

## **Methodology for the assessment of the impact of packaging on the performance and reliability of MEMS devices**

### **Objective**

This programme seeks to involve all of the PATENT-DfMM technical workpackages in an activity working towards developing/ defining a methodology and initial tool-set for the assessment of the impact of packaging on MEMS devices. Achieved through a combination of

- improved modelling and simulation of the device package interaction, and
- the use of specifically designed test structures allowing the measurement of key parameters relating to the package environment, such as stress and pressure, both
  - during the design phase, and
  - during its operational lifetime

### **Partners involved**

QinetiQ, Tyndall Institute, Fraunhofer IZM Berlin and Munich, IMEC, Heriott Watt, Politecnico di Milano, and Lancaster

### **Summary of results**

Very ambitious project started late 2004. Progress made towards a proposed “first draft” best practice methodology for assessing the effect of packaging on the performance and reliability of MEMS components, based on a review of the current state-of-the-art undertaken by participating partners, and some simple first order experiments on to validate work on improved modelling and simulation of the device package interaction. Some initial reports available on members section of website. New cross workpackage working groups have been formed, forming the basis of on-going collaboration. Spin of training course -MEMS Packaging, Modelling and Test.

### **Offer to industry**

Consultancy on packaging of MEMS devices

### **Contact**

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### **Project status**

Ongoing

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