



REFERENCE TEST TRACKS **INSTRUMENTED VEHICLES**

Laboratory **Environmental** Assessment, Safety and **E**co-design

Department Planning, Mobility and Environment

INTRODUCTION

Test tracks created in 1980 at Ifsttar Nantes

Many test areas on a 2300 m-long track: banked corner, straight sections, etc.

- → Characterization of tire/road contact (skid resistance, noise, rolling resistance,
- → Characterization of dynamic behavior of vehicles
- → Modelling of fuel consumption
- → Driver's trajectories



CHARACTERISTICS OF THE TEST TRACKS

- 15 test surfaces covering a wide range of microtexture and macrotexture (French road network, experimental boards for research)
- Sprinklers for wetting the test surfaces
- 2 weather stations (temperature, pluviometry, wind, etc.)
- Sensors for measuring water depths (Vaisala DSC111)
- Wi-fi access



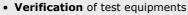
MAIN ACTIVITIES

- Research projects
 - · Experimental validation of models
 - Demonstrators









- Auditors (qualifications)
- Accreditations
- · Round robin tests
- Calibration.









· Contracts & expertises





INSTRUMENTED VEHICLES

- Clio, Peugeot 406 and Laguna 3
- Vehicle's trajectory
 - GPS (X, Y, Z)
 - Correvit (Vx, Vy)
 - Inertial (gx, gy, gz)
 - · Wheel encoder (angular speed)
- Braking distances
- Measuring wheel (torseur des efforts à la roue)
- Fuel consumption (flowmeter)
- Water depths (Aquasens)







