



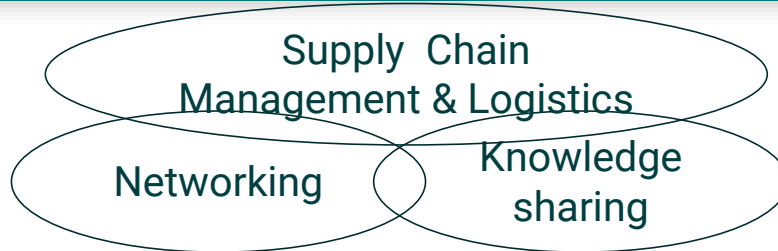
**TRANSPORT  
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Moving the future forward

# Last Mile Distribution



*The knowledge hub  
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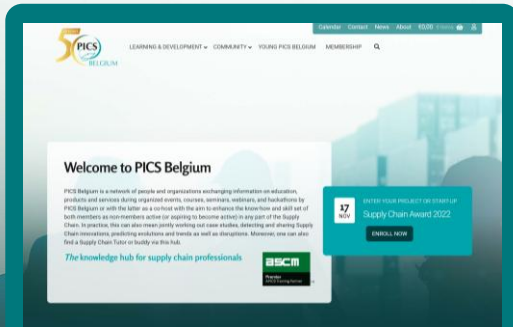
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## Supply Chain Professionals Connect 2026



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## More information



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Any questions?

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### Sponsors



## Program

- Jan De Kimpe
  - Importance of the last mile
  - Key concepts and solutions
  - The customer experience
  - Future trend
- Ken Sabahi, BPOST
  - Last mile distribution solutions
  - Spare parts market solutions

## Jan De Kimpe

- 30+ years active in Logistics as expert and consultant in warehousing, transportation and distribution environments



- Focus on expertise in operational logistics : warehouse, transportation, distribution (networks), outsourcing,...
- President of PICS Belgium
- Publications in Value Chain
- jdekimpe@logisolpro.be

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## Statements

- Last mile is the most expensive part of the transportation, as well in B2B als B2C
- Last mile is where service is made or broken



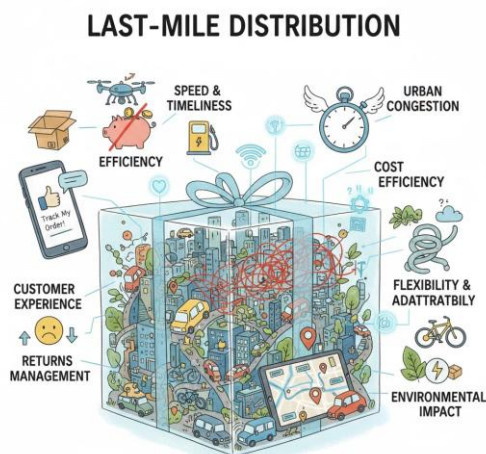
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## Definition of “Last Mile Distribution”

- Last mile distribution, also known as last mile delivery or final mile delivery, is the **final leg** of the supply chain process.
- It involves the movement of goods from a (local) transportation hub, distribution center, or fulfillment center to their final destination, which is typically the end-customer's home or business address.
- This stage is critically important because it is the only direct physical touchpoint between a business and its customer and is a major determinant of **customer satisfaction**.

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## Challenges / key considerations



- Let's take a deeper dive...

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## Key characteristics and context

- **Final Leg of the Journey:** It is the last step a product takes after its long-haul journey (first and middle mile logistics) from the manufacturer or primary warehouse.
- **The "Last Mile Problem":** Despite often being the shortest geographical distance, the last mile is typically the most complex, least efficient, and most expensive part of the entire supply chain, accounting for up to 53% of total shipping costs.
- **Customer Focus:** The primary goal is to deliver packages as quickly, affordably, and accurately as possible to meet rising customer expectations for speed (e.g., same-day delivery) and convenience.
- **Logistical Challenges:** The inefficiency arises from the need to break down large, consolidated shipments into many individual deliveries, often in dense urban areas with heavy traffic, parking issues, and numerous short stops. It also includes challenges in rural areas with long distances between stops.
- **Origin of the Term:** The term was originally adopted from the telecommunications industry, which struggled with the high cost and complexity of connecting main utility lines to individual end-user homes

