

Smart conveying systems for sustainable logistics

Differentiate with tailored, connected conveying equipment

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New challenges and opportunities

Transformation challenges for conveying in logistics

Let's put it bluntly: advanced automation and digitalized conveying systems are no longer just an option for logistics industry players. They are a prerequisite for remaining competitive.

Indeed, a number of trends have driven the logistics industry to re-examine its operations and look more closely at its environmental impact, including:

- The growing need to combat climate change
- High e-commerce demand caused by the COVID-19 pandemic
- The need for critical deliveries
- Staffing instability

In this context, industrial enterprises need more innovation, automation, and efficiency at all levels. This is vital not just for the sustainability of the planet, but also for distribution and delivery to end customers in the quickest possible time.



Transformation challenges for conveying in logistics (cont'd)

Conveying equipment systems must therefore be made to meet these requirements, so that facility managers can more easily achieve:

 Agile management and system efficiency

 Asset performance management

 Energy efficiency and system reliability

 Empowered operators

Achieving these goals requires a pro-active mindset to implement changes covering emissions scopes 1–3:

- **Scope 1:** Direct emissions from sources an organization owns or controls
- **Scope 2:** Indirect emissions associated with electricity production
- **Scope 3:** Emissions related to supply chains

74%

rise in global demand for e-commerce a month into the COVID-19 pandemic

Sources:
COVID-19 Crisis Drives Changes in e-Commerce Purchasing Behaviors, ACI Worldwide Research Reveals.” AP News, 2020.

80%

of a typical consumer company’s total carbon footprint is supply chain-related emissions

Sources:
EcoAct, Arabesque Temperature score, American Chemical Society, CDP global supply chain report 2019

Waking up to a new logistics industry

COVID-19 and global warming may have accelerated the need for change – but the Internet of Things (IoT) and digitization had already started shaping the logistics industry through:

- **Shifting market trends:** Changes in consumer behavior, as well as climate, geopolitical, and social developments have led to increased e-commerce and omni-channel marketing, demand for greener packaging, and challenges such as volatile energy prices, generational shifts, and growing competition
- **Empowering data and predictive analysis:** With IIoT, cloud services, and advanced automation
- **Making sustainability achievable:** A greener industry has become vital and possible

Data and predictive analysis

- Cloud
- IIoT
- Mobility
- Cyber and physical systems
- Renewable energy
- Robotics and advanced automation

Logistics industry imperatives

- Sustainability
- Growth
- Capacity expansion
- Operational efficiency
- Return on assets
- Flexibility
- Workforce evolution



Market trends

- e-Commerce
- Omnichannel
- Greater competition
- Tight labor market
- Package size and shape
- Energy and material price volatility
- Generational shifts

Waking up to a new logistics industry (cont'd)

The trends and technological advances mentioned on the previous page have created new opportunities for stronger cooperation between OEMs and facility managers, making it easier to overcome the challenges of real-time, end-to-end supply chain visibility with:

- The digitization of operations
- Sustainable delivery of those products to the end consumer
- The ability to link consumer data back to suppliers

Evolving technologies create new possibilities

Solutions such as supply chain control towers, which currently serve the role of providing connected, personalized dashboards of data and the tracking of key business metrics and supply chain events, will continue to evolve. They will begin to address both the mitigation or the management, of events happening upstream, such as supply shortages, and help better manage the reaction to and reception of end products downstream, such as consumer buying habits.



Partnering for digitization

Accelerate modernization through partnerships

The digital transformation of industry is now accelerating at great speed and is now an imperative for logistics firms.

But such a massive change is a daunting prospect to many business – and no single organization can manage the scale of digitization on its own. Partnerships will be critical to achieving success and moving toward smart logistics.



What can the right partner do for you?

Simply: The right partner can offer you the solutions and expertise you need to move confidently toward smarter logistics.

Machine builders who embrace IT/OT convergence using open Schneider Electric architectures benefit from reduced project risk and deployment times. We have upgraded our own internal distribution center and warehouse operations, and we perfectly understand how best to design, build, and operate digital solutions across logistics conveying operations.

