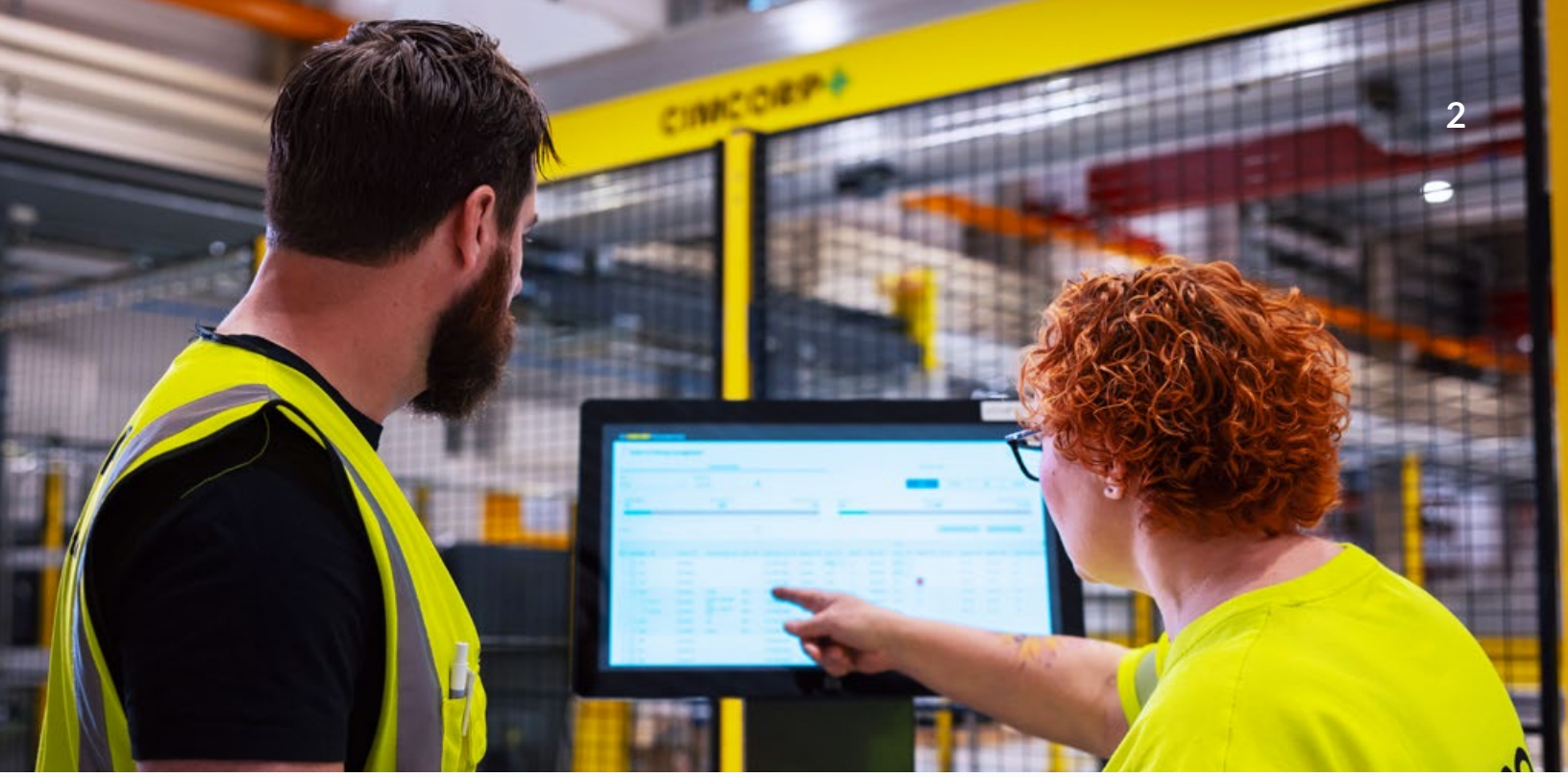


How to integrate 1.4 million data points

A deeper dive into the Dream Factory solution by Cimcorp

CIMCORP
FUTURE OF AUTOMATION



Fore word

The power to change the future lies in excelling in the present and investing in digital transformation to ensure success tomorrow.

CUTTING THROUGH THE clutter of outdated processes and systems is the only way to thrive in the era of Industry 4.0.

THIS EBOOK looks at the future of tire manufacturing from the perspective of a tire industry solution integration pioneer.

