



## Overhauling aging automated vehicles for Fonterra.

Fonterra is a New Zealand dairy co-operative, with a business that operates in over 100 countries. As a global B2B dairy provider, Fonterra goes to market through its global ingredients brand NZMP and global Foodservice brand Anchor Food Professionals, producing everything from milk powders and advanced ingredients to cream cheese and butters.

Facing challenges with aging Automated Guided Vehicles, Fonterra required an overhaul of their fleet. With our experience and expertise in the dairy industry, we began designing and building customised vehicles to transform their operations.

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## THE CUSTOMER

Fonterra

"The RML team showed commitment throughout our AGV development journey. They listened carefully to our needs, understood the challenges we faced, and turned complex issues into opportunities."

Jing Zhao

Asset Manager - Fonterra



## The challenge

The challenge Fonterra faced was that they utilise dairy-specific pallets for their powder operations, which is a unique pallet that is rarely used by companies around the world. This uniqueness meant that they required custom-built Automated Guided Vehicles (AGVs) to handle these pallets, limiting the generic options available around the world. Due to the custom built AGVs, this also meant that Fonterra found it difficult to source parts for these vehicles and have consistent service and support available to maintain their vehicle uptime.

When it came to selecting a supplier, service and support were key for Fonterra, who have a lot of sites that have one or multiple AGVs in operation. The common misconception is that if an AGV stops working, a forklift can be swapped in to takeover, which is not always possible.

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## The solution

Leveraging our extensive experience with AGV innovation dating back to the 2000s, we developed AGVs specifically suited to handle Fonterra's unique pallets. Our previous process of providing AGVs to Fonterra consisted of being provided with a pre-built AGV and then installing the operational system into it.

Given that this time we would be designing and building AGVs from the ground up, significant engineering efforts were invested to ensure the design we provided Fonterra was flexible, future-proof, compatible with their existing infrastructure, and would streamline their operational process.



## The solution continued...

When tasked with upgrading Fonterra's fleet, our innovative nature meant we were not content with providing the minimal viable solution. Instead, we set out to provide an improved solution that increases safety and system throughput without sacrificing operational efficiency. Designed to the latest ISO-3691-4:2023 standard and equipped with innovative steerable safety field technology, our AGVs can turn faster and with a higher degree of safety than the AGVs being replaced.

Total cost of ownership was also a key factor for Fonterra in choosing a supplier to upgrade their AGV fleet, as long-term operational support was required. They also made it a point of emphasis to have a local supplier that had service and support based locally within New Zealand and were able to provide quick response times and ongoing maintenance to their extensive fleet of vehicles.

This is our point of difference, as we provide service and support to our customers for life, which is beyond the 10 to 15 years that Fonterra requested.



## Impact on Fonterra operations

- **Enhanced reliability & longevity:** AGVs are built to last longer, reducing downtime and total operational costs.
  - **Operational efficiency:** The new AGVs reduced operator overhead and improved site productivity.
  - **Support & collaboration:** The ongoing, responsive collaboration ensured continuous improvement and maintenance support, strengthening the partnership between Fonterra and RML.
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## The challenge continued..

For sites with multiple AGVs in operation, a single stopping point would significantly reduce production output, which is another reason why Fonterra needed a supplier that could readily provide both remote and onsite service and support to maintain their production.

Another challenge that Fonterra sought to solve was dealing with an aging fleet of AGVs, with many being over 10 years old and approaching the end of their lifespan. The age of these vehicles made sourcing parts and obtaining upgrades from original manufacturers a challenge, making it difficult to maintain operational reliability.

This made it crucial to have a solution that could provide Fonterra with this given that they operate 24/7 and have rigorous standards in place to ensure that equipment maintains high levels of efficiency and reliability.



*RML Automated Guided Vehicle Renders*



This project showcased our ability to apply extensive experience in the dairy sector to cutting-edge automation technologies. We stay in touch with the specific needs of companies in the dairy sector, with AGVs being the next advancement in enhancing our customers' operations.

Following the deployment of RML AGVs for Fonterra at three sites, work continues as there are still other vehicles to be deployed. We have also continued to support Fonterra as the AGVs continue to go through ongoing development. With a partnership lasting many decades between our two companies, we remain committed to being a partner in future-proofing Fonterra's manufacturing and production by providing world-class automation systems.

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**NEW ZEALAND**

☎ +64 7 849 3215

✉ sales@rmlnz.com

**AUSTRALIA**

☎ +61 1300 060 407

✉ sales@rmlau.com.au

**We love solving challenges that free our customers and maximise human potential.**

