Future of Mobility

still will be a huge logistics challenge.

make car ownership less appealing.

Making the Most of Mobility in Future Cities

us up on streets relieved of pollution and congestion. How would that work, exactly?

"The future of mobility in cities will be dramatically influenced by the evolution of the transportation

President, Sales and Marketing, for GEFCO, a leader in international logistics.

means and the convergence of mobility of people and goods," says Emmanuel Arnaud, Executive Vice

In the utopian visions of future smart cities, a tap on a phone will summon an autonomous car to pick

Future mobility is about more than using an app to summon a car. It is about improving efficiency to enhance the customer experience. This will allow more people and goods to get around with less congestion. A more efficient transportation ecosystem will reduce energy needs and emissions. Mobility will become more accessible to all, thanks to greater efficiency and a wider range of choices.

Three changes characterize the vision: the shift from ownership to sharing; the modularity of

transportation, with multipurpose, multimodal and multi-usage vehicles; and the convergence of

mobility, combining purposes of trips in social freight. New technologies like the Internet of Things and

5G cellular technology will soon make it possible to seamlessly weave together all the threads, but it

Clearly the current system needs to change. Personal cars are parked about 95 percent of the time. No factory would let machinery sit idle that much—the work would be outsourced, so that several companies would share use of the machine. Similarly, some people are already outsourcing their transportation by hiring a car, scooter or bike only when needed. Automotive industry executives predict in KPMG's Mobility 2030 survey that they believe 50% of consumers won't want to own a car by 2025. Having a single service operator offering multiple choices, or combinations of choices, would make it easier for individuals to plan their journeys. People could subscribe to a single service that offers everything—car-hailing as well as rental of scooters, bikes and cars. Maintenance, parking, logistics and other headaches would be handled by the service operator. Such an easy service would

Cities themselves, especially in Europe, are discouraging car ownership. London uses congestion pricing and others, including New York, are considering it. As of July 1, diesel cars predating 2001 will be banned from greater Paris.

bikes and scooters also have to be in the right place at the right time. "Cars need to be perfectly clean, refilled and serviced to enable perfect customer experience in a

shared pool," Arnaud says. To optimise the usage of vehicles, it is important to optimise the logistics

around them. GEFCO is rolling out a Car-as-a-Service offer that would encompass storage, cleaning,

Yet the early players on shared mobility are finding the shift a difficult one. People don't give the same

respect to rental cars that they do to their own. Dirty vehicles lead to a downward business spiral. Cars,

recharge, repair, appraisal, fleet management and transportation. As a specialist of Finished Vehicle Logistics, GEFCO would ensure this service using its existing networks of shops, refuelling or charging stations and parking space. Part of the service would be a mobile repair centre that meets the car where it is. A technical specialist would drive this 'workshop on wheels' to the cars, fixing any issues and cleaning. "In our first prototype we have onboard steam cleaning solutions that can wash a car with less than three litres of water,"

Arnaud says. "The first step is to be connected to the cars to be able to locate and accurately manage

the fleet, which will occur within the next five years." IoT sensors in the vehicles will inform the service

provider not only where a particular car is but also its condition. IoT connectivity will let customers know exactly when their ride or package will arrive and allow traceability of deliveries. The rollout of 5G will provide the broadband speed needed to stay connected with fleets of IoT vehicles. The next step will be making vehicles versatile. After all, to get full utilisation of vehicles, they have to operate not only during rush hour commutes but nearly 100 percent of the time. That means that in

addition to people, cars will transport packages too. The KPMG survey found 60 percent of automotive

executives predict mobility solutions won't differentiate between people and goods.

shuttle could be used for freight between those sites," Arnaud said.

Already, many cities are banning trucks from their centres, at least during certain hours. Eventually, autonomous trucks will operate between cities, picking up goods and delivering them to warehouses on the outskirts of cities. Last-mile deliveries, from the warehouses to collection points inside the city could be done by much smaller, clean vehicles, such as cars that by day transport people. Paris is planning to use autonomous shuttles to connect venues for the 2024 Olympic Games. "The same

Future vehicles would share a common powertrain, with chassis that lift off, similar to the way shipping containers now are lifted off ships and onto trucks or trains. The same powertrain could be fitted with a passenger body for carrying people, or, after a stop at the servicing center, switch to an open body for carrying goods, Arnaud explains. "It's the first layer of convergence between mobility of goods and people."

Another way to double up vehicle usage is for employees to deliver packages for their employers to

individuals living in their own neighborhoods. Companies are under pressure to reduce their carbon

footprints, and combining parcel deliveries with employee commutes offers a two-in-one solution, trimming pollution and congestion. McKinsey's Parcel delivery: The future of last mile report found that consumers increasingly want delivery to be immediate, to their homes—not to pick-up points—and at low cost, all benefits of an employee drop-off model. Because consumers don't like going to pick-up points to collect their ecommerce purchases, companies

could use their own city-centre offices as intermediate collection points, turning to commuter

provide the companies with technology to enable them to dispatch the last mile of product not only by GEFCO but also by their own employees," Arnaud explains. The employee would collect parcels at, say, the reception desk to take to customers who happen to be the employee's neighbours, receiving a reward like money, points or incentives for the effort. "It is the last step of convergence of business and consumer trips in the city," he says.

People today define freedom as mobility on demand and delivery on demand 24/7. The means of

"We want to build a platform that will decrease carbon footprint of individual movements. That way we

need to deliver an enhanced customer experience. For GEFCO, the best service for customers, Arnaud says, is the one they don't see or feel but just experience because it works effortlessly.

transportation is evolving and the mobility of people and goods is converging. Together the two trends

will shape tomorrow's mobility in cities. To achieve the vision of future urban mobility, service providers

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