EEN Permanent Survey on Supply Chain Resilience

1st Report I/2024

Identifying current or upcoming supply chain disruptions

1st Report

Prepared by the Task Force on Resilience, January 2024

Content

Executive Summary

Within the Enterprise Europe Network (EEN), the Task Force on Resilience (TFR) launched a permanent survey on supply chain disruptions. The aim is to have an early signals warning system on existing or potential disruptions. This helps EEN advisors to support their SME clients and the European Commission to consider them for further policy actions.

This first report covers the initial period from November 8, 2023 to January 15, 2024 and discusses 56 answers given mostly by European SMEs from ten countries. Half of the respondents (52%) answered they are facing supply chain disruptions and even more (66%) said that they expect disruptions in the future.

Current disruptions almost equally concern production and sales/distribution, while expected disruptions are foreseen more for pre-production and production (48%) than for sales/distribution (41%).

When asked to describe the SMEs' current supply chain disruptions, respondents mentioned:

- **Materials:** phase change materials (PCM), gases like Helium, building materials, 3D printers, electronics, raw materials (e.g. for batteries), kraft paper for high-pressure laminate, wood, pulp, and paper products, water/electricity (in Ukraine), grain products.
- **Prices:** high prices for energy and imported goods, product quality (accuracy), extra import taxes for metals from China.
- **Delays:** delays in the delivery of inputs for production and transport (long customs procedures, low EU freight capacity, slow crossing of trucks at border crossings, disruptions at Suez canal/Panama canal/Black sea), changing regulation (e.g. product labelling), lost of customers (especially for Ukrainian producers).
- **Staff:** lack of work force, qualified employees, graduates.

When asked to describe SMEs' expected supply chain disruptions, respondents mentioned:

- **Materials:** spare parts, raw materials and chemicals, Platinum Group Metals (like Platinum, Palladium and Rhodium) and Rare Earths (like Cerium), electronic foundry, PVDF/PCTFE, natural gas, electronic components, batteries, food ingredients, safety stock.
- **Tourism:** cleaning services, cleaning products, digital services provision.
- **Prices:** volatility, inflation, interest rates, increased costs of inputs, trade barriers/protectionism, intra-border regulation, limitations to free trade.
- **Transport:** shipping costs, disruptions in the strait of Hormuz, Bab al-Mandab strait and Suez Gulf, delayed or cancelled deliveries, tensions between China and Taiwan, transport capacity, insurance instruments, slow border crossings with long waiting times.
- **Staff:** lack of skilled personnel, agile leaders, workforce, shortness of driver.

The full lists of disruptions' descriptions can be found in the qualitative part.

The next update of this report is planned in Q2 2024 (April/May 2024).

Methodology

The EEN permanent survey[1] is set up on the Supply Chain Resilience Platform[2] with the help of the EU tool „EUSurvey“. It was launched on November 8, 2023 as a permanent survey with subsequent cut-offs. These are the results of the first cut-off with an overall of 56 answers from ten countries.

Answers cannot directly be verified as the tool is open to be used without authentication or similar. This is a result of the basic concept – the tool is meant to be used with as little hurdles as possible in order to best identify current or upcoming supply chain disruptions. Non-plausible or test answers are not used for evaluation. The survey is not planned as being quantitative and statistically representative – instead it is intended to be an early signals warning system that may be fed by actors in industry or academia alike.

Results (i.e. charts or tables) are taken from the EUSurvey tool.

[1] https://supply-chain-resilience-platform.b2match.io/page-1881, https://ec.europa.eu/eusurvey/runner/EEN-SCR-Permanent-Survey-for-SCR-Platform-2023
[2] https://supply-chain-resilience-platform.b2match.io/

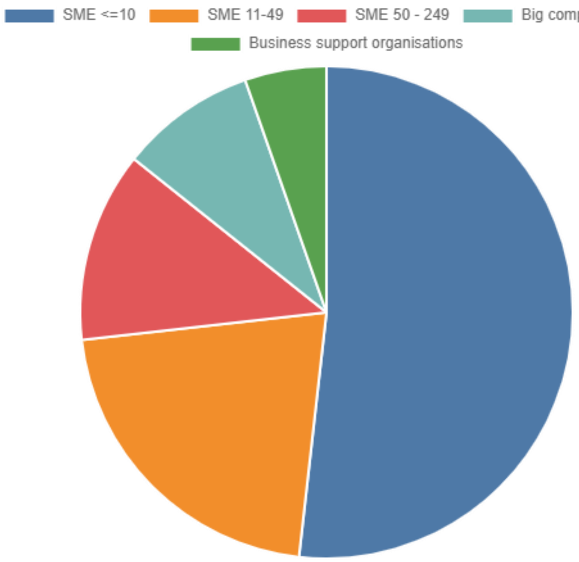
Quantitative analysis

Composition of the group of respondents

The composition of participating companies in this survey is described by size and sector.

