CHEMICAL CONVENTION
21-23 OCTOBER 2026

The New Reality: Strategic Choices for Europe's Chemical Industry

cefic

INTERNATIONAL COUNCIL OF CHEMICAL ASSOCIATIONS

CHEMICAL CONVENTION
21-23 OCTOBER 2026

Speakers



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Head of Olefin Analytics
ICIS

Moderated by:



Camilla Martelli
Executive Director Public Affairs
Cefic

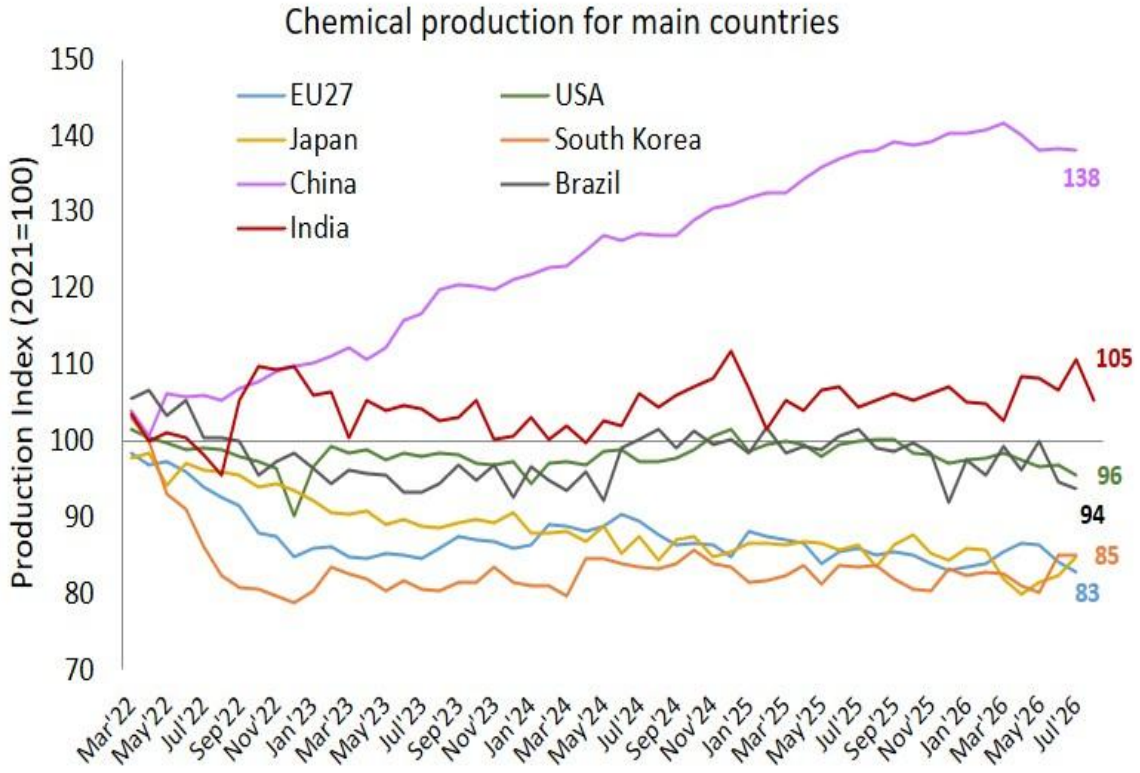
EU27 Chemical Industry: Latest Developments

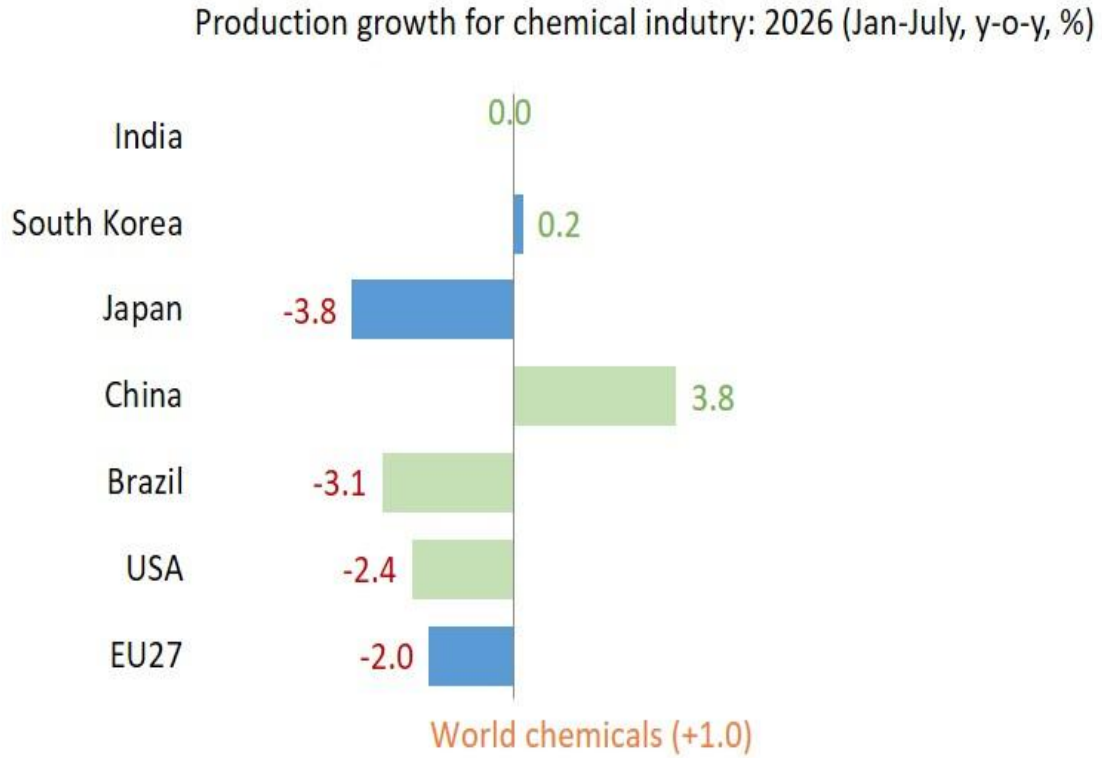
Cefic Convention 2026,
22 October, Lisbon, Portugal

Dr Moncef Hadhri, mha@cefic.be



China remains the main engine of global chemical growth



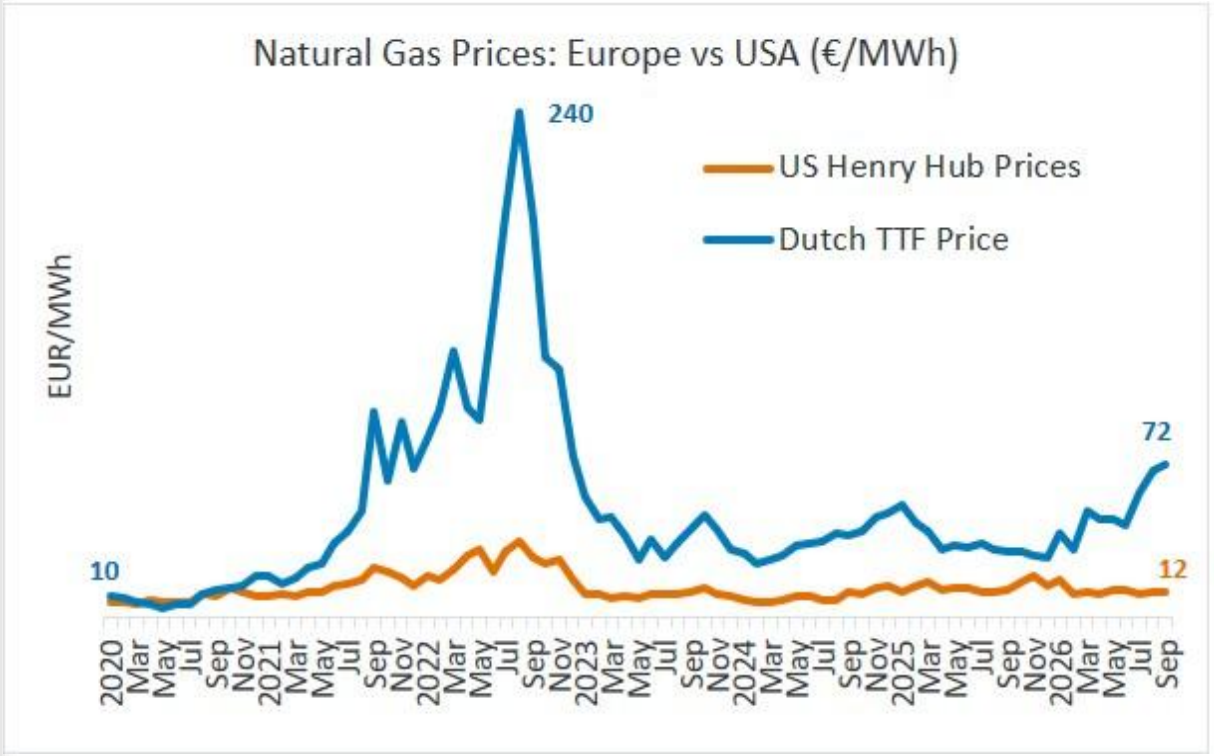


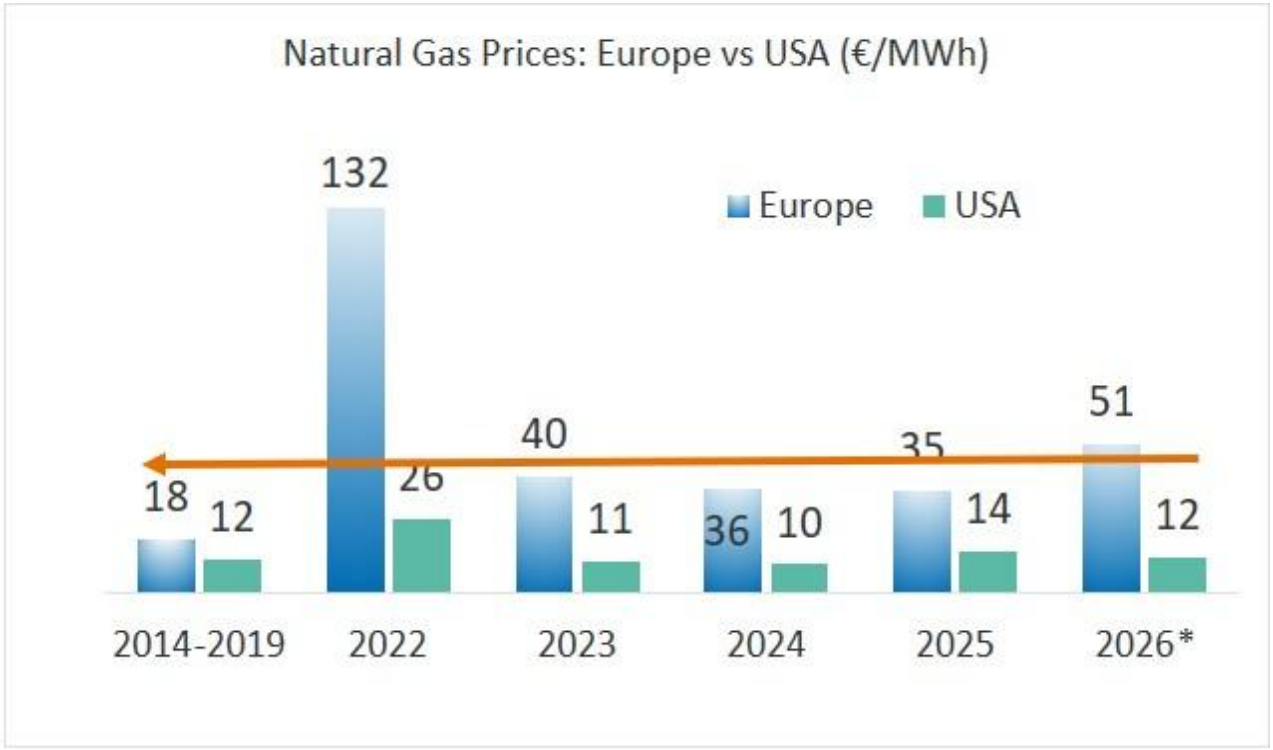
Global chemical production continues to grow, but gains are concentrated in China.

