

Three Essentials for the Procurement Tool Kit

Effective strategies to optimise
plastics packaging procurement

Introduction

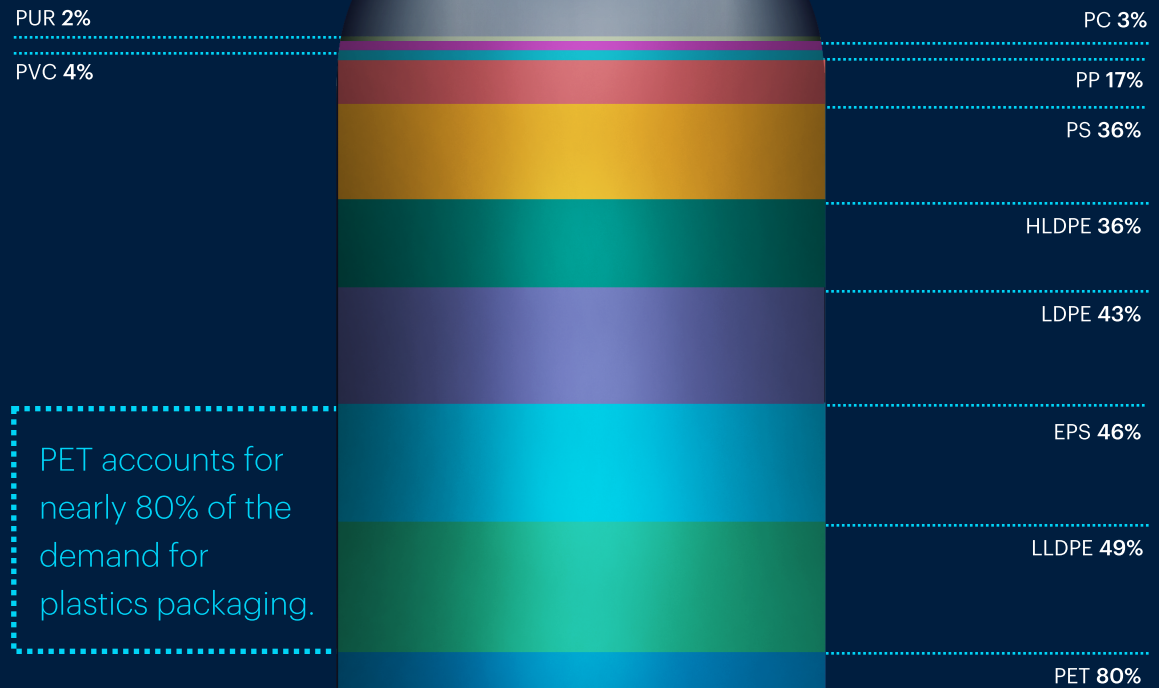
Procurement of resins and plastic packaging is a complex exercise loaded with challenges, the biggest being securing supply at the right price and managing costs.

Many of the challenges can be traced to opaque and commoditised markets for the key resins used in plastic packaging – polyethylene (PE), polypropylene (PP), polyethylene terephthalate (PET) and polystyrene (PS).

As with all commodities, resin markets frequently experience imbalances in demand and supply that lead to price volatility, which has a direct impact on packaging costs.

Successful procurement teams need to be equipped with the right tools to unravel market complexities and build a competitive edge in the marketplace.

Percentage of individual polymers consumed by packaging



PET accounts for nearly 80% of the demand for plastics packaging.

*Data includes consumer, industrial, agricultural and construction packaging

The Challenge

There are many factors that contribute to the complexity of resin markets – diversified feedstocks and production routes, global trade flows and fragmented end-markets. The opaque markets make it difficult for procurement managers to ascertain if they are paying the right price.