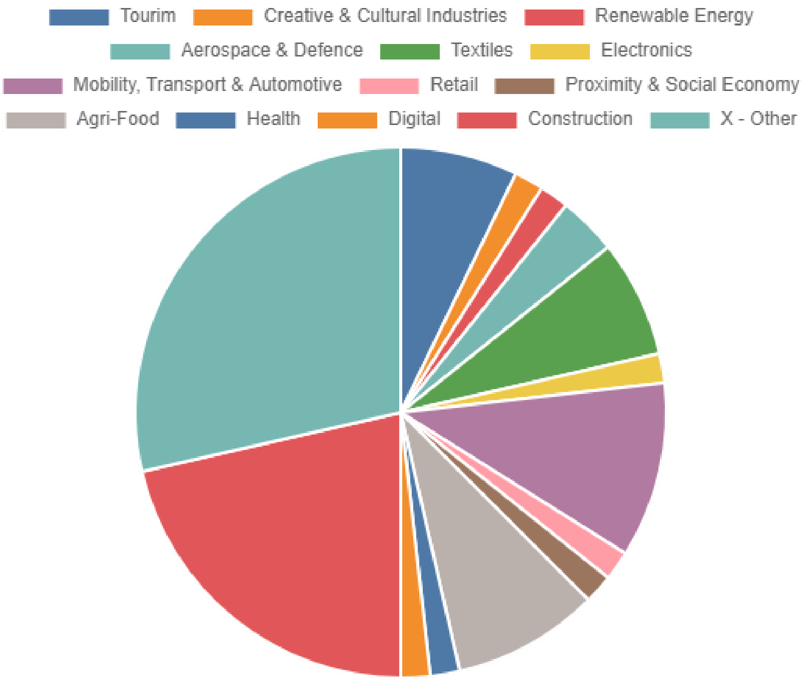
Size

Roughly half of the answers come from **micro enterprises** (52%). 85% of answers comes from SMEs (i.e. all companies up to 249 employees).



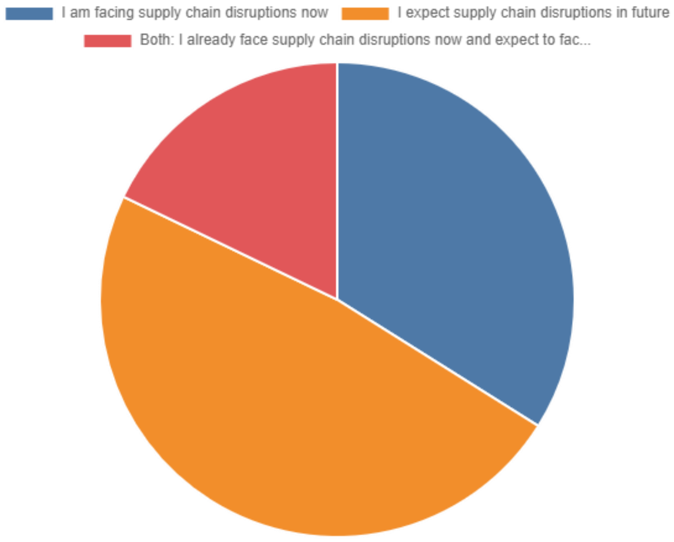
Sector

Most respondents indicated **Construction** as their primary sector, followed by **Mobility** and **Agrifood**.



Current and future supply chain (SC) disruptions

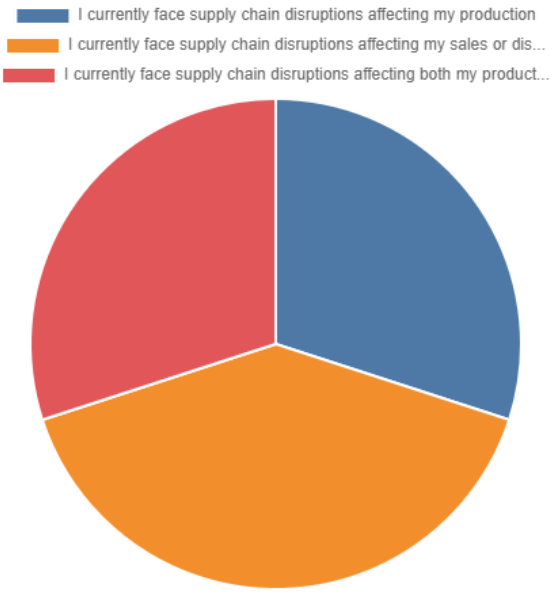
When asked whether respondents faced current or future SC disruptions, 52% answered they are facing disruptions now. 66% said that they expect SC disruptions in the future.