Source: Cefic analysis based on Chemdata, NACE 20 only

Energy: A structural cost disadvantage for European chemicals

European gas prices in 2026 (Jan-Sep): 2.8 times their pre-crisis average (2014-2019)

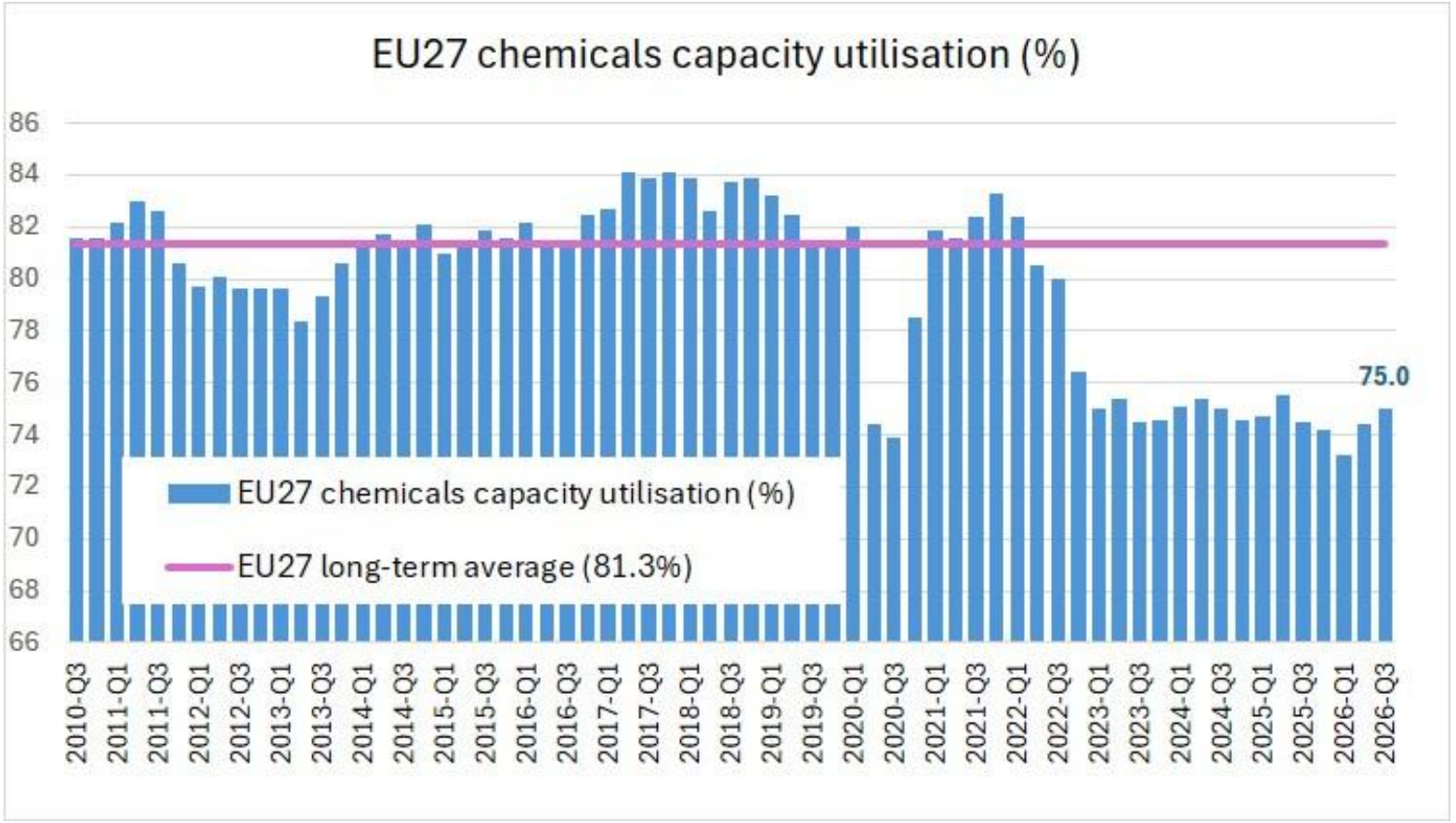




September's rise in gas prices left European natural gas prices around six times higher than in the US, reinforcing the energy cost disadvantage for European chemical producers.

Source ICE Dutch TTF Natural Gas Futures Historical Prices (Investing.com) and INSEE Oil Prices data and ICIS, *2026 (Jan-Sep)

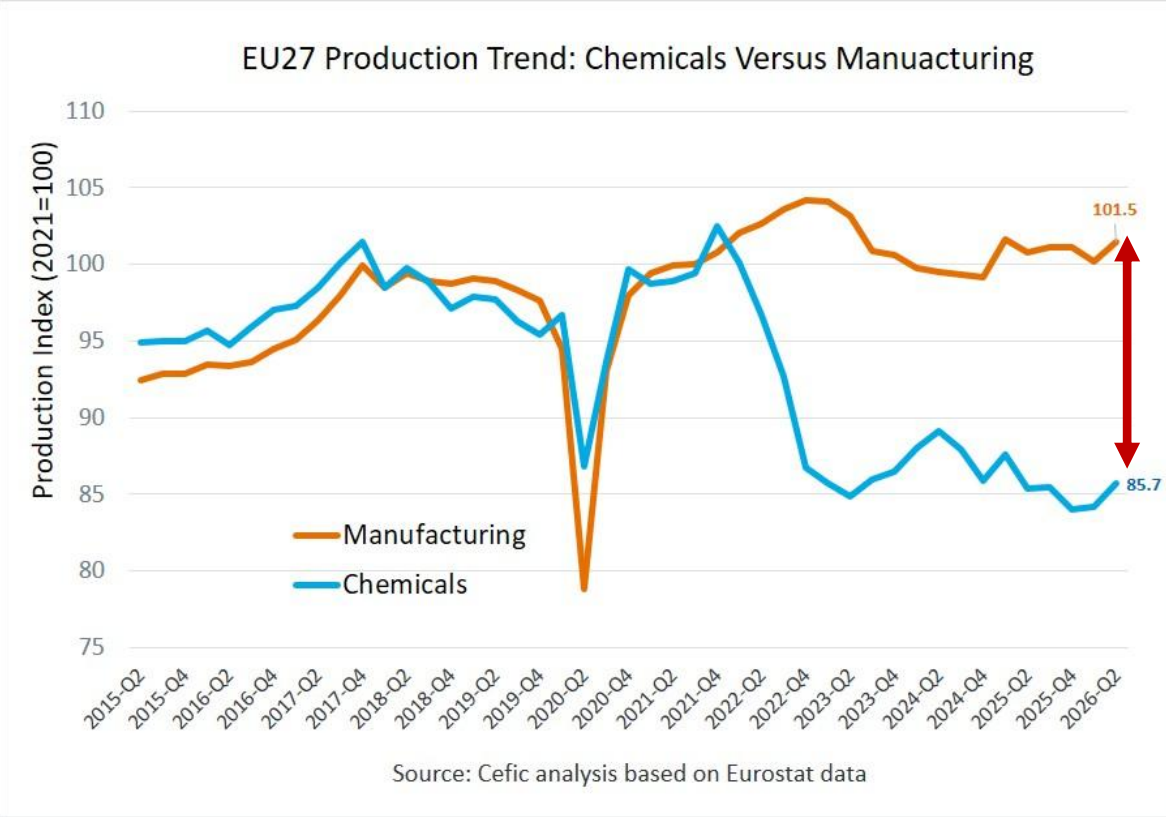
EU27 chemical capacity utilisation: gradual rise, but structural weakness persists

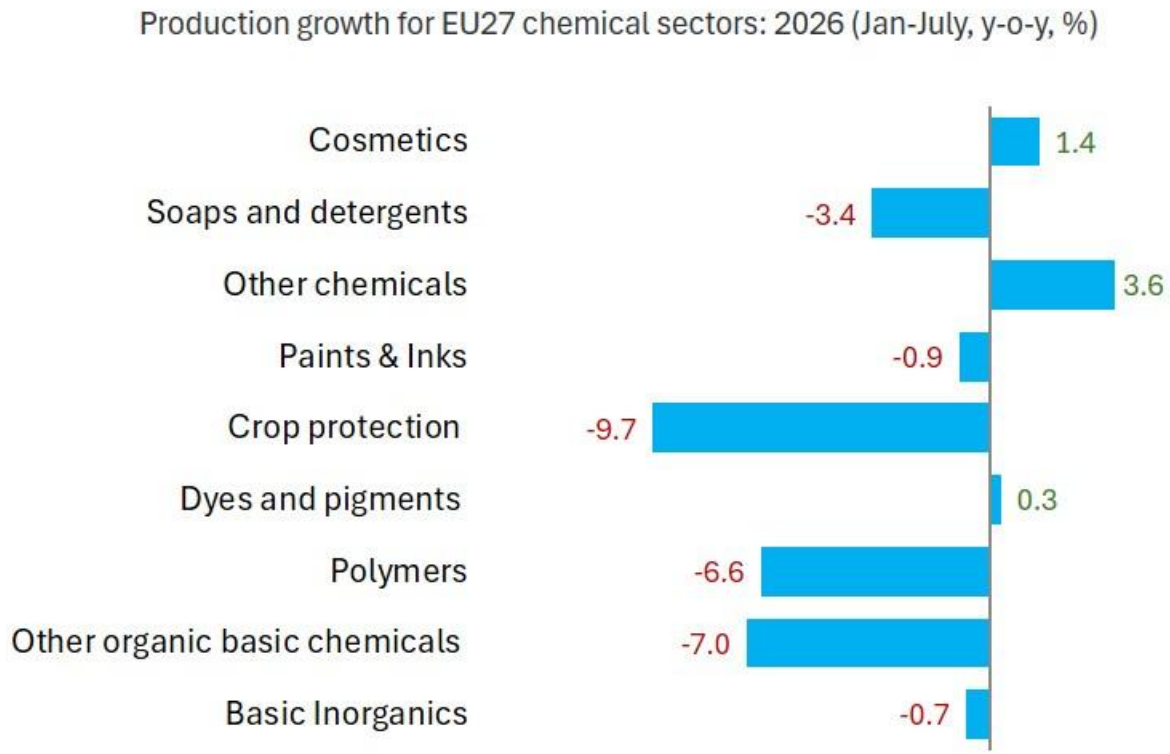


European chemical plants continue to operate significantly below normal levels, reflecting weak demand, import pressure and persistent competitiveness challenges.

