

# METROLOGY

Examples of services



## 3D MEASUREMENT

- **Context :** a railway equipment manufacturer had a major project in which the components were manufactured in Hungary. The complexity, dimensions and precision required made for a difficult metrology exercise. The precision required was  $5\ \mu\text{m}$  for dimensions up to 2 m. The manufacturer was searching for the expertise and advice of a metrology specialist : TRIGO met the specification.
- **Result :** TRIGO defined the principle of scanning and comparison with numerical 3D models as the most appropriate solution. For over a year, its metrology department measured every product without error, delivering a certificate of conformity for each part with its measurements in electronic format.

## HIGH-PRECISION METROLOGY

- **Context :** an automotive electronics equipment manufacturer, in initial sampling phase, found that its internal resources could not make the necessary measurements on a complex part. The constraints were precise in this situation, and very specific equipment was needed. TRIGO proposed to set up a turnkey PPAP project under its responsibility, using its measuring equipment that perfectly met the equipment manufacturer's requirements : precision of  $1.5\ \mu\text{m}$ , special attachment, and multi-technology sensors.
- **Result :** the manufacturer successfully passed the PPAP process phases and has since regularly solicited TRIGO'S help in carrying out this type of service, as well as in process audits, launch support, and complementary missions.

## CALIBRATION: INVENTORY MANAGEMENT

- **Context :** an automotive equipment manufacturer conducted a study of the management of its standards inventory, consisting of 2200 gauges, callipers, shims, micrometers, comparators with precisions of between  $0.1$  and  $2\ \mu\text{m}$ . It concluded that, for both economic (investments and productivity) and technological reasons, it was more advantageous to outsource this management. It had to find the ideal solution to provide this service and, as a specialist in integrated solutions, TRIGO was selected as the preferred partner.
- **Result :** with its ISO 17025 accredited laboratory located in the region and by instituting remote management, TRIGO took charge of calibrating the entire inventory under a three-year contract : management of certificates and their timeframes, logistics, etc. The customer optimized its organization and could concentrate on its core business.



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