



The Impact of COVID-19 on the Plastics Converting Industry in Europe

An Overview per Sector

May 2020

European Plastics Converters - EUPC | Avenue De Cortenbergh 71, 1000 Brussels



Contents

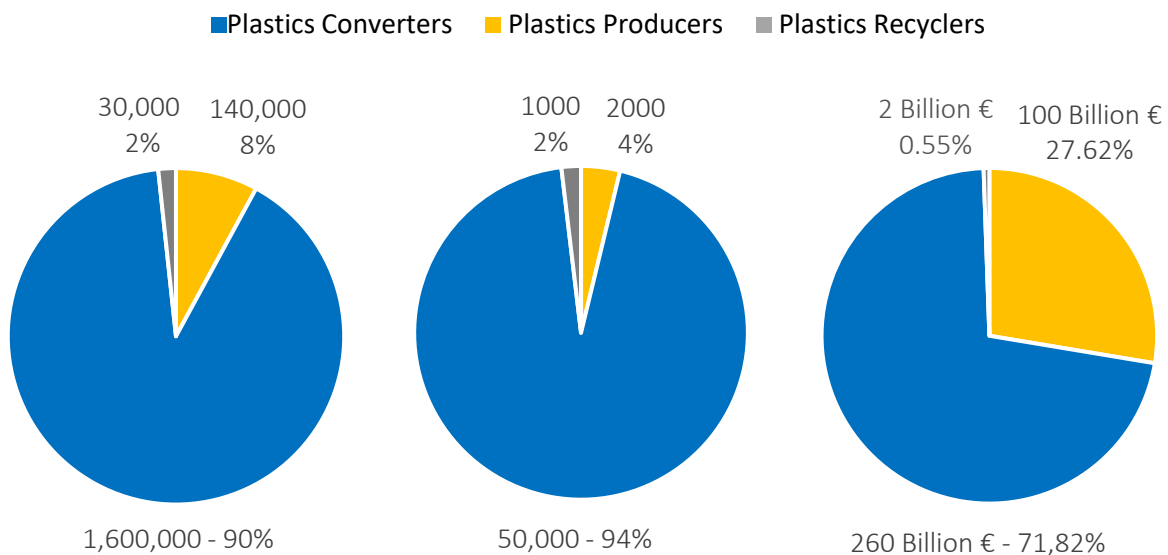
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1. Introduction to Plastics Converting in Europe

Plastics converters use virgin and recycled polymers as raw materials to manufacture new products across for a huge array of different markets and applications. They manufacture plastic products – ranging from toothbrushes to building pipes, from fruit boxes to car interiors – that can be found in virtually every industry and supply chain. Their adaptability, durability, and light weight making them a favourite in the construction, packaging, and automotive industries.

The European plastics industry makes a significant contribution to the welfare in Europe by enabling innovation, creating quality of life to citizens, and facilitating resource efficiency and climate protection. In Europe, more than 1.6 million people are working in around 50,000 small and medium-sized companies in the converting sector, creating an annual turnover in excess of € 260 billion.



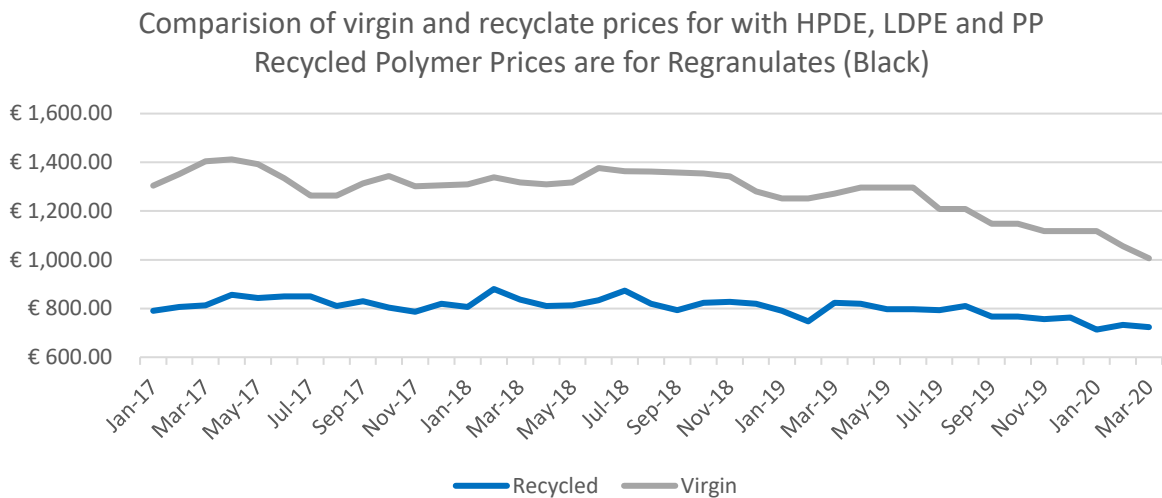
The following report has been prepared by European Plastics Converters (EuPC), based on the results of 2 surveys amongst the member associations of EuPC and direct feedback from companies. Based on the information which has been gathered since the start of the pandemic in mid-March up to the 8th of May 2020, this report focuses on the main markets of the plastics converting industry: Packaging, Building & Construction, and Automotive & Transport.

