

# INSITUBES

Inspection of the internal surfaces of TUBES

BUDGET

€409K

GRANTS  
OBTAINED

€216K

ANR

2011 - 2013

## THE PROJECT

Tubular structures are used in virtually all sectors of industry. Used in most industrial processes for transporting reagents, their injection or for the cooling of equipment, they are found in particular in the food, energy, pharmaceutical, chemical, aerospace, transport or biomedical sectors.

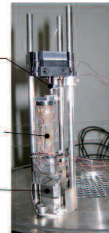
The need for efficiency (in engine injection for example) as well hygiene imperatives (in the food or biomedical industries) make optimum control of the surface quality of the inside of the tubes necessary. In particular, minimising the roughness of the surface can help to avoid bacterial contamination, optimise flow, limit surface effects or maximise the reactive impact of a functionalised structure. This project proposes to develop and implement a pre-industrial contactless inspection demonstrator for submicronic resolution tubular structures

**ViaMéca**  
French mechanical cluster

fixed optical probe

xyz piezoelectric tube

xyz inertial engine



## PROJECT SPONSOR

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