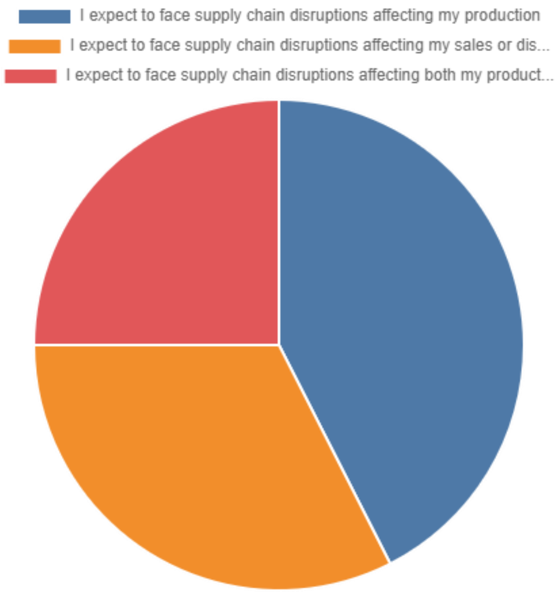


Disruptions in production or sales/distribution?

The survey shows that **current** supply chain disruptions affect the **production** of 32% of the respondents and **sales or distribution** channels of 37% (non-answers not shown in figure).

The survey shows that 48% of the respondents **expect** future disruptions in their **production**, while 41% expect future disruptions in their **sales or distribution** channels (non-answers not shown in figure).





Qualitative analysis[3]

List of <u>CURRENT</u> individual supply chain disruptions

INPUTS and PRODUCTION:

- **Energy**: most important disruption is energy – its availability and increased costs, resulting in a general increase in the costs of production.
- All **materials** needed for production are either expensive to import directly or they are constantly being delayed due to delays in the transport from outside of the EU. In particular, the following problems have been highlighted:
    - **Metals**: extra import taxes imposed by the EU on metals originating from China is disrupting the supply.
    - **Construction sector**: COVID-19 resulted in shortage of construction materials. As a result, construction products sales have declined. A company developing new innovative products (Rnd and Pilot scale production) faced problems in supply of e.g. **PCM (Phase change materials)**, also problems in **gases like Helium** used for their Labs.
    - **Paper:** shortage and increase of costs of paper for printing books. Ukraine is a key supplier of **wood, pulp, and paper products** - the disruptions caused by the conflict have been affecting the availability of paper globally, including the scarcity of raw materials like **craft paper for hpl production.**
- **Electronics**: components lacking in the EU, especially those originating from Asia.
- **Electromobility**:
    - over 85% of global sources of **raw materials used in battery production** are located abroad and this results in insufficient supply in the EU, making it difficult for manufacturers located in the EU to remain competitive on the global market and increase their sustainability performance in view of meeting the green transition and decarbonisation objectives.
    - **Supply disruptions** of materials to complete assembling, both due to delays in production of raw materials and in transport.
- **3D printing**: innovative production process offered mostly by companies that are new and unexperienced, causing negative impact on production - impossible for these SMEs to address all orders on time.
- **EU imports**: delays in import customs procedures**.**
- **<u>Ukraine</u>:**
    - insufficient digital **electronic components** supply,
    - most of the company's national **customers' facilities** and businesses are not operating now.

OUTPUTS / DELIVERY TO CUSTOMERS:

- General feedback: EU companies are not in a position to **satisfy the demand** due to **supply chain disruptions**, but also due to higher **prices of EU products** compared to those of global competitors.
- **Transport / logistics:**
    - **delays**: due to the relocation of the production sites of company's main retail customers, the **last-mile distribution** has been negatively impacted (with an increase of 25% in disruption cases). Main disruptions are caused by the blockade of the **Suez Canal** and due

