What technologies are seen in the intralogistics of the future?

The different technological applications are transforming today's life and more and more of them are being integrated with greater popularity worldwide, their evolution is growing, and they are becoming part of everyday life, helping to optimize, improve and make each of the logistics processes more efficient, as well as in other sectors of the companies

The same thing also happens in the intralogistics sector, as they converge with more revolutionized technologies, which allow greater agility and efficiency in operations. It is important to analyze these technologies in detail, as they not only help to be within the highest clusters as a logistics leader, but also the implementation of digital and collaborative solutions in real time helps to have an accurate approach with potential clients and suppliers.

It is likely that as you delve deeper into this reading, you will think about some of the main disruptive technologies, but how much is known about them and their projection in the future? Without further ado, let's analyze the technological boom that is currently on the horizon.

Why technological solutions are so essential in intralogistics?

By 2026, the value of the intralogistics market is projected to reach $30 billion. This growth panorama has been seen in recent years in the logistics sector, however, there are great challenges and uncertainty for companies.

As is well known, intralogistics is responsible for managing, controlling and optimizing the flow of materials and products within the manufacturing plant, warehouse or distribution center.

The harmonization of said system helps to maintain greater visibility and traceability, since the obtaining of results can be expanded thanks to the sum of all the efforts compiled in the improvement of activities and workforce, as well as the optimization of material flow and stock tracking. Therefore, today it is possible for companies to achieve greater efficiency, as well as cost reduction and loyalty of potential customers.

According to Fact.MR's, during the last 7 years, the **global intralogistics market grew 14.3%**, this sector is expected to increase at an annual rate of 15.5% between 2022 and 2030

What is projected for 2023 in intralogistics?

What are the technologies that are most in demand in intralogistics?

1. Artificial Intelligence. One of the technologies that stands out in the future of intralogistics is Artificial Intelligence. AI has had an iconic rise in recent years, as this technology offers great advantages for organizations. According to a report from the IBM Institute for Business Value, Mexico is the fifth country with the highest adoption rate of AI in Latin America and the main uses are being directed toward process optimization.

This technology allows the development of systems that can learn and be fed with data, thus allowing faster and more accurate decision-making. Artificial intelligence is capable of analyzing a large amount of information, allowing accurate management of material flows in real time, optimizing resources and minimizing costs.

2. Machine Learning. As part of Artificial Intelligence, Machine Learning is also known as automatic learning, its specific algorithm helps to recognize, analyze and study patterns that allow it to generate accurate predictions, based on accumulated data.

3. Robotics. Robots have become a key tool in the automation of intralogistics processes, allowing another form of management in repetitive tasks and improving the efficiency of operations. Hundreds of companies have begun to implement robotic systems that allow them to perform heavy tasks.

Robots can collaborate with human workers, autonomous robots known as AMRs have a greater presence today. According to Statzon, by 2030 the global market for such robots is forecast to reach $72.5 billion.

Advanced robotics saves time and optimizes production between robots and operators. They can continually adapt and improve based on data collected by the Industrial Internet of Things (IoT) processed with artificial intelligence (AI). Among some applications that we are beginning to see within robotics we find:

- **AGV autonomous mobile robots.** They are autonomous robots that transport merchandise within the warehouse and do not require human interaction.

- **Intelligent packaging machines:** These machines allow us to choose the size of the packaging according to the physical dimensions of the product, thereby saving time and material by choosing the appropriate size packaging for the product.

- **AI Software.** The evolution and integration of Artificial Intelligence within the software allows better decisions to be made, since AI is able to make predictions based on history that it is difficult for a human to make.

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4. Big Data. Data collection is essential in any sector, and for the logistics industry, data analysis is a more than necessary watershed in market studies, demand forecasting, real-time control and updating of stock and order preparation.

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5. Blockchain. It works intelligently through encoded information from a transaction on the network, recording the information and characters of your choice. The information entered is distributed across several independent nodes, however, each block connects to the one before and after it, securely linking and verifying the entire blockchain.

Blockchain helps to have complete traceability of all products with greater transparency. With this we achieve greater efficiency in the different processes within the supply chain, because by having greater traceability, we will be able to track each component that the product contains and if there is an interruption in any part of the process, it will be identified in time, so as to be able to take corrective actions.

Benefits of Blockchain in logistics

The adoption and integration of these technologies will help to more strongly consider the automation of your operations, obtaining accurate results even in the face of possible demand peaks, as well as the integration of new products. Intelligent synchronization not only helps you cope with new market scenarios, but it also brings you closer to new opportunities and great advantages, such as:

- Greater sustainability
- Costs reduction
- Control and reduction of accident risks.
- Enter new market gaps.

Don't miss the next newsletter that we will prepare at G.I.Eicom on the technologies that are seen in the intralogistics of the future. Subscribe here!

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