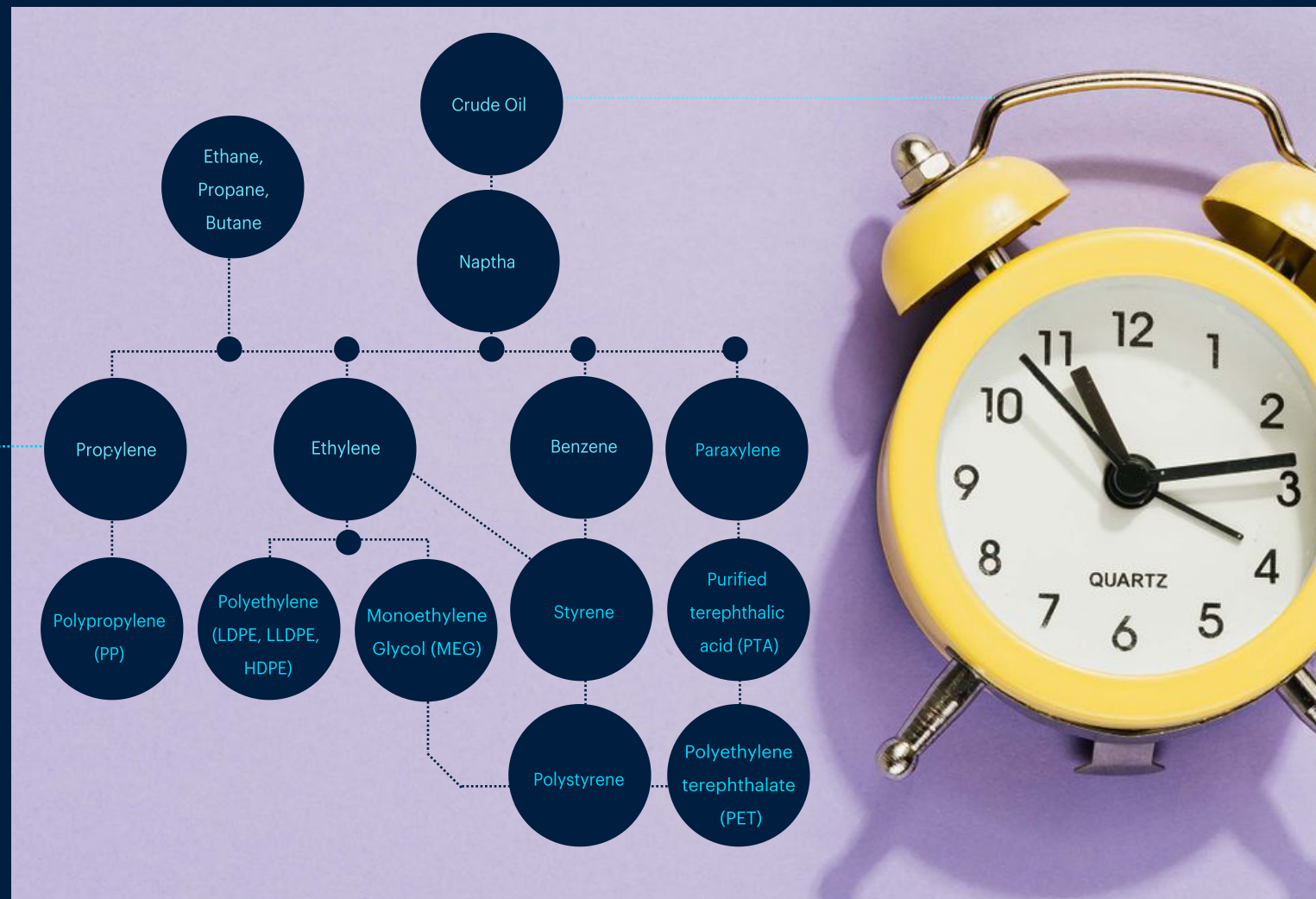
Polymer markets are connected to crude oil, but not every dollar increase in crude oil prices is reflected in the resin market

Demand and supply fundamentals for the resins as well as their raw materials impact pricing.

Time is usually at a premium in the procurement function. Lean teams with diverse priorities leave very little time for managers to analyse key price drivers and get to the bottom of how resin markets function.

It is not uncommon for managers to rush just before negotiations into a deep dive of the resin market to understand what is happening and what is the outlook.

Access to the right tools and experience can accelerate the preparation. Simply tapping personal networks to source price and market information only magnifies the risk as sources may be biased or have limited information.



Three Essentials for the Procurement Tool Kit

Price
Index



Price
Forecast



Market
Intelligence



Price Index

Indexation brings credibility, transparency, comfort and trust to commercial agreements, especially for volatile resins and plastic packaging.

Negotiating a price takes time, not just at the bargaining table but in analysing and understanding market conditions that colour those negotiations. Procurement teams deal with multiple suppliers in various markets, meaning team members face hours upon hours of time devoted to settling on a price, only to have to repeat the process again the next week, month, quarter, year, etc. Managing those relationships is time consuming.

