

SIXTH FRAMEWORK PROGRAMME
PRIORITY 6.2
SUSTAINABLE SURFACE TRANSPORT



FIDEUS Forum – Lyon Test - 9 April 2008

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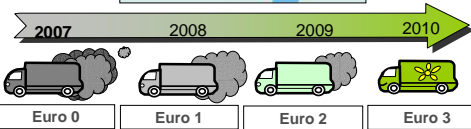
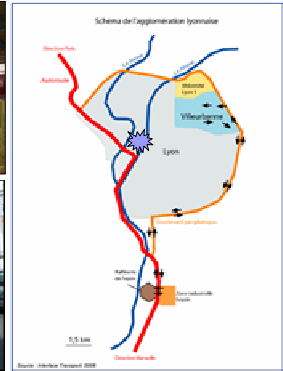
Contract no.: **012405**



Site test : existing situation



Interface Transport, 2006



Schedule of the test

- Operate the FIDEUS prototype in real-life conditions
- Test a new Low Emission Mode (LEM) : pollution & noise
- Estimate impact of double lane stops for deliveries

FIDEUS Objectives of the test

- use Test the practicability of a the LEM technology (45 km/h max), in controlled city centre zones
- Measure the impacts of LEM on fuel consumption and CO2 emissions
- Analyse the pedestrian exposure to noise from delivery vehicles passing by, with and without LEM
- Test the influence of second lane parking on traffic and related additional fuel

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FIDEUS FIDEUS FIELD TEST : trial phase

Overall
 Teaching driver + DHL driver + vehicle - all Renault Trucks
 Pre test VALLEURBANNE TRIP truck empty (define 2nd lane area)
 TEST
 PRESS Day
 Back workshop
 MEASUREMENTS CANVAS (ema signal)
 MEASUREMENTS OBU (classified data)

Test time plan (persons) ■ Driver ■ Passenger

Test time plan (persons)
 Fabrice (DHL, main driver)
 Francis (DHL, trainer)
 Franck Laramide (RT)
 Christophe Rodein (Ergonomics RT)
 Amelk Meunier (Ergonomics RT)

Specific modes
 Low Emission mode Case a: no low emission mode
 Case b: 1st setting of low emission mode
 Case c: 2nd setting of low emission mode

Measurement Plan
 Driver Tracking Equipment, selection of 5 measurement point in delivery district
 PIV (noise, traffic counting, ACC for 2ndL)
 IT (noise, traffic profile, local coordination)
 UWB (support noise and traffic profile for 2nd lane, interview guide)

no use of the Fideus truck

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FIDEUS Practicability of the prototype