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## Last mile components

Component	Function
<b>Route Optimization</b>	Using algorithms (often AI/ML-driven) to create the most efficient delivery routes, considering real-time traffic, time windows, and vehicle capacity to minimize time, fuel use, and costs.
<b>Real-Time Tracking &amp; Communication</b>	Providing customers and dispatchers with live updates on the package's location and estimated time of arrival ( <b>ETA</b> ) based on GPS positions. This is crucial for transparency and customer satisfaction.
<b>Resource Allocation</b>	Assigning the appropriate transportation (e.g., vans, bikes, drones, or crowdsourced drivers) and personnel to routes to ensure efficient scheduling and delivery.
<b>Micro-Fulfillment Centers</b>	Strategically placing small, local hubs or <b>micro-hubs</b> in urban areas to store inventory closer to customers, drastically reducing the final travel distance and enabling faster delivery times.
<b>Proof of Delivery (POD)</b>	Collecting confirmation, such as a signature or photo, that the package was successfully delivered to the customer or a secure location.
<b>Returns Management</b>	Coordinating the reverse logistics process, making it easy for customers to return or exchange products, often involving a pickup by the delivery fleet.

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## Last mile evolutions

- Automation: automated sortation systems in warehouses and the potential use of delivery robots and drones.
- Delivery Models:
  - Crowdsourced Delivery: models that use a network of independent drivers (similar to ride-sharing).
  - Micro-fulfillment Centers (MFCs)/Black Stores: smaller, local warehouses strategically placed in urban areas to shorten delivery distances.
- Sustainable Logistics: Address the environmental impact and the rise of electric vehicles (EVs) and other green technologies in last-mile fleets

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## The customer experience

- **Delivery Speed:** Focus on the modern consumer's demand for fast, and even same-day or on-demand delivery.
- **Delivery condition:** state in which the goods are delivered
- **Communication:** the importance of proactive communication, such as messaging alerts and delivery windows, to manage customer expectations.
- **Returns Management:** the reverse logistics process - a smooth returns experience is part of a successful last-mile strategy.

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## Future trends

The future of last-mile distribution is being completely reshaped by a convergence of advanced technology, evolving consumer demands, and a massive push for sustainability. It will be hyper-local, highly automated, incredibly fast, and customer-centric.

- Technology
  - AI and route optimization for dynamic routing
  - Autonomous Vehicles: self-driving vans and trucks to revolutionize last-mile delivery and Robot doorstep delivery
  - Urban Air Mobility: drone delivery, especially for small, high-value, or time-sensitive items.
  - Enhanced real-time visibility (IoT & Tracking)
  - Big data and predictive shipping (to predict orders)

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## Future trends

- Hyper-Local Fulfillment Networks
  - Micro-Fulfillment Centers (MFCs)
  - Urban Warehousing/Dark Stores
  - Enlarging the networks of Parcel Lockers and PUDOs (Pick-Up/Drop-Off Points)
- The Green and Sustainable Last Mile
- Omnichannel Retail: the last mile is critical for retailers who must fulfill orders from both online and physical stores

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## Future trends

- **Enhanced Customer Experience and Flexibility**
  - **Flexible Delivery Options:** Customers will have complete control over when, where, and how their package is delivered, including dynamically changing the drop-off location or time slot mid-transit.
  - **Contactless Delivery:** Technologies like electronic Proof of Delivery (e-POD) and secure lockers minimize physical interaction, which started as a health necessity but has become a permanent convenience feature.
  - **The Gig Economy and Crowdsourcing:** Utilizing flexible, crowdsourced labor models (similar to Uber for packages) will allow logistics companies to quickly scale capacity during peak demand without maintaining large, fixed fleets.

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## Questions?



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