



# REFERENCE TEST TRACKS & INSTRUMENTED VEHICLES

Laboratory  
**Environmental  
Assessment,  
Safety and  
Eco-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, unevenness)
- 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



- **Verification** of test equipments
  - 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)



## Collaborations