Source: Cefic analysis based on Eurostat data, NACE 20 only

EU27 chemical production continues to underperform

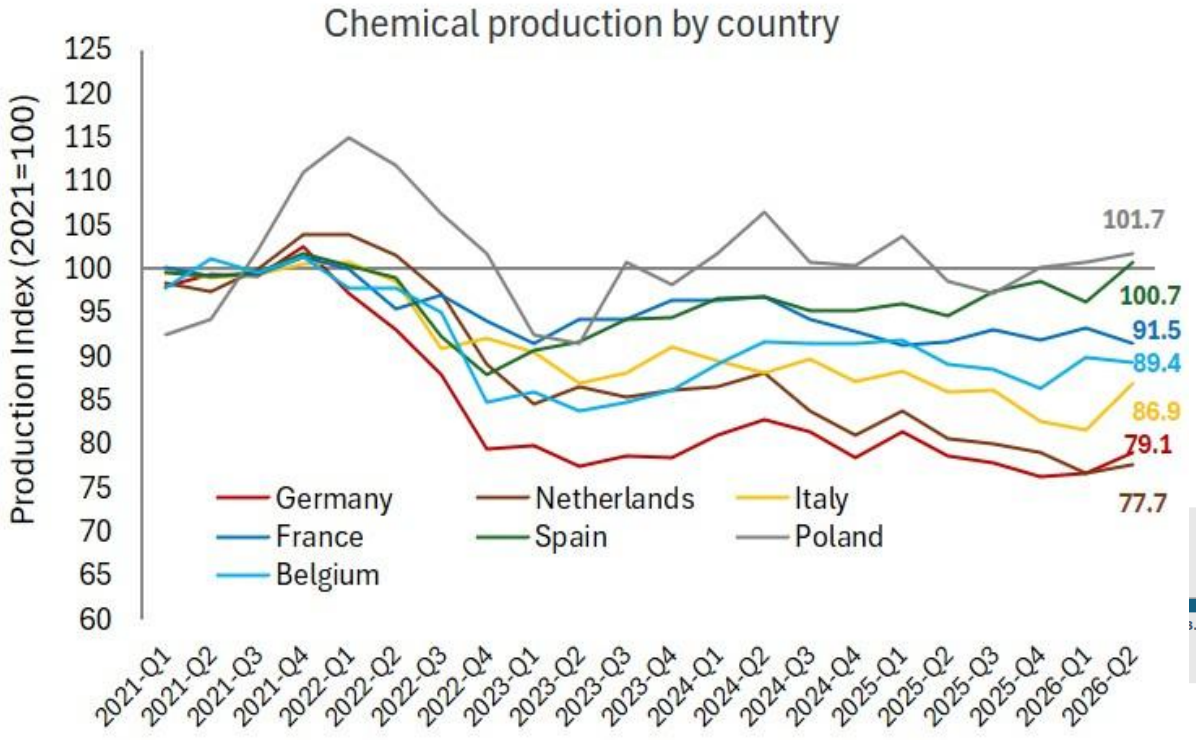


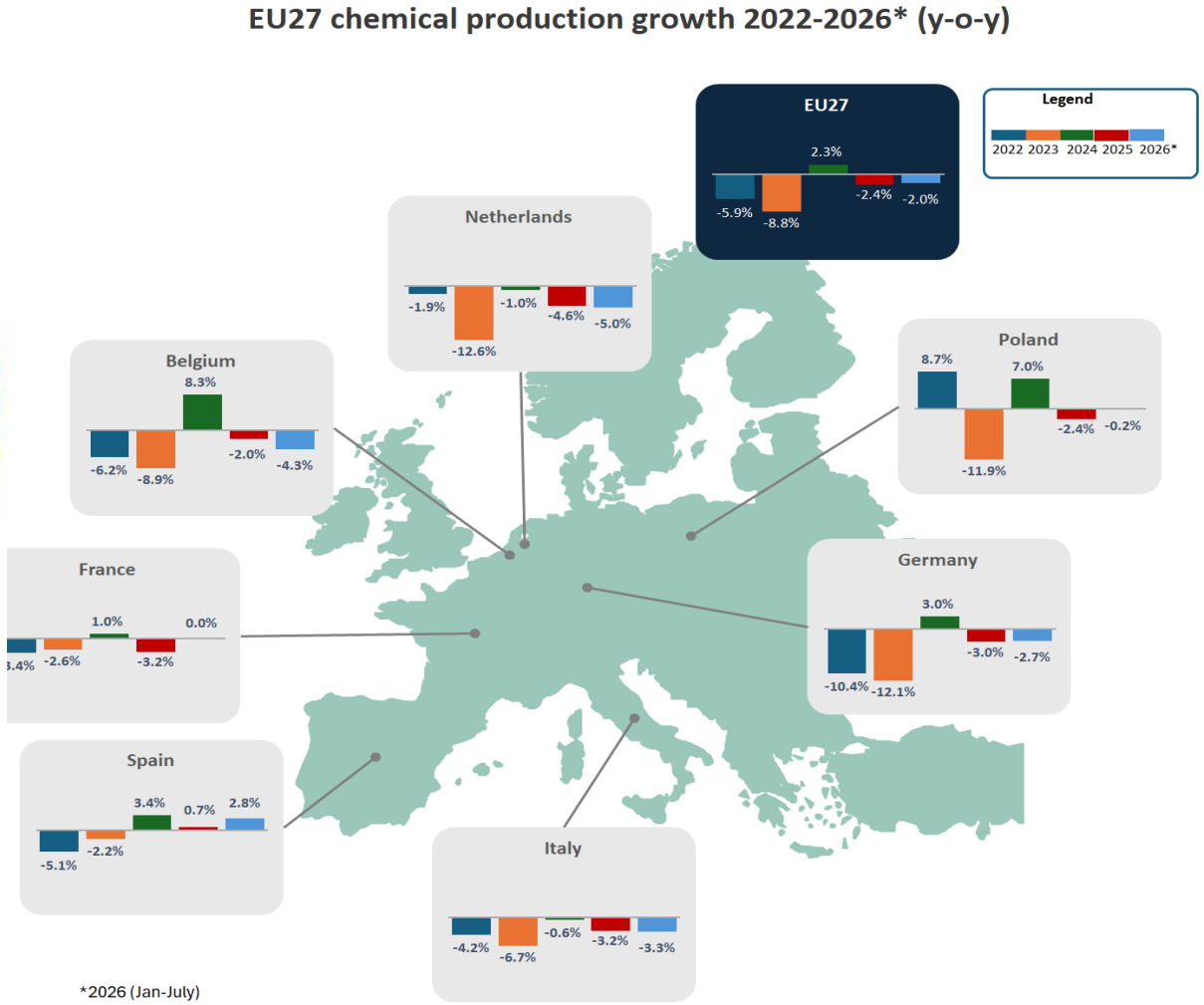


Competitiveness losses and rising import penetration are increasingly disconnecting the European chemical industry from the broader industrial recovery

Source: Cefic analysis based on Eurostat data, NACE 20 only

Chemical production remains uneven across major EU27 producers

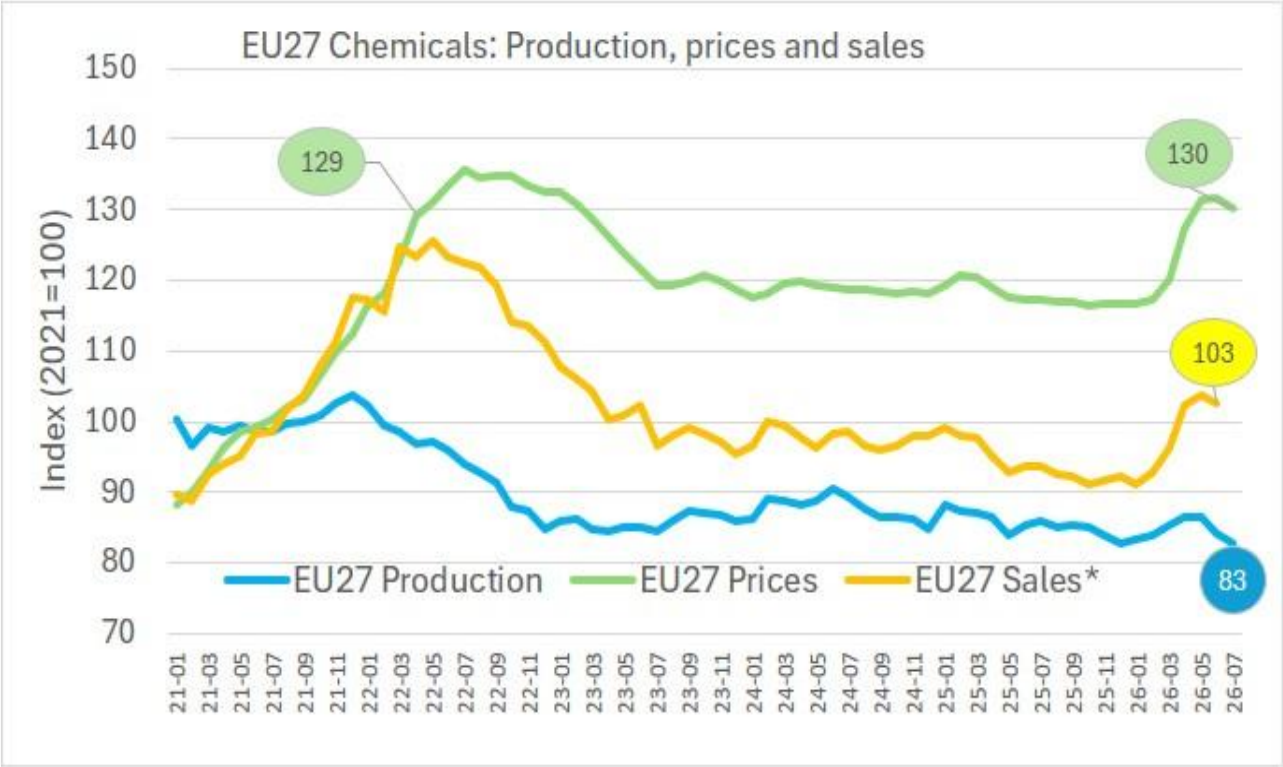


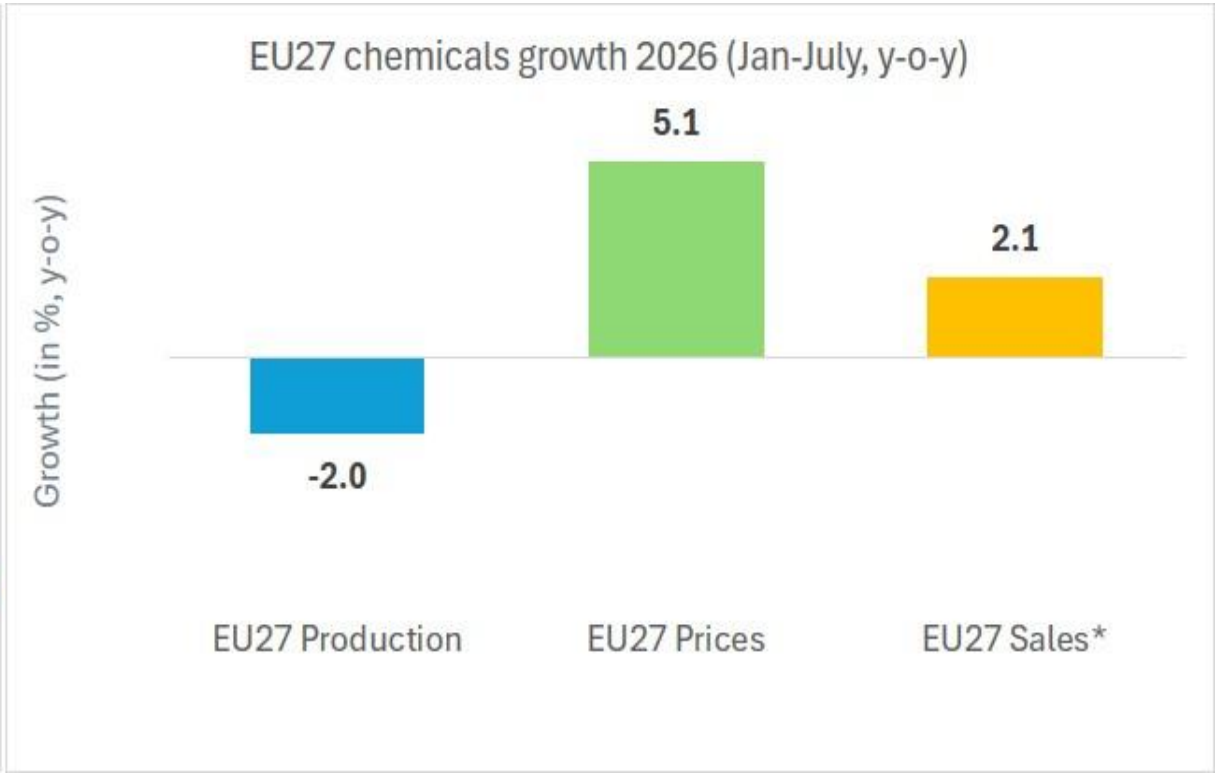


While EU27 GDP growth reached 1.4% in 2025, Poland (+3.6%) and Spain (+2.8%) continued to outperform most Member States.

Source: Cefic analysis based on Eurostat data, NACE 20 only.