Digital machine and automation control solutions from Schneider Electric simplify how OEMs interface with the information, documentation, and products they need

to exceed end-user expectations. As a result, concept-to-commissioning time for such products can now be reduced from months to weeks, with reconfiguration times dropping from weeks to days.

For logistics and material handling firms, our experts work to seamlessly integrate OT automation with IT and extend the power of data analytics. This ultimately helps improve digital order entries, the warehouse and distribution facility's inbound and outbound traffic management, robotics deployment, and shipment tracking, resulting in several business advantages such as cost and time savings.



What can the right partner do for you? (cont'd)

73%

of Schneider Electric's investments go toward developing more sustainable solutions

#4

Schneider Electric ranked fourth on Gartner's Supply Chain List of the top 25 global leaders in 2020

#1

Schneider Electric won the 2020 Power of the Profession Awards for its "smart logistics" solutions



Smarter equipment for smarter logistics

Driving end-to-end efficiency in logistics

For OEMs, system integrators, and end users, achieving smart logistics can be time consuming and expensive. But it doesn't have to be – Schneider Electric's EcoStruxure™ integrated architecture platform provides:

Schneider's success in improving its own internal and supply chain sustainability can serve as an effective model for monitoring, capturing, analyzing, benchmarking, and publishing Scope 1 and 3 emissions data.

Agile management and process efficiency

- Operational agility through enterprise level control
- Better closed-loop measurement and control for greater throughput and faster processing

Asset performance management

- Optimized asset use to improve profitability

Empowered operators

- More effective operator decisions on the warehouse floor

Reliability and energy efficiency

- Enhanced delivery excellence
- Visibility, control, and optimization of power consumption and costs

Achieve agile management and greater process efficiency

Benefits:



IT/OT integration



Operational insights and efficiency

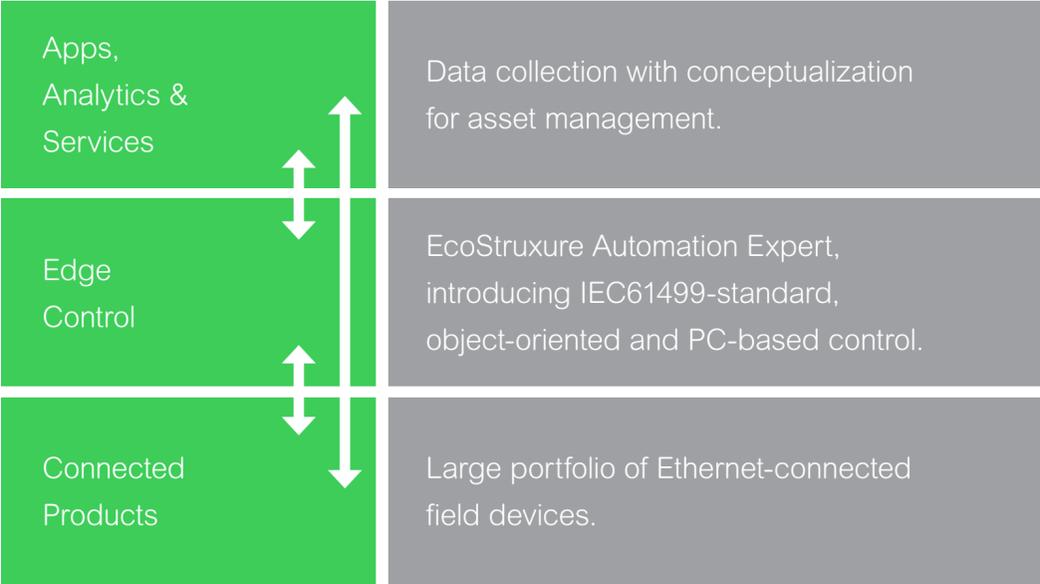


Better decisions, faster processing

EcoStruxure delivers lean digitization, which can help logistics firms simplify warehouse floor management and achieve ROI in two years through agility and efficiency. EcoStruxure makes it possible with:

- Transparency, visibility, and reactivity
- Paperless operations for warehouse staff
- A system platform to reinforce process control and traceability

EcoStruxure solutions:



Get optimized asset performance

Benefits:



Connected assets for predictive analytics



Increased asset control, availability, and reliability



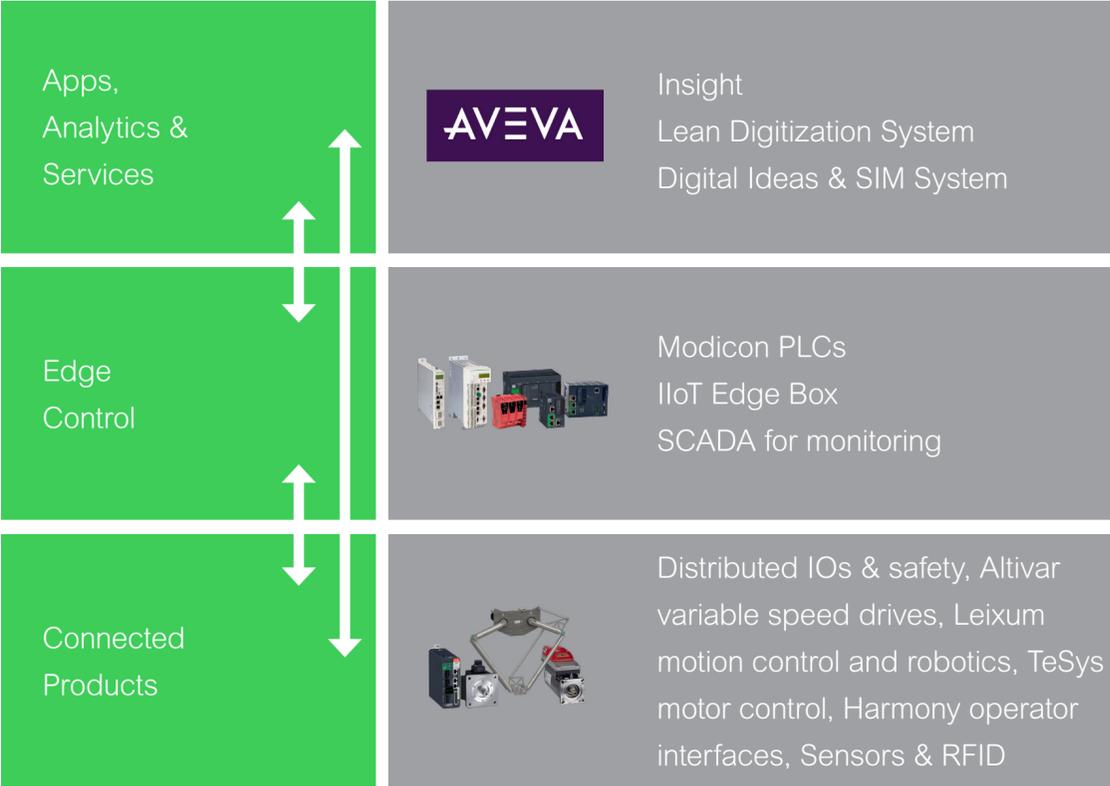
Lower costs and higher productivity

EcoStruxure solutions provide IIoT-powered predictive analysis to reduce downtime and extend operational time through:

- Real-time insights and visualization
- Simplified maintenance and commissioning
- Increased accuracy and precision of conveyor systems
- Improved overall assets availability and reliability, including reduced spare parts inventory costs
- Enhanced safety and security

ROI can be achieved in six months with IIoT-powered connected assets, or in fewer than two years with computerized asset management.