THE FOLLOWING sections examine how tire manufacturers can step into the future of tire manufacturing thanks to Cimcorp's modular end-to-end solutions.

CIMCORP'S NOVEL block-by-block approach connects all the manufacturing cells and phases the automation to transform the factory.

THIS PHASED implementation is easy to manage and delivers a fast return on investment for market players.

BOOST YOUR COMPETITIVENESS IN LEGACY FACTORIES OR START A NEW TIRE PLANT.

REACH OUT TO BEGIN YOUR JOURNEY
WITH THE LEADING AUTOMATION PARTNER.

Tire industry outlook

According to a report by Morgan Stanley, the tire industry is 'thriving'. The report indicates that cars are expected to drive 19.6 billion miles globally by 2030.

THE PANDEMIC DID not halt rising demand, as the industry recorded over 2.1 billion units of production worldwide in 2021. Global tire production volumes will continue to see a 3.6% CAGR over the next five years.

IF WE ZOOM in on the European tire market, we see that in 2021 it stood at more than 44 million units, with a CAGR of approximately 3.84% by value until 2027. This predicted growth is attributed to multiple factors, including increased consumer demand for durable and reliable ultra-high-performance tires.

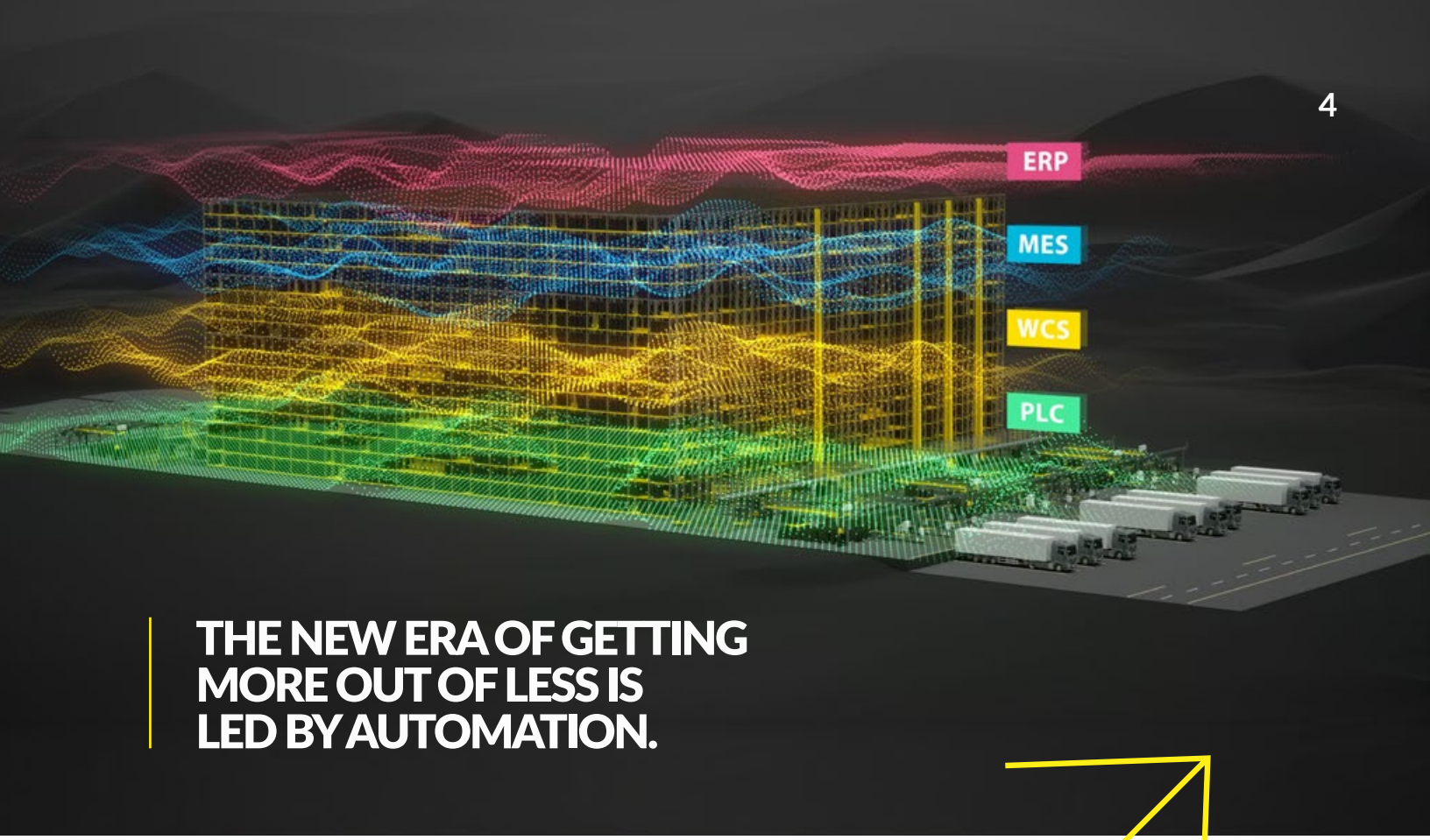
SUPPORTED BY HIGH European consumer living standards and growing per capita spending on luxury vehicles, demand for advanced, premium-quality tires is rising.

