

HOT TRENDS IN SUPPLY CHAIN MANAGEMENT & LOGISTICS FOR 2022

Like many other industries, supply chain and logistics is undergoing significant transformation, which brings with it both danger and opportunity.

New technologies, new market entrants, new customer expectations, and new business models have all emerged in the last months. There are a variety of methods for the industry to respond to these issues - some evolutionary and others revolutionary.

In this article we will explore the key trend that will shape the industry in 2022.

DIGITIZATION OF SUPPLY CHAIN

The pandemic's roadblock underlined the critical necessity for technology adoption. [Gartner predicts that](#) by 2023, 50% of global eCommerce enterprises will invest in real-time supply chain solutions, artificial intelligence, and advanced analytics capabilities.

More than just eliminating manual work is accomplished by digitizing the supply chain. This involves streamlining operations and payments, increasing resource efficiency, and giving insightful data.

Companies must deploy supply chain technologies to the field in order to reap great profits. Leaders in technology must speed up the digitization of their supply chains and introduce new projects and solutions.

The good news is that technological capabilities like transportation management, demand forecasting, analytics, and reporting can be effortlessly integrated into existing systems. And do not forget: supply chain data digitization

removes the risk of information silos and allows for more accurate forecasting and planning.

LOGISTICS COMPANIES ALSO NEED TO THINK ABOUT E-COMMERCE

Logistics and supply chain management companies also need to look for technologies that connect with their customers, such as B2B and B2C e-commerce tools.

According to Eurostat data, in 2018, 60% of Europeans between the ages of 16 and 74 ordered goods or services online. [In 2020, the percentage had already reached 73%.](#)

Modern e-commerce services, which also benefit from the technological trends mentioned above, can guarantee the delivery of goods in an hour, in a big city - and we are not referring here to a pizza. We should consider the need to sell goods and services online as a new standard for every industry. Unless the service requires a physical meeting with an expert or account manager, of course.

[Gartner](#) estimates that 80% of B2B sales will be digital by 2025. Therefore, in 2022, a purpose-built eCommerce platform that empowers customers and makes exploring your products and services simple can help you stay competitive.

COVID-19 HAS DETERMINED A BOOM IN CLOUD TECHNOLOGY, A TREND THAT WILL CONTINUE IN 2022 AND BEYOND

Cloud technology in logistics and supply chain management is certainly not a new trend, but thanks to COVID-19, it has grown rapidly since 2020 and is expected to grow in popularity beyond 2022.

The cloud industry has been very successful overall, with an average annual growth rate of 19.1% [and an expected market size](#) of \$1,251,090 million by 2028. Increasing big data consumption, digital transformation, and the adoption of 5G have all contributed to this tremendous growth, and advances in AI and Internet of Things (IoT) technologies will make another contribution.

According to [Grand View Research](#), cloud technology costs continue to fall and more companies provide access to advanced software such as data analytics, enterprise resource planning (ERP), inventory management, Customer Relationship Management (CRM), and accounting software - so this technology will be more affordable and more popular in 2022 and beyond.

SUSTAINABLE DEVELOPMENT

Sustainable development is where the needs of the current generation do not diminish the chances of future generations to achieve their own goals. The basis of sustainable development is the natural environment.

Cumulatively, countries that currently make up the European Union (EU-27) have been responsible for approximately 18 percent of global carbon dioxide emissions produced since the industrial revolution began.

That is why many countries are actively addressing the issue of environmental protection, and the European Union is setting requirements for member states to reduce CO2 emissions and better waste management.

Here are [the key targets that EU has set for 2030](#):

- At least 40% cuts in greenhouse gas emissions (from 1990 levels)
- At least 32% share for renewable energy
- At least 32.5% improvement in energy efficiency

Is it an ambitious plan? Perhaps. But that not necessary means that is not

doable. Some measures are already taken. We have smaller packages or packages that do not contain plastics. We have storage tanks with sensors that reduce the consumption of energy, water and gas in the rooms. Renewable energy from the sun, wind or water is being used more and more often. Processes are optimized, with new devices and technologies being introduced to reduce the negative impact of this sector on the climate.

The scientific community is sure of one thing - if we do not act, we will have problems. The challenges are huge, but we have known for a long time how much can be gained from ecology.

And this is where the supply chain can do its part. If just 125 big companies boosted their renewable electricity by 20%, no more than 1,000,000,000 tons of CO2 emissions [might be saved each year](#). It's the equivalent of Mexico and Brazil's combined greenhouse gas output!

