Collaborative Trust Delivered Success

When Swedish agricultural machinery maker Väderstad built a new state-of-the-art paint facility, it asked Danish group company Caldan Conveyor to provide the automated overhead conveyor system—and to co-manage the entire project with several other suppliers. Deploying its expertise in surface treatment solutions and taking a uniquely collaborative approach, the Industrial Automation company successfully delivered this complex conveyor solution.

Rising nearly seven meters above the floor, weighing 33 tons and with a track length of 780 meters, the overhead conveyor is an impressive centerpiece at the new Väderstad paint line. It transports 2,000 kg of products with a tact time of 6 minutes. The agricultural machinery manufacturer uses the overhead conveyor to transport heavy components through its paint shop before assembling the machines.

The project began when Väderstad, based on the countryside in central Sweden, approached Caldan's Swedish sales manager, Marcus Henningsson, about an overhead conveyor system for transports within the new and fully automated paint facility.

"I had previously worked with Anna Frostemark, their coating process developer, during her time at a previous employer. Personal contacts are valuable in our industry, which is highly specialized with only a handful of suppliers. Caldan has always viewed this through a lens of partnership, rather than simply as a customer relationship," says Marcus.

Partnering for growth and efficiency

Väderstad, a family-owned business with a three-generation legacy, had outgrown its current paint line, which was running 24/7. A new facility was essential. Anna saw Caldan's overhead conveyor systems as the ideal mix of data-led automation and high-end quality.

"We were looking for the best possible technical solution but also a supplier who shared our values and understood our needs while being able to collaborate with all stakeholders in this significant project. In short, we wanted the highest possible value on our investment," Anna says.

Marcus invited Anna to observe similar systems at Caldan's other customer sites. He also arranged a visit for the maintenance teams, process engineers and operators to Caldan's state-of-the-art Academy in Galten, Denmark. Bringing the whole team together opened doors for strong collaboration. By spring 2023, the two companies had signed a contract.

"The reference visits to Caldan were very important," Anna says. "They enabled our co-workers to see what we were getting, like introducing us to a new type of lift, which we now have in our new paint shop."

Decentralized structure

The project had a unique decentralized structure, assigning Caldan and the other suppliers the responsibility of co-managing the entire process—a contrast to the typical European approach, where customers usually appoint a general contractor or system integrator to coordinate and control projects.

"We are a small team and we can't be involved in every little detail so it was vital that our suppliers could talk together and iron out small details themselves. I also have experience in running projects like this and hence why we could take a different approach. The collaboration was excellent from day one," Anna says. →

The unit transports heavy components to its paint shop before assembling them into its high-speed Tempo machines - the world's fastest seed planters.

Marcus adds, "Väderstad made it clear they expected all suppliers to coordinate and work as a team. Collaborating from sales to final implementation is a very rewarding way of working, and part of our success. The people involved were great, and everyone worked together constructively, with openness and trust. When issues arose, we solved them proactively as a team. Open communication, where everyone can contribute, is much more effective than going at it alone."

Valuable experience and insights

Søren Thygesen, Caldan's R&D Manager notes that seeing the project through from start to finish was rewarding and provided valuable lessons for the future.

Caldan expanded its project management organization by assigning specialized project managers for electrical and mechanical aspects, simplifying internal coordination between departments.

"Specific project managers oversee each project. This significantly improves coordination; having an in-house organization equipped to handle complex systems and meet end-user needs is crucial, regardless of the project set-up," Søren explains.

Søren believes the knowledge gained from this project will benefit Caldan as they continue to expand their geographical footprint.

"Complex projects, where you work directly with end-users, are not easy. But we learn something new every time, increasing our experience and capacity as a solution provider to both system houses and end users," Søren says.

Søren Thygesen
R&D Manager
Caldan Conveyor, Denmark

Overcoming technical challenges

Technically, the project was complex. Understanding the internal logistics to prevent bottlenecks and meet capacity requirements was essential. A complete view of internal plant logistics was necessary to govern how wagons traveled within the system and synchronized with component inputs and other process steps.

To achieve this, Caldan's control system was integrated with Väderstad's business management data system, ensuring each product received the correct treatment through a high level of automation and minimal human intervention.

"The entire unloading process from the conveyor is automated, making this a flagship industrial automation project for us," Marcus explains.