POST-PANDEMIC TRENDS in the European tire market include accelerated e-commerce growth, fast adoption of green tires and profitable investment by tire manufacturers in Europe.

WHILE THE MARKET is expected to see robust growth over the next five years, tire makers continue to navigate pressing challenges caused by the pandemic and industry shifts, including labor scarcity, changes in factory safety protocols post COVID and demand for sustainable and agile supply chains.

GLOBALLY, TIRE FACTORIES produce more than 500,000 units daily, nudging industry giants to invest in reliable and efficient automated solutions to respond to soaring demand.





THE NEW ERA OF GETTING MORE OUT OF LESS IS LED BY AUTOMATION.

More out of less

The tire-manufacturing industry has recorded extraordinary innovations for over 130 years, revolutionizing its product range and pushing innovation in its factories to parallel that of the automotive industry.

TODAY, PRECISION is front and center of tire manufacturing, so there is no room for errors, mistakes or delays. More than 70% of tire plants rely on automation.

UPDATING THE OLD in tire manufacturing means moving away from outdated, isolated processing areas (cells) toward an integrated process spearheaded by data.

THE OLD TRIFECTA of project constraints (cost vs. quality vs. efficiency) is a myth, as automation and robotics have reinvented the formula. The new era of getting more out of less is led by automation.

↗ LEARN MORE.

Making tire industry dreams come true

For more than 30 years, Cimcorp has partnered with tire industry leaders to produce strategic, streamlined automation solutions.

DRIVEN BY a passion for optimizing material flow, Cimcorp has delivered over 2000 logistics automation solutions in 49 countries across five continents.

CIMCORP, INTEGRATOR of pioneering material handling systems for the tire industry and part of the Muratec family, has provided innovative solutions for seven of the world's top ten global manufacturers in the field.

CIMCORP'S DREAM FACTORY brings industry dreams to life. The Dream Factory solution integrates robotic handling technology with warehouse and material handling systems to create a single, end-to-end solution. We do it all, from brownfield retrofits to fully automated greenfields.

DESIGNED TO RUN at 100% production capacity in half the space and for half the investment, Dream Factory is state-of-the-art automation for the tire industry.

THE SOLUTION JOINS our advanced systems, robots and software into an end-to-end handling solution connecting all machinery and equipment under an integrated execution software system.

WHILE ROBOTICS handles the flow, the intelligent execution system optimizes real-time data from every touchpoint in the factory.

> "We get more out of less, thanks to our expert talent network and modular approach to automation," says **Veli-Matti Hakala,** CEO of Cimcorp Group.



Dream Factory in numbers

2.1M
TIRES HANDLED EVERY DAY WORLDWIDE

10/10
TOP 10 TIRE MANUFACTURERS SERVED

100%
TIRE TRACEBILITY

1.4M+
DATA POINTS MANAGED



Storage efficiency

Optimizing the material flow in a tire factory starts with efficient raw material storage and handling, coupled with automated transportation for mixing and compounding.

THE DREAM FACTORY solution utilizes an automated high-bay warehouse (HBW) and stacker cranes to store raw material and compounds, while automatic guided vehicles (AGVs) automate the transportation of materials from the warehouse through mixing and compounding to component manufacturing.

COMPLETE AUTOMATION of the handling and transportation process throughout the initial manufacturing stages builds a solid foundation and accurate utilization of raw materials in the warehouse.

SEAMLESS SYNCING of machinery and the manufacturing execution system establishes total control of raw material flow from the get-go.

MANUFACTURERS SEE the returns of automating the warehouse and compounding areas in reduced labor costs, storage density, higher material flow capacity and increased utilization rates for process machines.