Higher prices lift chemical sales despite falling output

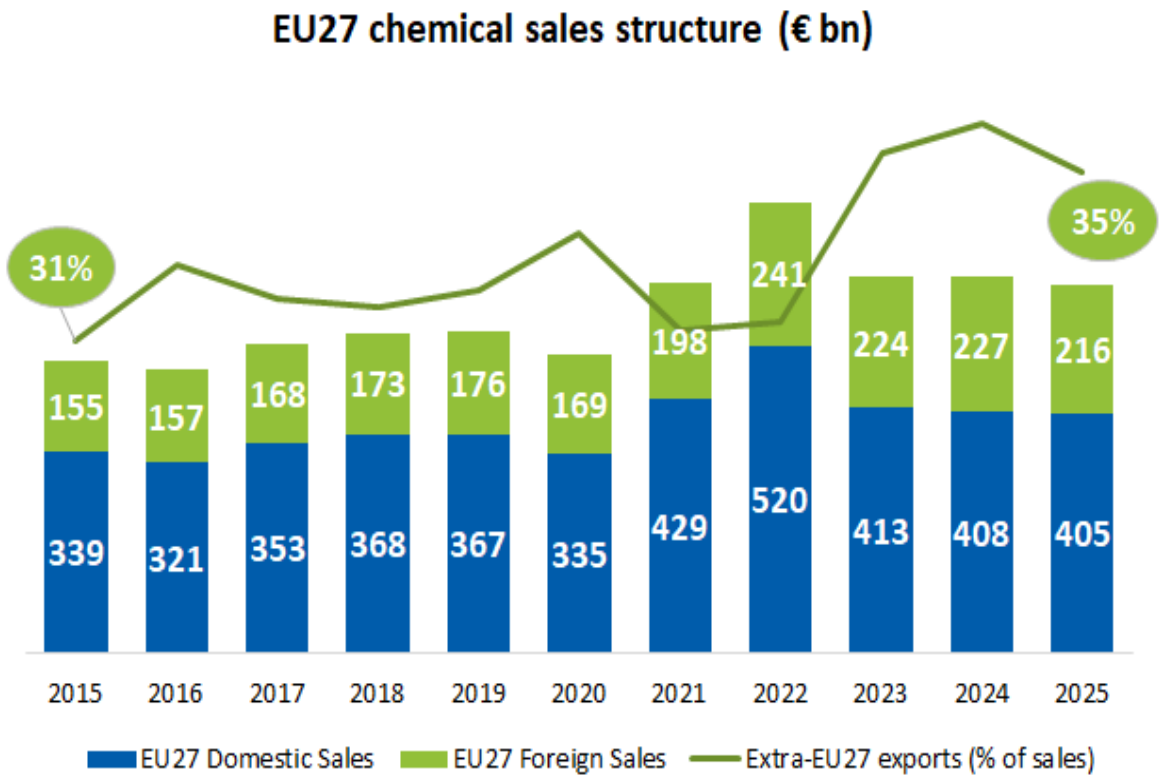


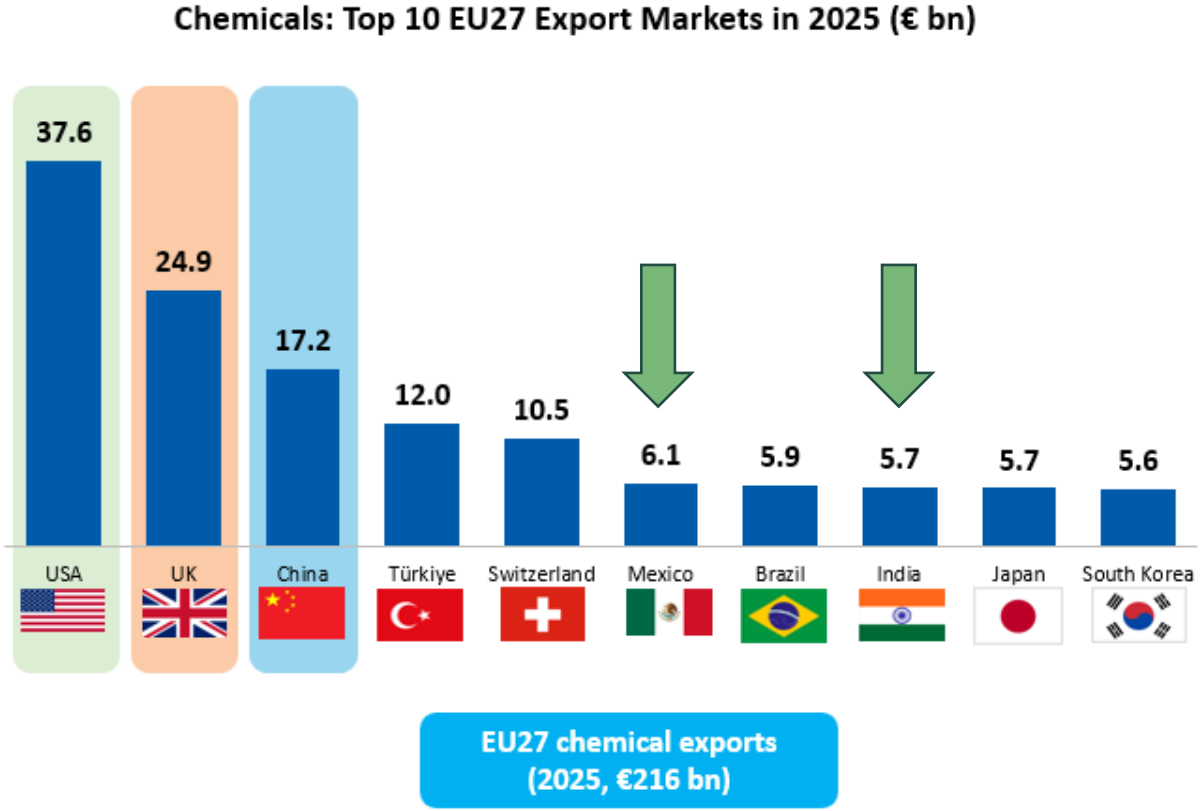


The increase in chemical sales is largely price-driven. Production, capacity utilisation and demand remain too weak to signal a meaningful recovery in the European chemical industry.

Source: Cefic analysis based on Eurostat data, NACE 20 only, *Sales growth: 2026 vs 2025 (Jan-June)

Domestic sales remain the backbone as exports share slightly increases

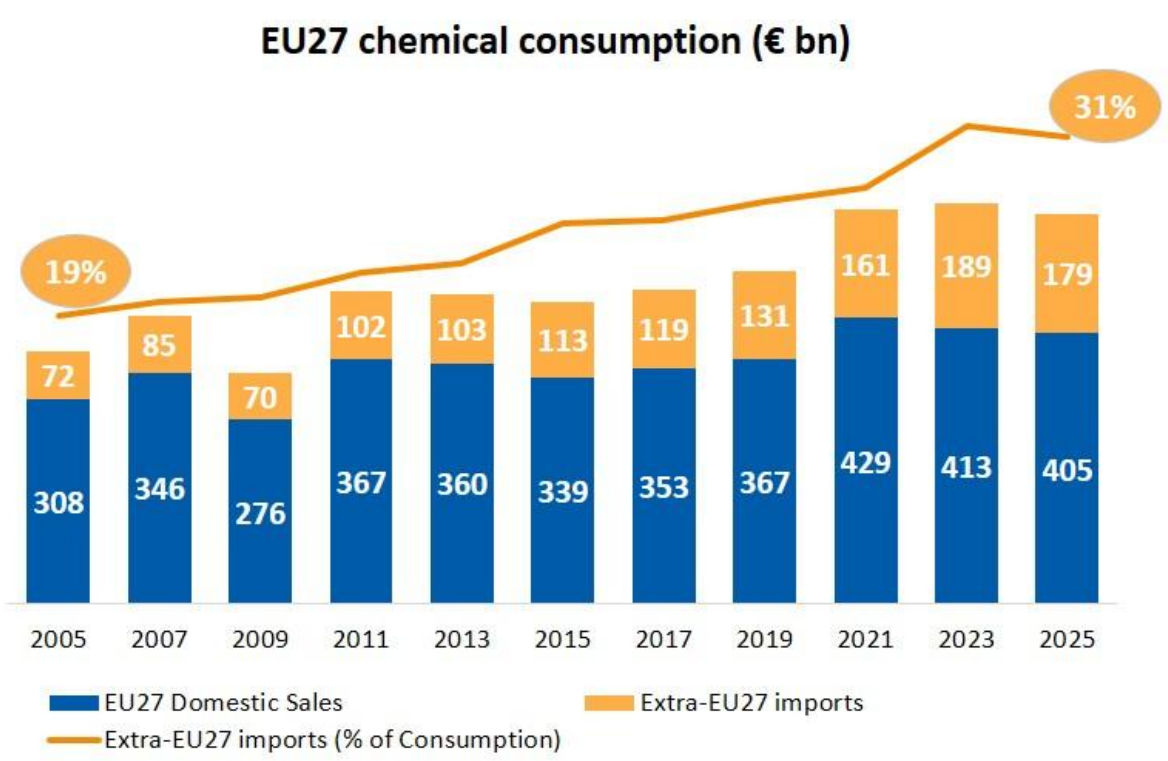


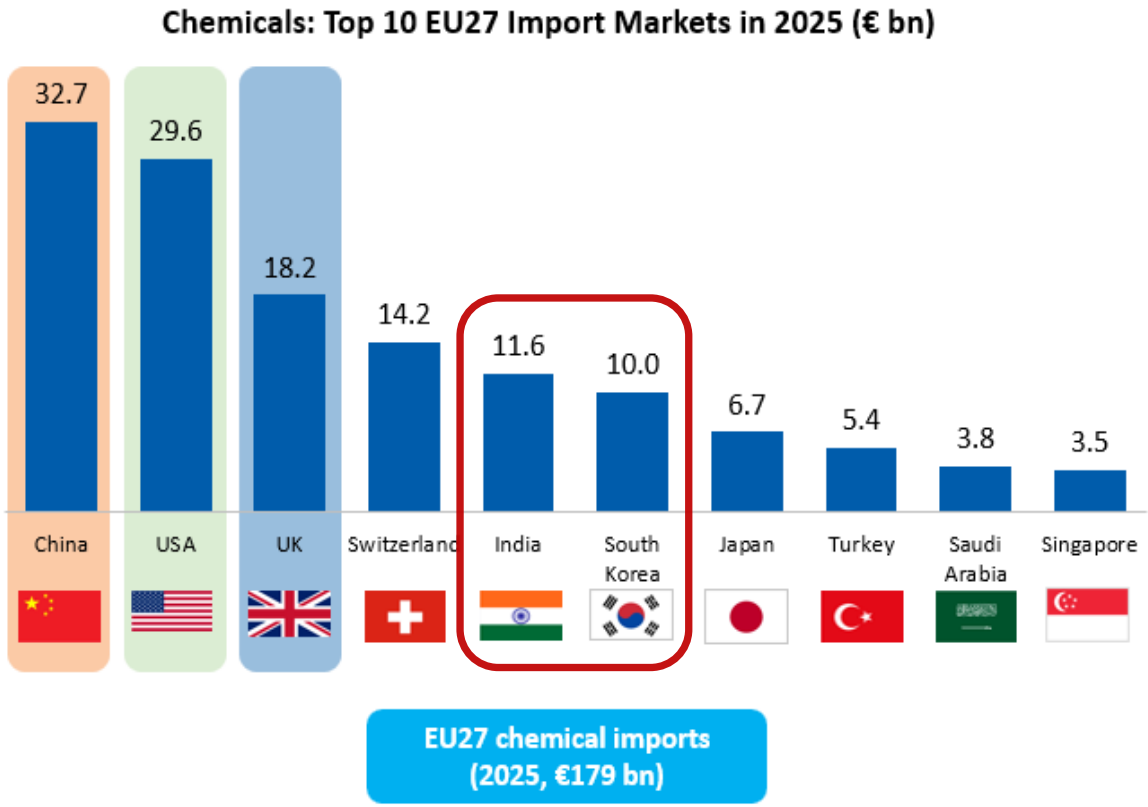


China recorded the largest structural gain between 2005 and 2025, climbing from 7th to 3rd place as its share more than doubled from 3.5% to 8.0%. Mexico and India entered the top 10, while Russia and Norway dropped out.

Source: Cefic Chemdata International, NACE 20 only.

Import intensity remains at a historically high level



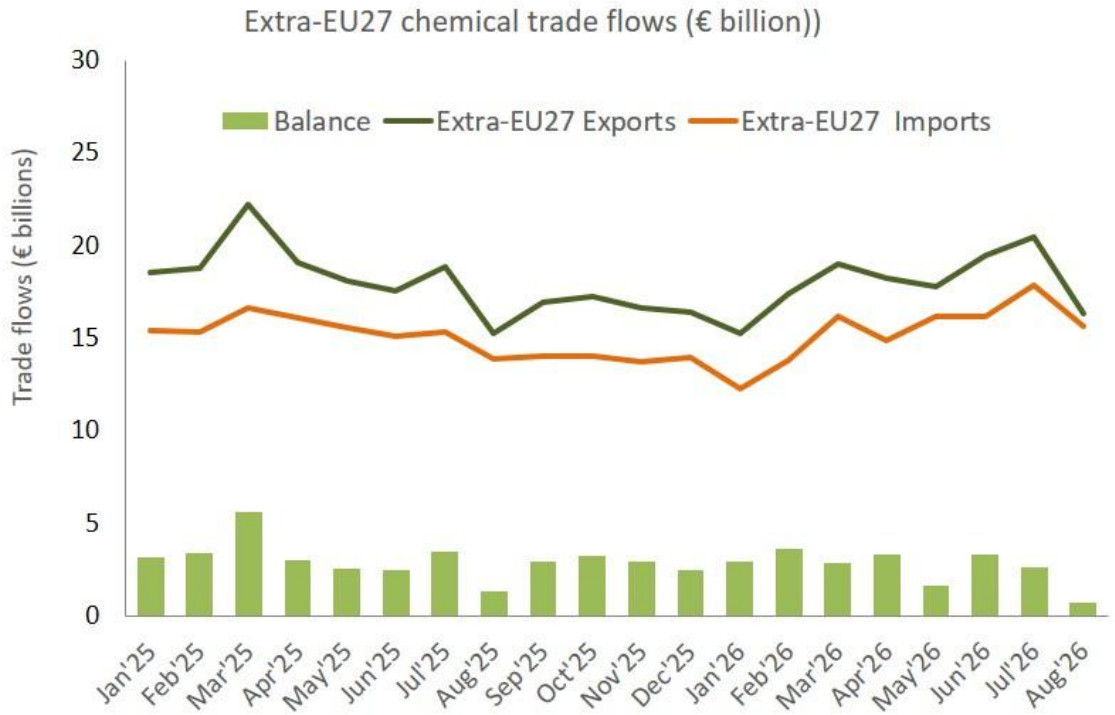


China was the dominant structural gainer between 2005 and 2025, rising from 6th to 1st place as its share surged from 4.7% to 18.3%. India and South Korea gained ground, while Russia dropped out.

Source: Cefic Chemdata International

Downstream chemicals increasingly underpin the EU27 trade surplus

Chemical segment	Pre-crisis average, 2014–2019 (€bn)	Trade balance 2025 (€bn)	Change vs pre-crisis average (€bn)
Other organic basic chemicals	-3.3	-23.7	-20.4
Polymers	7.7	2.2	-5.5
Basic inorganics	-2.5	-2.1	0.3
Specialty chemicals	24.4	30.2	5.9
Consumer chemicals	17.9	28.9	11.0
Total chemicals	45.2	36.5	-8.7



Europe remains globally competitive in specialty and consumer chemicals, but persistent losses in upstream value chains are steadily weakening the industry's overall trade position.

Source: Cefic analysis based on Eurostat data, NACE 20 only

Summary: High energy costs and weak demand delay recovery

- Moderately improving confidence and lower inventories are positive signals, but weak demand, persistently high energy costs, low capacity utilisation, rising import penetration and Chinese capacity expansion continue to constrain output and investment.

- European gas prices were around six times higher than in the US in September 2026, reinforcing the sector’s structural cost disadvantage.

- Restoring competitiveness will require a stronger European industrial base, competitive energy costs, improved investment conditions and continued access to global markets.

