*Case Study*

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# Sistema

Design and installation of world class integrated warehouse

Dexion has designed and installed New Zealand's most advanced integrated warehouse system to enable world-leading Auckland-based plastic food container manufacturer Sistema to better service retail contracts in Europe and the United States.

**Background**

Sistema designs and makes high quality, stackable, food safe storage containers in its Auckland manufacturing and distribution facility and supplies these products to millions of customers in 82 countries around the world. The company is one of New Zealand's leading export manufacturers.
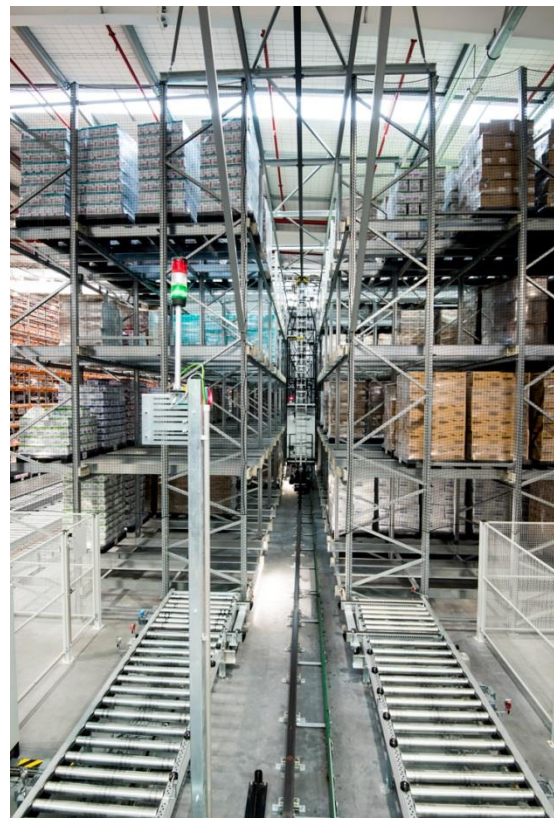
Founded in a garage 30 years ago by managing director Brendan Lindsay, Sistema is now famous for its Klip It collection of storage containers with their distinctive blue clips. That range has been added to with the Microwave and To Go family of products.

**Business Challenge**

To meet rapidly growing global demand for its plastic food storage and cooking containers, including from leading European and United States retail chains, Sistema commissioned a new multi-million dollar manufacturing and distribution facility to be built at The Landing Business Park at Auckland International Airport. Sistema's site is New Zealand's largest privately owned manufacturing facility covering 25 hectares.

Kerrect Logistics consultant Scott Kerr, who was appointed to manage the supply and installation of an integrated material handling system for the new facility, says the challenge was to design a distribution system capable of handling future throughput requirements, predominantly driven by increased export volumes.

Kerr said the material handling system was critical to Sistema's future success as it would drive the whole distribution operation from receiving products from

production to dispatching product at the container docks.

The project also had specific business and technical requirements including:

- **Urgency:** Sistema had to move from its existing premises into the fully operation new facility in 12 months.
- **Integration:** The new material handling system had to be integrated to a new Enterprise Resource Planning (ERP) software system Sistema was concurrently implementing.



