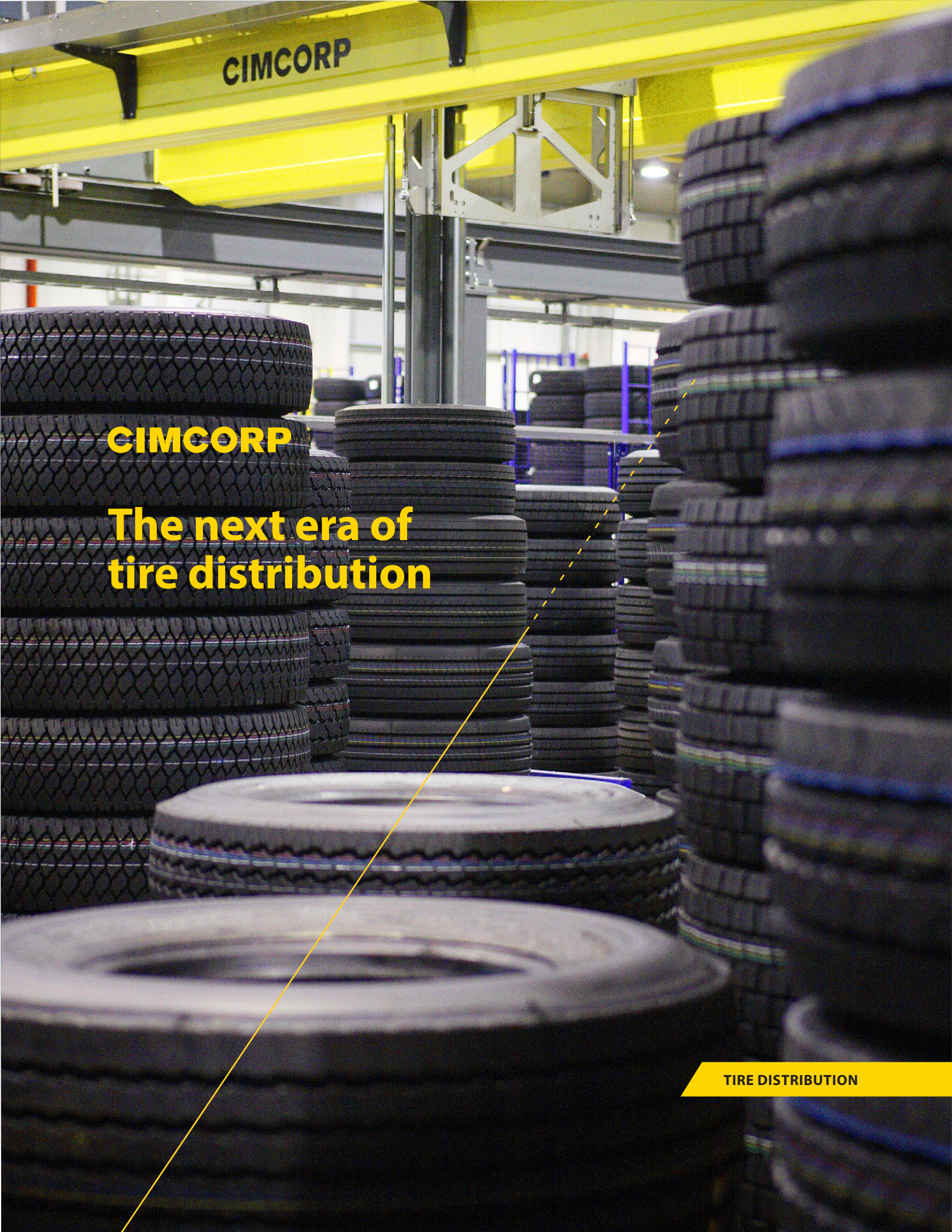


CIMCORP

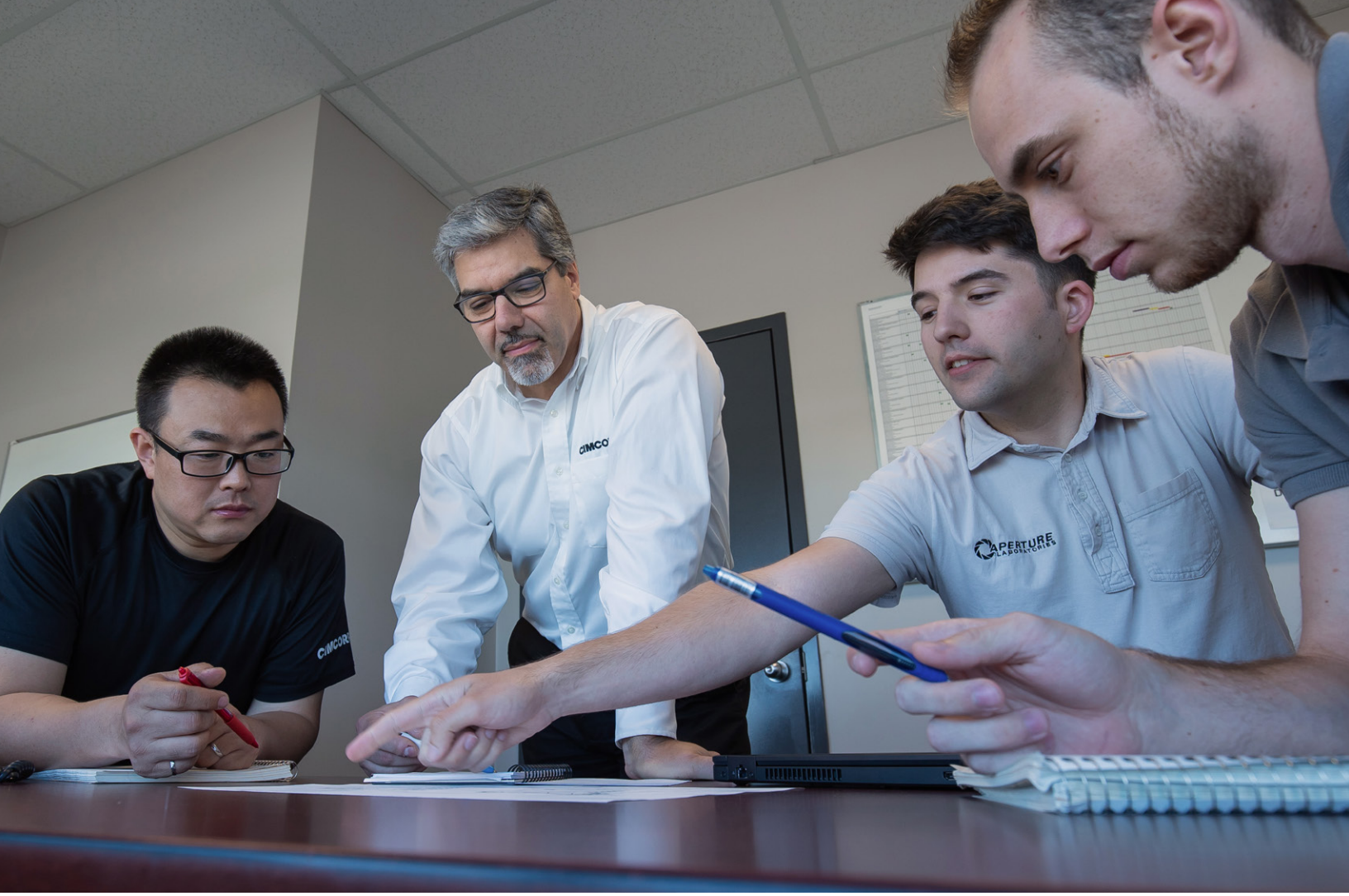
The next era of tire distribution

TIRE DISTRIBUTION

"The next era of tire distribution" addresses the increasing importance of automating order fulfillment in the distribution process for tire manufacturers, 3PLs and retailers. It explores the current trend of the tire industry choosing to install automated systems in new facilities as well as automation solutions for manufacturers/ distributors with existing brownfield facilities.

This paper will discuss the benefits of converting to an automated facility, including improvement in the overall quality of the manufacturing process as it relates to; product damage, increases in inventory accuracy, picking accuracy, traceability, reducing environmental footprint and labor health and safety issues.

