

Company Profile

From Analog to Digital: Three Decades of Industrial Measurement Innovation

Origins and Foundation

LGE takes its first steps in 1996, introduced to the market in support of a leading Italian industrial reality, the former ITA Service S.p.A., which was mainly focused on industrial services, automation, instrumentation and supply of industrial spare parts. The group's skills had been honed in the previous decades as resident contractor into the national Italian steel plants (former Italsider, then ILVA). The ambition of LGE founders was to create a small, flexible and effective group of highly qualified technical experts with diverse interests who can provide the best solution for specific process problems, such as researching alternative and modern solutions to keep alive obsolete equipment .

Founded in Genova, Italy, LGE Engineering emerged from a clear vision: to bring together over half a century of field experience, both operational and maintenance, into a specialized technical company capable of bridging the gap between legacy industrial equipment and modern digital solutions. Although technology has evolved profoundly, the company's passion has remained the same.

Pioneering Digital Transformation

Back in the mid-90s, LGE had the opportunity to digitize a large number of equipment—manufactured during the 60s and 70s by U.S. based companies Measuray, Sheffield, and Bendix operating worldwide—in order to replace the analogue section with a modern computer. At that time, the use of computers in the industry was in its infancy, just as the adoption of software with graphical user interface, which would later become the norm, was only just beginning. As first in the industry, LGE used Microsoft Windows as HMI in this type of system, when DOS-based or proprietary systems were the unique alternative .

In 1997, LGE used Windows as the operating system for the operator interface of its systems in the main Italian steel plants. In 1998, the company supported ITA Service S.p.A. in the digitalization, software and documentation of measurement systems at the ILVA plants in Taranto, Genoa, and Novi Ligure .

In 1999, participating as a founding minority member of the Global Gauge Corporation, one of the world's leading companies for non-contact measurement on metal flat products, LGE carried out operational activities relating to measures, process control, and process optimization for decades, maintaining a strong technical talent that has followed technological evolution over time. This partnership remains a key technical relationship today .

Technical Milestones and Innovation

The choice of simplicity, innovation, and openness has been in LGE's DNA since its inception. The company does not make everything and does not sell everything: it makes just what it does well .

2003 — LGE designed and built its first fully digital, Windows-based system (Smart2k) .

2005 — As first again, LGE developed and tested the first totally digital gauging system, which is the ancestor of its most modern solutions, with its first installation on an aluminium plant in China in 2006 .

2010 — The 100th new type system was delivered to customers worldwide .

2017 — With the birth of the nGauge family of systems, LGE standardized and unified the various solutions by making them managed by a single software tool capable of acquiring multi-protocol data from sensors and higher levels, in practice managing different types of solutions with a single software . Smart sensors with embedded processor and remote IO using analog, serial, ethernet, and Profibus protocols marked the beginning of a new era .

Today, LGE's solutions are appreciated all over the world and remain the most modern, reliable, and precise available. The company's solutions are well known to last longer— LGE has been servicing 30-year-old systems that remain functional and efficient .

Core Values and Approach

LGE is proud to be a small and highly specialized technical company. The company does not measure value by the volume of transactions, but by the trust earned over time. Customers are never numbers on a spreadsheet: they are partners and companions in a shared journey. When the path becomes complicated or a problem seems unsolvable, LGE stays, adapts, and provides solutions .

- **Innovation at Our Core** — Advanced technology transformed into enriching end-user experiences .
- **Sustainability & Responsibility** — Long-lasting solutions that reduce waste and optimize resources .
- **Client-Centric Approach** — Your process challenges are our priority .
- **Collaborative Culture** — Small, flexible, and highly qualified team of technical experts .

Solutions and Technologies

LGE designs and builds integrated, cutting-edge solutions that include process control and optimization, robot guidance, measurements, quality management and control, predictive maintenance protocols, and industrial process coordination .

The company's product portfolio encompasses:

- **Thickness Control** — High-precision thickness gauges for metals, plastics, and composites .
- **Width Control** — High-resolution measurement and edge detection with sub-millimetric precision for cutting optimization .
- **Surface Control** — 3D surface inspection for defect detection, roughness analysis, and quality assurance .
- **Shape & Dimensions** — Omnidirectional shape detection for total traceability on complex geometries and materials .

LGE also offers multi-head thickness measurement systems (1, 3, 5 reading heads) for CTL or cut-to-length lines, continuous multi-point profiling, individual strip zone monitoring, and high-speed conversion, designed specifically for optimization purposes .

Market Recognition

Metric	Value
Years of Experience	30+
Industrial Solutions	150+
Customer Retention Rate	90%

“We don’t just sell a sensor, we provide solutions. Our strength is the process knowledge.”

With 30+ years of experience and a 90% customer retention rate, LGE continues to deliver intelligent solutions and advanced controllers designed for robust, proven, and highly reliable process optimization. The company transforms data into optimized performance, helping industries increase performance and reduce waste with scalable solutions suitable for any budget .