Also, from 1 January 2021, [European Union nations introduced plastic tax on non-recycled plastic packaging](#). A uniform call rate of €0.80 per kilogram is applied to the weight of plastic packaging waste that is not recycled, with a mechanism to avoid excessive contributions from less wealthy Member States. According to the European Commission, this measure *“is expected to encourage Member States to reduce packaging waste and stimulate Europe's transition towards a circular economy by implementing the European Plastics Strategy”*. At the same time, *“it leaves Member States the possibility to define the most suitable policies to reduce plastic packaging waste pollution in line with the principle of subsidiarity”*.

WILL ELECTRIC AND AUTONOMOUS VEHICLES BE THE FUTURE OF LOGISTICS?

In recent years we have seen a rapid growth when it comes to electric vehicles, which could play an important role in reducing the carbon footprint. Actually, [the electric trucking industry is predicted](#) to increase at a rate of 25.8% to \$1,893.1

million by 2027. Government green programs and emissions regulations are driving this rise globally, but it has been limited by COVID-19 and worries of a recession, which have impacted vehicle sales.

Also, autonomous vehicles and equipment are projected to become a point of interest in the logistics and supply chain sector by 2022 and beyond. We already witnessed an increase in the automation of the following equipment:

- **Automated collecting:** Robotic order picking systems and other storage or retrieval technology allow robots to identify, pick, and transfer products across enormous warehouses considerably more quickly and safely than humans can.
- **Automated trucking:** Self-driving trucks are expected to be widely used far before self-driving vehicles. Indeed, since 2017, [investor funding for this technology has increased dramatically](#), rising from \$0.1 billion in 2017 to \$5.6 billion in 2021.
- **Automated delivery:** Using either driving or flying robots, delivery drones are the final piece of the logistics puzzle, automating the last mile of delivery.

Some form of sustainable trucking option will almost certainly be utilized in the future - but it may not necessarily be electric vehicles. That's because, while technology is improving in terms of cost versus efficiency, EV infrastructure is lagging and electric trucks remain prohibitively expensive for many businesses. Also, when it comes to autonomous vehicles, the technology is not that mature yet.

REVERSE LOGISTICS IS SOMETHING THAT COMPANIES STRIVE FOR

When shipping areas were smaller and most enterprises operated out of brick-and-mortar storefronts, returns, end-of-life items, end-of-lease rentals, and even delivery failures were all much easier. However, in today's world, things are frequently purchased through eCommerce, which implies they must be returned using the same channels.

Reverse logistics has become increasingly important in this area. Any supply chain management firm must now be able to handle commodities coming back in as efficiently as things flowing out, which necessitates optimized reverse logistics.

This approach, however, is fraught with difficulties. For starters, organizations must be able to estimate which things are most likely to return up the supply chain and where they will arrive. Companies lose money if the cost of this exceeds the worth of the goods. It's also important that the goods themselves don't get lost in the process.

CIRCULAR SUPPLY CHAINS CLOSE THE LOOP

The “Circular Supply Chain” is a hot topic right now, especially when it comes to sustainability. A circular supply chain is one in which commodities can be reused, recycled, or resold in the reverse way. They can then be reused, recycled, or resold again if they move back up the supply chain — and this process can continue indefinitely.

This closed-loop supply chain is the way of the future - but not right now. Despite nations best efforts, we still lack much of the infrastructure needed to break down and reuse materials, so even things that could be recycled – such as certain forms of plastic – end up in landfills.

In 2022, we're unlikely to see any big modifications to this loop, but we may expect to see additional progress toward its completion. That means logistics companies must continue to improve their reverse supply chain functions and look for sustainable partners like packaging producers and recyclers. Being able to promote these types of green efforts could provide you a competitive advantage and gain more environmentally sensitive customers.

GO LOCAL!

For many businesses, COVID-19 was a watershed moment. When access to the global supply chain was disrupted, several logistics companies found new and important opportunities by focusing on the local market.

Local sourcing [will continue to be](#) a big opportunity for supply chain management in 2022, [due to](#) prolonged economic turbulence, political conflicts, and increased environmental concerns.

Local sourcing has a number of advantages:

- You improve delivery time control by focusing on connecting clients with providers in their area.
- You're not as reliant on freight traveling via limited or tightened borders during times of economic or political turbulence, so there's less danger.
- It makes your business more sustainable and more environment-friendly because you reduce the carbon emissions by depending less on emissions-intensive international freight.
- Small businesses get better branding by collaborating with communities.

