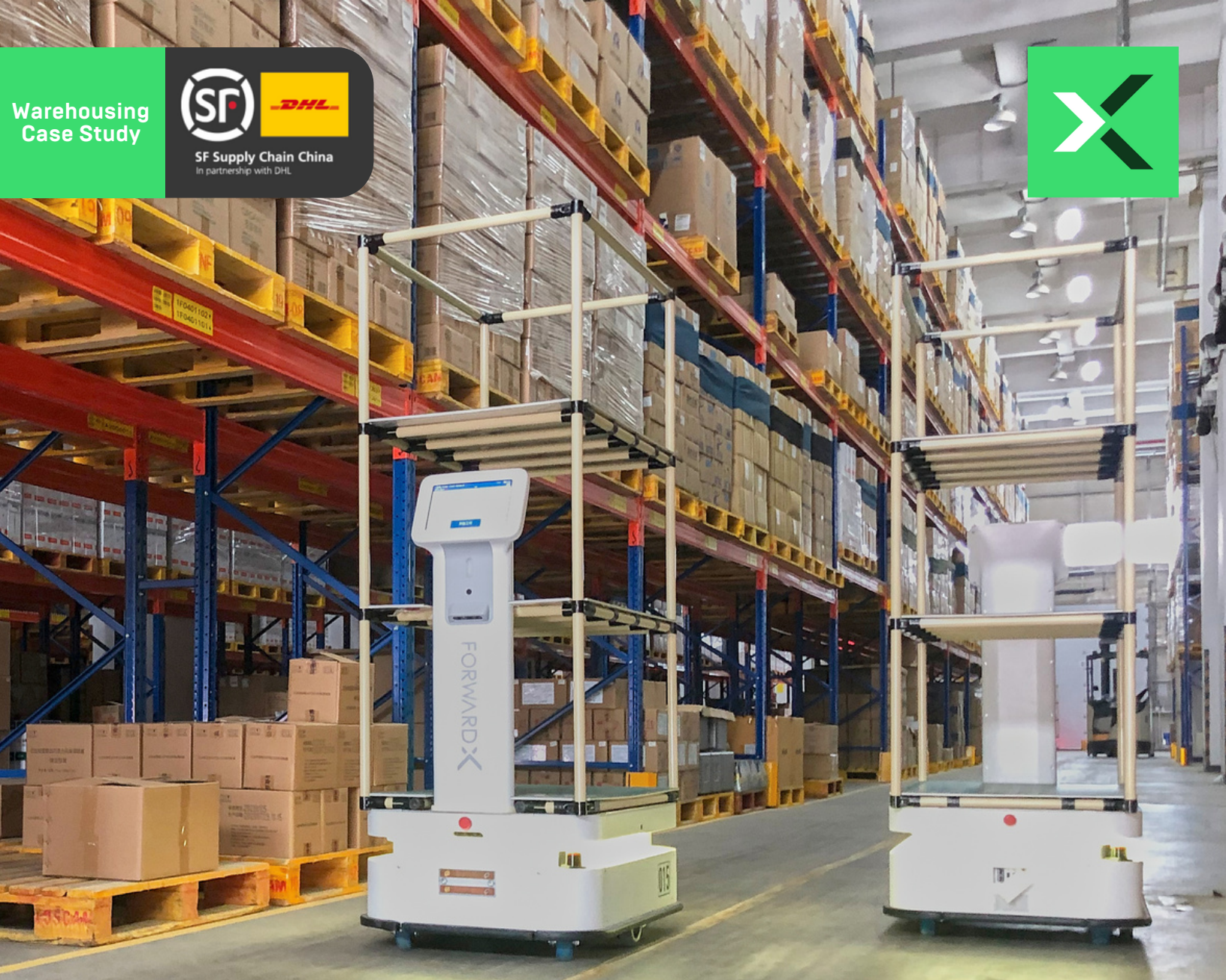


Warehousing
Case Study



SF Supply Chain China
In partnership with DHL



DHL Partner, SF Supply Chain

Intelligent Automation
for Warehousing

www.forwardx.com

ForwardX
Robotics



CASE STUDY

SF DHL's Beijing warehouse provides warehousing and distribution services to one of China's largest coffee brands, supporting over 600 retail locations.

