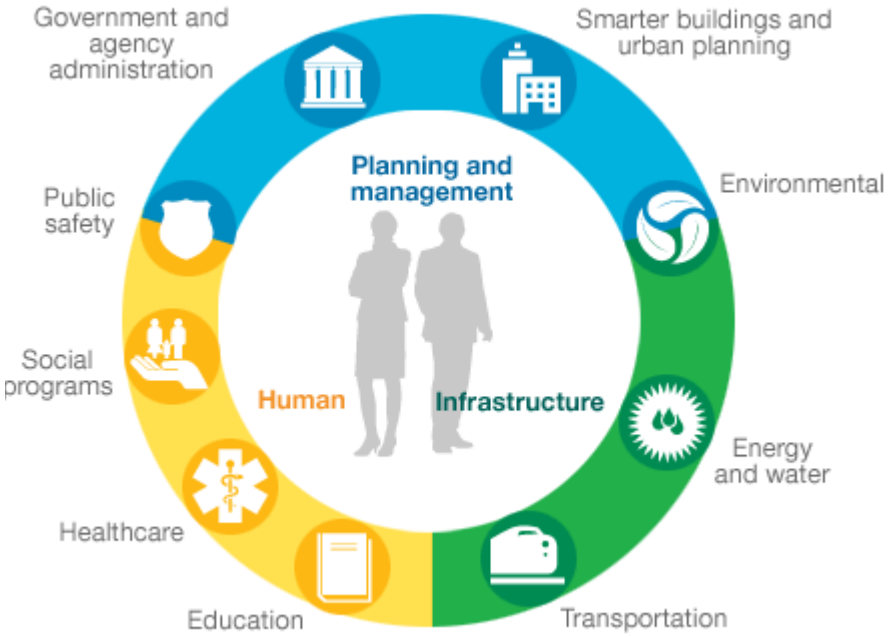
Henk Derksen

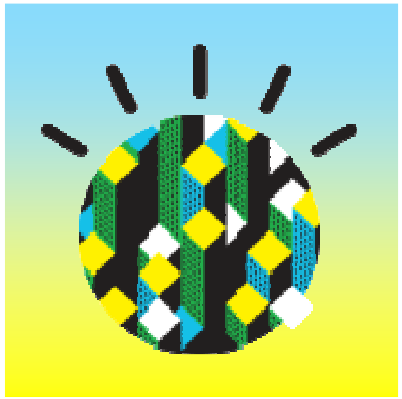
Project Manager IBM

Intelligent Transport SME

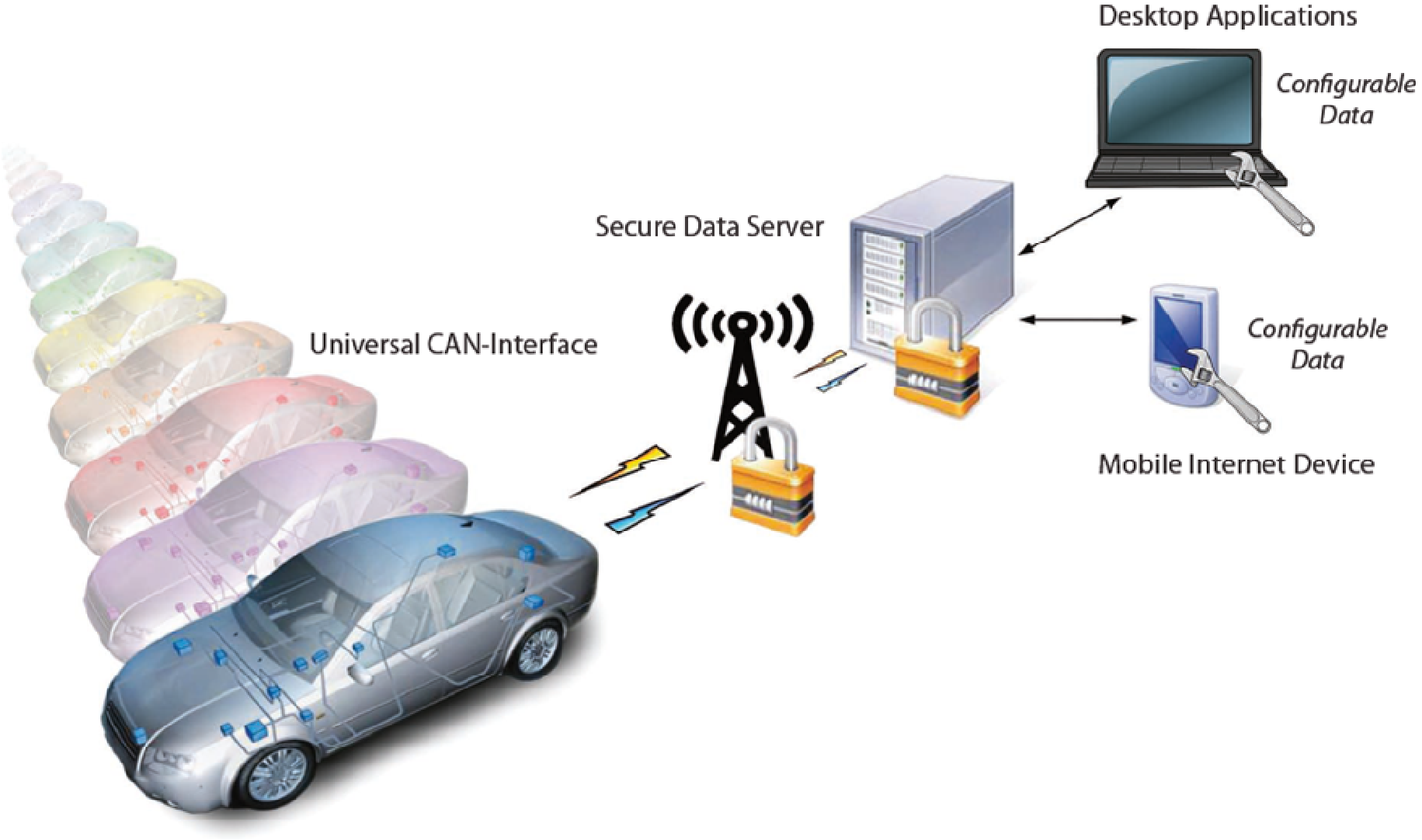



Government and agency administration
Smarter buildings and urban planning
Public safety
Planning and management
Environmental
Social programs
Human
Infrastructure
Energy and water
Healthcare
Education
Transportation