In many organisations, 3% of staff manage more than 60% of costs, and buyers are responsible for myriad of tasks as follows:



Qualifying
Supply



Guaranteeing
reliable supply



Collaborating with
suppliers to drive
supply chain
improvements



Working with
research and
development



Three Essentials for the Procurement Tool Kit: **Price Index**



While price is a key element of negotiations, trust between buyers and sellers is inhibited as the opposing party may use knowledge gleaned in price negotiations, which means information is shared less freely and the potential for true partnership and collaboration between customer and supplier is limited.

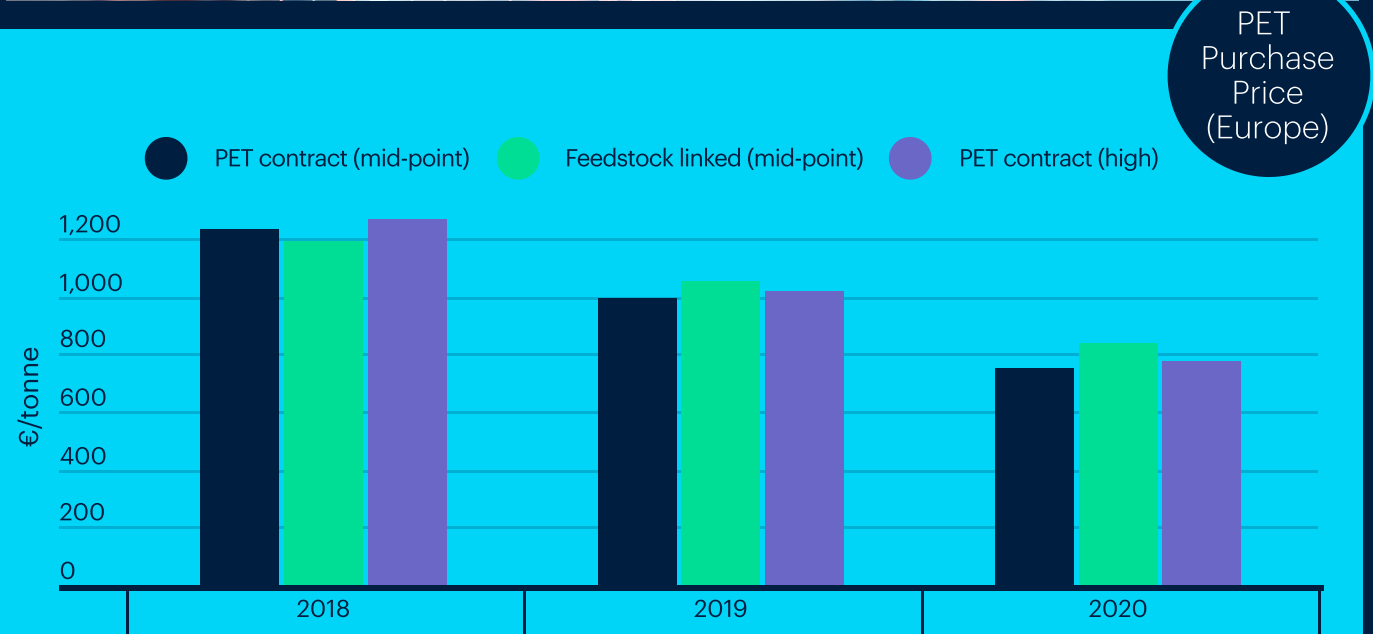


Figuring out the formula

Setting up price formulas for procurement contracts requires careful evaluation of price history, price drivers and relationships between resin and feedstock prices. There are various combinations available. It is possible to design formulas linked to monthly or quarterly independently assessed contract or spot prices of the resin or its feedstocks.

A cost-plus price mechanism can also be designed that considers the various cost components of packaging and includes a trigger point to allow for escalation.

The charts on the right illustrate how the PET purchase price can vary depending on the price formula and also regional differences.