EcoStruxure solutions:



Empower operators to increase profitability

Benefits:



Real-time asset and process information



Reduced time to repair

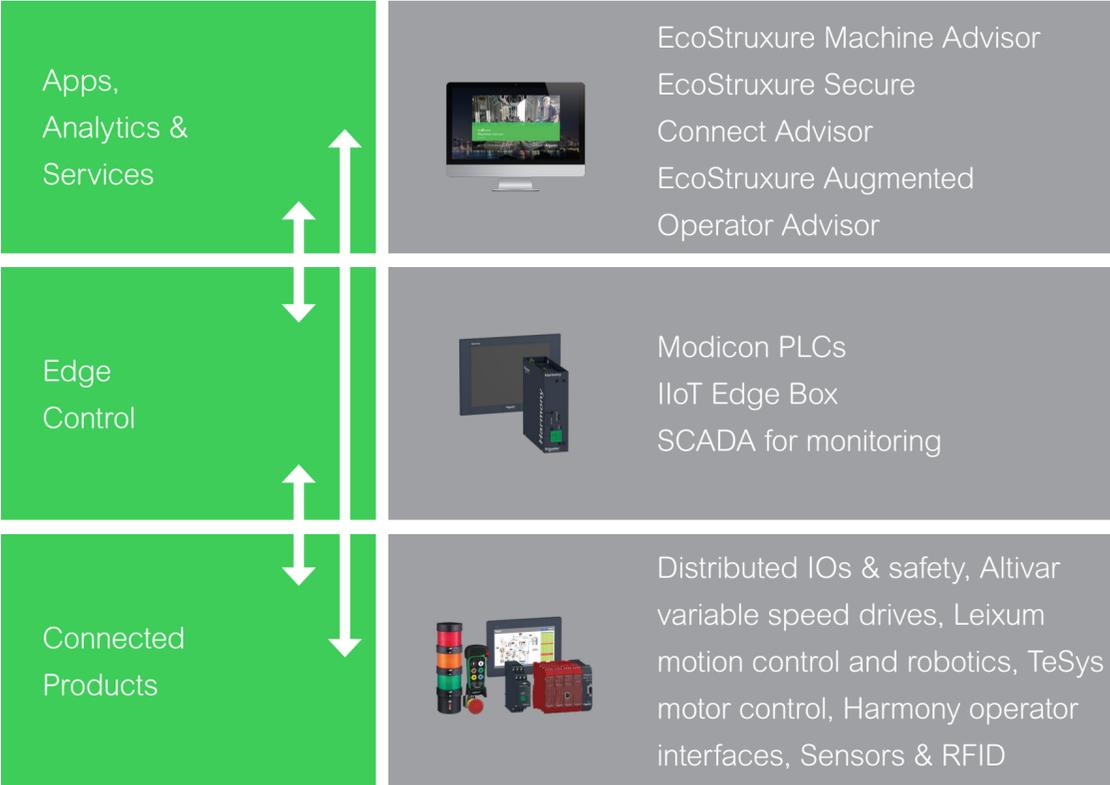


Process efficiency and reliability

By bringing all necessary information to hand, EcoStruxure solutions empower operators to reduce mean time to repair providing:

- Simplified use of information at point of need
- Easy access to data across functions
- The tools needed for effective decision making

EcoStruxure solutions:



Boost delivery excellence and lower energy consumption

Benefits:



Energy and sustainability insights



Real-time power monitoring



Greater energy efficiency and power reliability

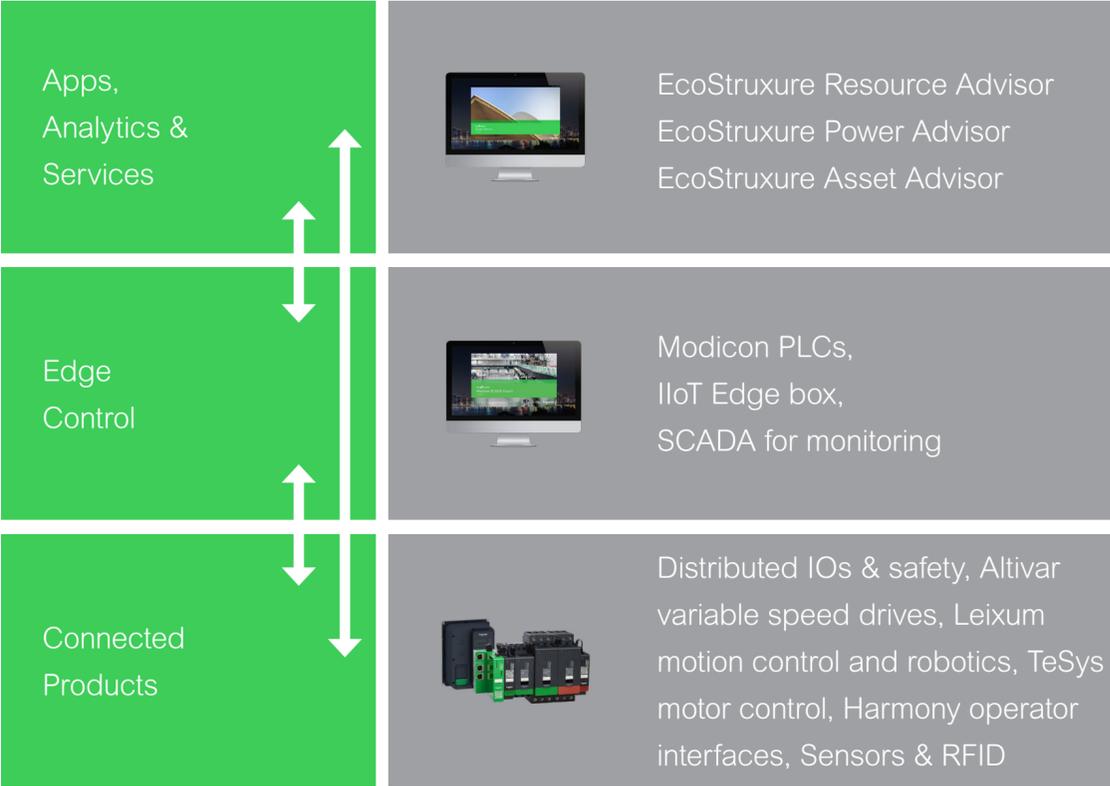
An energy efficiency program built on real-time insights provided by EcoStruxure delivers:

- Full visibility and control of energy consumption
- Energy savings and continuous improvement of processes
- Support for meeting regulatory standards

30%

energy savings delivered by first implementation, with continuous improvement

EcoStruxure solutions:



Addressing cybersecurity challenges on multiple levels

With the increasing use of digital technologies, the world is more connected than ever. But alongside new opportunity and greater connectivity, this also brings new cybersecurity challenges and increases vulnerability.

Effective cybersecurity protection encompasses your entire OT environment – from products and systems through to ongoing services.

Schneider Electric's solutions and services are designed for peace of mind, with end-to-end cybersecurity built in.

Additionally, we can help you implement an overarching cybersecurity program.

See what we can do for you: [Click here](#)



Getting ready for the future

Accelerating toward smart logistics

Much has changed in such a short amount of time and as a result the need to adopt smart logistics has become unavoidable.

The logistics industry, like many others, has changed forever and since the beginning of the pandemic that change has accelerated. To adapt, supply chain facilities will have to find new approaches that allow for more remote work and sudden capacity shifts.