"The next era of tire distribution" paper will also highlight the successful implementation of Cimcorp's Dream Factory in the largest retail distribution center in Canada.



Taking the tire industry to the next level

In order to meet customer demands and service expectations, tire suppliers need to rely heavily on their warehouses to use the most advanced processes to ensure the end consumer is given a high-quality experience and product when they need it. These cutting-edge processes are taking the tire industry to the next level. In doing so, we have officially reached the next era of tire distribution innovation.

Current trends are showing the importance of moving from manual systems to automation in the warehouse. Automated systems can help tire distributors improve the overall quality of the order fulfillment process, achieve 100-percent traceability and accuracy, all while reducing costs, human error and damage to products. Fortunately for all distribution facilities, these standards can be reached in not only newly constructed (greenfield) warehouses, but also in older, existing (brownfield) facilities that still use manual processes.

THE DREAM FACTORY APPROACH

Cimcorp offers its Dream Factory approach, a fully automated handling solution for tire manufacturing and distribution–a benchmark of the new era. The single end-to-end material handling solution includes an optimized layout design that utilizes 50 percent less floor space than conventional solutions and handles raw materials and compound products. Additionally, it has the capability of integrating with shipping trailers, conveyor systems, automatic tire identification systems, AGV systems and other specialty equipment. The Dream Factory can generate cost savings of up to 50 percent by simplifying material flow.



MAKING A DREAM A REALITY

Cimcorp's Dream Factory has given the tire industry around the globe a solution proven to meet goals and exceed expectations. For example, the largest tire distribution and consumer goods retailer in Canada needed to build its new tire distribution center with automation capabilities in order to service the central Canadian market: Ontario, Quebec and part of Western Canada.

Creating a facility with automated systems and gantry robot technology integrated throughout allows for a smoother overall process and real-time traceability along the way. The retailer now has the capability to receive tires at the distribution center in trailers, transfer them on a conveyor system and ultimately bring them to the automation process. Tires are automatically identified and then reconciled with the trailer manifest. They are then entered into the gantry automation where they are cross docked, or palletized by like product for put away into a high-bay storage area for future gantry replenishment.

Electronic orders are communicated to the automation system via the Warehouse Management System (WMS), which directs the gantries to pick those orders and place them in outbound stations. From there, they are pushed to the outbound doors and sent to the retail store.

The Dream Factory approach has immediately given the Canadian company the advantage of being able to handle tires on demand on a daily basis, and with much larger peak volumes when special store promotions are running. With less human intervention, it decreases the likelihood of product damage and improved worker ergonomics in both health and safety. Additionally, the distribution center achieves a high level of accuracy in tracking tires through the facility and has rapid order fulfillment with reduced level of errors. The advanced software provides total control of material and data flow, and allows for precise, real-time data to be gathered, ensuring intelligent decision-making for production and inventory management.



GETTING A HEAD START

For tire manufacturers and distributors looking to get ahead of the competition, they should look to automate their facilities–old and new. By doing so, they can gain:

- Total control of their manufacturing / distribution processes at each stage.
- Real-time data for inventory management, including 100-percent availability of product at each point in the handling process.
- Optimum utilization of the automation to satisfy consumers demands and generate return on investment.
- Streamlined material flow that allows facility managers to minimize buffering and maximize efficiency.
- Minimized capital investment for greenfield sites through optimized layout design.
- More efficient use of space and increased capacity within strike out given building constraints in brownfield sites.





A SOLUTION FOR EVERYONE

Keeping up with current trends is never an easy task. It can appear to be costly, overwhelming and at times seemingly difficult to justify. However, it is impossible to meet rising customer demands without proper, up-to-date automation and innovation. So as we enter this new era, it is important to upgrade your processes and technology. Analysis often proves that the way to do this is by building an entirely new facility, considering the customers' growth. Cimcorp, however, has changed the game again, by now offering a system that streamlines the manufacturing process for both greenfield and brownfield facilities. The unique solutions are tailored for each manufacturing and distribution process which can be installed in new and existing plants as either a one-time deployment or independently through a scalable and phased implementation. Automating your warehouse will ensure your product keeps on rolling to market.