



## SMART LOGISTICS OF THE FUTURE

Back in 1950, 30% of the world's population lived in urban areas. Thanks to economic development, government policies, and population growth, by the year 2000, that figure stood at 47% and today, 56% of people globally live in urban areas. According to the World Bank, this figure is expected to further increase, to 68%, by 2050.

More densely populated urban areas require new approaches to transport and logistics, as city planners grapple to find ways to move people and goods. For some, this is an opportunity to redesign the infrastructure with a growing

population in mind. Smart logistics, which could include autonomous vehicles, ride sharing systems, last mile delivery drones, and robots – all supported by relevant data – will ensure the efficient delivery of goods, services, and even people.

The implementation of an intelligent transport system requires all modes of transport to be connected in such a way that a user hardly feels the transition from one to the next. Imagine hiring a shareable bike 50m from your door, riding it to a green bus station 10 min away, taking that green bus (that doesn't have to

stop for traffic signals) all the way to your destination, then reversing that process on your return journey. Now, imagine doing all that using one integrated prepaid system.

To enable this, the city would require a network of sensors and cameras, as well as a range of connected Internet of Things (IoT) devices all collecting and analyzing data to improve the overall experience.

While self-driving cars may only be ubiquitous in the mediumto-long-term, an easier starting point could be technologies similar

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to those widely available today. Adaptive traffic lights, for instance, could be a low hanging fruit for cities beginning a smart logistics journey. South Korean company, BlueSignal, has launched an Albased solution to track traffic, congestion, and traffic light signal data. The data is then used to forecast traffic conditions and determine the quickest and safest routes with surprising accuracy. The system has already been tested in South Korea, and BlueSignal has won contracts with the Shenzhen Municipal government in China and will be partnering with China Hualu Group (Chinese state-owned electronics manufacturer) to create a smart traffic system for the Group.

US-based Rapid Flow is also targeting congestion by placing cameras at intersections to optimize traffic light performance based on the actual on-road traffic. This technology has been rolled out in various cities, including Portland in Maine, Kane County in Illinois, and Quincy in Massachusetts.

The above examples demonstrate how smart systems can be used to improve the efficiency and sustainability of a city's transport and logistics systems. Smart logistics can manage the movement of goods and people in real time, ensuring smooth operations and a more efficient and sustainable city.

BY 2050, IT'S
ESTIMATED THAT
6.8 BILLION PEOPLE
WORLDWIDE WILL
LIVE IN DENSELY
POPULATED
MEGACITIES.



1. inside Amazon's flagship fulfillment center outside Seattle, where the retailer uses algorithms and robots to ship more than a million packages a day – vastly changing the jobs of humans in the process. 2. Pyka's autonomous electric Pelican Cargo airplane offers 200 miles range and 400 lb payload in 66 cubic feet volume.

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Of course, this is only one of the market spaces where disruptive forces are at work and game-changing new investment opportunities might be discovered.

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