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Elctric80 and BEMA



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*The annual listing of 10 companies that are at the forefront of providing
Smart Factory consulting /services and impacting the industry*

Elettric80 and BEMA

Realising the Vision of a Sustainable Factory 4.0

Almost 30 years ago, long before the world could witness the fourth industrial revolution, the journey of Elettric80 and BEMA began with the first model of an integrated, automated, and sustainable factory in Caldonazzo di Trento (Italy) for Costerplast in 1992. Springing from a dream of the modern Industry 4.0, the two companies brought into fruition the vision of the two partners—Enrico Grassi and Vittorio Cavirani, President and Vice President of Elettric80 and BEMA, respectively.

Since the founding of Elettric80 in the 1980s and BEMA in the 1990s in the small town of Viano, near Reggio Emilia (Italy), the companies have been guided by a clear vision of what the factories of the future would look like. Focused on the development of intralogistics solutions for consumer goods manufacturers and distribution centres—particularly in the beverage, food, and tissue sectors—these companies have developed increasingly cutting-edge innovations that enable its customers to respond to and even anticipate market needs. Today, the companies are at the forefront of implementing integrated, sustainable automated factories. “We have completed nearly 300 integrated plants in various parts of the world and installed over 2,000 robotic systems, more than 5,000 automatic laser-guided vehicles, and 35 automated high-density warehouses. With the primary objective of being close to our customers, we have opened 13 branches worldwide in addition to our headquarters in Viano,” says Grassi. With a vast footprint, the companies have established their presence in the U.S., Australia,



Enrico Grassi

Brazil, Chile, the UAE, France, Great Britain, Mexico, Poland, Russia, Sweden, China, and Thailand.

Elettric80 and BEMA are focused on delivering hardware systems that meet all the intralogistics requirements of factories and distribution centres. “We make palletising robots, automatic laser-guided vehicles, high-speed robotic stretch wrappers, depalletisers, automatic pallet control systems, robotic labellers, and high-density automated warehouses. The SM.I.LE80 (Smart Integrated Logistics) software platform is what permits us to make the difference,” Grassi adds. It is the “conductor” that orchestrates the plant and optimises all operations, from the reception of raw materials to warehousing and shipment, ensuring complete product traceability and integration between the various systems.

The companies’ custom solutions result from the 40 years of experience their team has acquired in a variety of industrial fields, in which they developed an in-depth knowledge and an understanding of all the supply chain

processes as a whole. With world-renowned software and hardware know-how, the companies have been making a difference in the smart factory space for decades.

The services provided by Elettric80 and BEMA are geared towards accompanying customers in choosing the best possible solution, maintaining it, and keeping it up-to-date over time. Using their discrete-event simulation software called Smart Designer, the companies can identify, right from the earliest stages of a project, the most efficient tailor-made intralogistics configurations that are capable of responding, with 95 percent reliability, to all customer needs and of guaranteeing long-lasting results. Smart Designer is an essential tool, modelled on and integrated with Elettric80 and BEMA logics, for analysing future operating scenarios of factories and distribution centres. Discrete-event simulation, whether for a brownfield or greenfield site, is decisive in achieving what can be rightfully called a smart factory. The tool helps in evaluating and verifying the KPIs

of an entire project and offers guaranteed performance for the entire lifecycle of a plant.

Grassi notes, “We are close to our customers worldwide through 24/7 digital after-sales services, offering the highest levels of long-lasting innovation, reliability, and reduction of margins of error for complete factory efficiency.” Customer service is one of the jewels in the crown of these two Italian companies because it protects the added value of the systems and solutions implemented over the long term, guaranteeing the customer a return on investment. Not only that, it allows continuous monitoring and optimization of plant performance, thus troubleshooting and preventing malfunctions in real time, in order to support the growth of the customer’s business in the medium and long term. Thanks to the efficient and advanced assistance service, today Elettric80 and BEMA resolve 93% of customer requests for intervention remotely, thus reducing intervention time and maintenance costs, without interrupting the production flow. This exceptional customer service contributes to improving the sustainability and safety of factories.

One of the factors that empowers the companies to make a real difference in the market is the constant investment in staff training, especially of young people, both to prepare new hires and to keep skills updated at all levels of the company, in addition to supporting schools, universities, and research centres. Grassi remarks, “In our companies, we firmly believe in the ‘Youth and Experience’ concept: enhancing our heritage by learning to listen to the voice of the new generations, cherishing their enthusiasm and dynamism. This constant exchange and sharing of knowledge has allowed us to grow and look ahead.”

Elettric80 and BEMA’s exemplary capabilities can be best illustrated with the success story of one of their clients, Barilla—the worldwide symbol of Italian products and market leader in pasta, ready-made sauces, bakery products, flour, and bread. Grassi proudly mentions, “The Barilla Smart Factory in Parma is an excellent and sustainable model of Industry 4.0, where all our technologies are perfectly integrated.” The factory started a complete transformation of its supply chain in 2012. One of the most significant of Elettric80 and BEMA’s innovations was the creation and installation of pallet-less solutions in the production area. The companies’ cutting-edge solution fully responded to Barilla’s need to renew the existing group of palletisers and to

increase production and storage capacity, while maintaining top-level quality and safety of the handled products. Using the new technology, the pallets are inserted by a robotic machine during the wrapping and labelling operation. This innovation offers multiple advantages, including avoiding product contamination, which is especially important in the food industry, while increasing system flexibility and leaving the decision of which pallet type to be inserted to just before warehousing, while also reducing the environmental footprint of the entire process”.

On another occasion, Elettric80 and BEMA contributed to the implementation of the smart, integrated factory for Constellation Brands, one of the world’s largest brewers and a leading international producer and marketer of beer, wine and spirits with operations in the U.S., Mexico, New Zealand, Italy and Canada. The project that was carried out with the two Italy-based companies, a greenfield development in Mexico, was built in response to growing demand from the U.S. market. Constellation had acquired the Nava brewery in 2013 with a capacity of 10 million hectoliters of beer, and in 2014, they sought to expand the brewery and double the output to 20 million hectoliters. Upon completion of construction in 2016, this objective was achieved, thanks in large part to Elettric80 and BEMA’s state-of-the-art technologies that allowed for the complete automation and integrated management of all aspects of logistics, from raw material reception to shipment preparation—all controlled by a single smart system.

Consumer demand has remained steady; between 2017 and 2018, Constellation Brands increased production capacity to 27.5 million hectoliters of beer a year, becoming the premier stand-alone

brewing plant on the planet. In terms of statistics, this means 26,000 pallets shipped every day (18 every minute) and 67,000 pallets of consumables, bottles, cans, finished products and waste moved and stored daily with the use of over 174 laser-guided vehicles, all operating simultaneously.

Elettric80 and BEMA constantly aim to interpret the needs of the intralogistics market, to surprise with innovation and to provide customers, employees, and partners with a future driven by business efficiency and sustainability. Their continuous evolution has led them to believe that action is fundamental to manage the imperfections of their successes rather than suffer those of others. By valuing their connections and daring to innovate, Elettric80 and BEMA are fulfilling their mission to solve and connect the new digital world of intralogistics. 

