# Aquila Capital

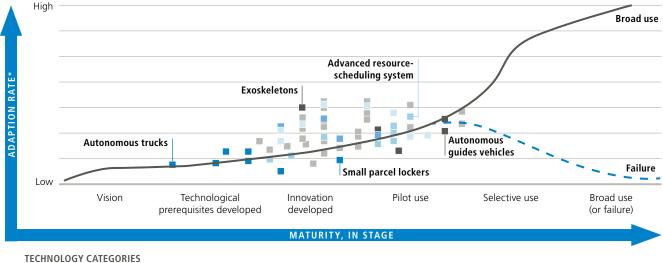
### AT A GLANCE – TRENDS IN LOGISTICS TRANSFORMATION / POTENTIAL / SUSTAINABILITY NR. 2

#### Industry 4.0 - chance or risk?

Industry 4.0 generally stands for a technology-induced vision of future networked and automated production systems. Although the inflationary use of the term digitisation increases uncertainty to a certain extent - while disruptive transformations have so far failed to materialise - far-reaching changes in value creation processes seem foreseeable in the medium term. As a link in global value chains, the logistics industry is at the centre of future developments.

As in any a priori analysis, uncertainty is a decisive factor which we believe should be countered with moderation but with the appropriate flexibility. As can be seen in the figure, no standardized or dominant technology is currently foreseeable whose requirements will fundamentally determine future processes and framework conditions.

Dozens of logistics technologies are under develpent <sup>1</sup>



TECHNOLOGY CATEGORIES Advanced robotics in warehousing

Analytics for transport and warehousing

Autonomous transport and delivery

Internet of Things/smart-sensor applications
Virtual- and augmentedreality applications

\*Speed of innovation adoption based on maturity. Source: McKinsey (2019)

Automation technologies for other party of the supply chain

The first projects are being implemented, particularly in the area of financially strong online retailers, due to the small size of the products. Our approach is based on a lively exchange with potential tenants in order to take into account the corresponding requirements while ensuring a high degree of flexibility.

The example of the industry giant Amazon shows that the use of autonomously driving vehicles reminiscent of suction robots on the one hand provides an answer to the shortage of labour by carrying out simple tasks and on the other hand does not place any additional demands regarding the logistics hall.<sup>2</sup> This also has positive effects on the long-term letting of buildings. The tenant investments for operational use of a building will increase, anchoring the tenant to the building and hence the landlord.

With the building focus on regional distribution centers, we are pursuing a defensive strategy with regard to the strong and extremely dynamic changes in the industry and the corresponding supply chains. This background becomes clear in the following chapter when we take a closer look at the transformation within the supply chains.

<sup>&</sup>lt;sup>1</sup> McKinsey (2019)

<sup>&</sup>lt;sup>2</sup> https://www.businessinsider.com/amazon-introduces-new-warehouse-robots-2019-5?r=DE&IR=T

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### AT A GLANCE – TRENDS IN LOGISTICS TRANSFORMATION / POTENTIAL / SUSTAINABILITY NR. 2

## Supply chain / management – logistics as a central component of the networked global economy

The supply chains and the corresponding organisation, the so-called supply chain management, form the central link. All five megatrends (Globalisation, E-Commerce, Urbanisation, Supply-Chain, Ecology, Industry 4.0), which lead through the entire logistics series (Parts 1–3), converge here. For globalisation and the ever-increasing vertical production and trade interdependencies that accompany it, efficient logistics and the necessary reorganisation of supply chains are indispensable. In this context, an ever more finely tuned interlocking of companies and sectors requires a deeper integration of logistics services into the entire value-added process. E-commerce and urbanization pose great challenges to logistics processes but lead to a similar development on the customer side. The increasing shift from B2B to B2C services is also leading to a significantly deeper penetration of logistical processes in this area. The direct interaction with the end customer that was previously reserved for the retail trade is increasingly being transferred to the logistics industry, especially through online trading. This extremely dynamic and fluid growth in demand for logistics solutions, caused by both producers and consumers, is being joined by the ecological challenge of our time. The urgently needed decarbonisation of supply chains must take place simultaneously and, in this context, poses further challenges to the industry, to which we are making our contribution with green logistics properties.