Global Chemical Market Update

Cefic Chemical Convention, Lisbon

October 2026



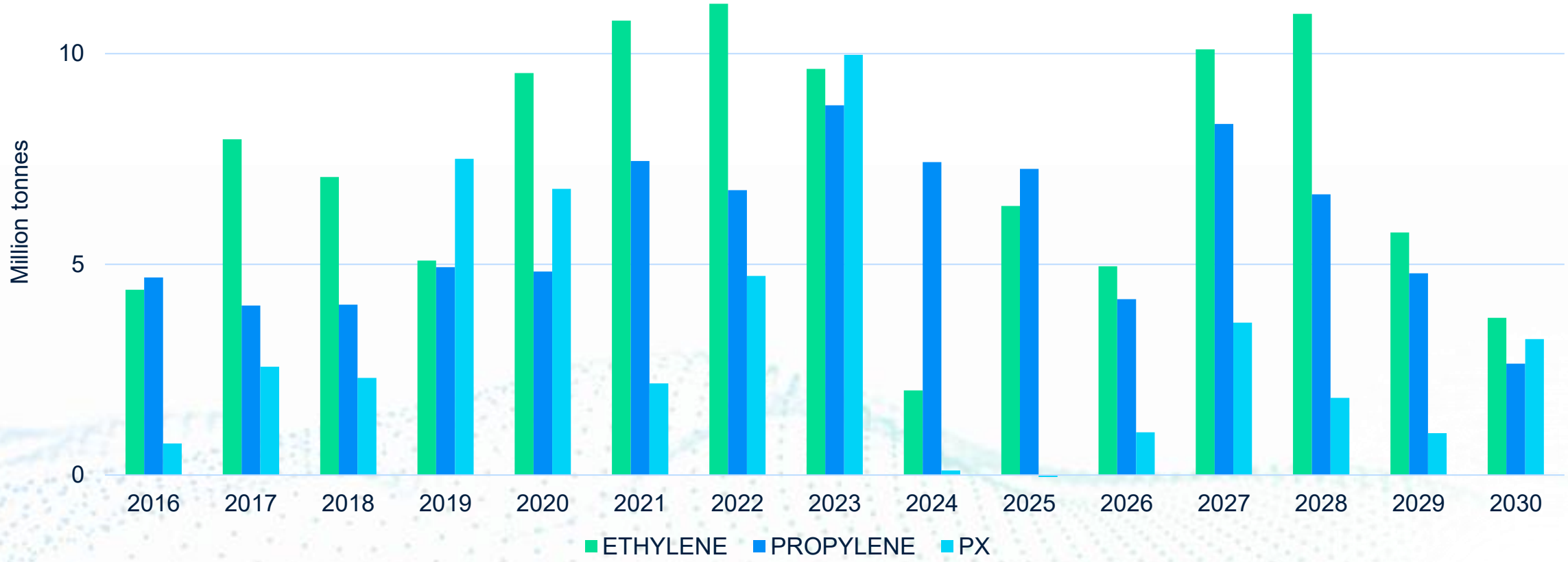
James Wilson
Head of Olefin Analytics, ICIS
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Supply and Demand Overview



Global Capacity Investments | Record level of additions continue

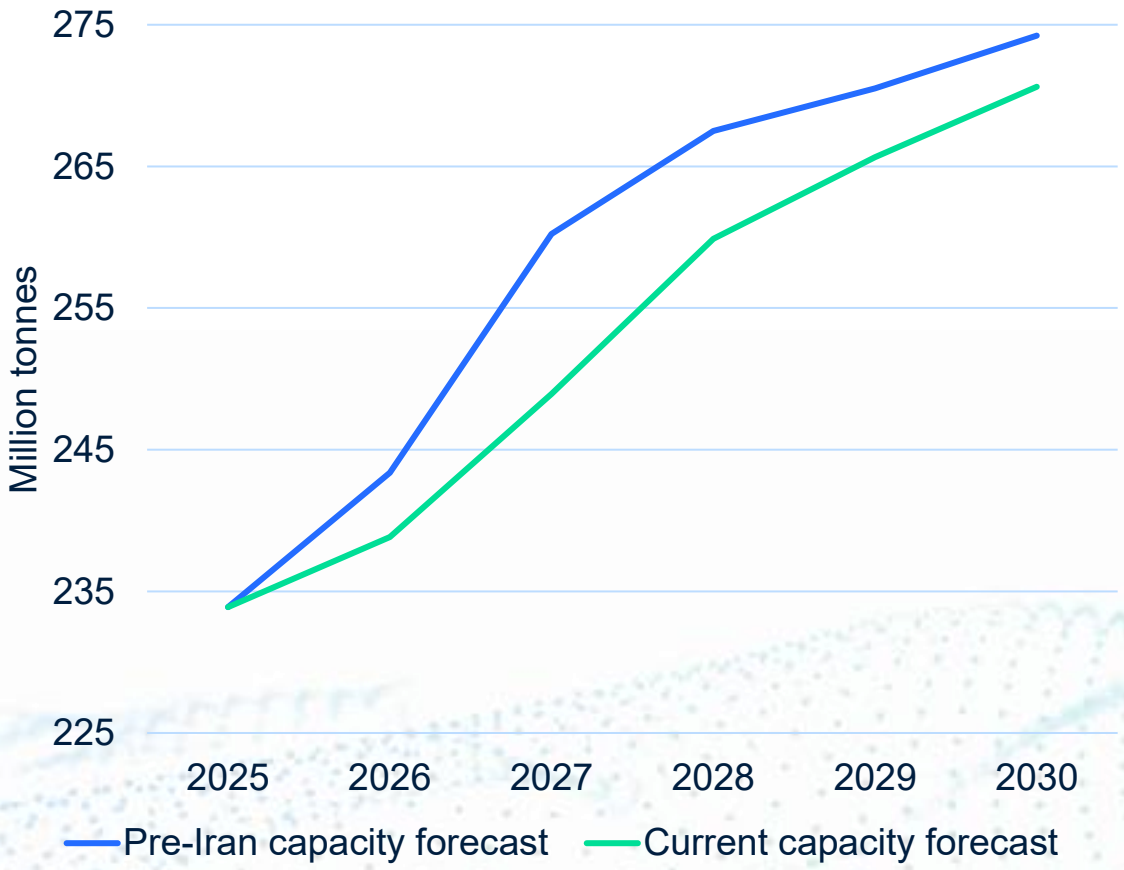
Incremental Capacity Growth by Product



Source: ICIS Supply & Demand Database (Oct 2026), note that figures are net and only account for confirmed capacity additions and closures

Global Ethylene Capacity Outlook | Lower than pre-conflict

Global ethylene capacity forecast: pre-conflict vs current



Three forces reshaping the capacity outlook

Start-ups delayed

Conflict-related disruption has pushed back several 2026 start-ups

Rationalisation accelerates

Closures of older, sub-scale crackers led by Northeast Asia are being brought forward, removing capacity faster than assumed

Projects deferred or cancelled

Weak margins have caused some projects to delay start-ups or be shelved altogether

Source: ICIS Supply & Demand Database (Oct 2026), note that figures are net and only account for confirmed capacity additions and closures

China ethylene projects | One cancellation, seven start-ups pushed back



A total of 22 new capacity projects are planned for 2026–2030 in China, including 13 steam crackers, eight CTO projects and one MTO project.

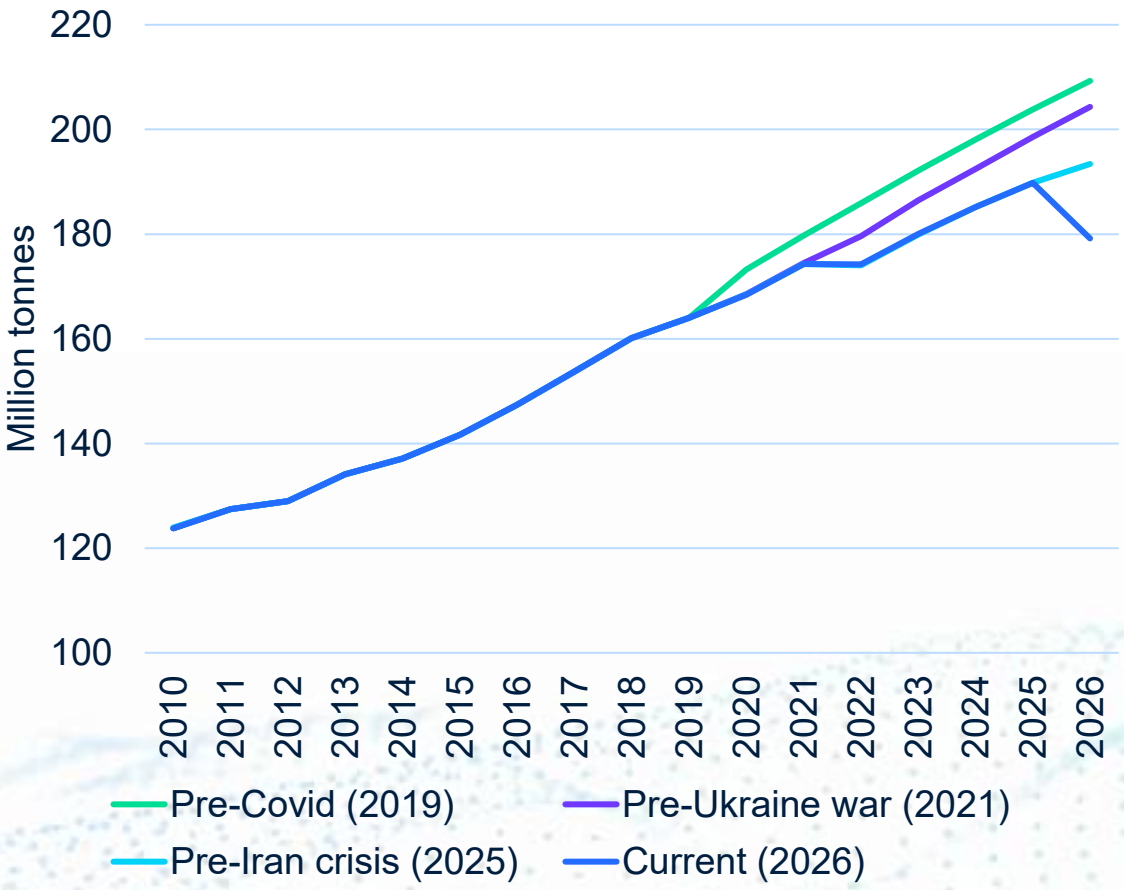
Revised Chinese Projects	Capacity (kt)	Previous	Revised
⚠ Panjin - Huajin Aramco	1,650	Q3 2026	early 2027
⚠ Zibo - Sinopec Qilu	1,000	Q4 2027	Q3 2028
⚠ Luoyang - Sinopec Henan	1,000	Q4 2027	Q2 2029
✕ Nanjing - Nanjing YPC BYC	1,000	planned	Cancelled
⚠ Zhenhai - Sinopec Zhenhai	1,500	Q1 2027	Q3 2028
⚠ Yueyang - Sinopec Hunan	1,000	Q1 2028	2031
⚠ Qinzhou - Guangxi Huayi	500	mid-2026	end-2026
⚠ Maoming - Sinopec Maoming	1,000	Q1 2027	Q1 2029

Key drivers behind the 2026-2030 delays and cancellations

- ✓ **Middle East conflict** - regional instability is pushing back project timelines.
- ✓ **Sinopec is deferring its new projects** – five of the eight revised Chinese crackers are Sinopec-led, with start-ups moved out by one to three years.
- ✓ **Foreign partners are stepping back** – overseas investors are withdrawing from joint ventures, as in the cancelled Nanjing YPC BYC cracker.

