

# Scenario 1

---

## **Untamed Economy – Impending Collapse**

### **The world in the year 2050**

The world is characterized by unchecked materialism and consumption. The paradigm of quantitative growth predominates and the concept of sustainable development has been rejected. Trade barriers have been eliminated and global trade flourishes. Global economic power has shifted to Asia and the former “emerging” countries have surpassed the West. A global transportation supergrid ensures the rapid exchange of goods between the various centers of consumption. This untamed economy, propelled by unsustainable lifestyles and the uncontrolled exploitation of natural resources, carries the seeds of its own demise: as massive climate change inches closer, natural disasters occur more often and frequently disrupt supply chains.

### **Implications for the logistics industry**

From the perspective of the logistics industry, these developments lead to a massive increase in demand for logistics and transport services. Companies are even outsourcing their production processes to logistics companies. While climate change has opened up shorter and more efficient trade routes through the Arctic ice, the increase of extreme weather events causes repeated disruptions to the supply chain and raises capital costs for logistics companies. Disaster response and contingency planning becomes more important as the number of natural disasters around the world continues to rise. The growing scarcity of energy resources, higher energy prices and costlier raw materials mean smaller profit margins. As a result, not only offshoring but also nearshoring are common business strategies.

# Scenario 2

---

## Megaefficiency in Megacities

### The world in the year 2050

In this world, megacities are both the main drivers and beneficiaries of a paradigm shift towards green growth. To overcome the challenges of expanding urban structures, such as congestion and emissions, they have become collaboration champions, fostering open trade and global governance models in partnership with supranational institutions. Rural regions have been left behind and the nation-state no longer plays the dominant role it once did. Robotics has revolutionized the world of production and services. Consumers have switched from product ownership to rent-and-use consumption. Highly efficient traffic concepts, including underground cargo transport and new solutions for public transport, have relieved congestion. Zero-emission automated plants have helped to cut carbon emissions. A global “supergrid” transport network with mega transporters, including trucks, ships and aircraft, as well as space transporters, has opened important trade connections between the megacities of the world.

### Implications for the logistics industry

The logistics industry is entrusted to run city logistics, utilities, as well as system services for airports, hospitals, shopping malls and construction sites, along with part of the public transport infrastructure. It also manages the complex logistics planning and operations for advanced manufacturing tasks. In contrast to the situation in cities, the logistics services available in remote rural areas are poor. In larger villages, central collection stations are the main delivery option for products ordered online. In response to “dematerialization” of consumption, logistics companies offer an array of renting and sharing services, as well as secure data transfer. Thus, advanced logistics services not only encompass the fast and reliable delivery of goods, but also the safe transfer of information and knowledge.

# Scenario 3

---

## Customized Lifestyles

### The world in the year 2050

In this world, individualization and personalized consumption are pervasive. Consumers are empowered to create, design and develop their own products. This leads to a rise in regional trade streams, with only raw materials and data still flowing globally. Customization and regional production are complemented by decentralized energy systems and infrastructure. New production technologies such as 3D printers accelerate the customization trend and allow developing countries to leapfrog classical industrial production patterns. However, the growth in production of personalized products has increased the overall consumption of energy and raw materials, which puts the earth's climate on course for a 3.5°C temperature increase by the end of the century.

### Implications for the logistics industry

The growing importance of 3D printing has a significant impact on the logistics industry. Logistics providers transport raw materials for 3D printing cartridge manufacturers, deliver the 3D printing cartridges, collect old products and recycle them. Several logistics providers have expanded into the online fabbing market. The implications for logistics include a vastly reduced need for long-distance transportation of final and semi-final goods due to the localization of value chains. At the same time, logistics providers organize entire physical value chains. In 2050, the logistics industry consists of an online and offline segment. The offline segment integrates the transport of raw materials into manufacturing logistics and reverse logistics. The online segment ensures secure data transfer and secure data retail in online shops. Strong regional logistics capabilities and a high quality last-mile network become important success factors because of the decentralized organization of production.

# Scenario 4

---

## Paralyzing Protectionism

### The world in the year 2050

In this world, economic hardship combined with the rise of nationalism and protectionist barriers has reversed globalization. Resources are scarce, technological development is stagnating and economies are faltering. Global trade volumes are down after most countries have raised protectionist barriers. Trade suffers from a lack of investment in infrastructure development and maintenance. High energy prices and dramatic resource scarcity fuel international conflicts over resource deposits. Under these circumstances, there are no international efforts to reduce greenhouse gas emissions and the earth's climate is on track for a 3.5°C temperature increase by the end of the century.

### Implications for the logistics industry

The decline of world trade and the resulting regionalization of supply chains are major challenges for the logistics industry. The average transport distance has been shortened. Ocean freight becomes less important, while the significance of regional road and rail transport is on the rise. Shorter and less complex regional supply chains reduce the demand for elaborate and sophisticated logistics solutions. What many call a "devaluation of the logistics industry" results in fewer customized solutions and an increase in standardized services. Strong regional providers emerge, maintaining excellent connections to governments and public administrations. Governments view logistics as an industry of strategic importance. Relations between some blocs and countries are extremely strained, and logistics providers in bloc-free countries act as intermediaries in international trade brokerage. The growing complexity and length of the customs clearing process increase the demand for specialized customs brokerage and consulting services.

# Scenario 5

---

## **Global Resilience – Local Adaptation**

### **The world in the year 2050**

This is a world initially characterized by high levels of consumption thanks to cheap, automated production. However, accelerated climate change and the resulting increase in natural disasters is causing disruptions of lean production structures as well as repeated supply failures for all kinds of goods. Thus, the new economic paradigm is no longer about maximizing efficiency, but reducing vulnerability and creating robust, resilient structures. This radical move towards redundant systems of production and a change from global to regionalized supply chains allow the global economy to better weather troubling times.

### **Implications for the logistics industry**

The security-conscious world in 2050, with its regionalized trade structures, relies on a logistics sector that ensures supply security as a top priority. High-performance backup infrastructure guarantees reliable transport even in unstable and hazardous times. However, such extensive backup systems are capital-intensive and conflict with the aim of carbon reduction. To counter this effect and find a balance between energy efficiency and supply chain resilience, sophisticated logistics planning is used to achieve high capacity utilization. Instead of complex just-in-time delivery processes, huge warehouse facilities located close to the manufacturer play a large role and are considered indispensable buffers. Disruptions and natural disasters occur more frequently in many parts of the world and providing fast relief operations is considered a high-priority as well as profitable business for logistics providers. The increased focus on long-lasting products contributes to demand growth for the service and maintenance of domestic technologies. Thus, logistics providers combine the operation of the last mile with offering technical services on the spot, such as the collection of used products for the purpose of recycling scarce resources.