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**Solution**

Dexion's proposed material handling solution for Sistema started with a careful analysis of the company's current business and future plans.
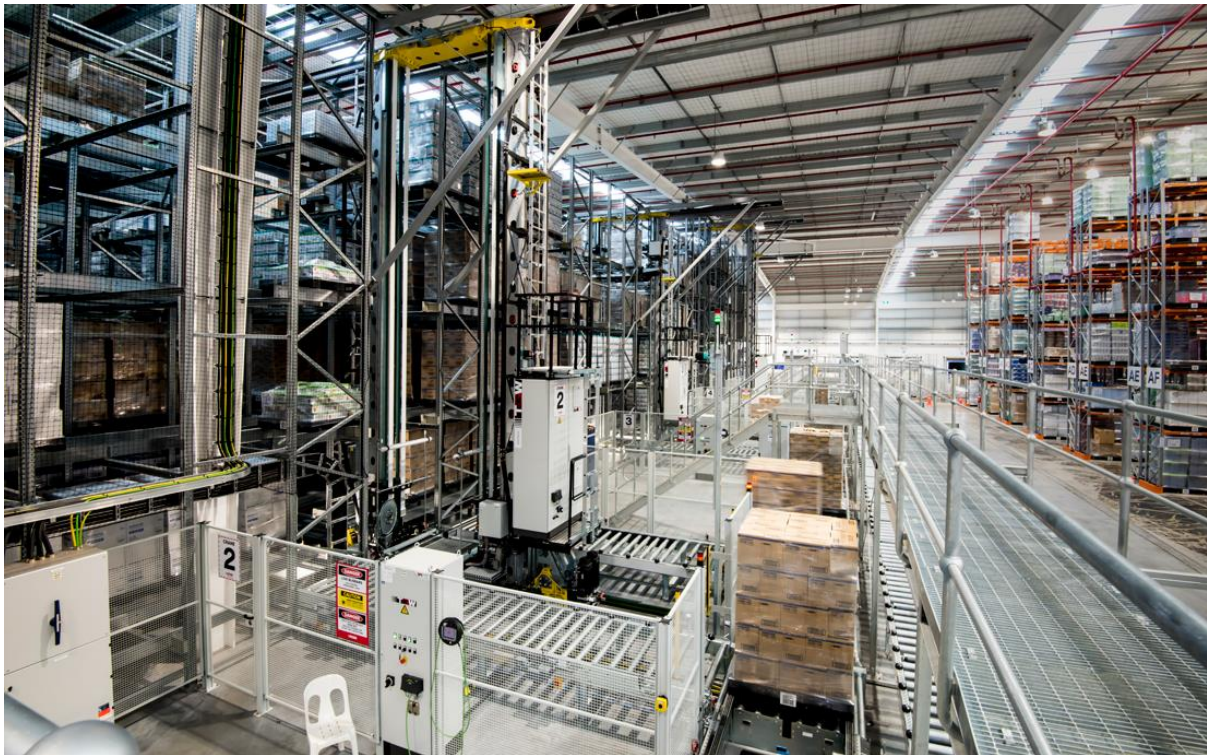
"We wanted to ensure our solution would enable Sistema to achieve its current goals and also its future growth targets by proposing a fully automated, scalable solution," says Dexion regional sales manager for integrated systems Dan Austin.

"We submitted a formal proposal in response to Sistema's request for proposals along with a solution presentation and then conducted workshops with the company to refine concepts. We demonstrated our capability by showing Sistema through sites with similar solutions to that proposed."

At the heart of the Dexion's solution is an Automated Storage and Retrieval System (ASRS) for storing and despatching pallets of product bound for export markets. The system features:

- Over 15,000 pallets of ASRS racking in multi-deep configuration

- Five storage and retrieval machines (SRMs)
- A pallet conveyor system including four pallet elevators and two high speed transfer cars
- Over 15,000 pallets of Dexion's Speedlock single-selective racking
- Dexion's Real-time Distribution System (RDS) software comprising Warehouse Control System (WCS) for control of the automation, and Warehouse Management System (WMS) for control of warehouse inventory and associated processes: receiving, put-away, replenishment, picking, dispatch, cycle counting etc.



Austin says Dexion had a dedicated and highly experienced project management team who developed the overall programme to ensure go-live at the required time.

With the ASRS installed, Sistema's manufacturing and warehousing operations are now fully integrated. Products come straight off the manufacturing line into assembly and storage – a process managed by Dexion's RDS software.

The system enables 24x7 operations – it is high density, high throughput, accurate and has the flexibility allow for growth of the business.

"Sistema uses technology to design and build its products and now with this system it has a world class material handling solution designed to meet its specific requirements," says Austin.

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**Benefits**

Dexion's material handling system is meeting Sistema's throughput and storage requirements exactly as planned with the required capacity for the future. And the software implemented by Dexion has worked seamlessly and manages all processes as planned.

Austin says the key reasons for success are:
- A strong local Dexion presence and solution development team
- Strong experience in the implementation of ASRS systems
- High quality product from Dexion and strategic partners
- An experienced and professional project management team
- An experienced software engineering team
- A strong relationship with Sistema and a team approach to delivering the solution

"Sistema staff are very pleased with the software systems Dexion has implemented in terms of managing processes and also providing visibility into performance of the various warehouse functions."

On completion of the project Sistema founder and managing director Brendan Lindsay and CEO Drew Muirhead summed up their appreciation:

"We wish to acknowledge the tremendous efforts of Dexion and the project team to deliver this solution as promised under some very demanding circumstances and challenges.

"Sistema have learnt much from this journey and, more importantly, we have collectively delivered a world class facility which we should all be proud of, in full and on time. Well done and thanks."

"We wish to acknowledge the tremendous efforts of Dexion and the project team to deliver this solution as promised."