The basis of the report is a questionnaire¹ that has been developed in cooperation with DG GROW of the European Commission to collect information on the impact of the COVID-19 crisis on the different sectors of the plastics converting industry, and to provide guidance for possible recovery measures. In addition to data on the impact of the pandemic, this report includes recommendations for policy measures to support the recovery of the industry and avoid company bankruptcies and job losses. This report gives an overview of the situation in the entire EU and therefore includes generalisations. Specific situations can vary in the different Member States in certain areas.

¹ See Annex 1 for the complete questionnaires.



Next to the plastics converting industry, the plastics recycling industry has been affected strongly by the COVID-19 crisis due to a number of factors. Most importantly, the demand for recyclates has decreased dramatically due to the closure of converting plants and reduced overall activity. In addition, the prices for virgin material fell significantly during the last months, corresponding to historically low oil prices, and made the use of recycled polymers economically unviable for plastics converters.² The chart below illustrates the reduction of the delta between the prices for virgin and recycled polymers in the past months. In sectors with increased demand during the pandemic, prices for food-grade recyclates have even surpassed the prices for virgin raw material.



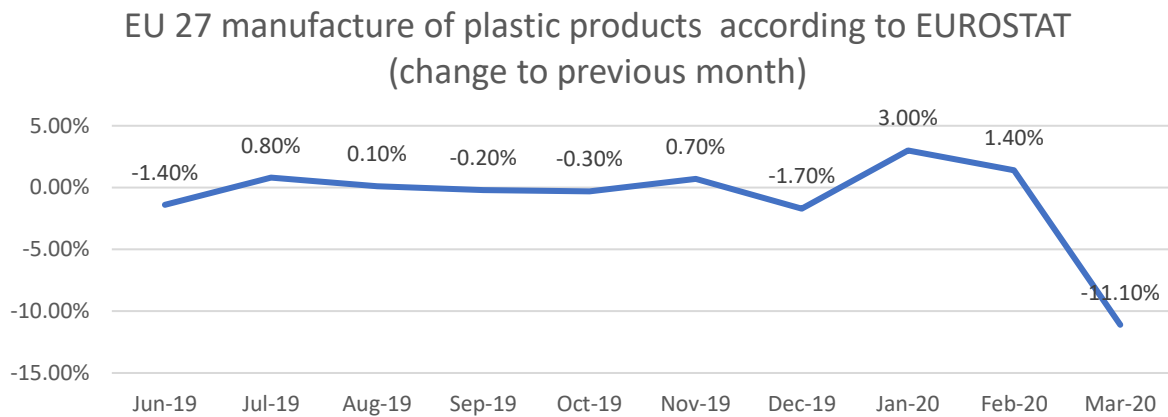
This situation poses a grave threat not only to the plastics recycling industry but to the entire plastics industry and its transition towards a circular economy for plastics in Europe. To support the recovery of the sector and overall transition to a circular economy in Europe, investments into the collecting, sorting, and recycling of waste are needed to create a resilient market for recyclate that is needed to reach the ambitious recycling targets.

² See as well the press release of Plastics Recyclers Europe (PRE) on the 15th of May 2020: <https://www.plasticsrecyclers.eu/post/plastics-recyclers-cease-production>.



2. The Building & Construction Sector

Within the plastics converting industry, the building & construction sector has been affected severely by the COVID-19 crisis. **The complete stop of construction sites in some Member States and closure of hardware stores all over Europe has led to a sharp decrease in demand and forced many converters to partly and temporarily close their plants.**

