



LAST MILE

FIRST MOVERS

IT'S NO SECRET that shoppers continue to shift online at the expense of brick-and-mortar stores. Yet most consumer expectations around the delivery of goods seem increasingly similar to buying in-store: They want products more quickly, are unwilling to pay for that privilege,¹ want to know where their goods are at all times,² and are willing to walk away if these conditions aren't met.³ Rising demands on retailers are, in turn, often straining transportation networks, prompting both industries to explore a variety of novel approaches to consider in solving the last-mile delivery challenge:

- **Digitization.** Reducing delivery times by measuring route efficiency and increasing the effectiveness of preventative maintenance is giving way to examining the driving styles of individual operators and what that means for tire wear.⁴ And that's just the beginning: For example, Singapore's FreshTurf is building an open platform based on blockchain technology that allows customers and carriers to trace a package all the way from shipment to smart locker.⁵

64% of people are unwilling to pay anything extra for two-day shipping.

Source: Deloitte, 2016 holiday survey; Ringing in the retail, 2016.

- **New urban supply concepts.** Speaking of smart lockers, these accessible but secure locations to temporarily store goods for customers to pick up later have the potential to significantly reduce the number of delivery destinations. And some lockers are mobile, able to meet delivery workers at different locations, minimize the time between deliveries, and allow workers to complete more jobs in less time with less stress.
- **Asset sharing.** Just as carsharing and ridesharing have challenged traditional models of personal movement, greater sharing of commercial vehicles could reshape how carriers operate. A transparent, real-time platform that offers shippers, drivers, and customers visibility into real-time capacity and demand would increase asset utilization and make pricing more representative of the market.⁶ Some start-ups, such as Seattle-based Convoy, are already building on this idea, and as the technology matures, it may become a larger part of the transportation portfolio.⁷
- **Alternative vehicles.** Promises of greater fuel efficiency and improved safety mean electric trucks may overcome their limited range, which has until now limited their use to crowded urban areas. Drones are another possibility—one Chinese company deploys drones to deliver 500 parcels a day to cities and rural areas.⁸ Almost anything seems worth trying: Other carriers in China are covering the last mile using bicycle teams.⁹

Customers seem to increasingly want the advantages of online shopping—convenience, selection, price competition—but none of the disadvantages, such as waiting for products to arrive. Most want the instant gratification of traditional retailing. With delivery seen as an integral part of a seller's responsibility, this shift in expectations often means carriers are putting more than packages on their trucks—they're delivering an organization's reputation. ●

For a comprehensive analysis of the challenges facing the shipping sector, read *The future of freight* on deloitte.com/insights.

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1. Deloitte, *2016 holiday survey: Ringing in the retail*, 2016.
2. See, for example, Dung H. Nguyen, Sander de Leeuw, and Wout E.H. Dullaert, "Consumer behaviour and order fulfilment in online retailing: A systematic review," *International Journal of Management Reviews*, November 15, 2016.
3. Supply Chain Quarterly, "Survey: Online shoppers demand visibility as well as speed in delivery," October 4, 2016.
4. Ibid.
5. IBM, "IBM empowers Singapore startup with blockchain and Bluemix for island-wide federated lockers network," October 24, 2016.
6. Ibid.
7. Kevin Jones, "New apps aim to replace brokers, 'reinvent' trucking," *American Trucker*, October 27, 2015.
8. CRI, "S. F. Express launches first drone delivery service in China," March 24, 2015.
9. Liza Lin and Wayne Ma, "Olympic athletes have nothing on China's lunch-delivery guys," *Wall Street Journal*, March 27, 2017.

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