URBAN MOBILITY: Blubrake presents the first ABS for e-cargo bikes

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The exponential increase in e-cargo-bike use for personal mobility and logistics has paved the way for a growing demand for safety and manoeuvrability. Thanks to the first anti-lock braking system for e-cargo bikes developed by Blubrake, riding these vehicles becomes safer.

In recent years, cargo bikes with pedal assistance have gained much more space on the city's streets and it is now clear that they are destined to play a fundamental role in the future of urban mobility.

Be it for family or delivery purposes, e-cargo bikes have spread enormously, especially in northern Europe; market data shows a strong growth trend with a 53% increase in 2020 sales (City Changer Cargo Bike Project data), making e-cargo bikes one of the main drivers of the urban mobility revolution and last-mile logistics.

**SAFETY FIRST.** The rapid diffusion of e-cargo bikes has led to a strong demand for greater manoeuvrability and increase in safety. E-cargo bikes have been conceived to carry heavy loads and reach high speeds; precisely because of their configuration and function, braking certainly is the most critical topic when speaking about them. Especially when the cargo box is empty, abrupt or sudden braking causes instability, skidding and loss of control over the vehicle.

On the basis of the need to ensure greater safety even on surfaces with poor grip or in unfavourable weather conditions, Blubrake, a leading company in the development of technologies applied to braking systems, has developed the first and only ABS (anti-lock braking system) specifically designed for e-cargo bikes, which will reach the market in the coming months thanks to the collaboration with some of the main brands in the sector.

**OVER TO THE COMPANY.** *"The braking stage is of particular importance for these vehicles. E-cargo bikes are heavier and faster than regular e-bikes and tend to be unstable especially when the cargo box is empty. The ABS prevents the front wheel from locking up and avoids skidding, providing greater stability to the vehicle."* says Fabio Todeschini, Founder and General Manager of Blubrake. *"Our working group has succeeded in developing a solution, unique on the market, able to meet the needs for safety and reliability."*

**HOW IT WORKS.** Blubrake ABS system, which aims to become the safety standard for every e-cargo bike on the market, consists of three key elements. A sensor measures the front wheel (or wheels, depending on the e-cargo model) speed and transmits all information to a electronic unit, which estimates the vehicle dynamics from the measurements collected by the speed sensor and by the accelerometers within the frame, detecting potentially dangerous situations that can occur while braking. Under these conditions, the actuator intervenes and controls the hydraulic pressure of the front brake to ensure smooth braking and increase the stability and manoeuvrability of the e-cargo bike.

Blubrake ABS is suitable for any type of e-cargo bike; furthermore, since the system is open, it can be integrated with all third-party hydraulic brakes and power systems on the market.

Not only that: thanks to the patented artificial-intelligence system, Blubrake ABS is able to function properly on different surfaces, including the most slippery or roughest ones (gravel, leaves, cobbles) and in rainy or snowy conditions.

By developing this technology, the Blubrake's goal is to make e-cargo bikes not only the most environmentally friendly and sustainable vehicles out there, but also the safest ones, thus assisting the general public's uptake of this means of transportation, both for personal mobility and urban logistics.

For more information: blubrake.it/cargo-bike