Photo: O. Laurent

J. Leonard - University of Westminster

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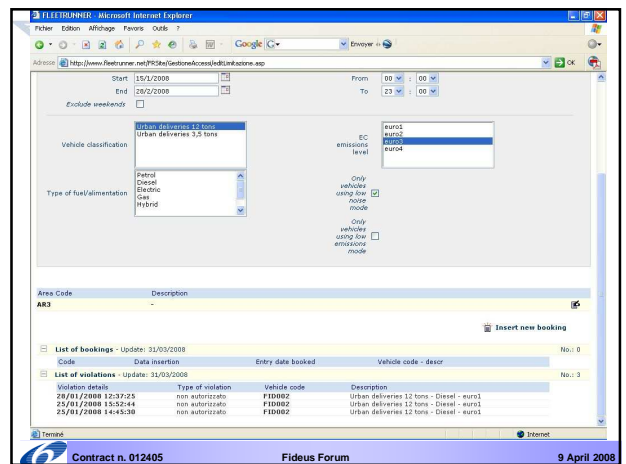
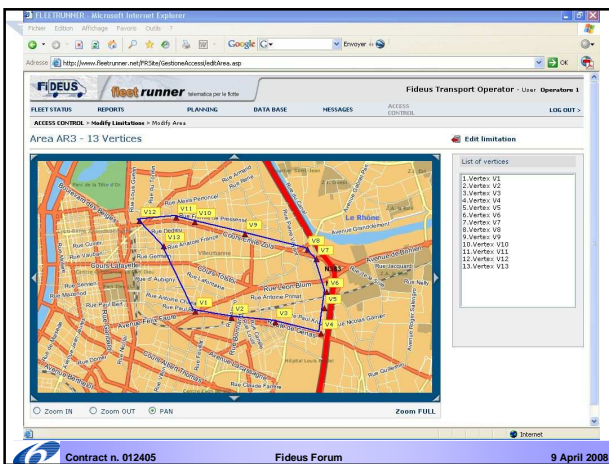
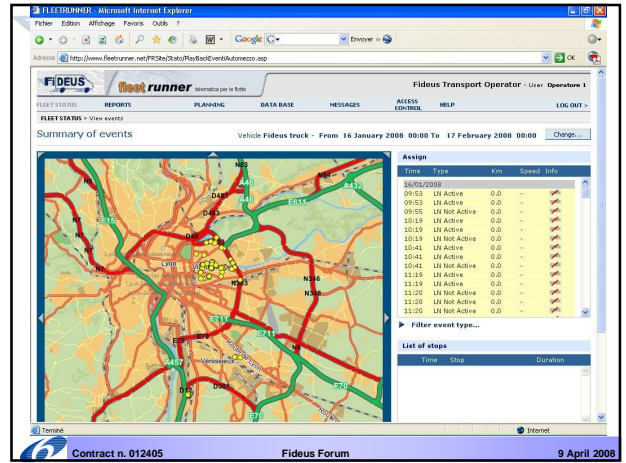
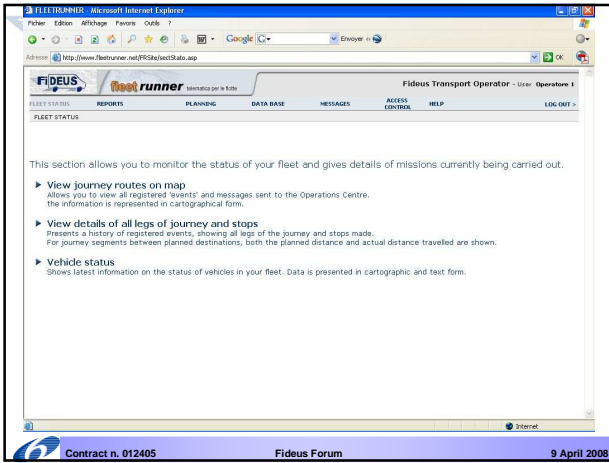
FIDEUS Low Emission & Low Noise Mode

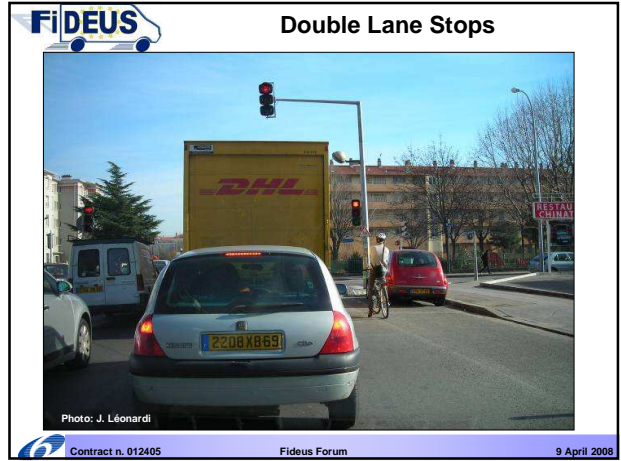
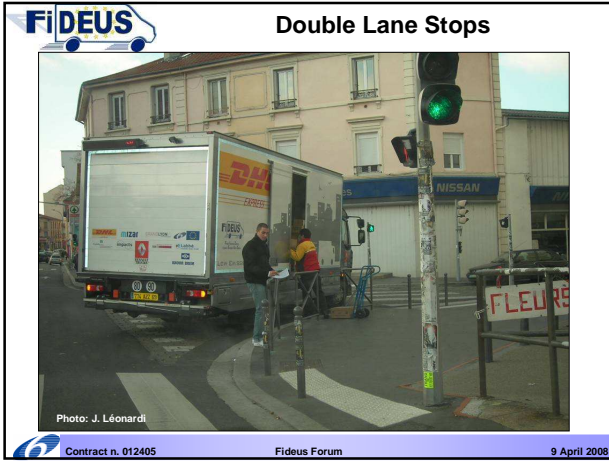
FIDEUS FIELD TEST : trial phase

