

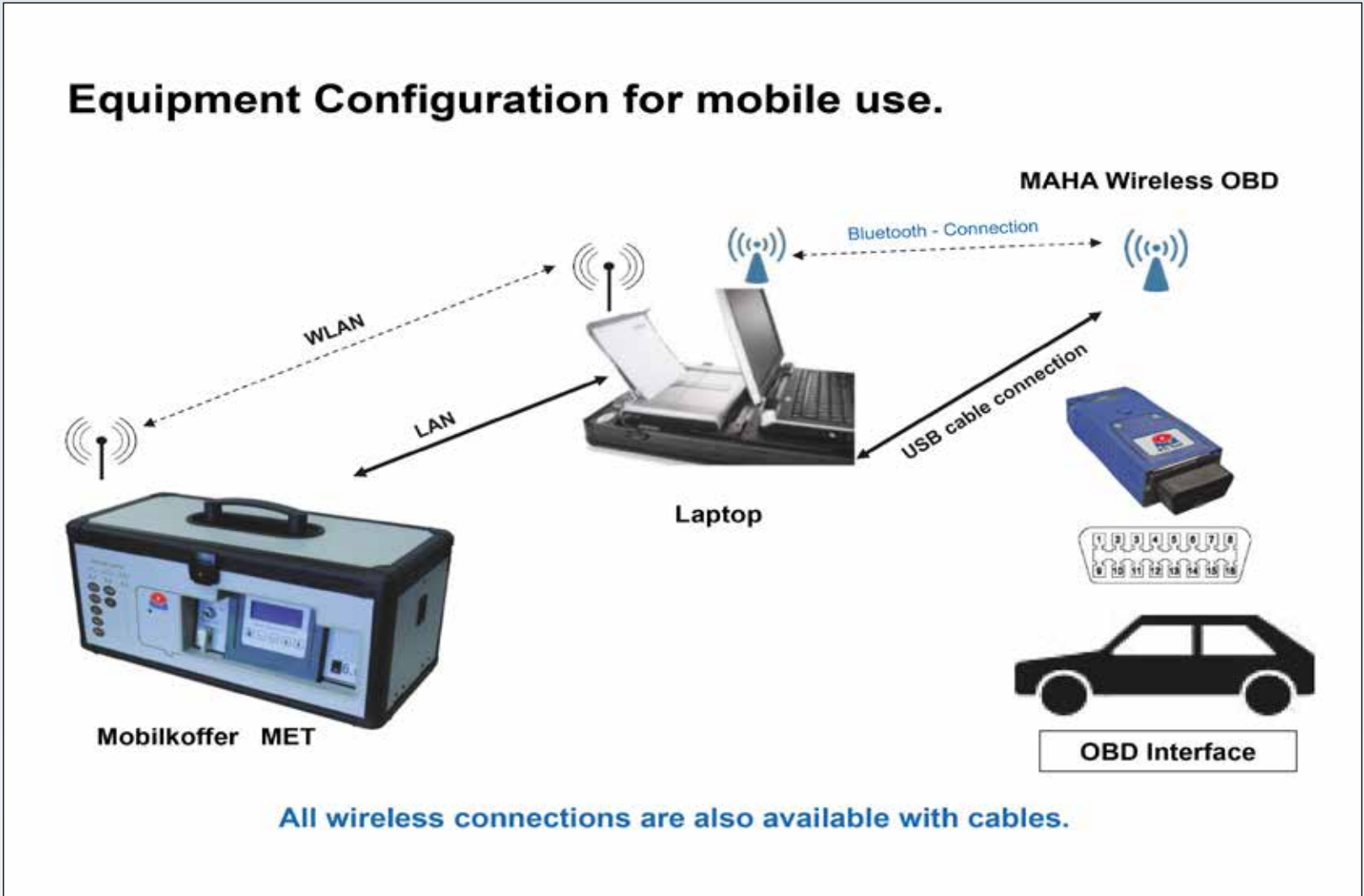
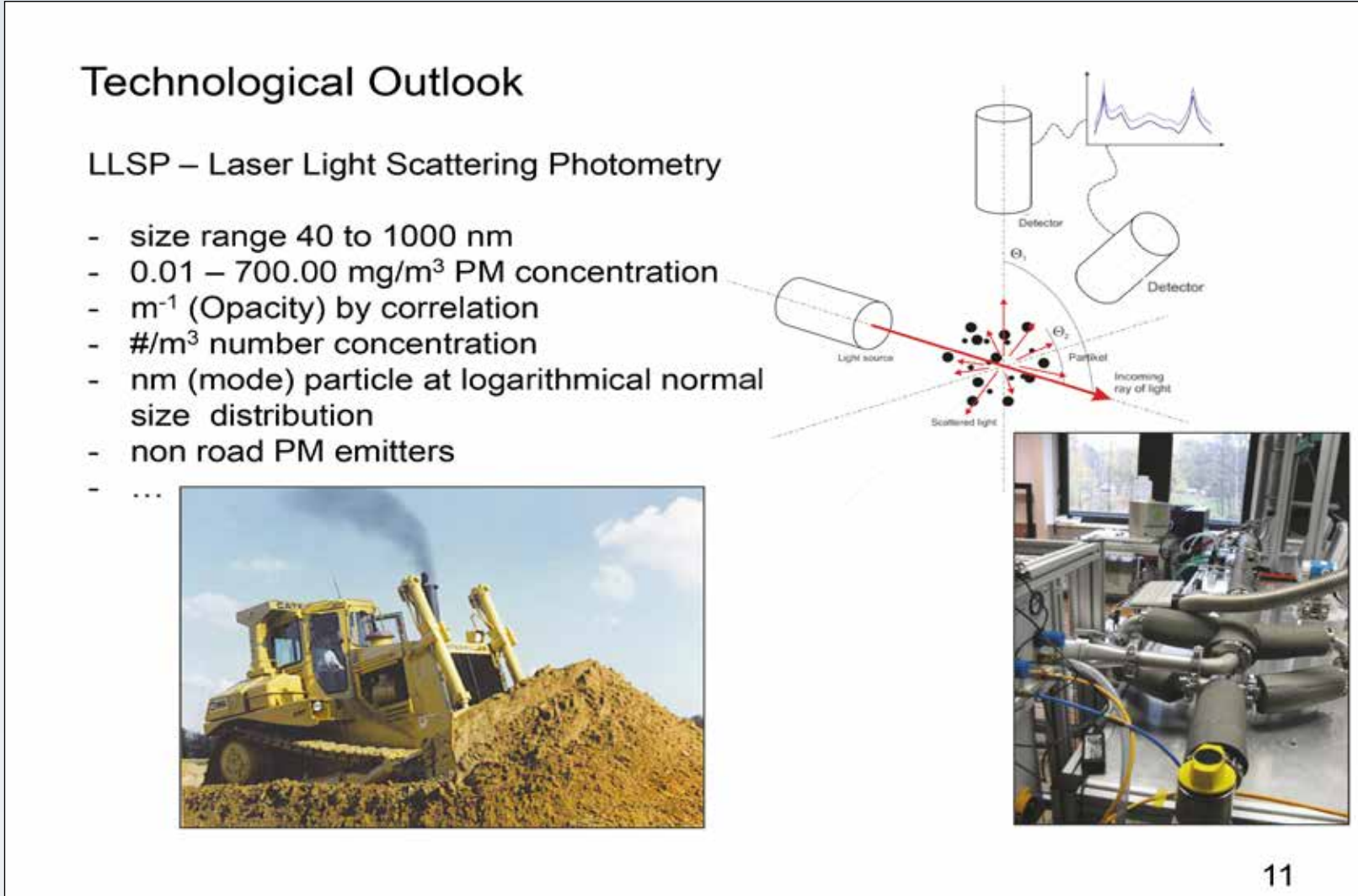
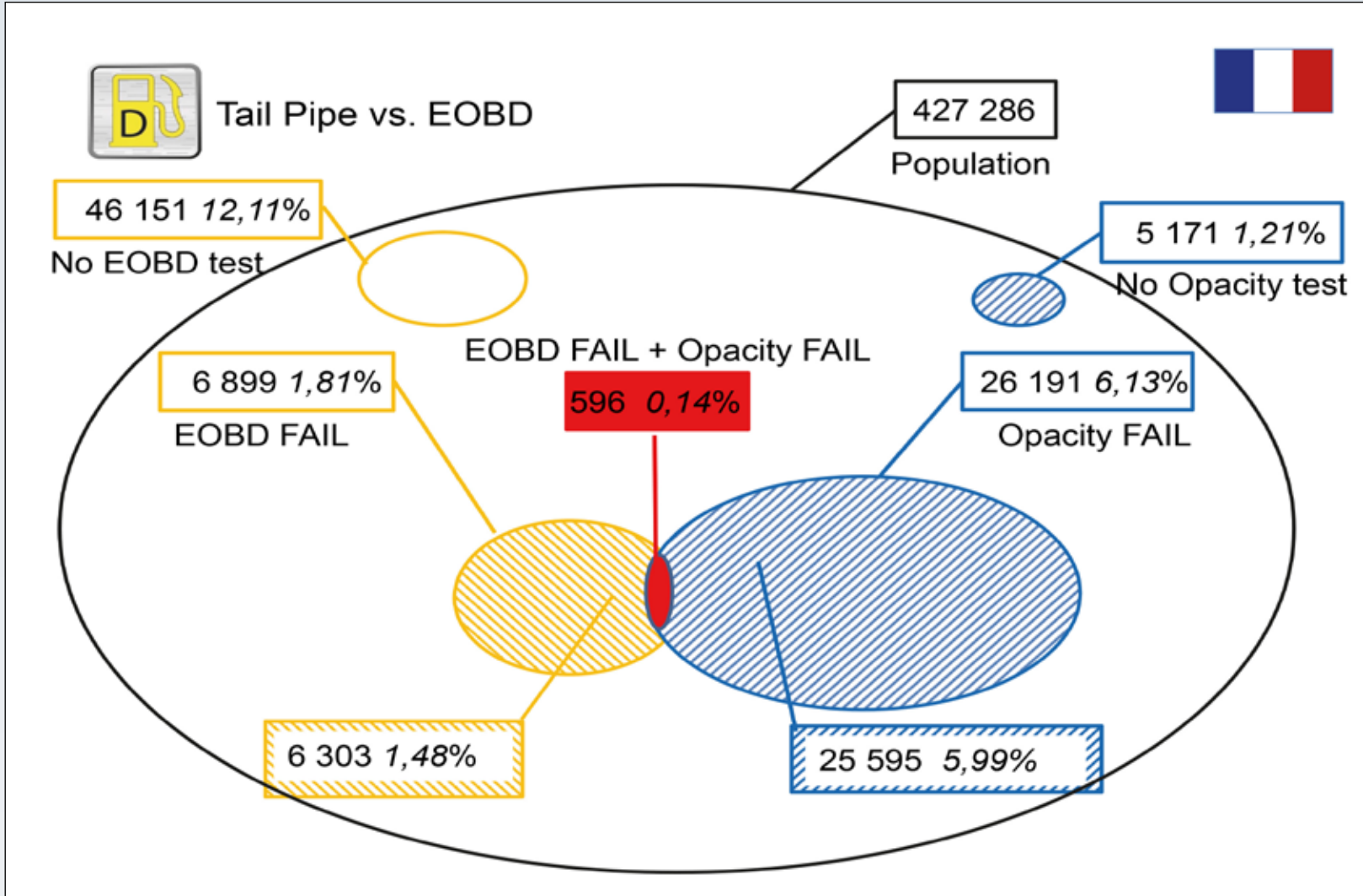
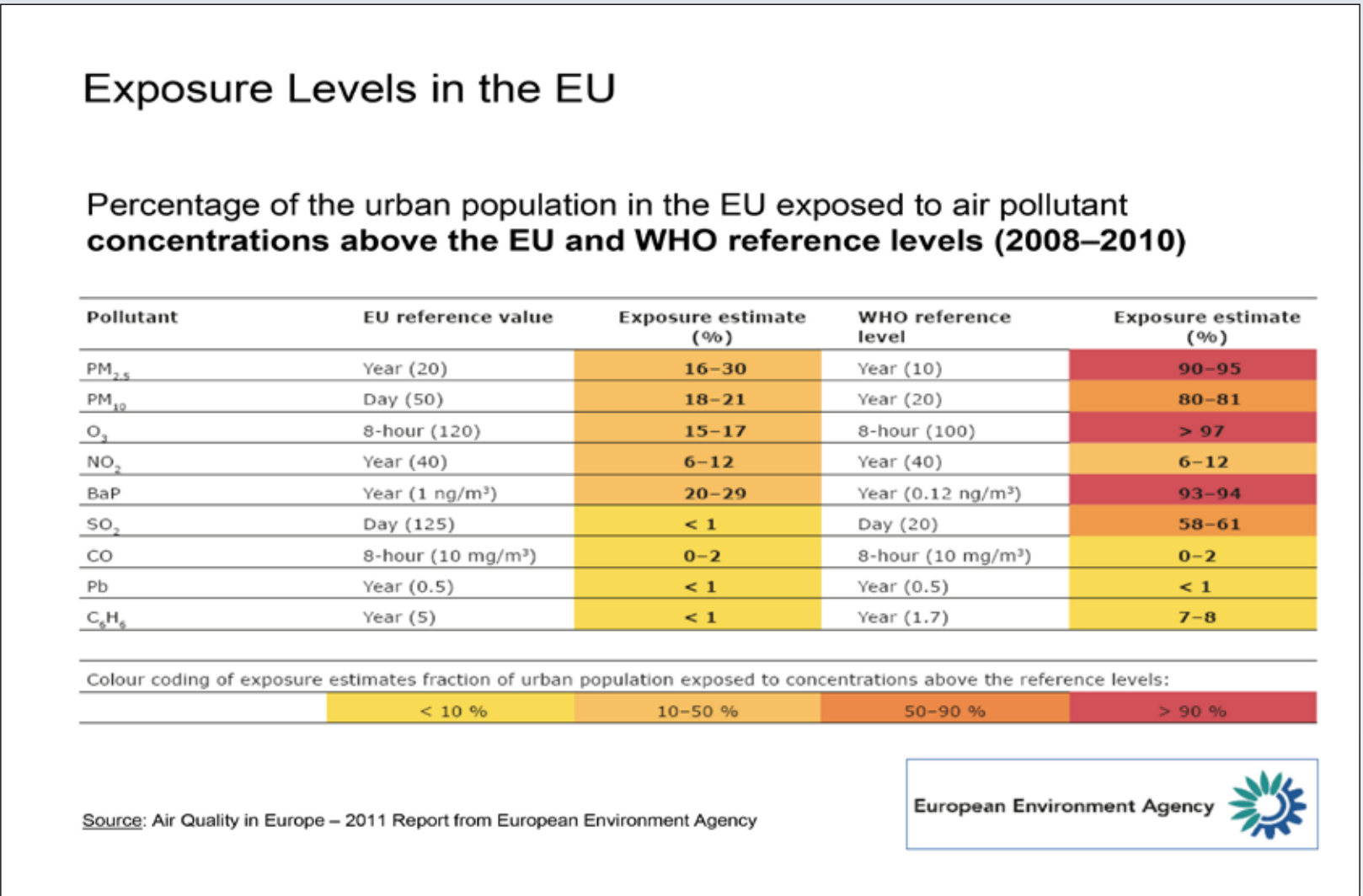
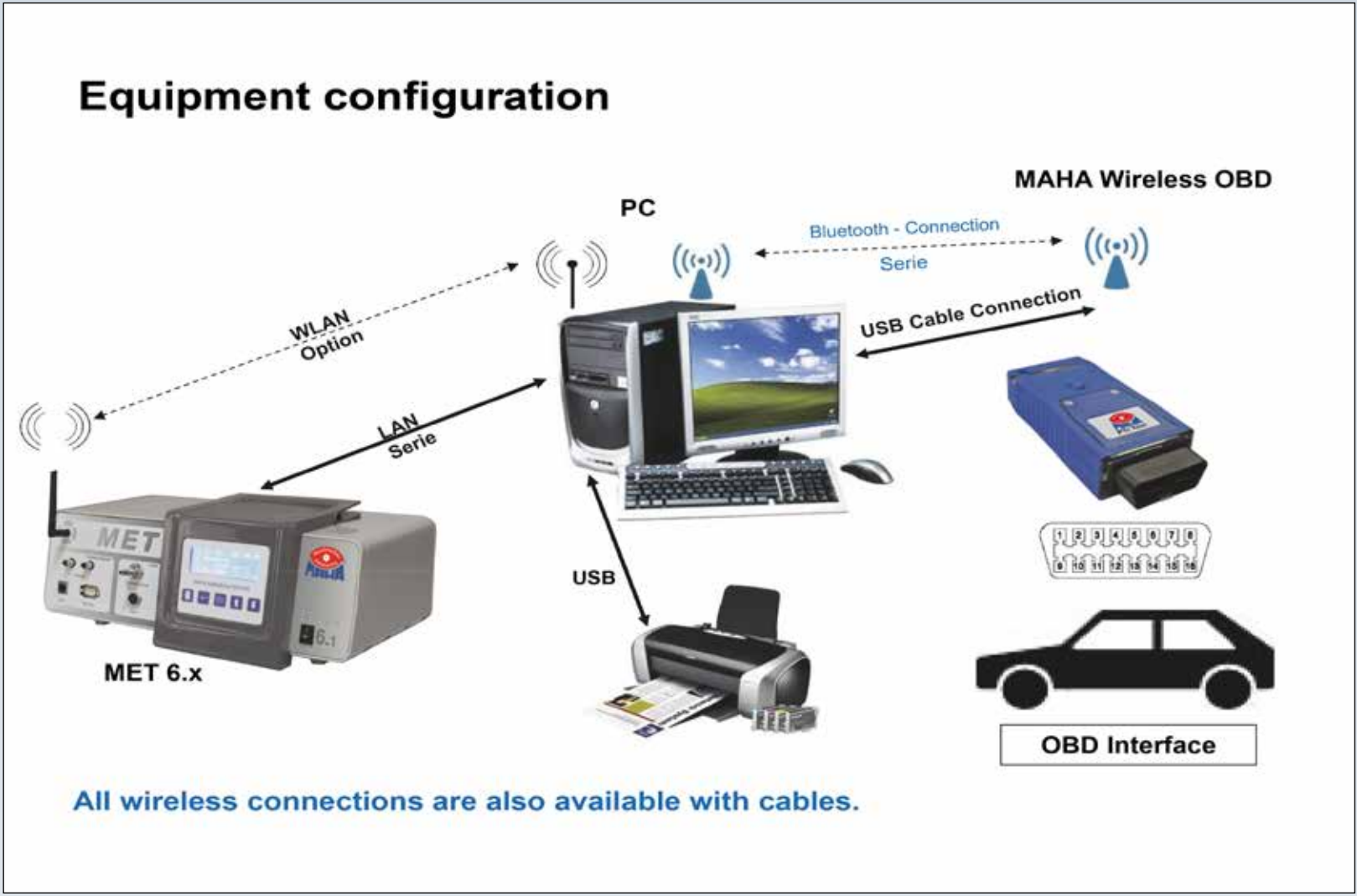
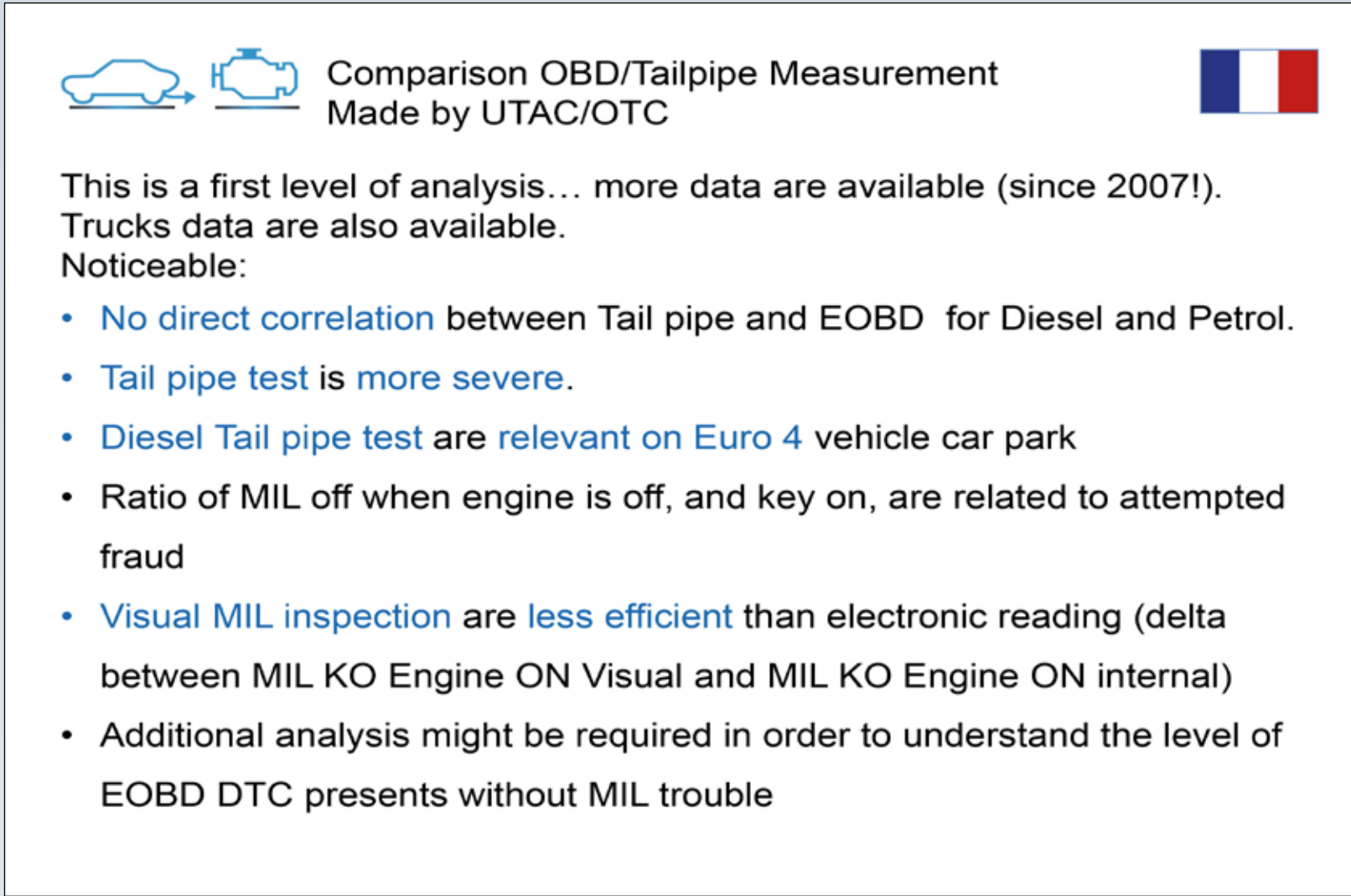
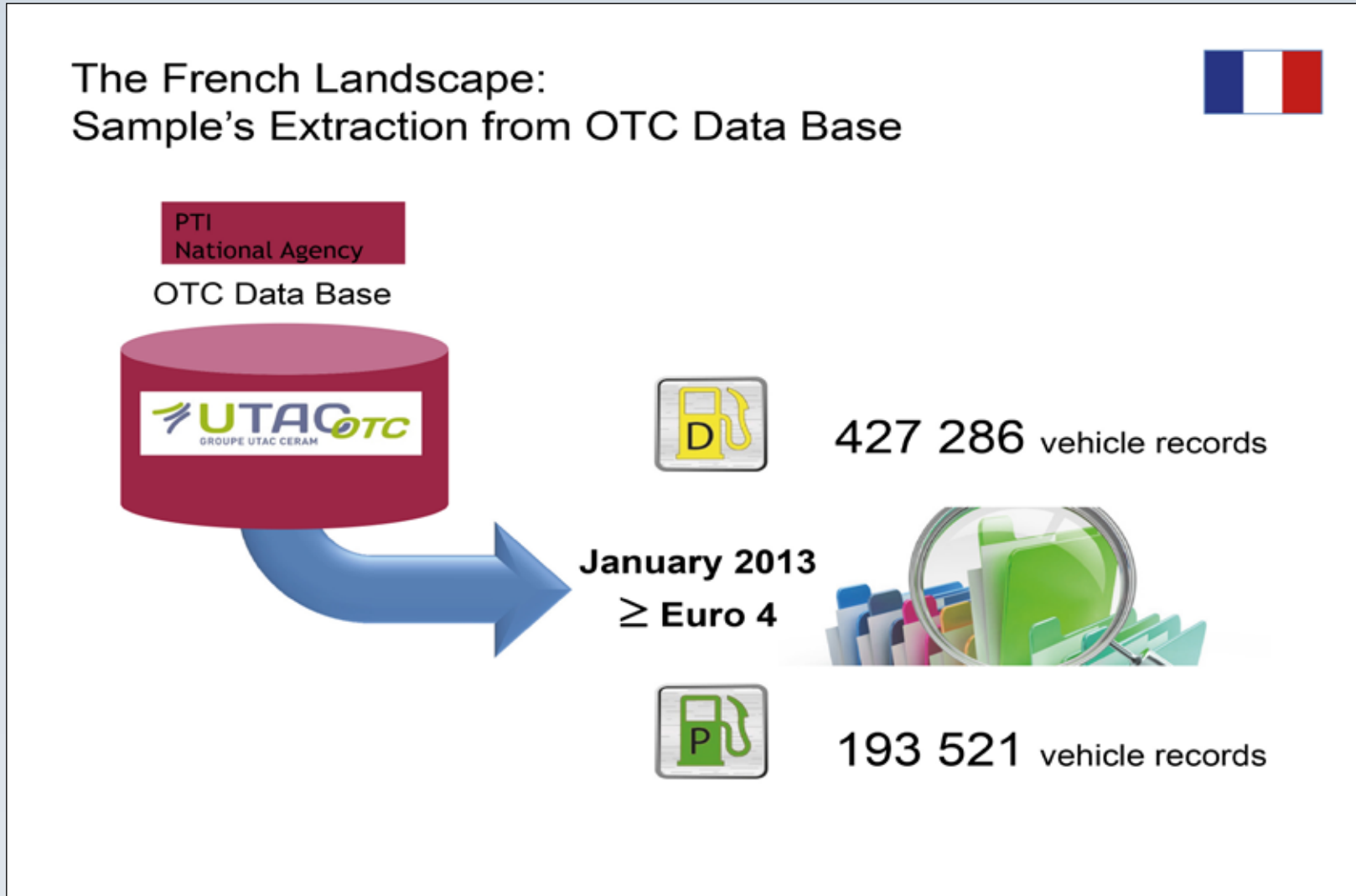