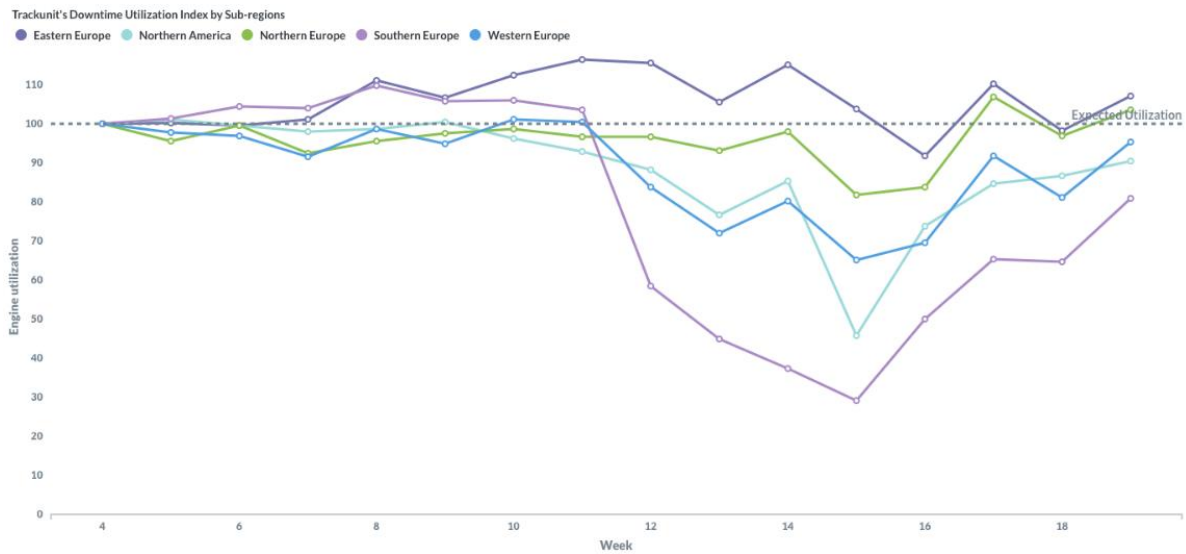


Since the beginning of the outbreak in China, the COVID-19 pandemic has had a direct impact on the plastics converters in Europe. Many of the larger companies in the building & construction sector source raw materials and/or components in China, and have **suffered disruptions in the supply chain** as early as March. These issues have been solved, as the situation in China normalised at the end of April. Next to China, the USA are an important market whose lockdown measures have an impact on the European industry. The reduction in demand in countries outside of the EU however only has a small effect on plastics converters, as their main business is within the EU.

The outbreak in the EU has had dramatic effects on the business & construction sector of the plastics converting industry, affecting all countries depending on the strictness of their lockdown measures. **Especially plastics converting companies located in Italy, Spain, and France have seen a reduction in their production from 60% up to 100% in March and April.** The situation is different in Central and Northern Europe where production decreased by about 10-30% in Q1 2020, due to less strict lockdown measures. **On average, there is a reduction of 40-60% for plastics converting companies in the building & construction sector in Europe.**

The decline in the overall construction activity in Europe can also serve as an indicator of the state of the plastics converting industry supplying that sector. Below an overview of the newly developed *Downtime Index* by Trackunit that compiles weekly changes in engine use from 150,000 construction machines for quick international comparisons.³ During April, construction machines were only used 30% of their use in January 2020 in Southern Europe, 70% in Western Europe, and 80% in Northern Europe. Overall, Eastern Europe has had the smallest decline with only a 10% drop in activity.

³ © of the index and graph: Trackunit. More information on the index & source of the graph at: <https://www.trackunit.com/company/eliminate-downtime/downtime-index/downtime-indexes/downtime-index-week-19>.



The most relevant problem for the companies is the **lack of demand from their customers because of the closure of construction sites and retail stores** due to the restrictive measures adopted by the national governments. The lack of demand implies production disruptions but most fixed costs remain. **The impact on working capital is severe and in the medium-term may lead to insolvencies.** Furthermore, the companies have to bear added cost to operate given the additional actions to minimise the contamination potential. The level of support available in the different EU Member States to weather the situation is very variable.

2.1. Demand & Supply

While the lockdown measures have slowly started to be eased in some Member States and production will start to slowly grow as of May, companies expect the entire year 2020 to remain difficult. Especially as **the predicted economic crisis that will follow the lockdown measures will impact the building & construction industry**, by reducing the funds available for construction and renovation projects. On top of this, the uncertainty of the future situation towards the end of the year is very problematic.

All plastics converters in the building & construction sector that are **exporting to countries outside of the EU have seen a reduction in demand.** The reported decline is on average around 50%. Some subsectors have seen even stronger decreases of 70% up to 100%. Especially exports to China were affected heavily but have started to slowly recover since the end of March. **The demand in Europe has decreased significantly as well, by 30-50%** on average across Europe.

Concerning the supply situation for plastics converters, some companies in the building & construction sector report that they have faced shortages of raw materials but these are exceptional cases. Companies that source raw materials and/or components in China however have **suffered more serious disruptions in the supply chain** as early as March. These issues have been solved, as the situation in China normalised at the end of April. Most shortages are without effect due to the missing demand from their downstream customers. No damages due to delays or disruptions in the upstream supply chain have been reported.



The main disruptions for plastics converters are downstream, due to the fact that most distributors (building merchants, hardware stores) have closed, and some countries have stopped work on construction sites. In addition, some companies report issues with logistics and transport, due to reduced capacities and border controls.

Most plastics converters in the building & construction industry have not reported shortages of workers due to quarantine measures. Depending on the country however, **some companies report problems with staff shortages** due to clear and explicit actions taken by the different authorities and fear from workers to get contaminated and to contaminate their families. **If the demand and production start to recover, this will become more of an issue**, especially if schools are not working normally again.