[3] *For an easier analysis, scarce materials/products have been highlighted and disruptions signalled by Ukrainian companies have been separated from other answers.*

to queuing in the **Panama Canal.** The retail customers have increased their stock volumes in central warehouses in order to partially reduce the impact along the whole chain.
    - **complex procedures** (especially for road-transport) where the end customer is responsible for managing them via e-mail but has no sufficient knowledge. Logistic companies claim a shortage of **transport capacity** in the EU, as transport demand increases.
- **Products' promotion and labeling** problems reported - a new online platform for organic, natural, and eco-friendly products claims that every time they receive new information regarding the product labelling, their vendors are struggling to label their products in the mandatory languages.
- **Tourism:** some SMEs signal that hotels / restaurants do not select local products because of higher prices (case from Greece) – this goes against the need to promote local compared to global (in line with sustainability principles and Green Deal).
- **Ukraine**:
    - Import of **grain products** to neighboring countries has been disrupted due to the decision of Poland to introduce **restrictions** on Ukrainian exports in April 2023. This is causing severe issues to Ukrainian producers, but also to the supply of grain-based products in the EU, including increased prices for such products.
    - Long **queues at the border** (trucks), long waiting times, bottlenecks, especially with Poland - if political problems are not solved and a digital and physical expansion of the border office will not be implemented, the problems are expected to continue.
    - Lack of **national customers** - usual business partners are not operating now because of the war in Ukraine.
    - Fewer contracts with **international customers** - suffering due to impossibility to present businesses and their products directly to costumers and to establish cooperation. Restricted contacts to other countries in the EU Single Market and neighboring third countries.
    - **Insurance:** due to the lack of insurance instruments (e.g. cargo-insurance, forwarding liability, health and car/truck insurance), non-Ukrainian carriers will provide little to no capacity.
    - **Lack of skilled employees** and **insufficient graduates** to replenish the missing qualified work force, who is occupied at the frontline or left the company with relocation to other countries or relatively safer Ukrainian regions.
    - Periodical interruptions in **water and electricity supply.**

List of EXPECTED individual supply chain disruptions

INPUTS and PRODUCTION:

- General feedback: reduced availability and increased costs of inputs (such as raw materials, intermediate goods, and energy), further inflation and rising prices, continous lack of skilled work force are expected, which can lower the profitability and competitiveness of the clients. As during the pandemic, when most businesses were closed for a long time and many could not recover quickly, the same is very likely to happen if the crisis in the Middle East and the war in Ukraine continue.
- **Delayed or cancelled deliveries:**
    - of outputs, such as finished goods, projects, and services, which can damage the reputation and customer satisfaction.
    - of RM & machinery spare parts.
    - of electronic components due to the tensions between China and Taiwan.
- **Raw materials** shortages:
    - in Greece, companies signal lack of several raw materials and chemicals, affecting the production of several key products.

    - other companies report lack of **natural gas** for power generation due to the situation in Ukraine and Middle East.
    - In the **electronics** sector, companies signal lack of raw materials for PVDF and PCTFE market.
    - In the **automotive** sector, catalytic converters manufacturers signal the need for more **Platinum Group Metals** (like Platinum, Palladium and Rhodium) and **Rare Earths** (like Cerium)**.** Both these two family of metals have been characterized as critical for the European economy since they are not mined within EU but in third countries, like Russia, China and South Africa.
- **Food sector**: due to war in Ukraine and the conflict in the Middle East, raw materials used for **fish feed** are getting more expensive.
- **Services**: disruptions faced mainly in the cleaning services industry and digital services.
- **Workforce**: the scale and speed of change requires rapid responses:
    - leaders need to adopt agile ways of working more quickly. They need to accelerate value chain transformation.
    - strong data and analytics capabilities are needed to understand complexity and anticipating potential disruptions, and quickly developing a response.

OUTPUTS / DELIVERY TO CUSTOMERS:

- **Demand forecasting**: overall the demand is expected to be higher than the supply. Increased uncertainty and volatility in the market is expected to hamper the planning and forecasting of the clients and require more flexibility and adaptability.
- Higher inflation and interest rates, which can erode the purchasing power and the **investment capacity of the clients.**
- **Further fragmentation in the market** due to global trade barriers, protectionism, and increased custom duties.
- Regarding the **distribution** channels, further delays are expected due to:
    - **shortage of drivers**
    - increasing number of **construction sites on road and rail**
    - **increase in shipping costs**, mainly due to war in the Middle East - through the strait of Hormuz, Bab al-Mandab strait and Suez Gulf.
    - Some companies report the need to find more importers and wholesalers of **sporting goods** in Europe.
- **<u>Ukraine</u>**: currrent difficulties in production, supply of materials and distribution are expected to continue because of the war.