↗

TAKE A TOUR OF THE DREAM FACTORY SOLUTION WITH 100% MATERIAL FLOW CONTROL AT THE TIGAR TYRES FACTORY.

Curing returns

The green tire area is where the money is for manufacturers. It is where ROI is measured.

AUTOMATION PIONEERS demonstrate the capabilities of their solutions and systems through optimal utilization of the curing machinery to maximize production profitability.

CIMCORP RELIES ON innovative systems – including gantry robots, monorail transfers and conveyor systems – to automate the transfer process, curing buffer and press delivery.

THESE SYSTEMS WORK hand in hand to ensure quality handling of tires, avoid bottlenecks in production and maximize curing press utilization.

DEPENDING ON the production capacity of each factory, Cimcorp uses intelligent green tire storage that includes pallet and mezzanine types for efficient space utilization. Muratec's miniload storage system is the preferred storage option for high-production factories.

CIMCORP CUSTOMERS can manage the entire tire factory from a simplified mobile interface, including a green tire production dashboard that helps operators in the tire production area and management to oversee production targets.

THE DREAM FACTORY solution connects the process and equipment with real-time decision making.

↗

CAN WE ACHIEVE YOUR DREAM ROI?

CONTACT SALES TO FIND OUT.

> “The beauty of the Dream Factory solution,” says Cimcorp’s VP, Corporate Sales, “is that it brings all these systems and devices under one umbrella, integrating hundreds of machines into one simplified interface.
>
> All the systems and material handling equipment work seamlessly together to operate the machinery and transfer the tires from one area to another.”





Finishing well

Once the tires are finished, they undergo precise inspection and testing.

NOT ONLY ARE the software and systems working together to optimize the flow of finished tires, but through data tracking and a real-time handling process, decision-makers can make fast and informed decisions on the next steps of the tire journey.

FINISHED TIRES GO from testing and palletizing off to the warehouse for shipping. Take a look at Cimcorp's finished tire automation process. The machinery controlled by the manufacturing execution software receives the tires, and the testing machines sort the tires by classification for optimal storage before picking the units for palletizing.

THE FULLY AUTOMATED warehouse and robotized order picking eliminate any safety costs and fulfill customer delivery requirements in record time. Dream Factory solutions ensure tires are shipped in as little as 20 minutes.

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WATCH PETLAS TIRE CORPORATION SHARE INSIGHTS ON INCREASING PRODUCTION CAPACITY IN THE TIRE FINISHING AND PALLETIZING AREA.







Teamwork makes the dream work

We speak your language — global expertise delivered by local project leaders. Our motto is that we are locally global. The locally global approach to post-installation services ensures efficient cost levels and credible support.

ONCE AUTOMATION IS installed, the remaining steps of the project are critical for manufacturers to ensure 100% uptime. Automation solutions have over 20 years of lifetime; with that, automation experts must predict how these solutions perform under future demand shifts and product portfolio changes.



Services Manager at Cimcorp, believes securing automation with vigilant upkeep is the answer:

"Our consultants do not stop at delivering intelligence to our customers; they go the extra mile to ensure their peace of mind after project delivery. We understand our customers' business demands and see ourselves as a lifetime partner, working hand in hand with our customers to secure their supply chain."

THROUGH ONE SINGLE point of contact, customers get around-the-clock local experts to help with any issues or challenges. Cimcorp's customer care success comes from our consultancy; the Success Services team takes a proactive and risk prediction approach to service.

CIMCORP OFFERS customers four highly customizable customer success approaches to deliver on the 100% uptime guarantee: Uptime Services, Upgrade Services, Lifecycle Consulting, and Certified Spare Parts.

AS A GLOBAL GROUP, we function in various countries, together with various cultures. By combining global excellence and local expertise, we achieve an uncompromising quality of service for our customers.

CHECK OUT the Success Services inventory to discover more about Cimcorp's automation care.