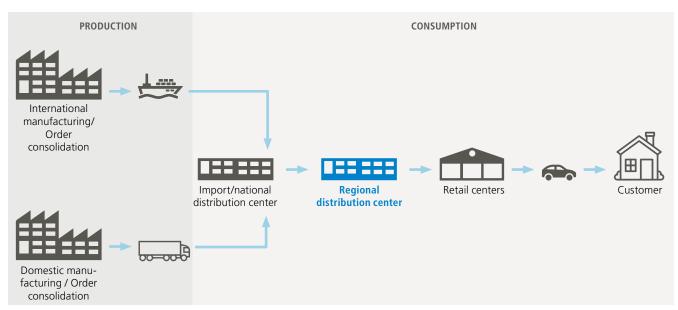
These challenges, however, represent an enormous opportunity when taking into account the remaining megatrend Industry 4.0.

The significant expansion of logistics processes within the value creation and supply chains – from raw materials to the end customer – makes it possible to collect huge amounts of data. Data is the currency of our time and included in the generic term Industry 4.0 are Big Data Analytics and artificial intelligence. If the enormous amounts of data can be evaluated with the help of the most modern methods and innovations, logistics will change from a pure service provider to a central and extremely valuable component of the global economy. The resulting forecasts and information subsequently enable significantly more efficient processes and drive the integration of logistics into all areas even further.

## The transformation of the supply chain and the impact on building requirements

Rapidly growing online trade is significantly strengthening the consumer orientation of supply chains. In order to gain current competitive advantages, the duration of delivery dominates the competing low-price orientation. As a result, the demands for proximity to the end customer are increasing. However, this development is contrasted by very limited space availability and bottlenecks in the infrastructure within European conurbations.

The figures below illustrate the reorganisation of the consumption-oriented supply chains by means of the additionally required building structures.

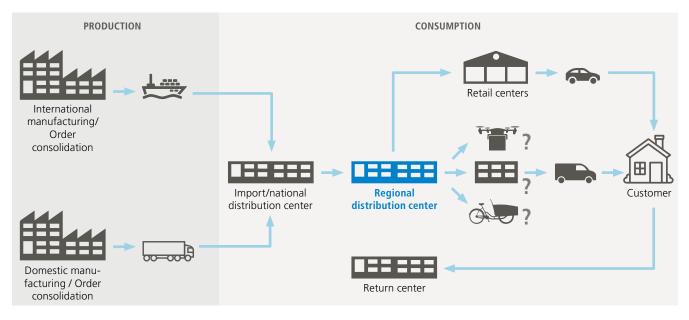


Supply chain interaction retail to end customer

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#### Supply chain interaction logistics to end customer



The illustrations show the need for additional building structures, which are of increasing relevance in the competition for delivery times. However, the stability of the position of regional distribution centres is also apparent. These form the link between product-oriented and consumer-oriented supply chains. This type of building is characterised by large volumes and its peripheral location to metropolitan areas with very good infrastructure connections. It is of substantial importance for e-commerce in order to guarantee the supply of significantly smaller logistics units, limited by price and space availability and located closer to the centre. In addition, however, there is also a high demand from industrial users for supply, storage and further distribution for local production processes whose

locations are characterised by similar location criteria. In contrast to various inner-city logistics projects, which lack standardization, are often still in pilot phases and depend on ongoing innovative changes, the regional distribution centers have a mature and stable position. Our strategy is focused on the development of these regional distribution centres, as we expect the least amount of change and, accordingly, a high degree of value retention and development over the long term. For investors with medium- to long-term investment horizons, these properties offer ideal development options, as they occupy an enormously important and established position within the supply chain and thus have a high secondary use and the ability to bundle the demand side.

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