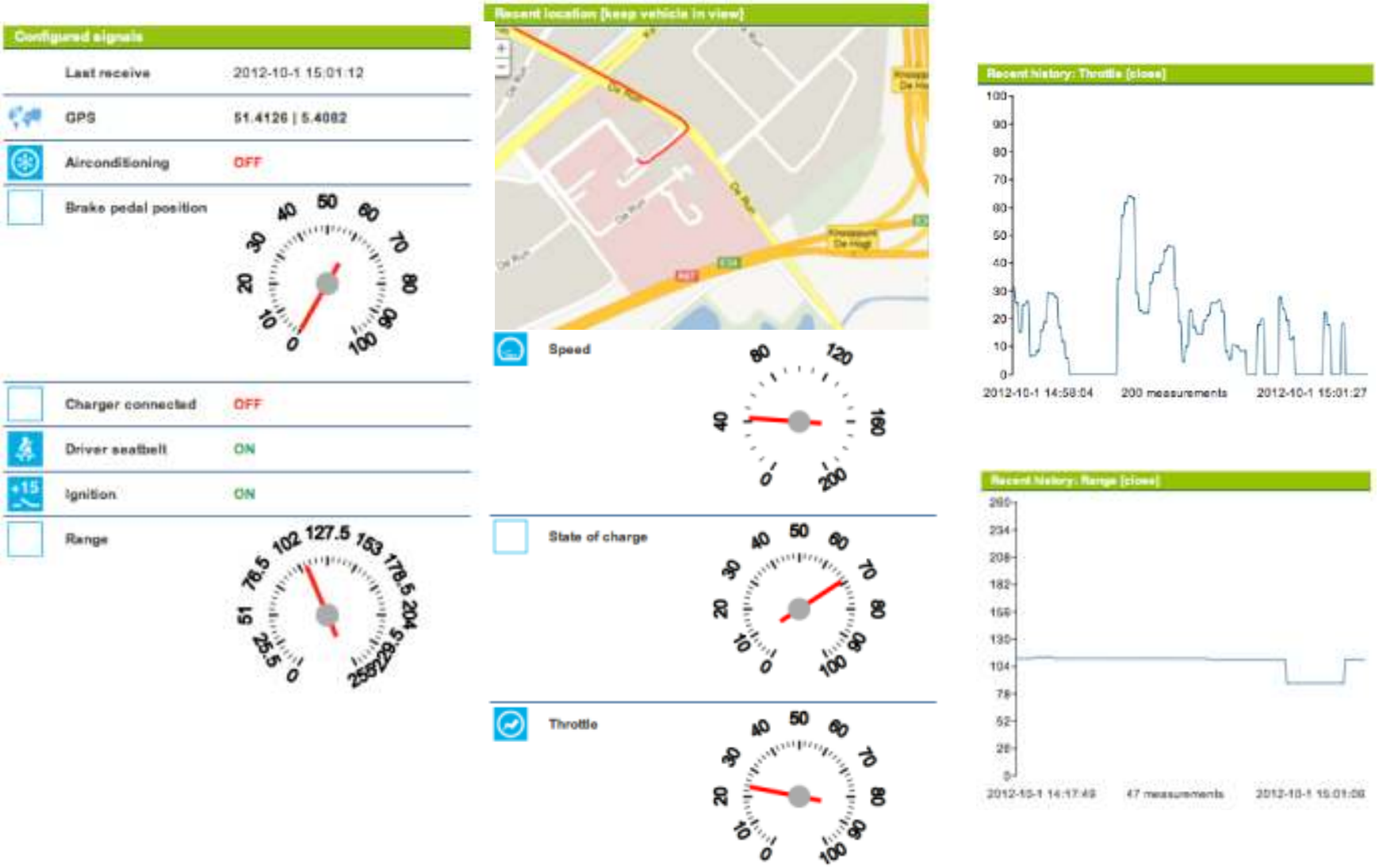
Intelligent
Interconnected
Instrumented



