

JOST invests in the future of the autonomous logistics industry with Aitonomi

The future of the transport industry

What do the Neu-Isenburg-based supplier to the commercial vehicle industry and the Swiss start-up Aitonomi have in common? Both believe in the future of the transport industry and are developing technologies to meet the challenges facing the global logistics sector.

The industry is confronted with several major challenges: The growing global e-commerce sector is increasing the demand for logistics services. At the same time, there is a shortage¹ of skilled workers, especially truck drivers. In Europe, more than 380.000 truck driver positions were open in 2021, creating a significant shortage in staff. This shortage is exacerbated by rising wage costs, which will add to existing cost pressures from rising fuel prices. In addition, the escalating climate crisis requires a shift towards sustainable practices that enable operations to be both carbon neutral and resource efficient.²

Advanced technologies, such as fully autonomous electric transport systems that use and integrate artificial intelligence, robotics and data analytics, offer promising solutions for the industry. Over the past eight years, the global market for autonomous transport robots has quadrupled. Furthermore, the market is forecast to double between 2024 and 2028.³

¹ A global shortage of up to 7 million drivers is expected by 2028.

<https://www.eurotransport.de/artikel/iru-report-zum-fahrermangel-3-mio-lkw-fahrer-fehlen-weltweit-11232785.html>

² Porsche Consulting, The Autonomous Logistics. Hub of the Future.

³ Global market for autonomous mobile; <https://www.statista.com/statistics/1285835/worldwide-autonomous-robots-market-size>

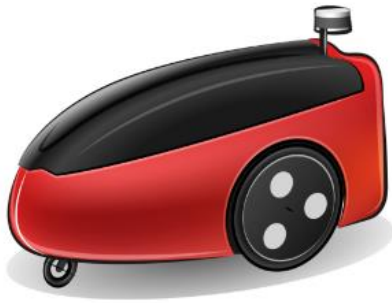


Figure 1: Aitonomi XS delivery robot

The combination of software and hardware is crucial to the company's success. The company has been relying on partners for years.

A strategic partnership for progress in autonomous transport

JOST and Aitonomi are already working together to integrate JOST's Automatic Comfort Coupling System (KKS) and JOST's steering and axle systems with Aitonomi's AutoPilot. This collaboration is resulting in autonomous transport solutions for depots and port terminals that are already proving their effectiveness in practice.

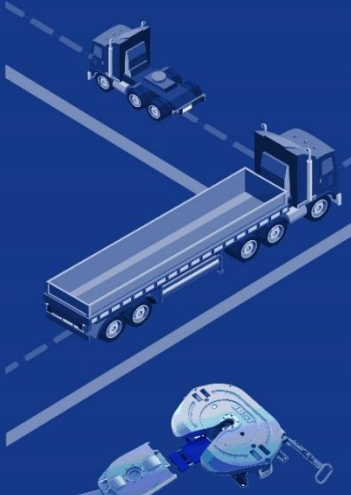
Founded in 2014 and based in Switzerland, the start-up Aitonomi develops autopilot software for the navigation of commercial vehicles with payloads of up to 55 tons. In addition to its autopilot systems, Aitonomi develops various software components and interfaces for the efficient integration of commercial vehicles into complex logistics processes. A first implementation took place in 2018 with Coca-Cola EuroPacific Partners for intralogistics tasks. The company offers, among other products, autonomous electric tow tractors with intelligent trailers and autonomous delivery robots with a payload capacity of up to 35 kilograms.

The Comfort Coupling System (KKS) developed by JOST enables autonomous electric tow tractors to automatically couple and uncouple the trailer within five minutes. Thanks to automatic pallet recognition and load securing, the transport starts as soon as the last pallet is loaded. The navigation of the autonomous truck is managed by Aitonomi's AutoPilot software.

In 2024, the partnership was significantly deepened: With a convertible loan in the single-digit million range, JOST has made a substantial investment in Aitonomi's financing.⁴ This supports Aitonomi AG in achieving its strategic growth targets and further strengthens the already established strategic partnership.

⁴ JOST is investing CHF 2.5 million in a convertible loan with a term until January 1st 2026.

EXISTING SOLUTION




JOST KKS

- ✓ Completely automated coupling system for trucks
- ✓ Advanced safety and higher efficiency
- ✓ Automated interface for compressed air and electronic connections
- ✓ Pneumatic operable sensor coupling
- ✓ Electric operable landing gear
- ✓ Control and operation about display in the cabin

JOST Aitonomi
Truck Retail

ADDRESSING GLOBAL CHALLENGES AND OPPORTUNITIES

- Static-Tape Navigation
- Emissions
- Expensive
- Labor Shortage
- Safety



EXAMPLE OF USE CASES

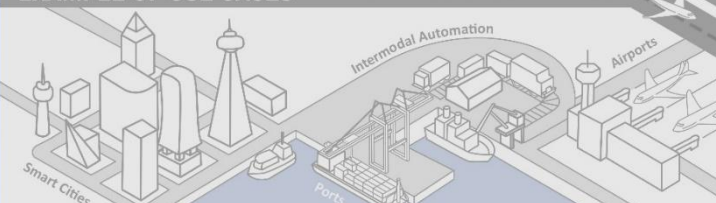


Figure 2: Possible use of autonomous technologies

Driving automation in the logistics industry is the common goal of both companies.

Utilising the potential of autonomous driving

The technology for autonomous driving is already available today. Autonomous vehicles are able to navigate independently thanks to technologies such as sensors, camera systems, radar and artificial intelligence. These technologies take autonomous vehicles to new levels of efficiency, safety and reliability, and open up a wide range of potential applications.

In port logistics, automation of cargo handling and transport can significantly improve the efficiency and safety of port operations. The same applies to air freight and integration into smart cities.

Autonomous trucks are undoubtedly one of the driving forces in the evolving freight transport industry. The use of commercial vehicles in intralogistics is a first step towards testing and acceptance.

If the regulatory and societal conditions change, nothing would stand in the way of the full integration of autonomous vehicles in the transport and logistics industry: from the factory site and long-haul routes to the last mile.

The technology for a wide range of applications already exists.

About JOST

JOST is one of the world's leading manufacturers and suppliers of safety systems for the commercial vehicle industry. Under the umbrella brand JOST, the extensive product portfolio is divided into systems for the transport, agricultural and construction industries:

The JOST brand includes fifth wheel couplings, landing gear, ball bearing turntables, kingpins, container locks and components for swap systems. Trailer and truck axles are also sold under the JOST brand. The core products of the traditional ROCKINGER brand are trailer couplings, towing eyes and drawbars for vans and trucks. TRIDEC offers steering systems and axle suspensions for trailers.

ROCKINGER brand products are also used in the agricultural sector and equip agricultural vehicles with everything from towbars to three-point hitches.

The Quicke brand specialises in agricultural front loaders and work equipment. This also includes products for the mining, construction and forestry machinery industries.

JOST currently employs over 4.500 people worldwide and has sales and production facilities in over 25 countries on six continents. The company is listed on the Frankfurt Stock Exchange.

About Aitonomi

Aitonomi develops autonomous electric transport systems with a payload capacity of up to 55 tons for outdoor and indoor applications. The company's proprietary AutoPilot technology is integrated into logistics processes through a variety of interfaces. In 2022, the company unveiled one of the world's largest trailers for transporting pallets. The Swiss Aitonomi AG group includes Germany's TeleRetail GmbH, one of the world's leading developers of self-driving outdoor transport robots, according to a CB Insights 2020 study.