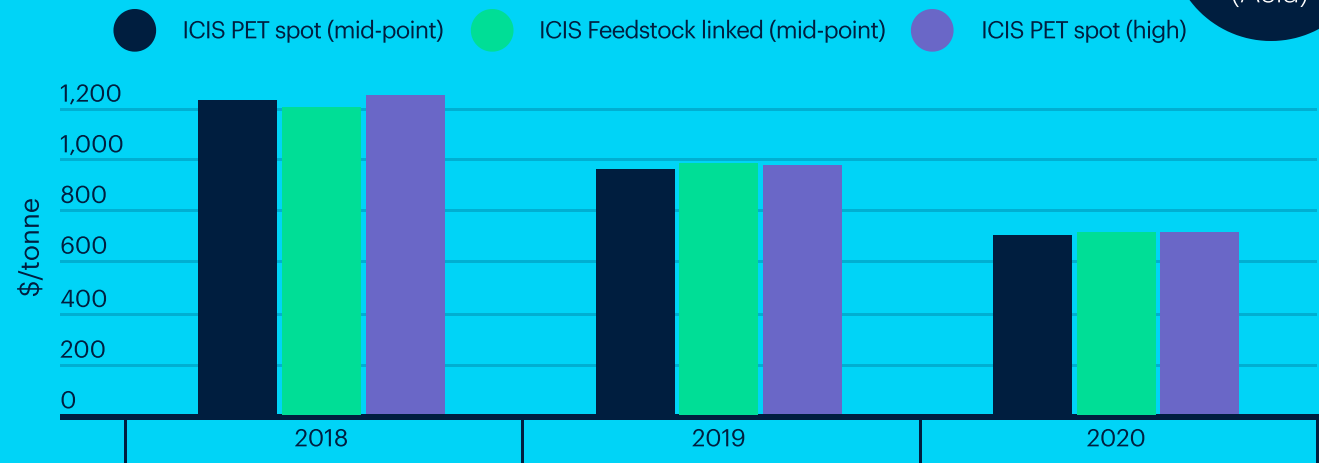


Figuring out the formula

European buyers would have benefited from a purchase contract linked to PET raw materials – purified terephthalic acid (PTA) and monoethylene glycol (MEG) – plus a conversion fee of €200/tonne in 2018.

But with a shift in market conditions, a formula linked to PET contract prices was favourable in 2019 and 2020.

In Asia, a purchase contract linked to the mid-point of PET spot prices was advantageous to buyers in 2019 and 2020. But a contract based on raw materials PTA and MEG plus \$150/tonne conversion fee was beneficial in 2018.



PET Purchase Price (Asia)



Benefits

Facilitate contract negotiations by easing price negotiations

Enable longer-term contracts

Agree and protect margins in volatile markets

Build trust and enable partnership through transparent pricing mechanism

Potential Challenges

Operationally challenging, especially with complex formulas

Require strong understanding of price mechanisms and skills in deciding the index

Contract formulas can become outdated unless regularly reviewed

Automating the price settlement by indexing supply contracts to independent price assessments takes the haggling out of negotiations, saving valuable time. This lets buyers and sellers focus on other parts of their relationship such as innovation and collaboration.

A formula-based contract pegged to an established price index can deliver an unbeatable competitive edge over spot procurement.

Three Essentials for the Procurement Tool Kit: **Price Index**

How to select a price index

Selection of a price index requires careful evaluation and periodic reviews. Markets are not static and changes to capacity, demand and trade flow have an impact on price indices.

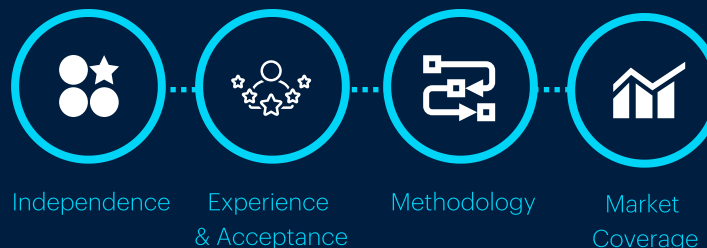
An independent index provider capable of delivering unbiased price data is essential. The data generation process needs to be robust and backed by transparent methodology that is certified by international bodies such as the International Organization of Securities Commissions (IOSCO) and periodically audited.

The methodology needs to be flexible to capture changes to market conditions and open to feedback from market participants.

Complicated markets require special skills to collect pricing data, and that comes with experience.