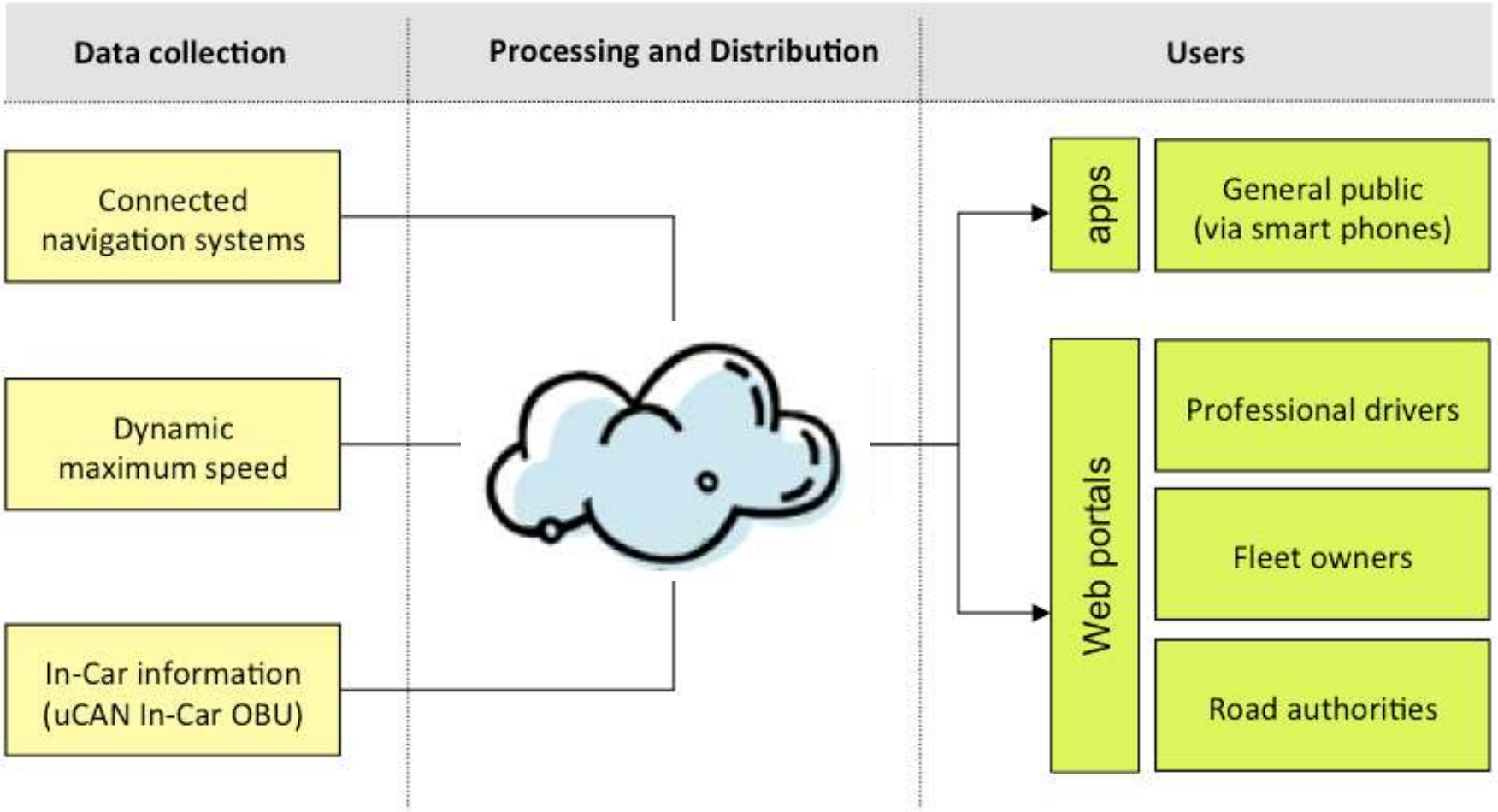
We Connect the Car and bring CAN data to the Cloud