Due to the reduction of their production, companies have been forced to use **temporary unemployment schemes** to save labour costs where these are available. In the countries where temporary unemployment options are limited, some layoffs unfortunately have started to take place in exceptional cases and will continue in the future if production remains low. In some countries, employees are under layoff protection.

Generally, it can be stated that the public funding available is hugely variable depending on the country. In Western Europe in general, companies have been able to make use of temporary unemployment, state-guaranteed loans, tax deferrals, and/or the possibility to force people to take some days of vacation. In Eastern Europe generally, the level of support available is much more limited. As a consequence of retail closures and extremely limited production, plastics converting companies in the building & construction sector have started to face liquidity problems due to non-incoming or cancelled orders and outstanding invoices that remain unpaid. **This problem is expected to worsen over time.**

2.2. Public Support Measures

The most important short-term measure must be to help companies with liquidity problems by giving them **fast and easy access to financial means** to assure that the amount of bankruptcies is limited. In addition, the free circulation of goods and workforce within the EU/EFTA and more concerted decisions instead of individual country solutions should be ensured. **Attractive loans and repayment conditions for companies** to activate public, commercial, and private building and construction projects should also remain accessible in the long term.

The COVID-19 crisis has also directly affected **the many SMEs in the building & construction sector that are responsible for the fitting and installation of construction products**. Many of these small and local businesses are facing severe difficulties and need to be supported already in the short term to avoid bankruptcies and job losses.

Concerning, possible long-term support, the industry will face a very difficult year 2020 and possibly also 2021. Therefore, the European Commission and Member States must **ensure that construction activities are continuing by creating funding programmes for investments in renovations and increased energy efficiency of buildings. The support of the transition towards a circular economy in**



the building & construction sector will also be an opportunity to recover while not compromising the objectives for resource efficiency and climate change mitigation in Europe. This will also require investing in education to support the creation of much-needed jobs. Furthermore, public investments in infrastructure projects could help to support the economy and save resources by e.g. renewing old irrigation and supply networks that have large losses of water.

In addition, the **internal market and European companies need to be better protected from potential dumping from non-EU countries** such as e.g. China by enforcing anti-dumping and anti-subsidy tariffs. To relieve the companies that are already struggling to cope with the effects of the crisis of the costs of compliance with new regulations, a regulatory freeze of at least 3 years and extension of deadlines for already adopted legislation should be put in place.

3. The Automotive & Transport Sector

Within the plastics converting industry, the automotive and transport sector has been affected the most severely by the COVID-19 crisis. **The complete stop of production of automotive manufacturing plants has led to a sharp decrease in demand and forced many suppliers to partly and temporarily close their plants.** Overall, the impact of the COVID-19 crisis on the entire European automobile industry is severe, as the production and sales of motor vehicles have come to an abrupt halt in most of Europe and other regions in the world.

The direct impact of the outbreak in countries outside of the EU on the plastics converters has been marginal, as most of their customers are based in Europe. While the supply of raw materials is secure, companies that source (semi) finished goods in China have experienced delays and shortages. In addition, there has been a limited reduction in exports to Asia.

2,400,000

less vehicles produced in Europe
until the 11 May due to lockdown
measures

18,800,000

less vehicles forecasted to be
produced in 2020 worldwide due to
lockdown measures

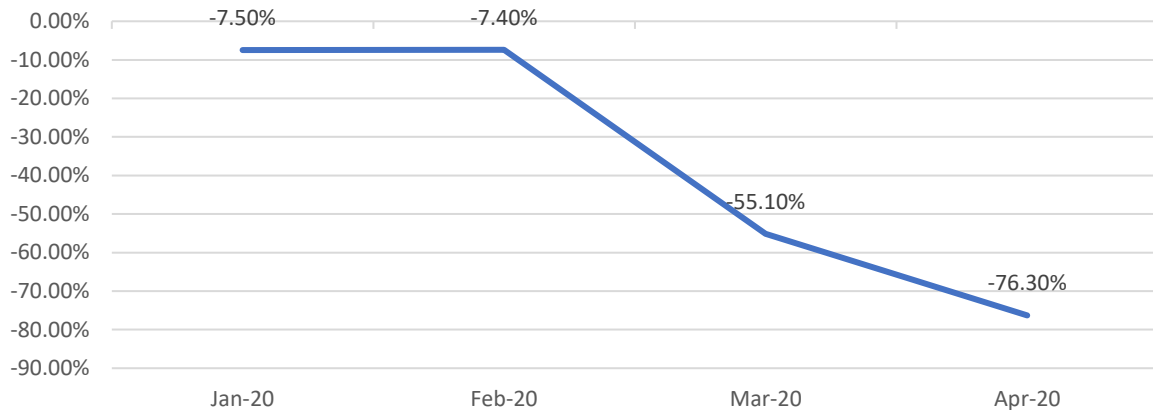
Since mid-March, the automotive industry has been severely impacted by the COVID-19 crisis, with plants being closed for 29 working days on average, and EU-wide production amounting to close to 2.4 million vehicles.⁴ Global passenger car production is expected to fall by 21.2% due to COVID-19, resulting in 18.8 million vehicles less being produced compared to 2019.⁵ Passenger car registration in the EU28 has dropped dramatically as well compared to 2019, as the chart below shows.

