# INTRODUCTION TO DYNAMIC BEHAVIOR OF MATERIALS AND ASSOCIATED SIMULATIONS FOR01

In partnership with:



### PREREQUISITES

Basic knowledge in the field of materials

## TARGET POPULATION

Engineers, technical managers, R&D managers, PhD students, technicians in the field of the behavior of materials,

KNOWLEDGE TESTING METHOD

Final MCO to validate the acquired knowledge, attested to by a training completion certificate Total length of training: 16 hours Start: Day 1 at 11:00 | End: Day 3 at 12:00

#### TRAINING OBJECTIVES

- Understand the issues related to the dynamic behavior of materials
- Understand the importance of taking the dynamic behavior of materials into account, in order to achieve high-quality numerical simulations.



#### COURSE CONTENT

- · Presentation of fields of application
- Introduction to numerical simulation in fast dynamics
- · Metrology for dynamic applications
- Principle and advantages of split-Hopkinson pressure bars
- · Practical work in the laboratory:
- Instrumentation of simplified ballistic testing and analysis
- tests with split-Hopkinson pressure bars and analysis
  - testing with a gas gun and analysis
- Numerical simulation as a test analysis tool