Cloud dashboard available for 95% of existing car types

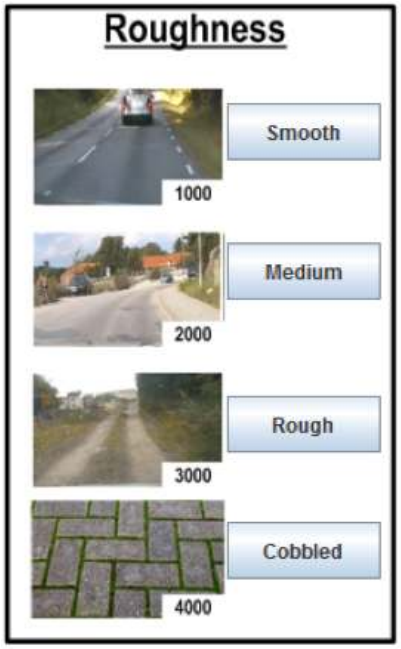


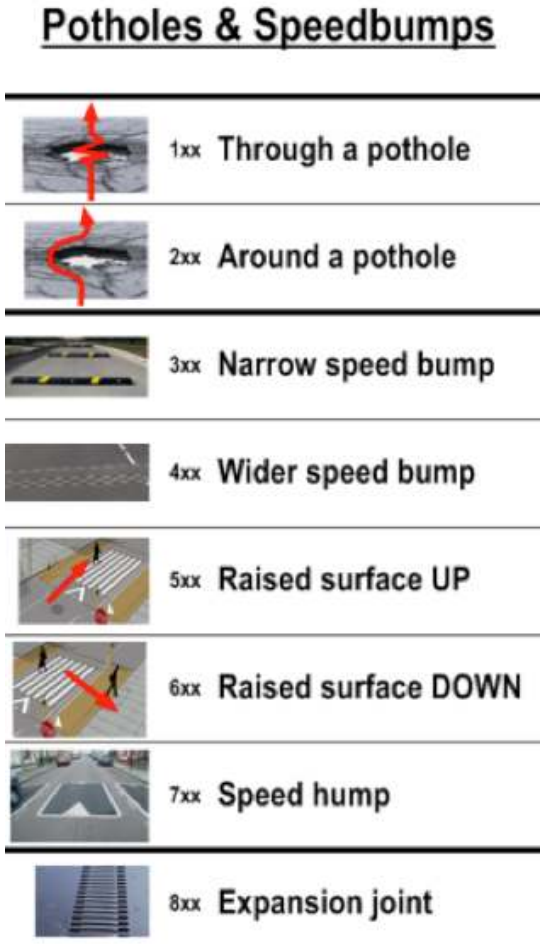
How to use the data to deliver valuable information?



