Innovative, efficient, widely imitated. A perfect case history. The focus today is on the Metrology Centre of the Fiat-Chrysler plant in Pomigliano d’Arco (Italy). It is a well known facility in the world of automotive manufacturing, adopting the most advanced quality control systems. Opened back in 2011 for the production of the new Fiat Panda, the Centre is a hub of top-class technologies and expertise that has revolutionised the way in which market requirements are met. This is confirmed by the World Class Manufacturing gold medal awarded in 2012 to the plant located in Campania, southern Italy, and by the Customers’ rating of the Panda - consistently ranking at the top of the list.

How has Pomigliano grown to become a centre of absolute excellence? With hard work, an efficient method, R&D and a pinch of Italian creativity. Ingredients generously poured in by Fiat-Chrysler engineers ever since 2008, when the plant was completely renovated to turn into the Group’s flagship factory in Europe. The upgrading strategy has focussed on technologies, process, and above all, human resources: well trained, motivated, and supported, back in Turin, by central staff who selected the most advanced control equipment to respond to increasingly demanding market requirements. More than by the facilities, the real difference was made by the people, directly involved in a project aimed at totally reshaping the old work process, replaced by a more dynamic, highly inclusive approach. In 2011-2012, with the launch of the new Panda, the turnaround was completed: the Centre had tackled and won its biggest challenge. The high quality standards applicable to this model implied a relentless fine-tuning of methods and tools in the launch phase. This required considerable investment and the joint effort of sixty people, who during the start-up phase were pulled in from other plants and other Group countries, working in three shifts.

The concept around which the Metrology Centre strategy was developed is that the new facility should be the venue of not just project compliance checks, but also of diagnostic activities for the whole factory - throughout the model life. Every day, the car bodies to be inspected are taken from the lines and brought to the metrology room. Here, they are examined in the finest detail (with two thousand measurements made), in order to detect even the tiniest faults. If any are found (consider that this model consists of four thousand parts), the Metrology Centre experts are trained to identify even the most remote causes of defects and to suggest solutions. This troubleshooting activity has one precondition –
rapidity – and requires the rigorous application of a specific method – team work. The Metrology Centre technicians work “side by side” with line engineers, because this has been found to be the most efficient option. Cooperation ensures that causes and remedies are identified more quickly and effectively: this is what is being done, and this is what works.

This operating method is then completed by the use of the most advanced technologies - beginning with photometric scanning. Fiat-Chrysler technicians use sophisticated equipment which takes a number of high-definition photographs of the bodywork, then processed and digitised to create a map, which is compared to the reference map, highlighting its conformity to the sample according to a colour code. Integrated with other traditional equipment, it sets a standard of excellence in the field of measurement technologies. These methods and technologies are producing outstanding results, to the point that the “Pomigliano system” has also been extended to EMEA factories either recently built (Kragujevac - Serbia) or renovated (Melfi - Italy), and also applied world-wide to all new plants (Changsha - China, Pernambuco - Brasil).

When it comes to metrology, the Pomigliano engineers have become the reference specialists for the whole Group - and beyond.