⁴ Numbers from ACEA on the 11th of May: <https://www.acea.be/news/article/interactive-map-production-impact-of-covid-19-on-the-european-auto-industry>

⁵ Forecast by IHS Markit: <https://vipress.net/la-production-mondiale-de-voitures-devrait-chuter-de-212-en-2020/>



EU28 Passenger Car Registration 2020vs. 2019⁶



The outbreak in the EU has had dramatic effects on the plastics converting industry with nearly all original equipment manufacturers (OEM) shutting down their plants. Automotive production was down 98% in April and is expected to be 75% down in May.⁷ **As a result, plastics converters in the automotive sector were forced to reduce their production or completely close their plants. The decrease in production varies from 60-100%.** As automotive plants have gradually started to reopen, the demand for plastics converters will start to slowly increase towards the end of May but is expected to remain very low during the next months.

The most relevant problem for plastics converting companies in the automotive industry is the **lack of demand from their downstream customers who have completely or partly stopped production** due to the restrictive measures adopted by the national governments. The lack of demand implies production disruptions but most fixed costs remain. **The impact on working capital is severe and in the medium-term may lead to insolvencies.** The level of support available in the different EU Member States to weather the situation is very variable.

While the lockdown measures have slowly started to be eased in some Member States and production will start to slowly grow as of May, companies expect the entire year 2020 to remain difficult. Especially as **the predicted economic crisis that will follow the lockdown measures will impact the automotive industry**, which was already seeing reductions in volumes before the pandemic. As seen above, the worldwide automotive production is expected to decrease by 21.2% in 2020, and production of light vehicles in Europe is expected to decrease by 17%, which would have dramatic consequences on the sector.

3.1. Demand and Supply

Plastics converters in the automotive and transport sector directly export only small quantities of products outside the EU. Companies that do so have reported a reduction in demand of 25-35%. The losses however are only marginal compared to the situation in Europe. **The demand in Europe has decreased, starting in March, by 50-100%**, depending on the product portfolio of the converter. Even

⁶ Data from ACEA on the 26th of May: <https://www.acea.be/press-releases/article/passenger-car-registrations-38.5-four-months-into-2020-76.3-in-april>

⁷ According to estimations by LMC Automotive.



if the demand will start to recover as of May, it is expected to remain well below the usual volumes, leading to strong losses throughout the entire automotive industry.

The supply of raw materials has been secure at relatively cheap prices throughout the year 2020 so far. Plastics converting companies that source semi-finished products from their suppliers have seen some shortages due to reduced production capacities. However, the shortages are without effect due to the missing demand from their downstream customers. No damages due to delays or disruptions in the upstream supply chain have been reported.

Plastics converters in the automotive industry have not reported any shortages of workers due to quarantine measures. On the contrary, due to the reduction of their production, companies have been forced to use temporary unemployment schemes to save labour costs. In the countries where temporary unemployment options are limited, some layoffs unfortunately have started to take place and will continue in the future if production remains low. In some countries, employees are under layoff protection.

Generally, it can be stated that **the public funding available is hugely variable depending on the country.** In Western Europe in general, companies have been able to make use of temporary unemployment, state-guaranteed loans, tax deferrals, and/or the possibility to force people to take some days of vacation. In Eastern Europe generally, the level of support available is much more limited. As a consequence of plant closures and extremely limited production, **plastics converting companies in the automotive sector have started to face liquidity problems** due to non-incoming or cancelled orders and outstanding invoices that remain unpaid. This problem is expected to worsen over time.

3.2. Public Support Measures

The automotive industry has an integrated supply chain. **The most important short-term measure must be to help companies with liquidity problems by giving them fast and easy access to financial means** to assure that the amount of bankruptcies is limited. In addition, the European Commission should ensure that businesses can start as quickly as possible all over Europe (under controlled conditions to avoid a resurgence of the epidemic). Opening some regions or countries only for business is not workable in this sector.

Concerning, possible long-term support, **the industry will face a very difficult year 2020 and possibly also 2021. According to the latest forecast by IHS MARKIT, the automotive market is only expected to recover to the level of 2019 in 2024.** This slow recovery will have a strong long-term impact on the entire automotive industry. Therefore, **investment packages should be prepared by the European Commission and the Member States to stimulate demand**, or measures regarding employment with investment in training and education.