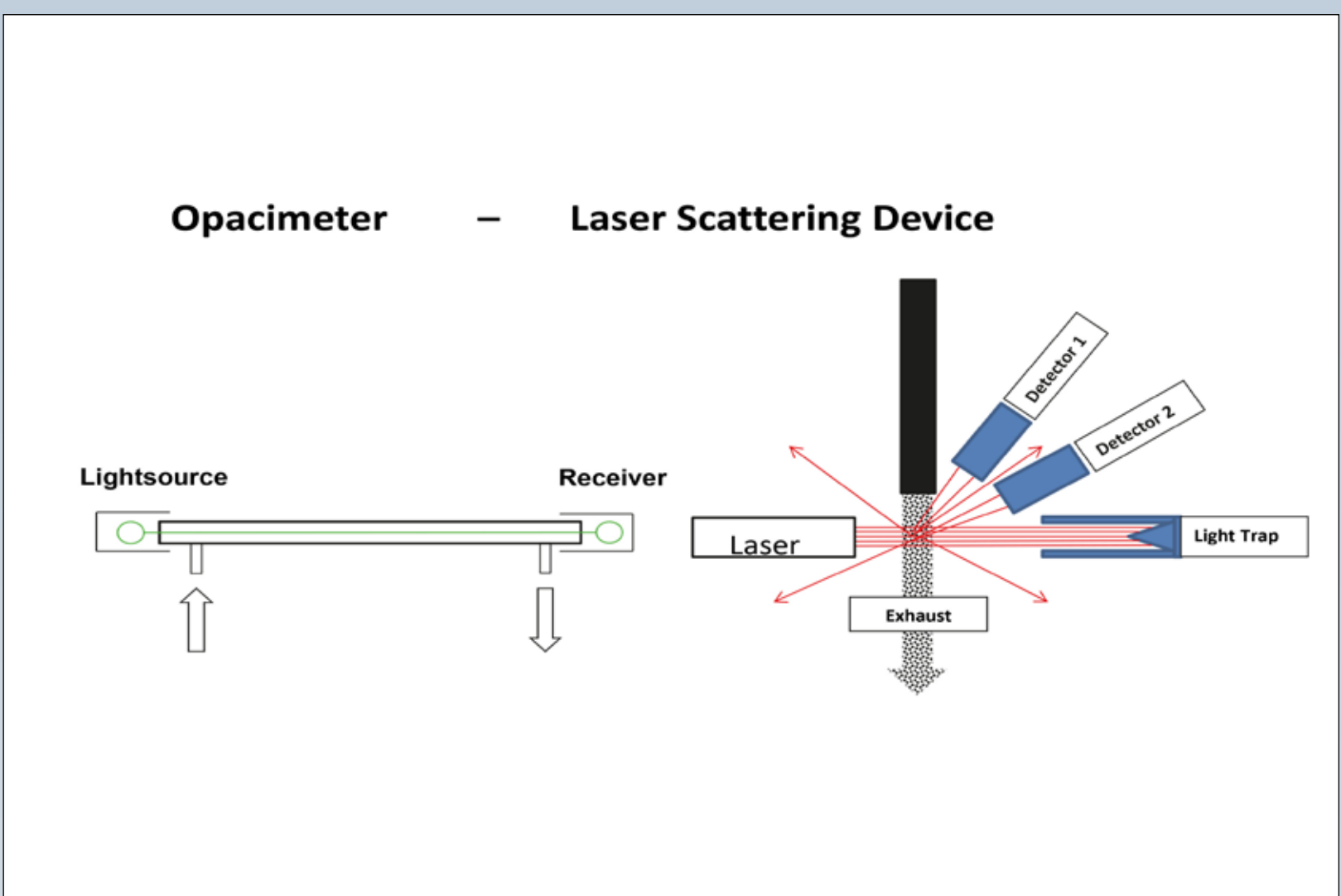
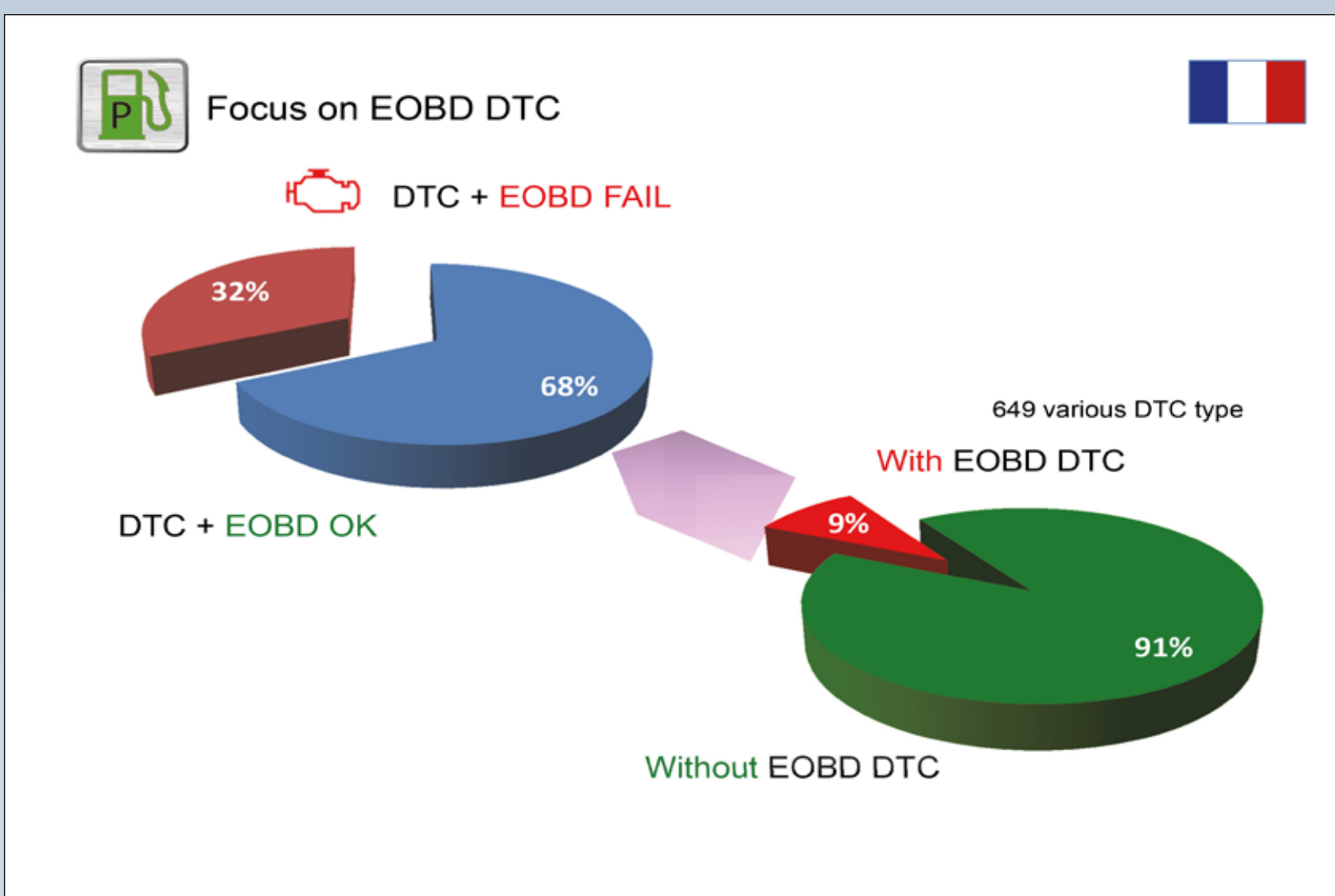
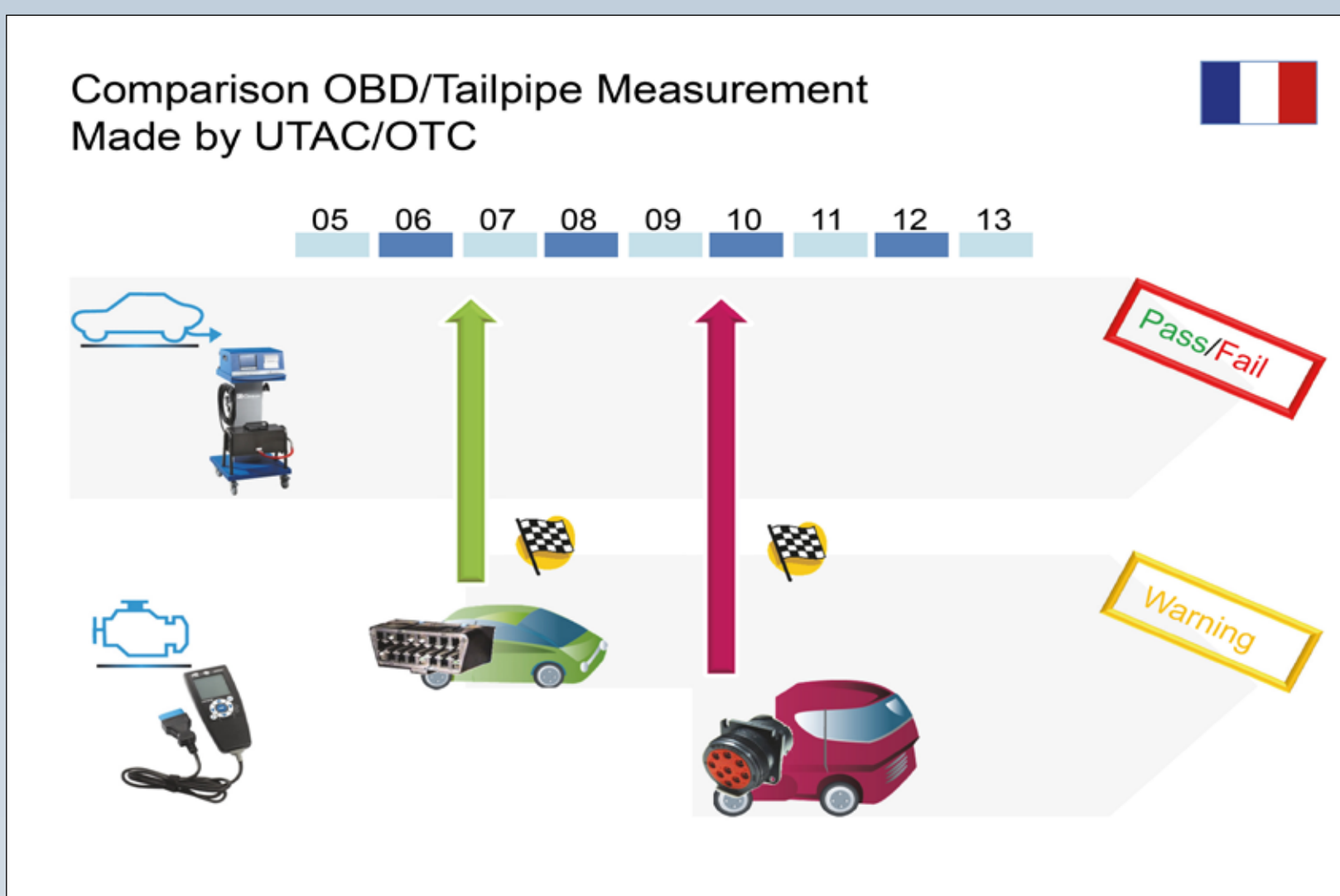
OBD vs. Tailpipe Testing - Future Test Options for Emission Control Systems of Modern In-Use Vehicles

A drastic reduction in the emissions of new vehicles has been achieved