Rijkswaterstaat benefits from road surface info

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

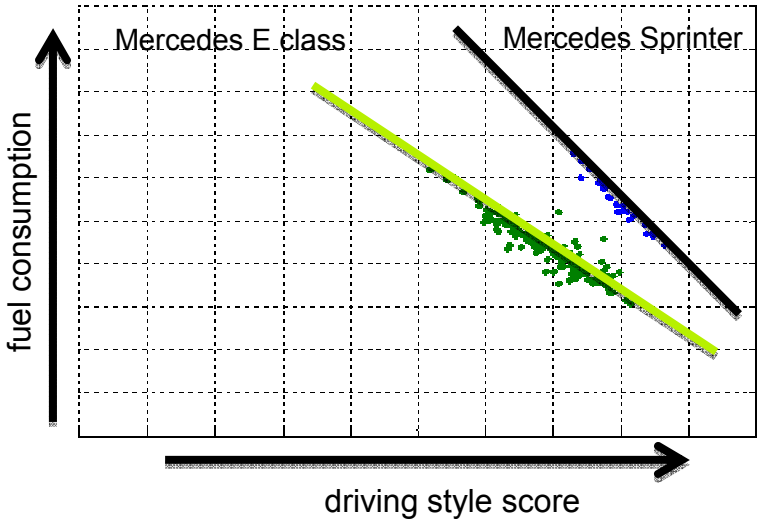




Smart phone app display *relevant* events

- 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

Cibatax drivers have really improved driving style and fuel consumption



	Overall Rel Improve		
1265	0.82	9.27	9.87
1512	0.81	0	8.14
1821	0.80	0	7.95
1788	0.77	9.4	9.86
1330	0.76	0	7.57
1096	0.75	0	7.51
1462	0.75	9.13	9.78
1145	0.73	8.59	9.62
1964	0.73	0	7.26
1855	0.71	0	7.14
1534	0.69	9.52	9.85
1219	0.66	7.54	9.17

	Urban Rel Improve		
1235	0.55	7.29	8.78
1114	0.53	6.49	8.36
1883	0.46	9.48	9.72
1339	0.37	6.81	8
1887	0.35	6.92	7.99
1729	0.29	6.32	7.4

			Urban Abs Improve
1219	7.25	9.16	1.91
1114	6.49	8.36	1.87
1235	7.29	8.78	1.49
1339	6.81	8.00	1.19
1707	5.63	6.78	1.15
1729	6.32	7.40	1.08
1887	6.92	7.99	1.07
1534	6.69	7.59	0.90
1217	5.67	6.36	0.69
1004	6.95	7.63	0.68
1104	5.98	6.62	0.64
1264	6.21	6.83	0.62
1063	6.07	6.68	0.61

		Urban Absolute	
1883	10.00	9.72	10.00
1129	10.00	9.36	10.00
1013	9.99	9.29	9.99
1088	10.00	9.20	10.00
1219	10.00	9.16	10.00
1733	10.00	9.12	10.00
1506	9.99	9.12	9.99
1265	10.00	9.11	10.00
1693	10.00	9.01	10.00
1314	9.92	8.99	9.92
1471	10.00	8.98	10.00
1788	9.98	8.83	9.98
1765	-	8.80	-
1235	9.95	8.78	9.95

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

Beijer
NXP
IBM
TU/e
NOKIA

IBM
NOKIA

NXP IBM NOKIA TNO
kpn TU/e
Beijer
SMART-IN-CAR

Praktijkproef Smart In-Car

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

Nationale en Internationale profilering van (ZO) Noord-Brabant als ontwikkelcentrum en proeftuin in-car

Thank You

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