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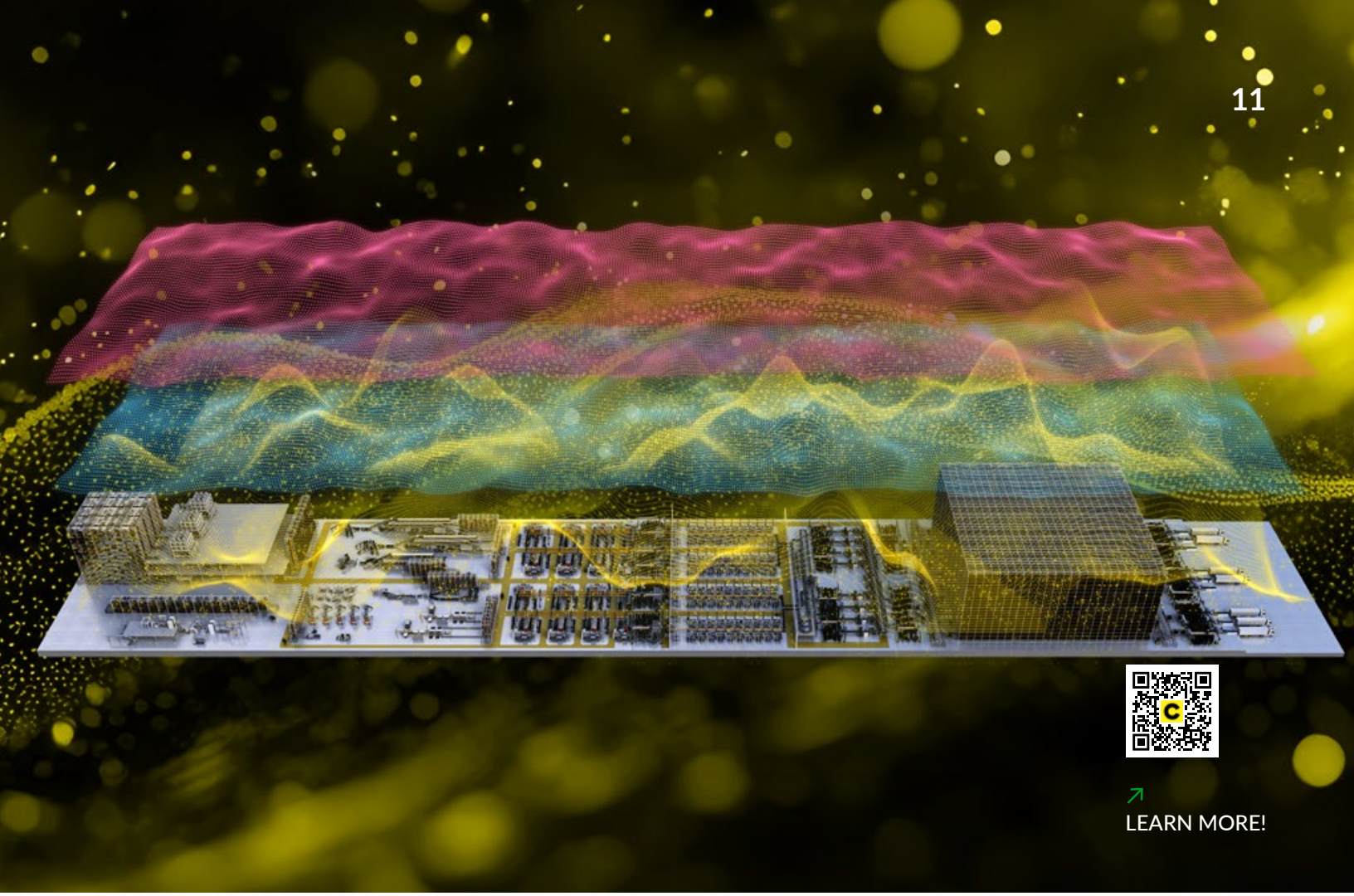
WATCH DIETMAR JOBES, MAINTENANCE MANAGER AT CONTINENTAL'S AACHEN TIRE FACTORY, SHARE THE THREE ESSENTIAL FACTORS FOR AUTOMATION SUCCESS.



SINGLE CONTACT POINT

Success Services for automation

↗ **UPTIME** ↗ **UPGRADE** ↗ **SPARE PARTS**



LEARN MORE!

Rolling out the new

To roll out the new is to find the best ways to build on legacy facilities, one block at a time.

WE UNDERSTAND that each customer's manufacturing journey is unique, and so are the appropriate steps to take towards automation.

AT CIMCORP, we believe that small, measured steps are the building blocks for the Dream Factories of tomorrow. Even if the brownfield plant was not built for automation, Dream Factory's modular layout and design can build on legacy facilities.

START A DISCUSSION ON HOW TO TAKE YOUR FACTORY TO THE NEXT LEVEL

WITH OUR SALES TEAM:
sales@cimcorp.com


Dream Factory
Boost your productivity.
EASY
EFFICIENT
RELIABLE
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