The distribution center measures around 75,000 square feet and handles about 1,000 SKUs. Distributing to retail stores, the warehouse typically processes 10 shipments per day.

OVERVIEW

The warehouse used traditional manual picking methods, with paper pick lists and manual pick carts prior to implementing the project with ForwardX Robotics. SF DHL needed a solution that would increase productivity, reduce errors, and bring down recruitment and training costs. With roughly 1,000 SKUs across a warehouse floor of over 75,000 square feet, simplifying workflows and reducing long walks was key.



Our main problem before introducing AMRs was that our productivity and efficiency were just too low and our labor costs were too high. After careful consideration of various solutions, we chose to implement ForwardX Flex AMRs.

PAIN POINTS

- **Low Productivity**

Traditional manual picking methods led to pickers needing to cover large walking distances daily. Limited picking productivity made it difficult to keep up with growing volume

- **High Error Rate**

With many similar SKUs and a network of over 400 retail stores to distribute to, traditional picking and sorting methods led to high error rates. The low level of digitization meant errors were not caught until it was too late and the cost of rectifying these errors led to significant financial loss.

- **High Recruitment & Training Costs**

Seasonal peaks and changes in demand led to high recruitment costs and often left the warehouse under staffed. Additionally, the complex workflows made training difficult, expensive, and time-consuming.



**Jinhui Hao, SF DHL's
Operations Manager**

BENEFITS

ForwardX's solution consolidated the distribution center's picking, packing, and sorting workflows into a single seamless process. According to the solution, AMRs and order pickers act independently as orchestrated by f(x) Fleet Manager. Once united, Flex AMRs direct order pickers through the picking, packing, and sorting workflows to ensure accuracy and speed.



Since deploying, we've seen huge increases in productivity and efficiency, significant reductions in labor costs, and our error rate has improved too.



SOLUTION

SF DHL Supply Chain China implemented ForwardX's Flex 300-S AMRs to automate picking and sorting workflows in their Beijing distribution center. The leading third-party logistics provider was able to reduce labor costs by 30% and achieve over 2x improvement in workflow productivity.

01

Travel Time Reduction

Freeing pickers from long walks, ForwardX AMRs allow pickers and sorters to contribute maximum value to its operations.

02

Simplified Workflows

On-screen directed workflows and real-time data visualization capabilities allow the DC to continuously improve processes and increase performance.

03

Rapid Deployment

With zero need for remodeling around the solution, deployment was done within 2 weeks. This results in low-cost deployment with unaffected operations and a faster ROI.

RESULTS

30%



Operational Cost Savings

90%



Error Rate Reduction

2x+



Productivity Increase



ForwardX Robotics

ForwardX Robotics is a global leader in vision-based AMR technology, delivering innovative end-to-end material handling solutions for warehousing and manufacturing facilities. With its advanced fleet management software and the widest range of vision-first Autonomous Mobile Robots (AMRs), ForwardX Robotics helps businesses achieve higher performance and value within their supply chain operations. The company is comprised of over 250 members hailing from top universities and leading enterprises around the world. As shown by the 350+ patents and its award-winning research work, such as Frost & Sullivan's Best Practices Award and Robotics Business Review's RBR50 Innovations Award, ForwardX Robotics continues to push the boundaries of innovation.

ForwardX has deployed over 3,000 AMRs in over 220 facilities across 4 continents. With offices in the US, Japan, Korea, and China, along with partnerships around the globe, ForwardX is expanding and applying its proven solutions to empower the workforce of tomorrow.

Contact Us



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