In addition, a **regulatory freeze of at least 3 years** and extension of deadlines for already adopted legislation should be put in place to relieve the companies that are already struggling to cope with the effects of the crisis of the costs of compliance with new regulations. To exemplify the volume of possible costs for companies, the below example shows regulations and costs related to the PU flexible foam sector within the automotive industry.



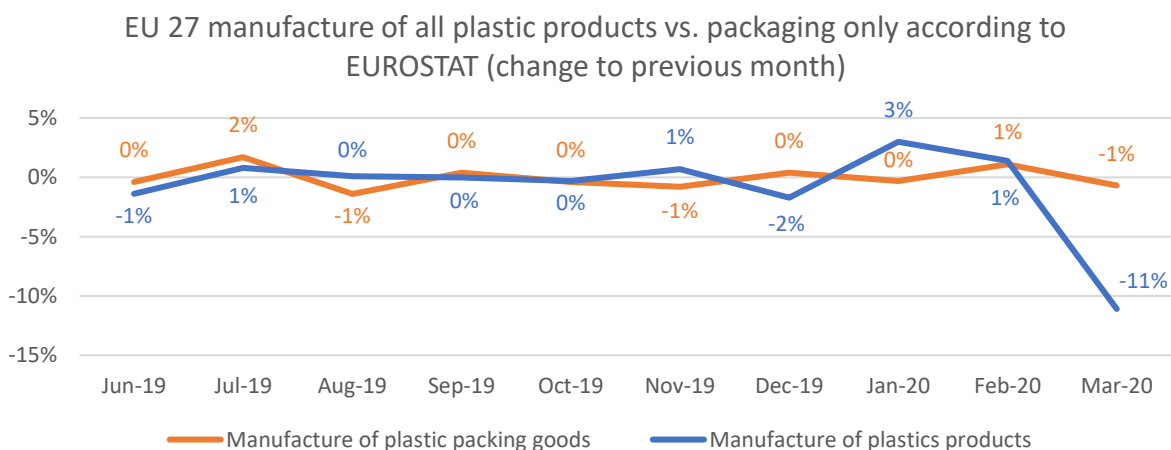
The adopted REACH restriction for diisocyanates will result in consequent training costs and lost work time cost over the next 2 years, resulting in costs well in excess of € 10 million. The currently discussed REACH restriction for formaldehyde alone has the potential of costing this sector more than € 25 million per year in additional raw material costs, still excluding engineering and R&D costs. The currently discussed OEL for diisocyanates has the potential of costing several tens of millions of EUR in engineering costs in plants over the next 2-3 years. These are costs that would seriously worsen the situation for already struggling companies.

4. The Packaging Sector

The COVID-19 crisis has had **different effects on the different subsectors of the plastic packaging industry in Europe**. Companies that produce **packaging for essential goods such as food and beverages have seen a temporary increase in demand** during the stockpiling at the beginning of the pandemic. Following the run on supermarkets, consumers are well supplied and demand for plastic packaging is expected to have already declined in April. The demand for packaging in the **medical and hygiene sector has increased** as well and is expected to stay at a high level.

On the other hand, companies that produce **packaging for industrial applications or the hospitality sector have seen a sharp decline** in demand due to the reduced activities of their customers. Here, a return to normality can only start to take place if the lockdown measures in the Member States are eased and production across the entire industry resumes. Especially in the South of Europe, demand for certain plastic packaging applications also strongly depends on tourism. For the companies active in that field, open borders and restriction-free traveling during the summer holiday period will be crucial for their recovery.

Overall, **when compared to other parts of the plastics converting industry, the plastic packaging sector has suffered the least from the effects of the COVID-19 crisis**. The latest available data from Eurostat shows a production decrease of 11% in March 2020 compared to February for all plastic products, while the production of packaging only decreased by 1% in the same period. The observed decrease in demand will be even stronger in April, where numbers are not available yet.





The direct impact of the outbreak in countries outside of the EU on plastic packaging manufacturers has been marginal, as most of their customers are based in Europe. While the supply of raw materials is secure, companies that source goods in China have experienced delays and shortages. In addition, there has been a limited reduction in exports to Asia.

The outbreak in the EU has had much stronger effects on the packaging sector of the plastics converting industry, affecting all countries depending on the strictness of their lockdown measures. Companies that have seen an increase in demand are working under high pressure to keep their production running at a high level while **implementing the necessary security measures** and coping with the effects of the pandemic on their workforce.

The most relevant problem for the companies that are negatively affected by the crisis is the **lack of demand from their customers because of the reduced production in the industry and closure of retail shops and the hospitality sector**, due to the restrictive measures adopted by the national governments. The lack of demand implies production disruptions but most fixed costs remain. Furthermore, the companies have to bear added cost to operate given the additional actions to minimise the contamination potential. The level of support available in the different EU Member States to weather the situation is very variable.

