Sistema is an iconic New Zealand-based company that manufactures, markets, and distributes stackable food-safe plastic kitchen storage containers. From humble beginnings in 1982, the company has grown to become a world-leading brand that exports to more than 100 countries worldwide and counts its customers in the millions.

A recognized innovator in the field of plastics manufacturing, the company operates from a new state-of-the-art production facility in Auckland that’s packed with automation and robotics technologies.

**Company Facts**

**Overview**
- Location—Auckland, New Zealand
- Industry—Plastics Manufacturing
- Operation Type—Made to stock
- Website—www.sistemaplastics.com

**Success Highlights**

**Challenges**
- Lacked a unified enterprise system that provided visibility throughout the business, enhanced performance, and reduced inefficiencies

**Solution**
- Epicor® ERP
- Epicor® Advanced MES

**Benefits**
- Integration of ERP and MES delivered seamless automation of multiple processes
- Improved cycle times and reduced scrap and time between jobs
- Boosted OEE by 10%
- Reduced warehouse man hours by 50% with no loss in productivity

**The Challenge**

To ensure its products remain internationally competitive, Sistema wants to maximize production output and quality in the most cost-effective way possible.

“Based in New Zealand, we’re a long way away from many global customers, so optimizing manufacturing performance is mission critical for offsetting the impact of high logistics costs on our business,” explained Greg Heeley, chief technical officer at Sistema Plastics.

Ten years ago, the company implemented Epicor Advanced MES to manage its production and assembly processes. Handling everything from scheduling to the monitoring of 10 assembly lines, Epicor Advanced MES collects and analyzes data directly from equipment and operators on the shop floor to provide an up-to-the-minute view of machine and production availability.
“Without Advanced MES, our shop floor wouldn’t know what to make or when to make it,” explained Heeley. “Using the system has enabled us to run more machines with the same number of staff and move from a 24/7 to a 24/5 shift pattern without compromising output.”

“Integrating Epicor ERP with Advanced MES would allow us to connect our planning, scheduling, and quality data with shop floor realities in one unified system,” he continued. “This would enable us to work smarter and further optimize operational efficiency.”

Maximizing manufacturing outcomes
Sistema’s pioneering production facility features a variety of automation technologies that include robotics and vision recognition systems. Integrating Epicor ERP and Advanced MES has delivered real-time access to machine and quality data that can be imported into the ERP system to better plan schedules and resources.

“The ability to pull data into a seamless bidirectional information environment means we can now plan more effectively and identify efficiency opportunities that go beyond those generated by automation alone—for example, improved job scheduling, better cycling of things like color changes, and minimizing downtimes between jobs,” explained Heeley.

“We’ve also integrated our warehouse management system [WMS] with Epicor ERP—today our WMS knows the location of everything, while Epicor ERP reconciles stock in and out of the WMS,” he added.

Tight integration and real-time feedback between the ERP, MES, and other systems has been enabled by an Epicor REST API that delivers a holistic view of the entire operation—delivering the real-time insights Sistema needs to pinpoint critical issues, reduce waste, and improve quality and customer service.

“Without the two systems, we wouldn’t be able to run an effective operation,” Heeley explained. “Everyone in the business can see the same data and easily review and discuss findings. It also helps us to target the top exception issues and focus effort where it’s needed the most.

“For example, we can now highlight to the shop floor if we’ve got a job running but haven’t done an inspection plan for it—helping production supervisors to stay on top of things while adding depth and dimension to the production data delivered to operators via touch screens on the shop floor.”

Future-proofing operations for enhanced performance
Having successfully leveraged an integrated ERP and MES platform to streamline production and generate additional efficiencies, Sistema is about to embark on a series of additional connectivity initiatives that will enable truly smart manufacturing.

“Next, we plan to harness the two systems to generate predictive analytics that will tell us what will go wrong, when, and why,” said Heeley. “This will enable us to initiate a maintenance avoidance strategy that ensures our production never misses a beat.”

To enable these granular insights, the company is adding sensors to all their machines and pulling the resultant data into Epicor and extending its quality assurance into Epicor ERP/Advanced MES, too. Finally, a project is underway to deliver video work instructions directly to the shop floor using Epicor ERP, DocStar, and the Epicor REST API.

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Business intelligence that drives growth
Delivering a real-time, digitalized closed loop between business systems and the plant floor that’s essential for improving operational effectiveness and responsiveness is just one of the gains that’s resulted from the integration of Epicor ERP and Advanced MES.

The availability of unified business intelligence from across the organization is helping to make the company fit, fast, and flexible for future market growth.

“We now have a single source of truth and one source of data that’s vital for our finance and operational teams—rather than multiple systems containing parts of the story,” said Heeley. “Everything comes back to Epicor ERP, which gives us an enterprise-wide view of business operations and costs that supports better, more informed decision making.”

“Not only can we better utilize shop floor data to meet customer demand and seamlessly automate multiple processes to drive down costs, but we’re also able to improve efficiency across our business operations and—in the future—predict what the future will look like,” he concluded.

About Epicor
Epicor Software Corporation drives business growth. We provide flexible, industry-specific software designed to fit the precise needs of our manufacturing, distribution, retail, and service industry customers. More than 45 years of experience with our customers’ unique business processes and operational requirements are built into every solution—in the cloud or on premises. With this deep understanding of your industry, Epicor solutions dramatically improve performance and profitability while easing complexity so you can focus on growth. For more information, connect with Epicor or visit www.epicor.com.