over the last 20 years, with the introduction of strict worldwide regulations for reduction of all exhaust emissions. In this context also, PTI (Periodic Technical Inspections) schemes have to follow the development of modern vehicle technology. PM as well NO_x as measurement now seems due for a further stage of development.

Both pollutants (PM and NO_x) are reduced by complex exhaust after-treatment systems and engine internal solutions. High vehicle emission rates are often a result of component aging, component failure, or generally poor maintenance. There has also been an increasing in the tampering of emission systems over the last years to avoid high repair costs. PTI emission tests allow a quick and reliable evaluation of the whole emission related systems to determine whether in-service vehicles conform to their design emission levels. PTI emission test requirements and thresholds have not kept pace with development in vehicle technology and type approval procedures (especially for Euro 5 and 6). Updates to the legislation, instruments and procedures are therefore necessary.

Keywords: PM, NO_x, Air Quality, OBD, Vehicle Emission Testing, Diesel and Petrol/Gasoline Emissions, Non-Road Emissions

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Technical Data MET 6.3

Gas Analyzer	
Gas	HC, CO, CO ₂ , O ₂ , NO _x (NO+NO ₂), NH ₃
Measurement principle:	Lambda
- Infrared	HC, CO, CO ₂
- Electro chemical	O ₂ , NO
- Chemical	NO ₂ , NH ₃
Power supply	110 - 230 V 50/60 Hz 10 - 32 V
Measurement accuracy class	0 OIML
Dimensions (L x W x H)	406 x 225 x 160 mm
Weight	5 kg
PM / Opacity Analyzer	
Measurement principle	Laser Light Scattering
Measurement range PM	0,01 - 700,00 mg/m ³
Measurement range Opacity	0-100 % (0-9,99 k value)