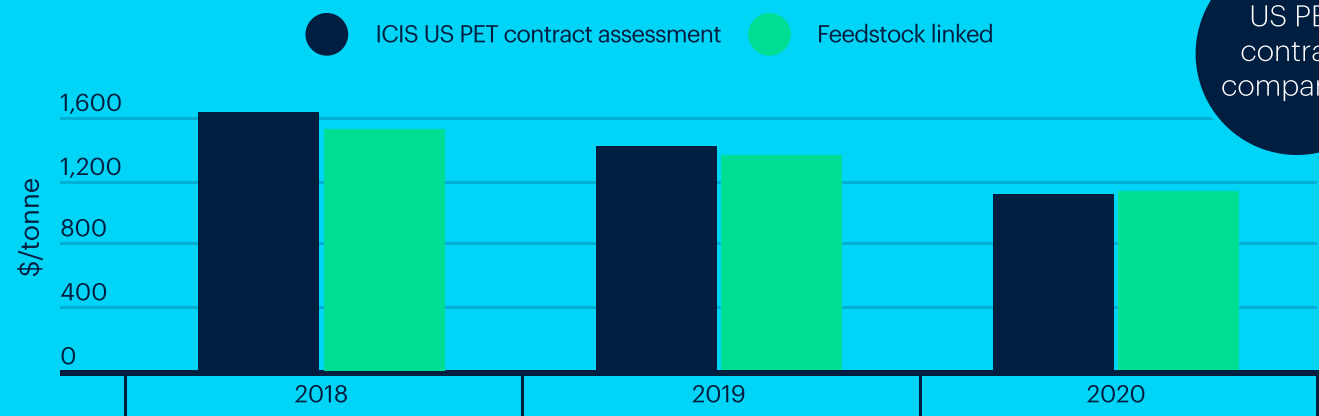
It is also crucial to choose a well-established index that is widely accepted by market participants including producers, traders, converters and end-users.

Last but not the least is to ensure that the index is relevant for the geography in which a company operates. Regional markets are interconnected but also have distinct characteristics.



Figuring out the formula

In the US, those who linked their contracts to movements in a formula based on upstream PTA and MEG prices plus \$150/tonne in conversation fees and \$88/tonne in freight movement for MEG were advantaged over those linked to PET market-based contracts. But that paradigm shifted in 2020 as assessed PET contract prices fell in the middle of the year, despite upstream price drivers rising due to production issues.



US PET
contract
comparison

Price Forecast

Forecasting is a challenging and time-consuming exercise due to the inherently volatile nature of resin markets. However, reliable forecasts are essential as they are the basis for critical business planning and management decisions.

Many buyers also have flexibility in adjusting their monthly procurement volumes. Reliable forecasts help them tactically time purchases to take advantage of market conditions.

Resin prices and volumes are two of the most critical inputs to budgets, and therefore a price forecast cannot be an educated guess or based on gut feel. Even small errors can have major consequences on the wider business.

A user of price forecasts will agree that the logic and analysis behind the numbers is critical. More so when it comes to complicated resin markets.



Three Essentials for the Procurement Tool Kit: **Price Forecast**

Resin price projections require an evaluation of the full value chain. For instance, a buyer of PS or packaging made of PS may find it easier to look at the PS market in isolation as this is less time consuming and easier to do. But PS markets are guided by movement in styrene, benzene, naphtha and crude oil prices. A view on all the raw materials is critical to obtain a reliable PS price forecast.

Other factors that can shape PS prices include demand, trade flow, production margins, plant shutdowns and outages, freight rates and exchange rate movements.

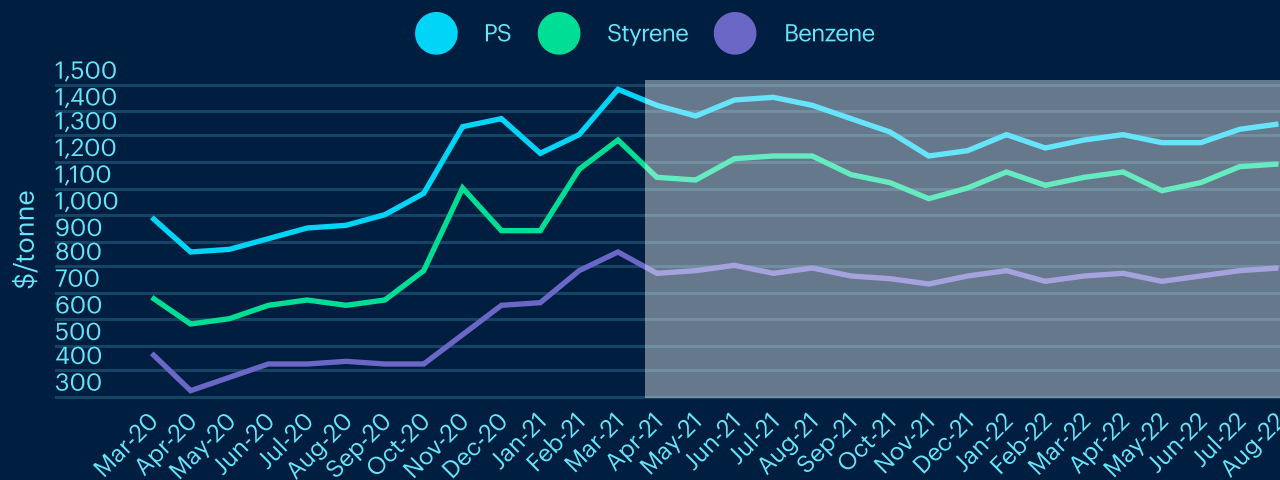
A user of price forecasts will agree that the logic and analysis behind the numbers is critical. More so when it comes to complicated resin markets.