Specific modes
 Low Emission mode Case a: no low emission mode
 Case b: 1st setting of low emission mode
 Case c: 2nd setting of low emission mode

no use of the Fideus truck

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FiDEUS Evaluation Process

■ **Indicators:**

- Kilometres
- Weight carried
- Time
- Position
- Local pollution : emission gain
- Long term effects : CO2 emission gain, calculate as kg CO2 per tkm, kg, CO2 per kg or kg CO2 per parcel delivered
- Acceptance aspects (from driver interviews)

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FiDEUS Evaluation Process

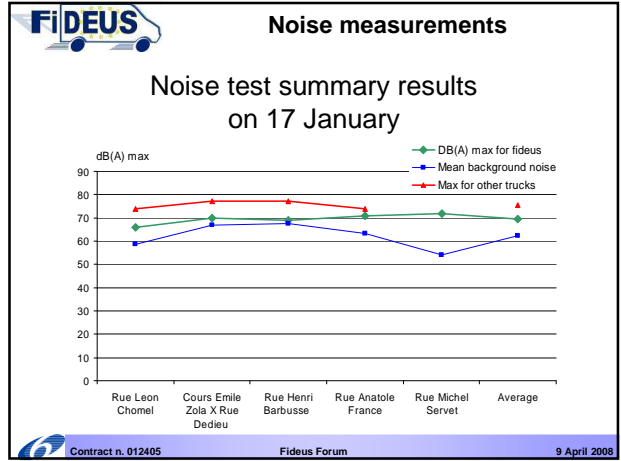
Fig.: FCD-unit and GPS-Tracker

Photo: W. Schonewolf

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FIDEUS Noise measurements

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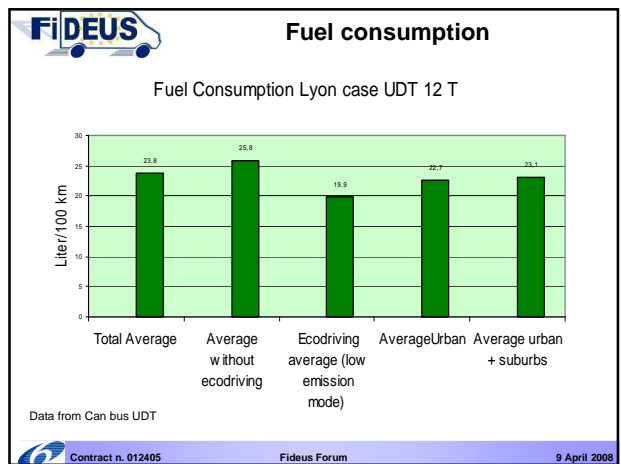


FIDEUS Noise measurements

Noise test Cours Emile Zola
Raw data from Fideus record on 25/01 and other trucks on 17/01

Data from 25/01 test					Data from 17/01 test				
Fideus Truck noise in dB(A)					Other vehicles in dB(A)				
Traffic situation for Fideus truck					Vehicle type				
-20m	-10 m	0 + 10m	+ 20m	LEM	-20m	-10 m	0 + 10m	+ 20m	
71	75	78	75	73ON	40t artic	60	74	78	74
79	76	80	79	69OFF	12w-trailer	72	74	76	70
					7.5t	72	77	77	74
					motorcycle				82
					car	70	73	73	73
					car	73	74	73	73
					tractor	60	74	78	74
					40t rigid	75	73	81	75
									67
									68
									67
									69
									79
									71
					3.5t	71	73	72	75
					40t artic				84
					Mean	73	73	77	73

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Dissemination : TF1 (06/02/08)



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