

## Environmental testing



On site or in lab characterization testing

### YOUR EXPECTATIONS

You would like to:

- Understand your products vibratory behavior in order to optimize their design and improve their reliability and comfort performance (transportation)
- Characterize, qualify or reliabilize your products resistance against shock and vibration
- Ensure your in operation products reliability
- Delegate the management of a complete multiphysics qualification test plan

### OUR SOLUTIONS

Cetim offers you:

- **Vibration diagnosis under operating conditions or during testing:** full dynamic instrumentation (vibration, strain gauges, electrical current, pressure, ...), on-site data acquisition with mobile and autonomous multichannel recorders (up to 192 simultaneous acquisition channels), data analysis, technical expertise and recommendations
- **Structural dynamic characterization:** modal analysis (static or in operation) and numerical model correlation
- **Electrodynamics shakers test** allowing to conduct: steady state forces up to 200kN and shocks up to 600kN and 160g, test on large equipment up to 5000kg, vibration control system with up to 120 acquisition channels, combined vibration and climatic test from -50°C to +160°C, test under operating conditions, standard or accelerated test (sine, random, shocks, SRS, combined, time replication, ...)
- **Additional skills :**
  - **Seismic testing** (*cf* reference datasheet)
  - **Climatic chambers** (up to 2m<sup>3</sup>, -70°C to +200°C, 10% to 98%RH), PVT (Pressure, Vibration, Temperature), corrosion, ...
  - **Vibration monitoring** for equipment and **predictive maintenance** using vibration detection
  - **Definition and spreading of a data analysis strategy** (optimized test matrix, feedback analysis, data analysis for accelerated test plan)
  - **Customization of vibration tests** according to your product's life profile

### YOUR BENEFITS

Cetim provides you :

- A multidisciplinary team and a technical referent in charge of the project
- Technical solutions based on acknowledged experience in industrial products
- More reliable products and better vibration behaviour of your in operation equipments



**Question and Answer Service**

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