While the lockdown measures have slowly started to be eased in some Member States and production will start to slowly grow as of May, companies expect the entire year 2020 to remain difficult. Especially as **the predicted economic crisis that will follow the lockdown measures will impact all industrial activities** and the packaging industry that supplies them.

4.1. Demand and Supply

Plastics converters in the packaging sector directly export only marginal quantities of products outside the EU. The effects of the COVID-19 crisis outside of the EU therefore have only had negligible effects on the demand for companies in Europe. **The demand in Europe has developed in opposite ways, depending on the subsector of the packaging industry.** Companies that produce packaging for medical applications and fast-moving consumer goods (FMCG) have seen demand increase by around 10-40%. Companies that produce industrial packaging however have seen demand decrease by 10-30% in Europe. To examine the **share of companies that are positively or negatively affected by the pandemic**, recent numbers from Germany can give an indication for the entire EU. In Germany, across all segments, 37% of the companies stated that they had fewer orders compared to March, while a good half of the companies reported an increase in orders in April.⁸

Concerning the supply situation for plastics converters, **companies in the packaging sector do not report disruptions in their supply chain.** Consequently, no damages due to delays or disruptions in the upstream supply chain have been reported. **The main disruptions for plastics converters negatively affected by the crisis are downstream**, due to the reduced production in the industry and closure of

⁸ Survey by IK – Industrieverband Kunststoffverpackungen, the German association for plastic packaging, accessible at <https://newsroom.kunststoffverpackungen.de/en/2020/05/04/from-capacity-limits-to-short-time-working-corona-affects-manufacturers-of-plastic-packaging-in-many-different-ways/>.



retail shops and the hospitality sector. In addition, some companies report issues with logistics and transport, due to reduced capacities and border controls.

Most plastics converters in the packaging industry have not reported shortages of workers due to quarantine measures. Depending on the country however, **some companies that are dealing with increased demand report problems with staff shortages** due to quarantine measures taken by the different authorities and fear from workers to get contaminated and to contaminate their families. **If the demand and production start to recover, this will become more of an issue**, especially if schools are not working normally again. In addition, travel restrictions across Europe are affecting the maintenance and servicing of the machinery through the machinery suppliers.

Due to the reduction of their production, companies negatively affected have been forced to use **temporary unemployment schemes** to save labour costs where these are available. Layoffs have been reported only in exceptional cases. In some countries, employees are under layoff protection. Companies positively affected by the crisis on the other hand have partly hired new additional workers to cover potential sickness and other losses of personnel.

4.2. Public Support Measures

The most important short-term measure must be to help companies with liquidity problems by giving them **fast and easy access to financial means** to assure that the amount of bankruptcies is limited. As is already taking place in some Member States, authorities should support workers' wages to compensate the decrease in demand and avoid layoffs. In addition, the free circulation of goods and workforce within the EU/EFTA and more concerted decisions instead of individual country solutions should be ensured.

Concerning, possible long-term support, European Commission and Member States should **support a strong European industrial base in order to be less dependent on China** and other eastern countries, and to **stimulate growth in the European industry**. This could be reflected by fiscal measures, public purchasing, and an attractive environment for investments.

In addition, **investments into the collecting, sorting, and recycling of waste** are needed to support the circular economy in Europe and create a resilient market for recyclate that is needed to reach the ambitious recycling targets. Producers of packaging also need **legal certainty on the use of recyclate from mechanical as well as chemical recycling** for food applications to increase its use.

Furthermore, **legislation forcefully reducing or banning plastic items despite the lack of proven alternatives need to be re-evaluated** and potentially revised to take into account the important contribution that plastic packaging and disposable plastic products make to the safety and health of European citizens.



5. General Conclusions and Recommendations

The plastics converting industry as a whole has been strongly affected by the COVID-19 crisis in Europe. The more than 50,000 SMEs that employ more than 1.6 million people in Europe need assistance from the EU Recovery Plan to avoid bankruptcies as well as job losses and secure the production of essential goods in Europe. To support the recovery of the industry, the following measures should be taken:

1. Facilitation of and support for investments to produce personal protective equipment (PPE) in Europe to secure supply and reduce the dependence on imports from Asia.
2. Investments in public construction projects and the European renovation wave to increase demand and support the transition towards a circular economy in the building & construction sector while not compromising the objectives for resource efficiency and climate change mitigation in Europe.
3. Preparation of investment packages to speed up the recovery of the automotive industry through the creation of incentives for the purchase of new, more environmentally-friendly vehicles.
4. Investments in the collection, sorting, and recycling of plastic waste to create a resilient market for recyclates and support the transition towards a circular economy for plastics that has been the main priority of the plastics industry in the past years.
5. Re-evaluation of current and future policy initiatives concerning plastics to take into account the hygiene and safety aspects of plastic products in view of possible pandemics.
6. Consideration of a freeze of all non-essential regulatory initiatives concerning plastics to support the recovery of the industry and avoid additional compliance costs for companies that are already struggling to cope with the effects of the COVID-19 crisis.