Ethylene demand | Successive shocks reset growth expectations

Global ethylene demand



Source: ICIS Supply & Demand Database (Jun 2026)

Each shock established a lower demand baseline

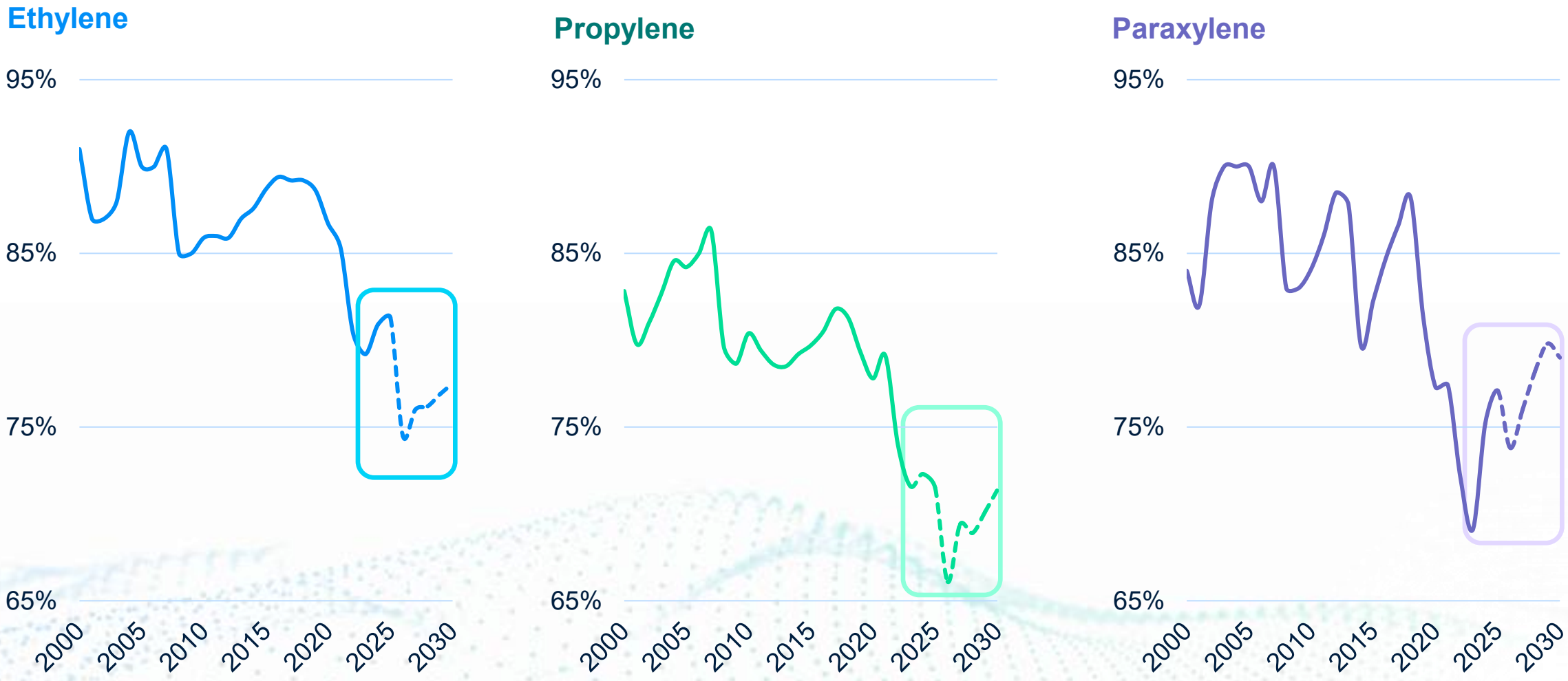
~210m tonnes
Global ethylene demand 2026 (2019 estimate)

~195m tonnes
Global ethylene demand 2026 (2025 estimate)

~180m tonnes
Global ethylene demand 2026 (2025 estimate)

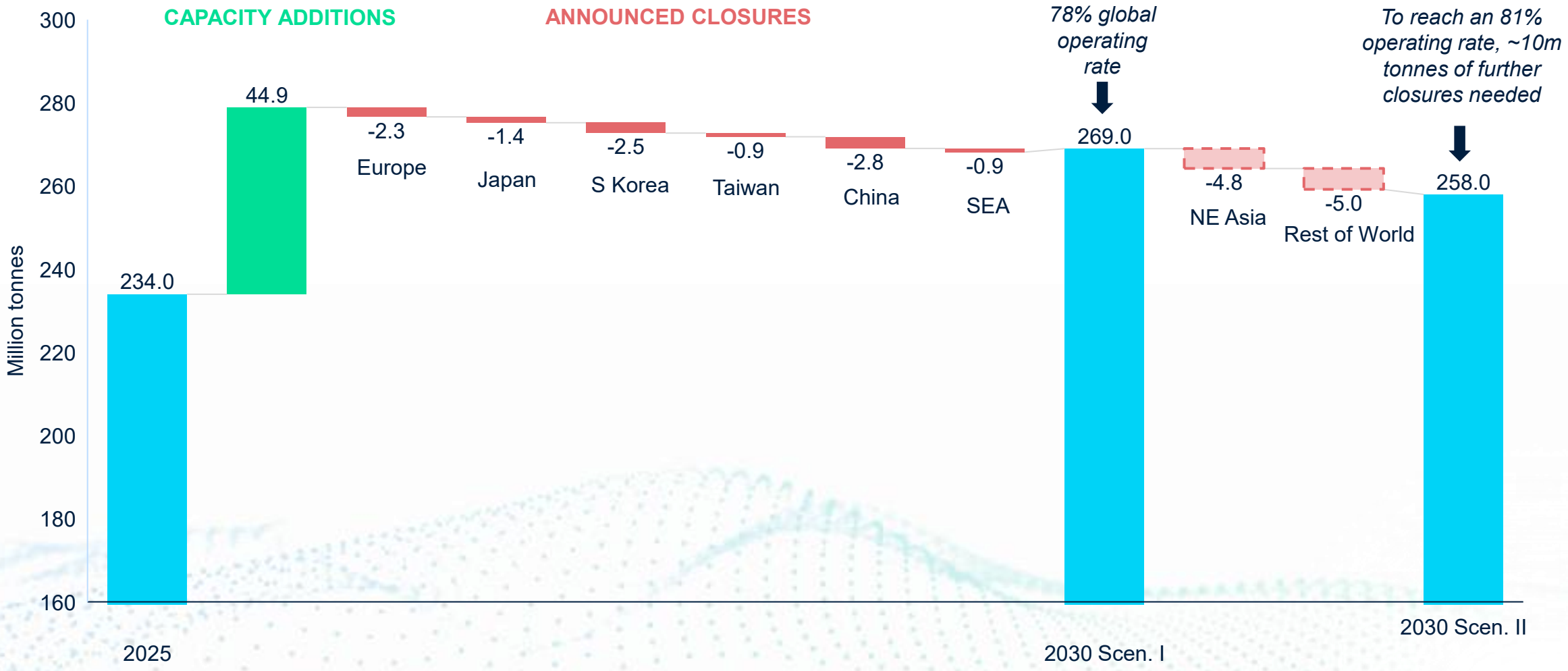
Is structural volatility the new baseline for chemical demand growth?

Global Operating Rates | 2026 record lows, rationalisation inevitable



Source: ICIS Supply & Demand Database (Jun 2026), operating rates account for confirmed capacity additions and closures only

Capacity rationalisation | Necessary, painful, inevitable



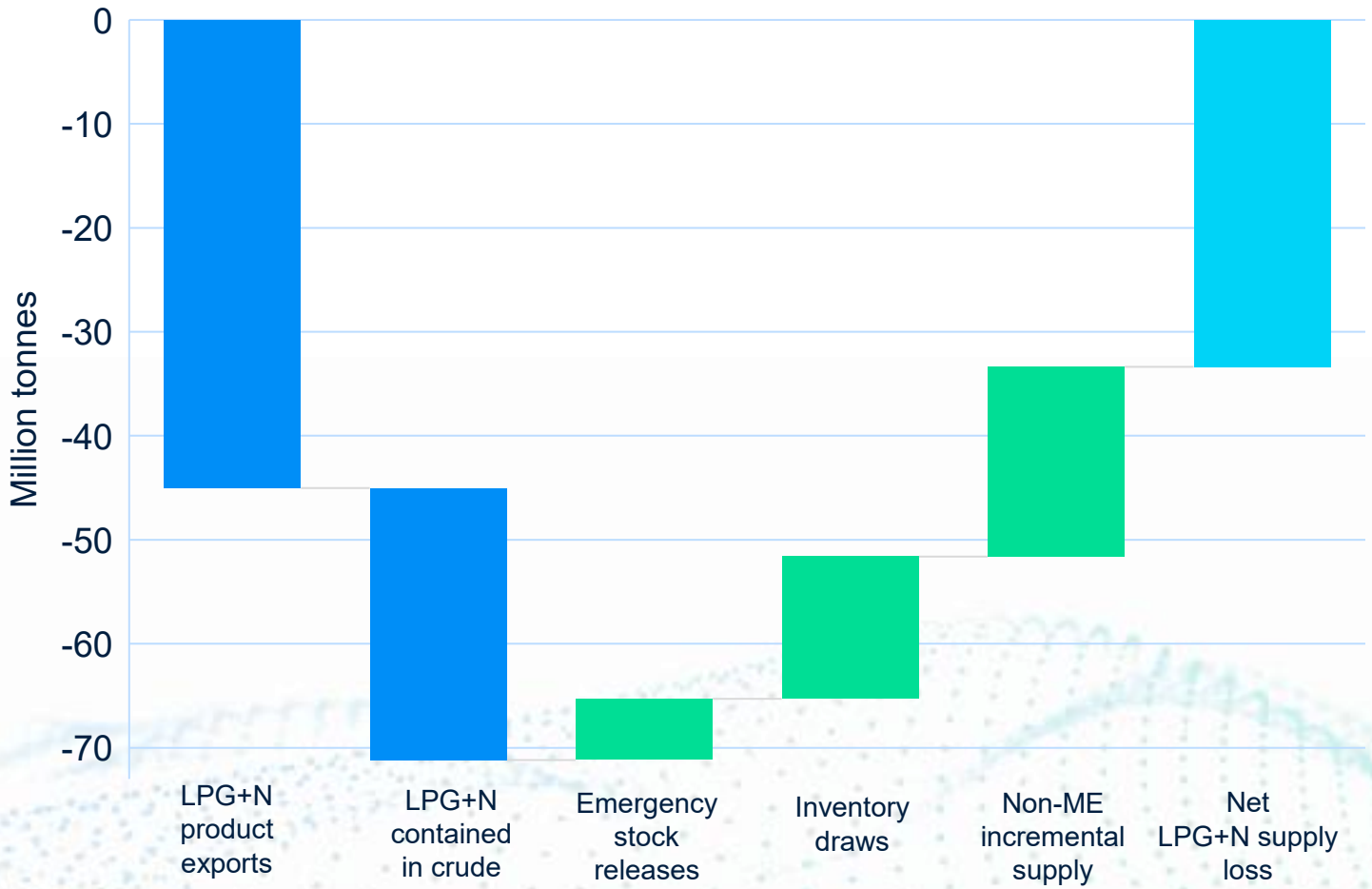
Source: ICIS Analytics (Jul 2026), demand forecast based on 1.9% CAGR (2025-2030)

Impact of Iran crisis



ME feedstock exports | Offsets mitigate half of disrupted volumes

Estimated supply impact and offsets (Jan to Sep 2026)



Global supply baseline
~900m tonnes
LPG and naphtha from crude and NGLs (relative to Q1-Q3 2025)

Gross disruption volume
~70m tonnes
Middle East product exports, plus LPG+N contained in crude

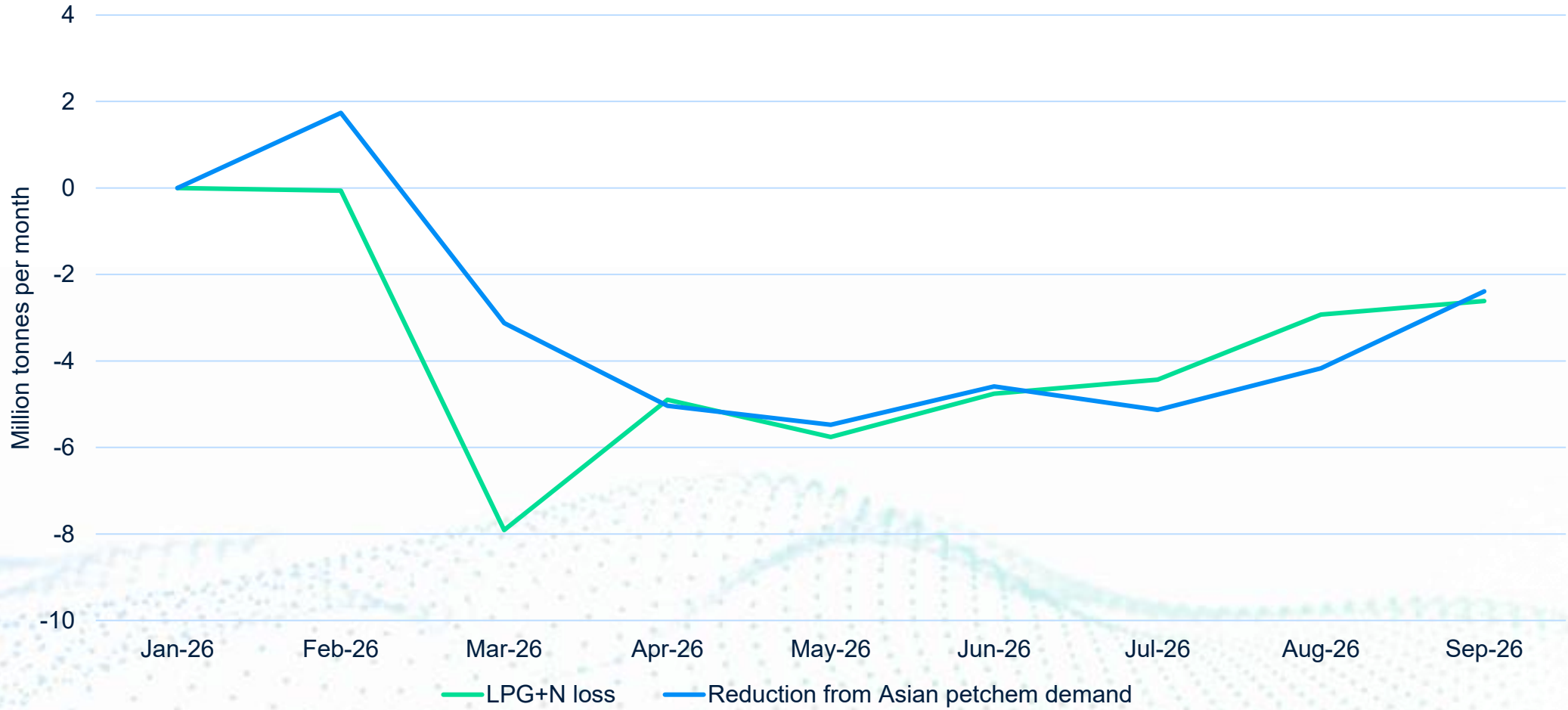
Net supply loss
~35m tonnes
After offsets from inventories, stock releases and alternative supply