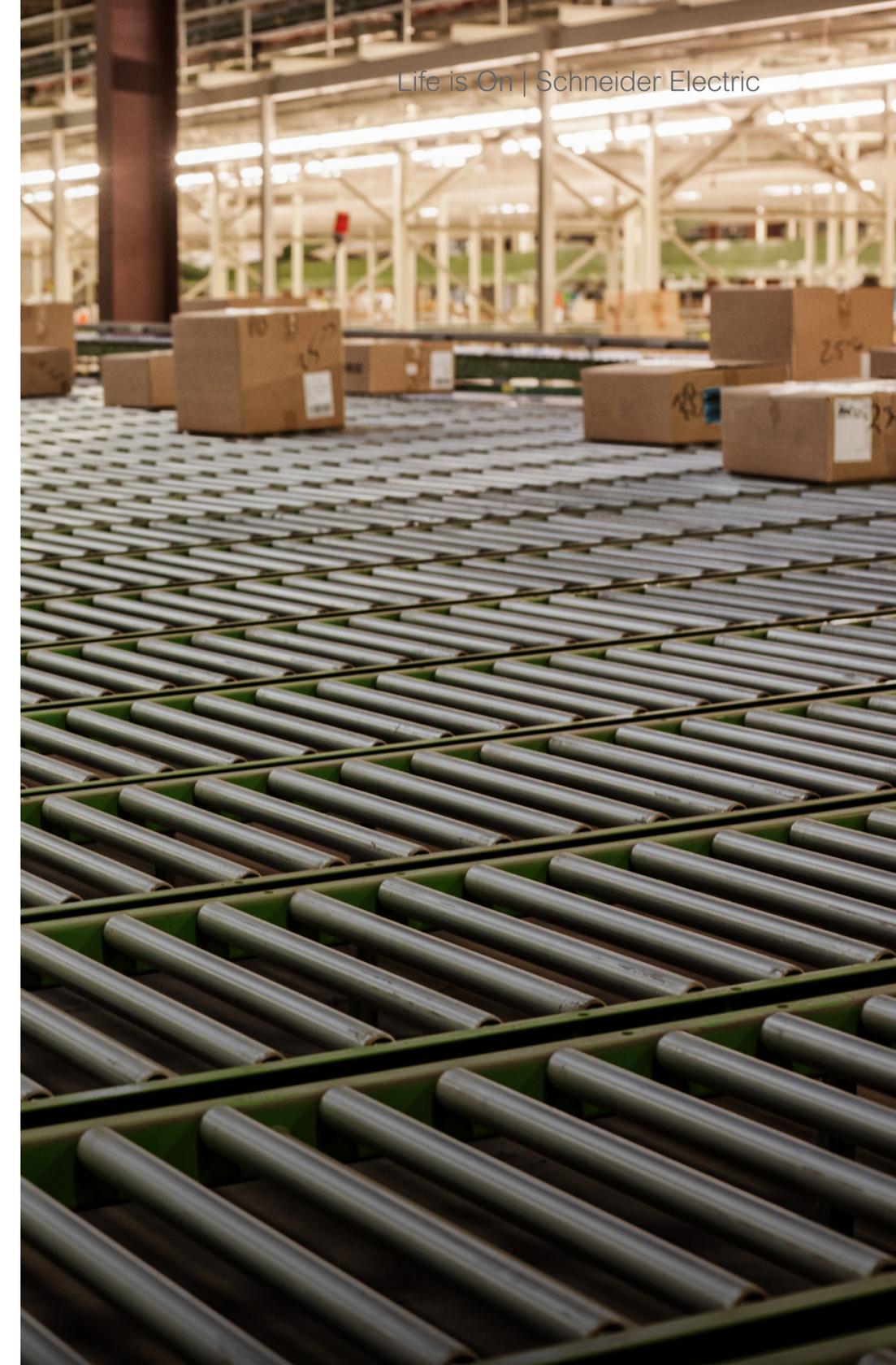
From manufacturing outbound up to the final delivery, all players will need to adjust to meet the increased demand for, and face the new challenges created by, smart automated conveying equipment.

Schneider Electric is well positioned to help with this. Smart logistics needs to be built on technologies that we have been propelling for some time: IIoT, robotics, remote monitoring, and automation – we are ready to assist all stakeholders, including OEMs, system integrators, and end users, into a new age of intelligent logistic systems.

104,000 parcels/h

is processed by UPS, a global logistics leader after it transformed its facility with help of EcoStruxure.

[See the story](#)



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To explore our full range of EcoStruxure Machine solutions for conveying systems, visit:

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