6. Annex

6.1. Questionnaire for the Packaging Sector

Name:

Company/Association:

Country:

Markets/Products:

Email:

1 General situation

- How has the outbreak in countries outside the EU (e.g. China, USA) affected companies in your sector?
- How has the outbreak in EU Member States affected companies in your sector?
- Which problems are companies in your sector currently facing? Among them, which are the most relevant? Have the problems changed that you are facing?
- For how long do you expect this exceptional situation to continue?
- Are there already positive developments in your sector (e.g. ease of lockdown measures)?

2 Demand

- Can you quantify if there has been an increase in demand in your sector?
- If there has been an increase, for which products? Are you able to serve the increased demand?

3 Supply

3.1 Supply Chains

- Which specific inputs are likely to disrupt the production process of companies in your sector? Please be as specific as possible, e.g. give an HS classification.
- Is it possible to substitute this input? If so, with what?
- Is it possible to find alternative suppliers? If so, where?
- Have firms in your sector already faced shortages of inventory? For which inputs? Do they expect that to happen in the next weeks?
- Are firms in your sector affected by downstream disruptions in the value chain (e.g. distribution and retail)? If so, which type of disruptions?



- If there have been damages due to delays or disruptions in supply chains (both upstream and downstream), can you quantify them?

3.2 Labour Force

- Have firms in your industry already faced a shortage of workers due to quarantine measures? Do they expect to face shortages in the near future?
- Have firms in your industry already faced a shortage of workers due to strikes or other forms of protests due to the respect of safety at work?
- Are public funds/unemployment handouts available for firms in your sector? If so, has it already been necessary to for firms to tap into them due to the spread of the outbreak?
- Have firms in your sector hired new workers? How Many (or share of total employment in the sector)?

3.3 Infrastructure and public services

- Have disruptions in infrastructure or service provision (both public and private) affected the economic activities in your sector? (e.g. availability of fuel, access to airports, access to railways, telecommunication, maintenance services etc.)
- Can you please list these disruptions?

4 Public support

- What type of public measures or actions would the sector need? In particular, how can the European Commission help? To the extent possible, please distinguish:
 - o Short term measures (mitigation / resilience)
 - o Long term measures (after the lockdown)

6.2. Questionnaire for the B&C and A&T Sector

Name:

Company/Association:

Country:

Markets/Products:

Email:

1. General situation

- How has the outbreak in countries outside the EU (e.g. China, USA) affected companies in your sector?
- How has the outbreak in EU Member States affected companies in your sector?



- Which problems are companies in your sector currently facing? Among them, which are the most relevant? Have the problems changed that you are facing?
- For how long do you expect this exceptional situation to continue?
- Are there already positive developments in your sector (e.g. ease of lockdown measures)?

2. Demand

- Can you quantify the losses due to the decrease in demand in countries outside the EU?
- Can you quantify the losses due to the decrease in demand within the EU?

3. Supply

3.1. Supply Chains

- Which specific inputs are likely to disrupt the production process of companies in your sector? Please be as specific as possible, e.g. give an HS classification.
- Is it possible to substitute this input? If so, with what?
- Is it possible to find alternative suppliers? If so, where?
- Have firms in your sector already faced shortages of inventory? For which inputs? Do they expect that to happen in the next weeks?
- Are firms in your sector affected by downstream disruptions in the value chain (e.g. distribution and retail)? If so, which type of disruptions?
- If there have been damages due to delays or disruptions in supply chains (both upstream and downstream), can you quantify them?

3.2. Labour Force

- Have firms in your industry already faced a shortage of workers due to quarantine measures? Do they expect to face shortages in the near future?
- Have firms in your industry already faced a shortage of workers due to strikes or other forms of protests due to the respect of safety at work?
- Are public funds/unemployment handouts available for firms in your sector? If so, has it already been necessary for firms to tap into them due to the spread of the outbreak?
- Have firms in your sector fired workers? How Many (or share of total employment in the sector)?

3.3. Finance



- Have the firms in your industry already faced liquidity problems?
- How is the banking sector supporting firms in your sector?
- How are other investors supporting firms in your sector?
- How is the government financially supporting firms in your sector?

3.4. Infrastructure and public services

- Have disruptions in infrastructure or service provision (both public and private) affected the economic activities in your sector? (e.g. availability of fuel, access to airports, access to railways, telecommunication, maintenance services etc.)
- Can you please list these disruptions?

4. Public support

- What type of public measures or actions would the sector need? In particular, how can the European Commission help? To the extent possible, please distinguish:
 - o Short term measures (mitigation / resilience)
 - o Long term measures (after the lockdown)