Petchem feedstock demand
~375m tonnes
LPG and naphtha demand from petchems (relative to Q1-Q3 2025)

Source: ICIS Analytics (Oct 2026)

Asian chemical production | Absorbs nearly all feedstock shock

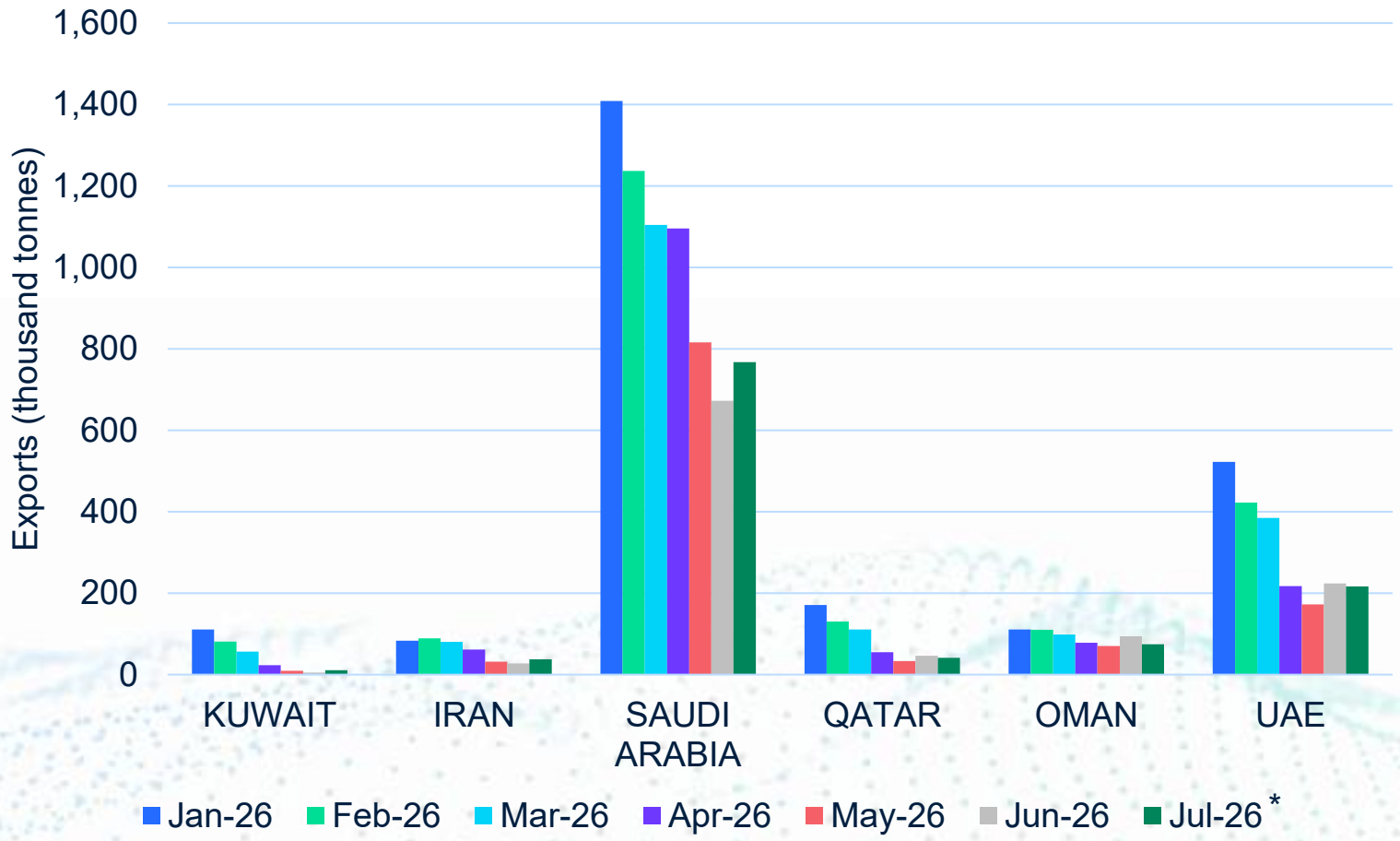
Asian demand cuts track global LPG+N losses



Source: ICIS Analytics (Oct 2026), Asian petrochemical demand based on reduction of LPG and naphtha demand from steam cracker, aromatics reforming and propane dehydrogenation

Middle East | Olefin derivative exports down by approx. 50%

C2+C3 derivative exports (monomer equivalent)



ME reduction in exports (2Q26)

~50% PE

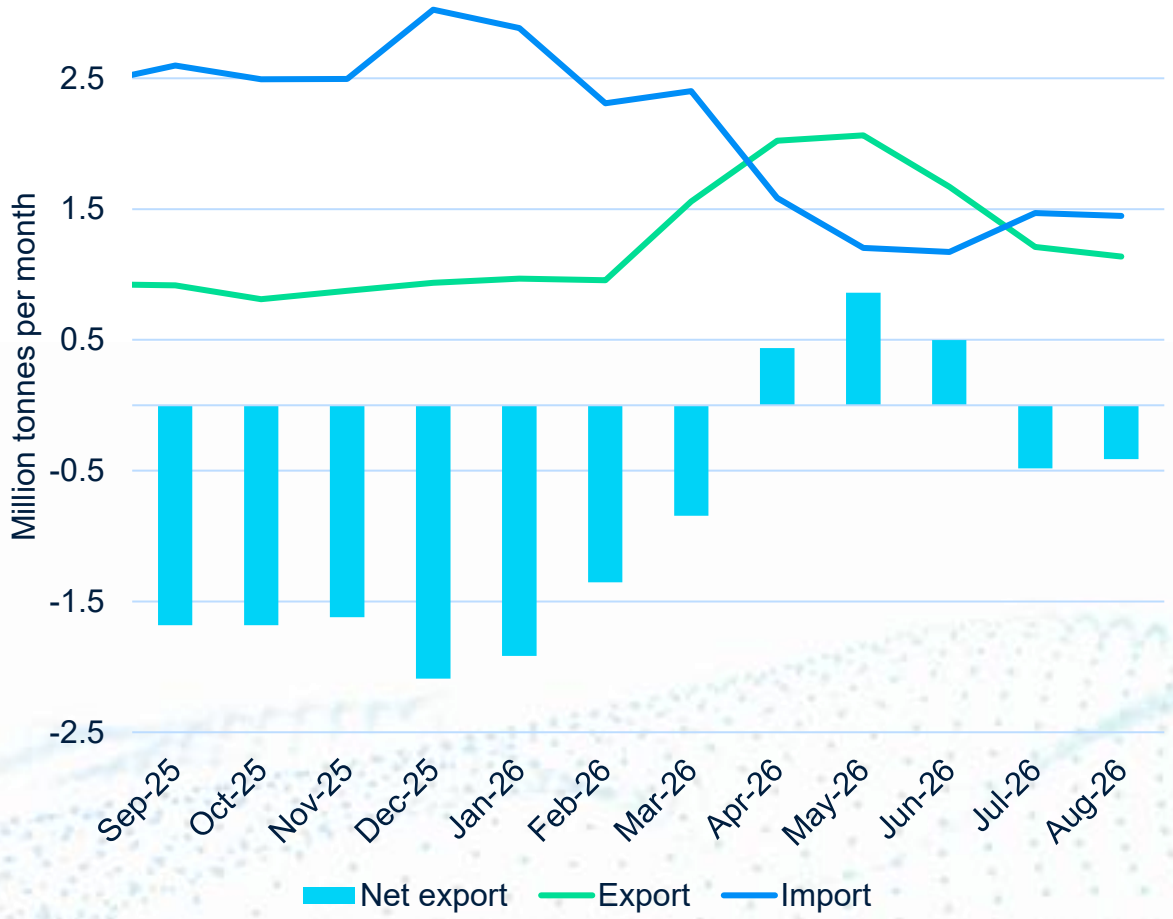
~67% MEG

~25% PP

Source: ICIS Analytics (Oct 2026), export figures based on unadjusted partner reported trade data, * Jul figures partial, reduction in exports relative to 2025 baseline

China trade flows | Olefin product exports plugging Asia supply gap

China olefin and derivative trade (monomer equivalent)



