



# Assessment of the Impact of High Energy Prices on the Competitiveness of France's Chemical Industry

FTI Consulting was selected by France Chimie, an association representing the chemical industry in France, to assess how energy prices will impact the competitiveness of the nation's chemical industry against Germany, the United States and China, through 2025.

## SITUATION

As a result of the ongoing energy crisis, France's chemical industry confronted extremely high electricity and gas prices in 2022, compared to producers in other countries. As the price of electricity and gas constitute primary inputs to produce most chemical products, companies sought to understand the impact of high energy prices on their competitiveness in the global market, particularly against main competitors like Germany, the United States and China.

*“The chemical sector is a major consumer of energy, both as a source of energy and feedstock. In France, the chemical sector consumes 30% of gas and 20% of electricity used for industrial purposes. As a result, the supply of energy is the key factor in terms of competitiveness for the French chemical industry. Greenhouse gas emissions emitted by the sector represent another major issue.”*  
France Chimie

# OUR ROLE

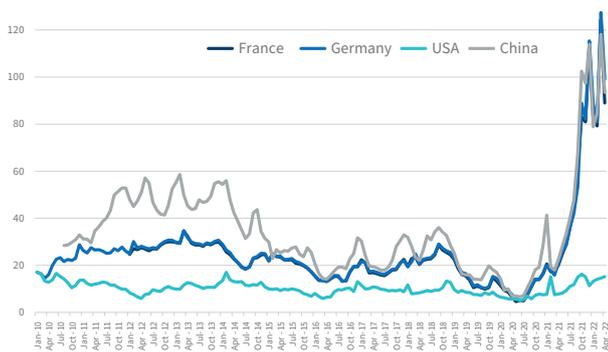
FTI Consulting assisted France Chimie with work in three areas:

1. The firm provided price forecasts of energy commodities relevant to the chemical industry, in France and other selected countries, through 2025.
2. The firm modeled production costs of the representative chemical products in France and in main competitor countries across different periods of high and low energy prices – 2019, 2022 and 2025 – for the following sub-sectors:
  - a. Olefins / Polymers
  - b. Hydrogen / Ammonia
  - c. Carbonates
  - d. Chlorine / Sodium / PVC

The production cost modelling for each sub-sector included both conventional and “green” production pathways.

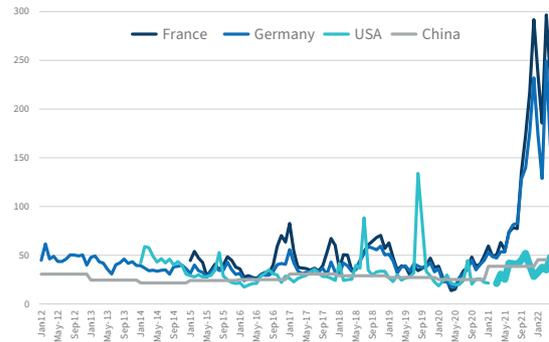
3. The firm identified and analysed key risks linked to the gas and electricity markets and defined actions chemical companies could take to manage price risks. These analyses were complemented by identification of existing public support schemes or hedging strategies relevant to France Chimie.

## Monthly historic gas price (EUR/MWh 2021)



Notes: 1. PEG for France, NCG for Germany, Henry Hub for the U.S. and ICIS DES assessments for China. Sources: FTI-CL analysis, Bloomberg, Energy Market Price, ICIS

## Historic monthly electricity spot price (€/MWh 2021)



Notes: U.S. prices refer to the ERCOT price. The prices for China are based on an estimate of the marginal production costs of a coal-fired power plant in China, taking into account the cost of the Chinese ETS implemented in 2021. Sources: FTI-CL analysis, Energy Market Price

# OUR IMPACT



FTI Consulting provided an independent assessment of the production costs of France's chemical sector, compared to in main competitor countries. The analysis precisely quantified the impact of high relative energy prices on France's competitiveness in the global chemicals market. This independent assessment was shared with public authorities.



FTI Consulting provided a toolbox for chemical industry companies to take internal and external actions to address the challenge of relatively high and volatile energy prices through 2025.



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