European Chemicals Pulse Check April 2023

Focus on Geopolitics, Regulatory, ESG & Energy Transformation







European Chemicals Pulse Check | Summary

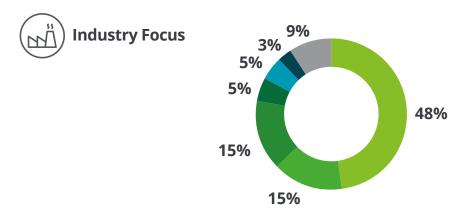
Summary

- We surveyed 66 senior executives in the European chemical industry and sector associations, to hear their view on current market challenges, trends, and opportunities.
- >60% of respondents share the perspective that regulations like the EU Emissions Trading Scheme (EU ETS) and the EU Carbon Border Adjustment Mechanism (CBAM) are both a threat to the competitiveness of the chemicals industry in EU and a business opportunity at the same time.
- A risk of chemical value chains shifting towards outside of Europe due to high energy prices, ESG requirements, and/or geopolitical developments is also seen as real by more than 80% of respondents.

- Because of geopolitical uncertainties, the executives are cautious on how to manage and execute investment in China and consider an alternative business steering of digital and physical assets.
- 66% of the surveyed executives see the opportunity to rethink business models, but are cautious of impacts from regulations and energy challenges on ESG transformation.
- Most respondents (71%) believe in hydrogen as energy source for the industry, but overall are not confident there will be enough netzero energy for EU assets.
- 77% of the respondents believe the ESG transformation in the chemical industry is mainly driven by tighter regulations and changing consumer preferences.

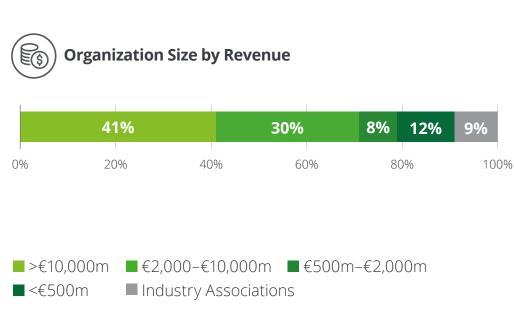
European Chemicals Pulse Check | Survey Respondents

01. 66 senior executives from the European chemical industry and sector associations shared their view on challenges, trends, and chances



- Specialty Chemicals (incl. Agrochemicals)
- Plastics & Materials
- Consumer Chemicals
- Industry Associations

- Base Chemicals
 Chemicals Distributor
- Chempark Operators

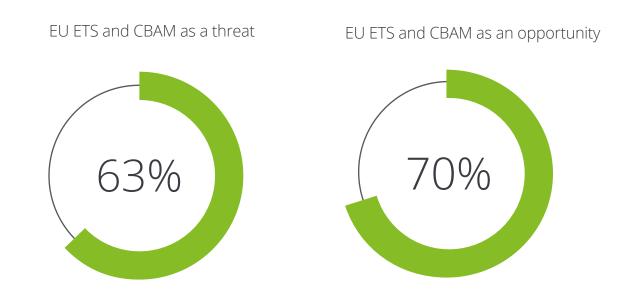


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02. EU chemical players see the new regulations as both a threat to and an opportunity for their business

- Respondents expect regulation to remain one of the main sources of uncertainty over the coming years.
- A clear view of upcoming European regulation and its effects is essential to the path forward for each player in the industry.
- The regulations are seen as a threat to the export competitiveness of the European chemical companies if other regions are less stringent.
- However, the surveyed executives also believe these new regulations strengthen the position of European chemical companies as pioneers in material transformation and innovation in specialty chemicals.

ETS and CBAM are seen as threats and opportunities in almost equal measure





03. Industry executives anticipate structural changes in energyintensive value chains away from Europe

- 81% of executives foresee a shift in chemical value chains away from Europe due to high energy prices, ESG requirements, and/or geopolitical developments.
- Only slightly less, around 2/3 of the survey responses see that high energy prices and/ or other ESG and geopolitical developments could also generate a demand destruction for the chemicals sector in Europe and the downstream customers in the value chain; this could pose a threat to chemicals players in Europe.

Energy prices and geopolitical developments are driving structural change in European chemical production.