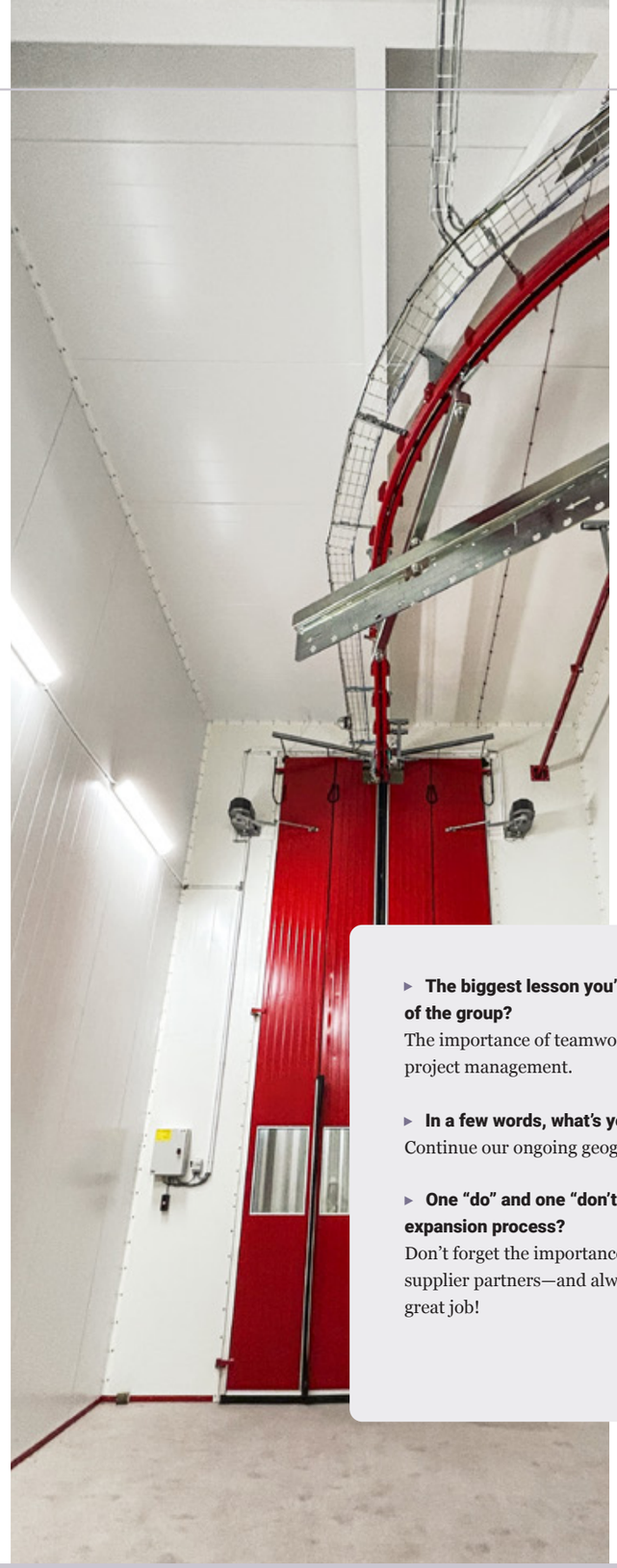
Looking ahead, Caldan plans to deepen its data-driven capabilities, expanding its offerings in this field. "The high-end data-driven functionality will bring many opportunities for our conveyor systems going forward," Søren says.

Alongside its expertise in mechanical systems, Caldan now has an extensive in-house electrical & controls department that can drive data integration with Industry 4.0 and connectivity.

"This is the next step," Søren says. "The Väderstad project gives us proof of concept."

Now fully operational, the paint facility has doubled its capacity and is set to play a critical role in accelerating the company's growth in Europe and new markets such as Australia and Latin America.

"The demand for our seed planters is growing. The extra capacity we now have will help us meet the growth in our markets, supporting more farmers to optimize farmlands and secure sustainable food production for generations to come," Anna says.



▸ **The biggest lesson you've learned from being part of the group?**
The importance of teamwork and structured internal project management.

▸ **In a few words, what's your growth strategy?**
Continue our ongoing geographical expansion.

▸ **One "do" and one "don't" when leading an expansion process?**
Don't forget the importance of collaboration with your supplier partners—and always make sure you do a great job!

▸ **Your top priority for the next 12 months?**
Continue to deliver best-in-class conveyor solutions to our customers around the world.

▸ **What's the most exciting opportunity you see ahead?**
Expanding our geographical footprint and making strategic acquisitions, and as always, helping our customers leverage increased automation by continuing to deliver solutions that go beyond the product itself.

Søren Thygesen
R&D Manager, Caldan Conveyor
Marcus Henningsson
Sales and Project Manager, Caldan Conveyor