

New Horizons of urban logistics centers.

Smart, self-sustaining and productive

Throughout the history of civilization, the processes of production and distribution of goods for use and consumption have undergone various transformations, ranging from hunting, agriculture, livestock and industrialization.



Said changes have raised the creation of more e cient spaces for the correct storage and optimal handling of the products, seeking in the rst instance, an adequate storage; And as the world has settled into larger and larger cities, the creation of a precise distribution network has become more indispensable than ever.

Since the industrial revolution, the establishment of industries and product warehouses has been carried out in strategic places, such as industrial areas and in areas close to shipping warehouses, such as ports or railways, to function as logistics centers and be able to cover the demand from the cities that grew over time. At present, population growth together with the growth of markets, coupled with the digitization of purchasing processes, will pressure, according to consumer demands, to rethink the location and infrastructure of logistics centers.

Inflection point

Undoubtedly, the use of the internet in the commercialization of products has been a watershed in the transformation of both industries and logistics centers. According to a study carried out by the eCommerce Institute in conjunction with the Mexican Association for Online Sales (AMVO), it is expected that by 2023 online sales will represent 21% of purchases worldwide. These estimates, together with other economic, social and even health factors, as we have experienced in 2020, are part of the turning point for the rethinking of the geographical and technological characteristics of logistics centers.

The trend in shopping styles has drastically transformed in recent years, and an example of this can be clearly seen with one of the giants of electronic commerce worldwide when in 2005 it introduced its "Prime" service; which proposed the shipment of products in a time no longer than two days. Thus, what was proposed 15 years ago, today has become the race for faster and faster shipping, which we know is part of the purchase promises that customers value most.

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Main changes in logistics centers

Location: One of the rst and most important changes in logistics centers lies in their location. While previously they were built on the outskirts of cities close to transport routes, little by little and as customer demands grow, they will have to be located within cities close to end customers in order to satisfy the demand for the products.

Infrastructure: But how to locate a logistics center with a large storage capacity within a city already saturated with buildings? For this, it will be necessary to make use of technologies that optimize and take advantage of the vertical space of the logistics centers; Therefore, in the not too distant future, they will go from being large industrial buildings with huge tracts of land to buildings or small logistics centers, capable of being built and located within limited spaces

Construction: By transforming into buildings and small logistics centers, in addition to being located within cities, these constructions will have to be pleasant with the urban landscape, **as** well as be self-sustaining constructions.

Sustainability: One of the main characteristics that logistics centers will require is the quality of being self-sustaining spaces, in the optimization and use of their renewable energies, as well as the proper management of their waste and emissions; creating a pleasant environment for both its occupants and the environment.

Technology and automation: The logistics centers will also have to be able to process thousands of orders in short times, so the implementation of technologies will become necessary to be able to e ciently meet the demand. The use of cobots, drones and autonomous vehicles will be essential to collaborate with operations within the logistics centers.

Workforce: Talking about the implementation of technologies such as robots, drones and autonomous vehicles could refer to the displacement of jobs, but in this sense, the future for logistics centers does not dispense with the work of people, but on the contrary, it will require of increasingly quali ed personnel for tasks that involve generating added value in products, and not merely for repetitive and operational tasks as occurs today.





Smart urban logistics centers

Undoubtedly, urban logistics centers will have to aspire to be increasingly intelligent and sustainable, optimizing processes, spaces and technologies to be able to meet the everincreasing demands of large cities with a tendency to exponential growth. De ning them as logistics intelligence centers will be a better description of the great capabilities that they will have in the not too distant future.

Finally, the adoption of all these changes is likely to occur gradually in some cases and not in others, since the factors that pressure these changes have proven to be unpredictable and untimely accelerate the processes. In any case, the recommendation will always be to be open to change and identify areas of opportunity to transform logistics centers into logistics intelligence centers.

Posted by: GILEICOM Leaders in Material Handling & Intralogistics Solutions

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