European Chemicals Pulse Check | Geopolitics & Regulatory Frameworks

Structural change in chemical value chains away from Europe



High Energy prices cause risk of demand destruction



"Structurally higher energy prices in Europe in combination with the ambition of the EU to push the industry towards CO₂ neutrality and other initiatives will lead to an exodus of energy intensive productions from Europe."

Anonymous Chemicals Executive

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04. More than half of the respondents are already redirecting investments from Europe to the US, and 71% are considering doing so



87% of executives from various parts of the chemical industry believe that the significant **energy/feedstock cost advantage of the US** in comparison to Europe **will continue until 2030.**



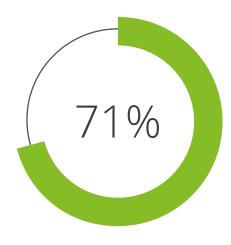
Moreover, **58%** are already **redirecting investment to the US** thanks to programs like the Inflation Reduction Act (IRA).



And 71% are considering redirecting
investment to the US because they
do not believe that energy cost
differences in the current investment cycle will narrow due to an
accelerated energy transition in Europe.







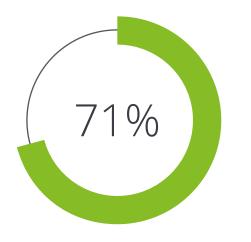
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05. Executives have become more cautious about investing in China and are considering alternative business steering and asset management

- Both the COVID lockdown and the Ukraine war demonstrate that geopolitics and non-market factors disrupt globalized chemical value chains.
- Current geopolitical disputes, especially between China and the USA, with potential bans on the use of tools and sanctions, add to uncertainty. Regulatory changes, like new cyber and privacy laws, potentially drive new architectures of digital ecosystems and of business steering.
- Chemical companies require strategic flexibility and contingency to build resilience against geopolitical risks, both for their physical and digital assets.

China domestic and foreign policies increasingly considered for European investment decisions.





Reassessing future investments in China due to the current geopolitical landscape

Managing digital and physical assets in China more independently from the rest of the global business



06. Executives see the opportunity to rethink business models, but are cautious about regulations and energy challenges impacting ESG transformation



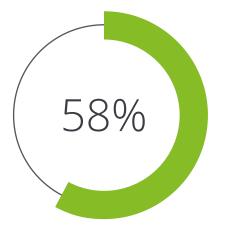
66% of chemical players see ESG transformation as a **reason to rethink their business model**.





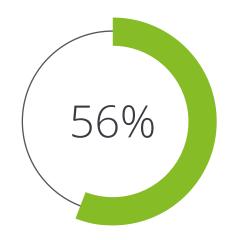
However, **58%** are **held back by uncertainty in regulation when**

making investment decisions and implementing their ESG roadmap.





56% think that energy and competitiveness challenges in Europe will slow the pace of ESG transformation.



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"We [the chemical industry] want to be the solution rather than the problem. We see ESG as an opportunity for future business and have put it on our transformation agenda. That said, the rise in energy costs in Europe is definitely accelerating decisions for new investment outside of Europe."

Anonymous Chemicals Executive

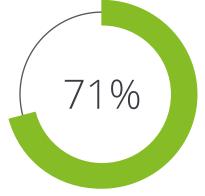




07. Most respondents believe in hydrogen as an energy source for the industry, but are not confident there will be enough net-zero energy for EU assets

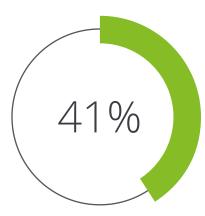


71% believe that **hydrogen** will play a significant role as an energy source in the transition of the chemicals industry by 2030 – However, hydrogen usage will principally be challenged by the more favored direct electrification.





Only 41% of the executives expect to have sufficient green (or net zero) electricity for direct electrification opportunities in their European asset base by 2030.



"Other technologies need to be considered, like generating heat for chemical reactions will also likely be done with green ammonia, which is easier to transport compared to hydrogen."

Anonymous Chemicals Executive

European Chemicals Pulse Check | ESG & Energy Transformation

08. Respondents see the ESG Transformation in the chemical industry as mainly driven by tighter regulations and changing consumer preferences

Main reasons for chemical players* to conduct or accelerate ESG transformation







changing consumer preferences



future-proofing portfolios

53%



50% pressure from investors



risk of reputational loss

*Multiple choices were possible

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