If PS prices are forecast to be lower for the rest of 2021, what are the factors behind this forecast – will prices be lower because of new supply entering the market, lower cost of styrene, lower availability from a major exporter or reduced demand.

Understanding these drivers makes it easier to monitor market uncertainties and plan mid-course correction when there is a change in market conditions.

Many buying organisations do their own market analysis to forecast prices. But this should be supplemented with external data. Price forecasts based on advanced modelling techniques and produced by experienced industry analysts with in-depth knowledge of global markets are invaluable.

PS, Styrene, Benzene Price Forecast (ASIA)



*Forecast data as of April 2021



Market Intelligence

Managing price risk requires a deep understanding of resin markets and this starts with building a robust intelligence system.

Who are the major producers of the different resins globally and regionally, who are the major exporters and importers, what is the current trade flow, which are the largest consumption centres, where are new capacities being built, what does this mean for demand-supply balances and trade? Answers to these questions and more are at the heart of effective commodity analysis, which will help buyers make smarter buying decisions.

It is easy to get lost in a sea of information in busy commodity markets. But robust market intelligence systems can tune out market noise and focus on what is most relevant for short- and medium-term business decisions.

Investment in market intelligence is vital as in the long run market ignorance turns out to be more expensive.



Three Essentials for the Procurement Tool Kit: **Market Intelligence**

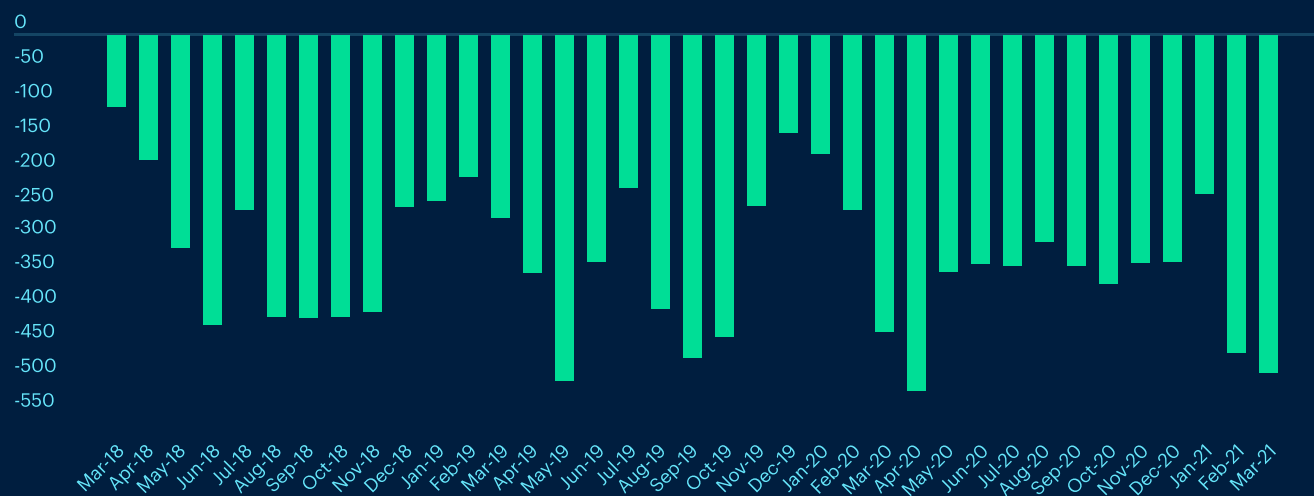


While there are many aspects of resin markets that need constant monitoring, a critical and challenging one is plant operations. There are over 400 plants globally that produce PP. News about plant shutdowns is useful and usually available. But it is more important to understand the aggregate impact of shutdowns on prices and markets.