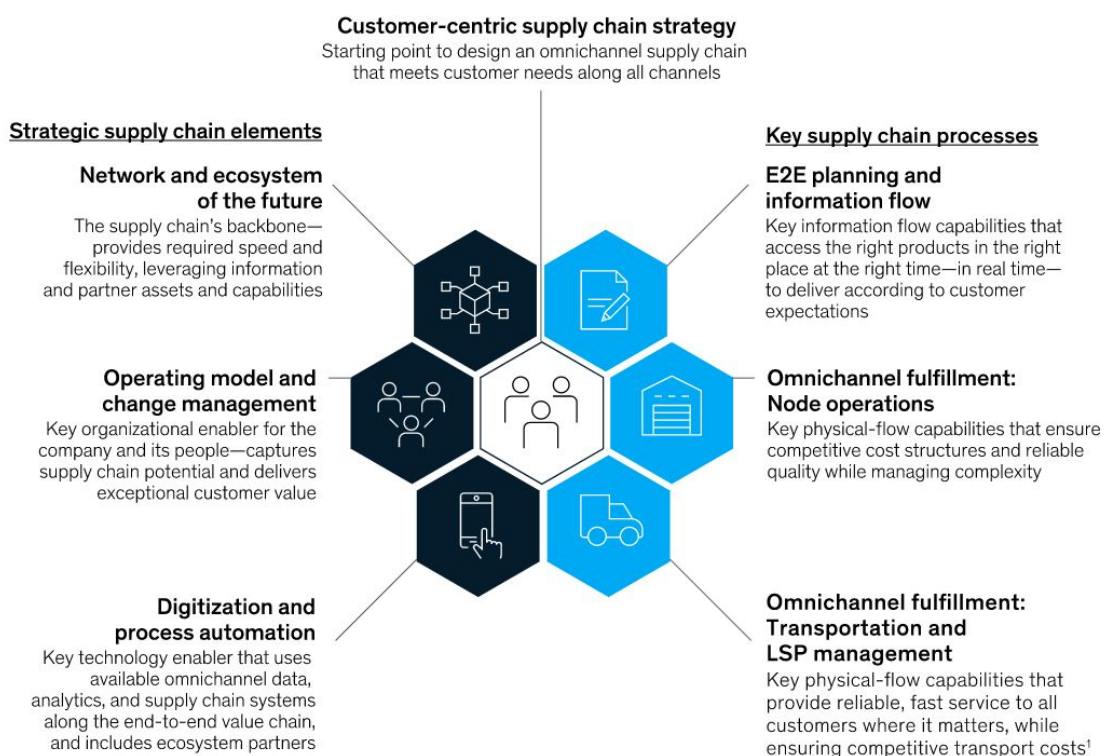
OMNICHANNEL SUPPLY CHAIN IS HERE TO STAY

For practically all consumer products, omnichannel shopping has become the new normal, and it is likely to stay that way for the foreseeable future. But what is omnichannel shopping? This means that consumers can buy across several sales channels—online using their laptop or phone, at actual brick-and-mortar stores, or at wholesale retailers—while getting a smooth and holistic experience.

Therefore, omnichannel retail means supply chains must keep up. But this level of synergy between physical and digital systems - and the processes and training required to manage them - more likely implies a major business

transformation. To offer omnichannel excellence, the supply chain may be altered completely - but the investment will be worthwhile.

[McKinsey](#) put together a chart that explains the 7 key-factors needed for building an omnichannel supply chain:



¹Logistics service provider.

CLOSING REMARKS

Supply chain companies work on a massive scale, and insight on a micro level is often lacking. Using technology to optimize your supply chain might help you streamline procedures and possibly even develop a symbiotic relationship with your consumers. Especially during pandemic times, technology can make all the difference in efficiently conducting logistics operations. However, keep in mind that every development you make must be centered on the customer.

SOURCES AND FURTHER READING

- [PwC.com](https://www.pwc.com): Shifting patterns - the future of logistics
- [GreenBiz.com](https://www.greenbiz.com): By sea, land and air - Decarbonizing transportation and logistics
- [LogisticsViewPoints.com](https://www.logisticsviewpoints.com): The Evolving Warehouse - Prepare Your Warehouse for Disruption
- [Research and Markets](https://www.researchandmarkets.com): Global Logistics Market Report 2021-2029
- [Unleashed.com](https://www.unleashed.com): 10 Trends in Supply Chain Management & Logistics for 2022