The chart here gives a view of the monthly PP production loss due to scheduled maintenance shutdowns and outages.

Outages have a greater impact on markets, and this was visible in February-March 2021 when around 80% of US capacity was hit by winter storms in the US Gulf. Global production loss in February and March was 450,000 tonnes/month. The production loss exacerbated an already tight market causing prices to rise in every region.

Polypropylene Global Production Loss ('000 tonnes)

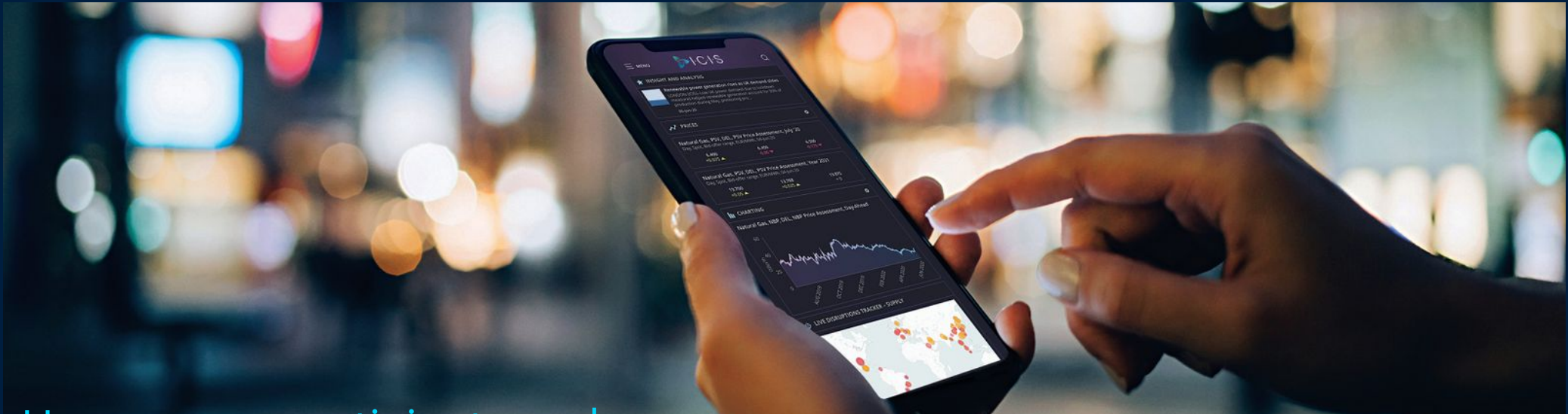


Three Essentials for the Procurement Tool Kit: **Market Intelligence**

The impact was visible in Latin America even five weeks after the storm. The region is a major destination for US propylene and PP exports. A disruption in propylene supplies from the US affected operations of PP plants in Latin America, tightened markets and pushed up prices. Visibility on supply disruptions is critical to managing an unexpected increase in costs and ensuring supply security.

Market intelligence can come from many sources. It is possible to rely on suppliers or informal market networks, but any information from these channels needs to be validated and enhanced with views of specialist analysts to give the market context and complete the picture. Investment in market intelligence is vital as in the long run market ignorance turns out to be more expensive.





How can you anticipate and monitor plastic packaging materials?

Never has it been more important to respond quickly to ever-changing market drivers. With trusted data, insight and intelligence at your fingertips, you can confidently make the right procurement decisions, now and in the future.



Speak to ICIS to find out more

What our customers say:

“ICIS provides us with a forward-looking view of markets that only a large team of global expert analysts and editors could possibly deliver. The insight and analytics we receive from ICIS are essential in shaping our own analyses and identifying when and where we can buy our packaging feedstock at the best price. Of particular value to the WIPF team is the analytics ICIS provides, which helps us to assess current and future changes in production capacities across regions, and how these will impact availability of supply. We estimate that we are saving 4-6% each year across our budget for raw feedstock, thanks to enhanced purchase strategies supported by ICIS data and insight.

We believe that the team at ICIS understands our needs and supports these efficiently. Partnering with ICIS gives us real confidence that we are making truly sustainable purchasing decisions that support our international business”.

Hansruedi Schafflützel Head of Flexible Packaging, WIPF Group

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