Q2 trade swing equivalent to…

~5 million tonnes
ethylene equivalent

~2 million tonnes
propylene equivalent

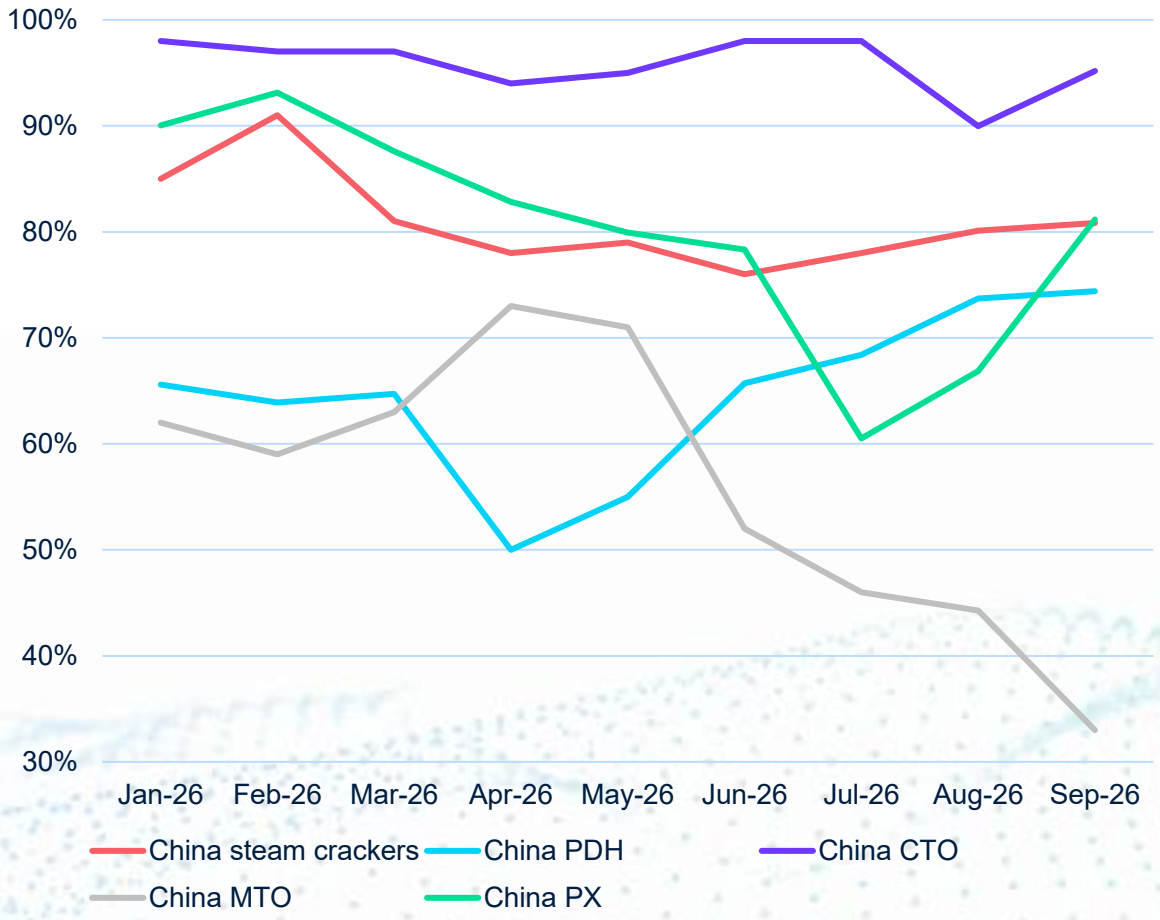




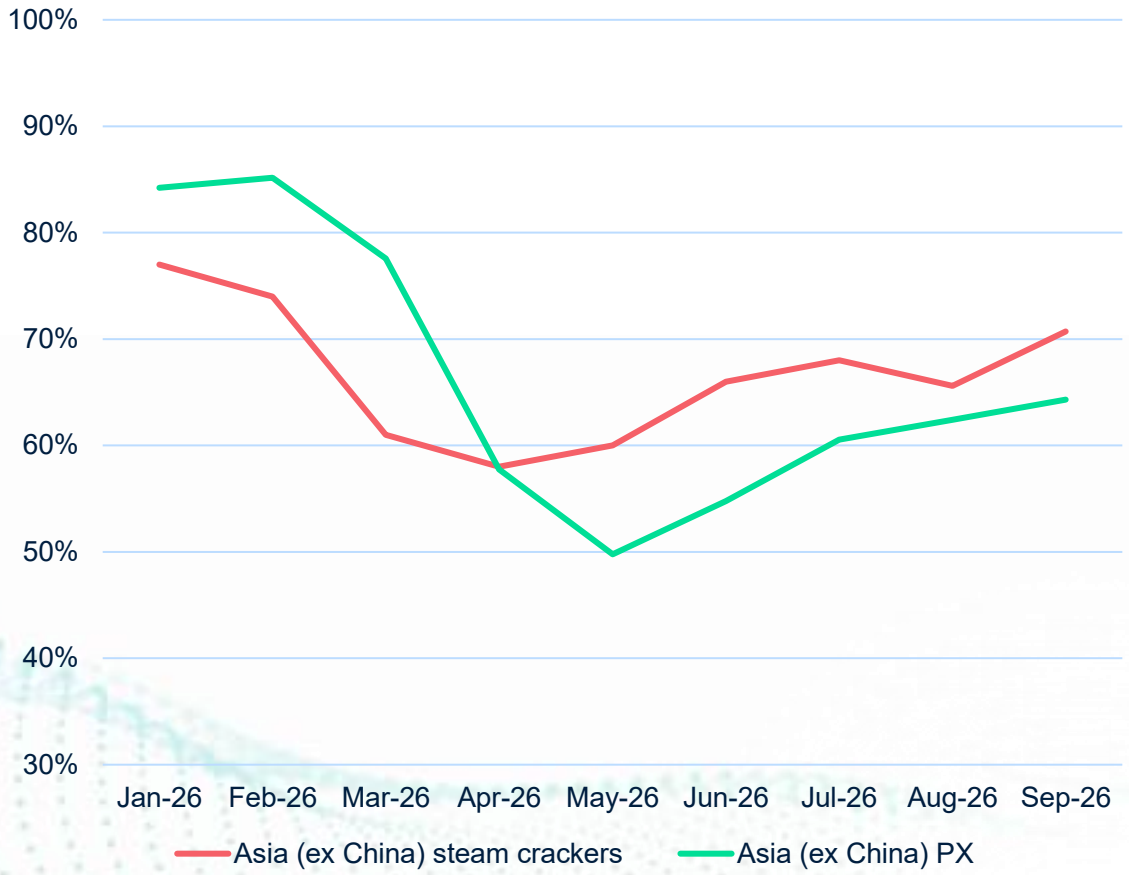
Source: ICIS Analytics (Oct 2026), trade figures including ethylene, propylene and derivatives expressed in monomer equivalent

Asian chemical production | Rate cuts vary by route and location

Chinese operating rates



Rest of Asia (excluding China) operating rates



Source: ICIS estimates (Oct 2026)

Potential scenarios | Resolution, escalation or continuation

Market mechanism	Scenario 1: Lasting Peace Deal	Scenario 2: Managed Instability	Scenario 3: Continued Blockade
Route	Shipping routes reopen	Partial access continues	Hormuz and Red Sea remain restricted
Supply impact	Middle East export volumes re-enter market	Flows remain unreliable	Crude/feedstock flows tighten
Operating response	Cracker restarts and rate increases in Asia	Stop-start operating rates	Deeper chemical run cuts
Buyer behaviour	Buyers defer purchases as supply normalises	Hand-to-mouth buying persists	Buyers reduce or delay purchases, local supply prioritised
Market outcome	Structural oversupply returns quickly	Fragmented regional pricing, volatile margins	Volume contraction, sharp regional margin divergence, oversupply masked

Source: ICIS Analytics (Jul 2026)

Thank you

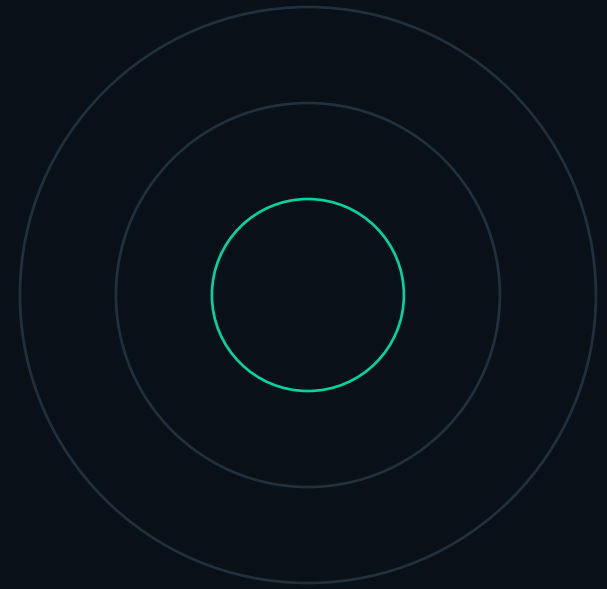


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I·C·I·S | Price • Predict • Perform

Necessity is the mother of invention

AI-assisted situational awareness & foresight for EU chemicals



Tomas Wyns · Brussels School of Governance, VUB

Cefic Chemical Convention 2026

Necessity

My story

Situational awareness

Superpowers

Foresight

The situation room

> *"Given enough startup capital and an adequate research facility, I could be* **Batman**.*"*
>
> — Dr. Sheldon Cooper, *The Big Bang Theory*

Our story

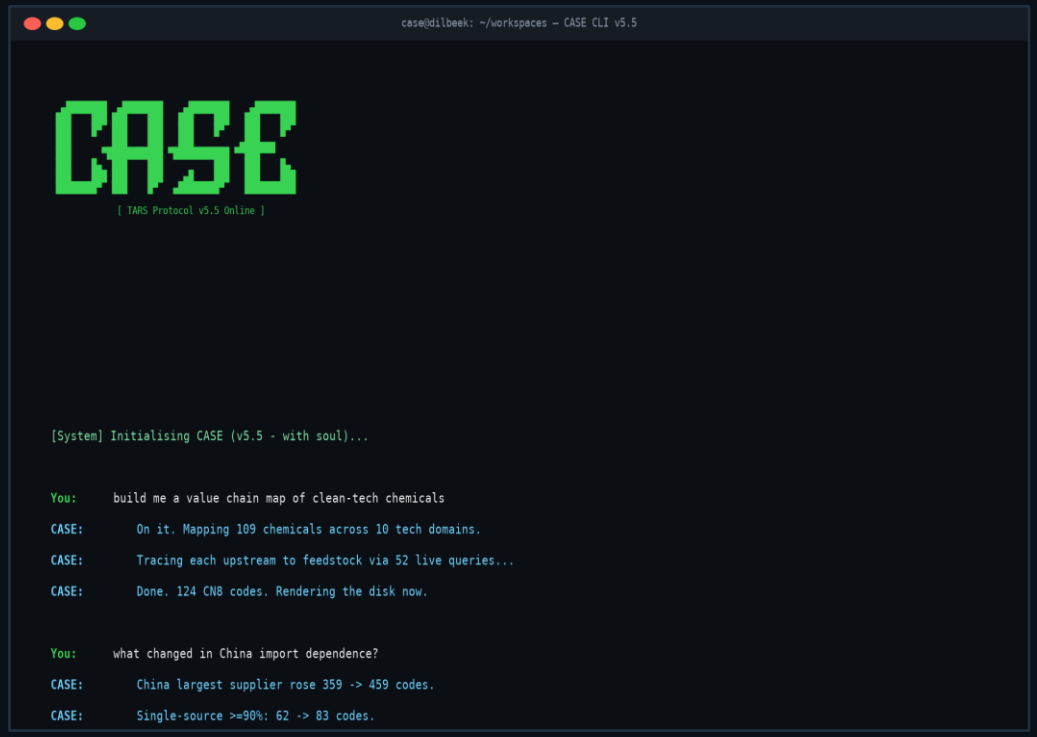
Necessity meets opportunity

- **Do or die moment for our institute (austerity funding cuts) 2025**
- **AI matured enough to meet:**

→ Scientific rigour, research-grade methods

→ Repeatable, auditable pipelines

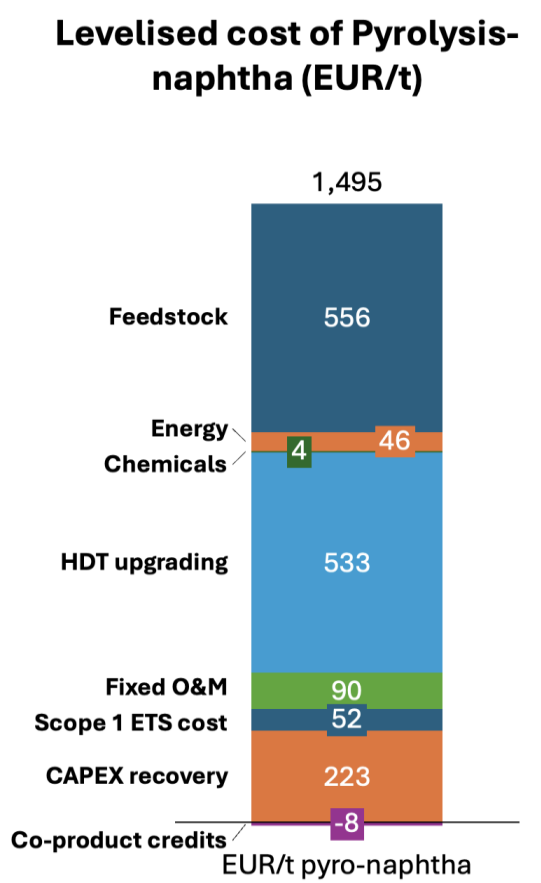
→ Skills (you need it → build it)



2025 FOAK homegrown research Agent

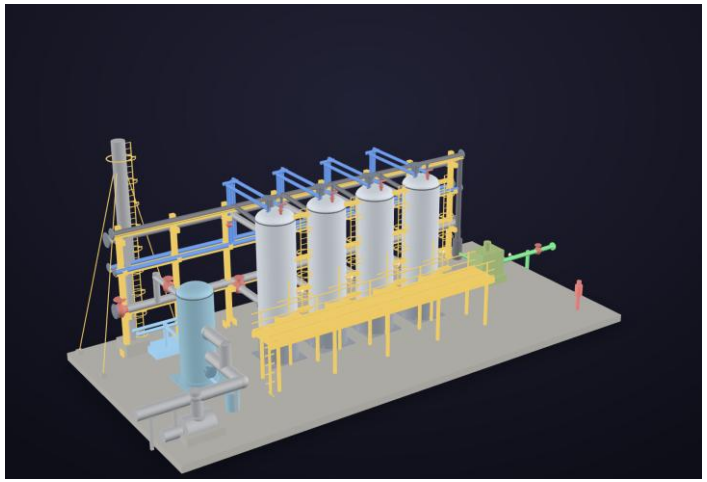
Examples: cost models, advanced econometrics, mapping, automated briefings, sky=limit →

Cost modelling
What a new process costs



TEA development speed x10

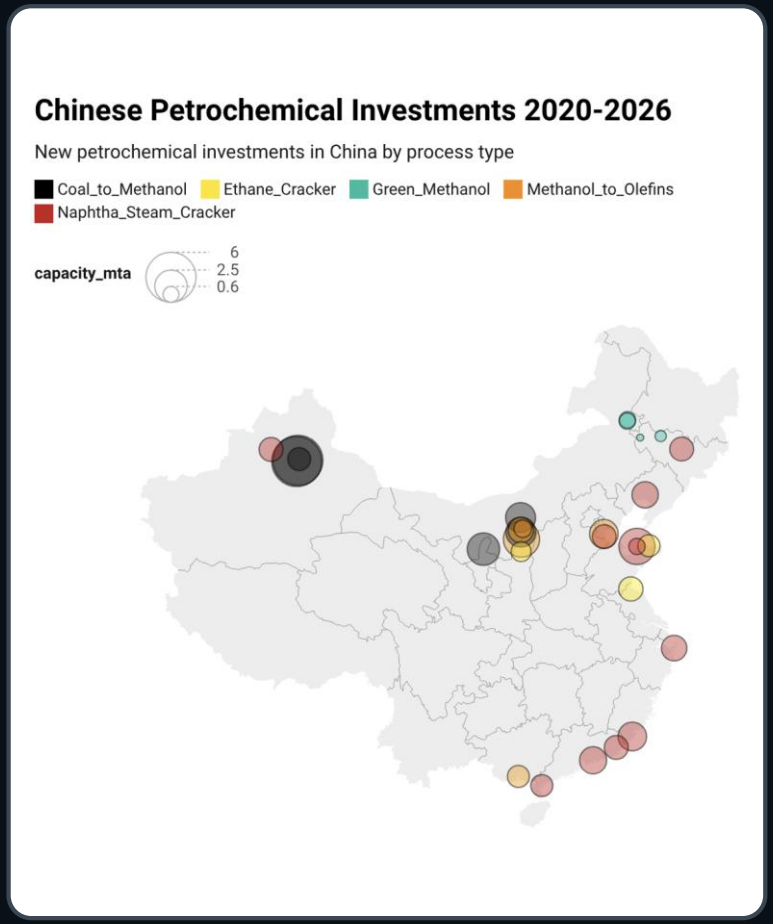
PI&D and CAD
Advanced process modelling



Advanced Adsorption based carbon capture (Moonshot project)

Weeks to days/hours

Investment mapping
Where China is investing in chemicals



Active OSINT

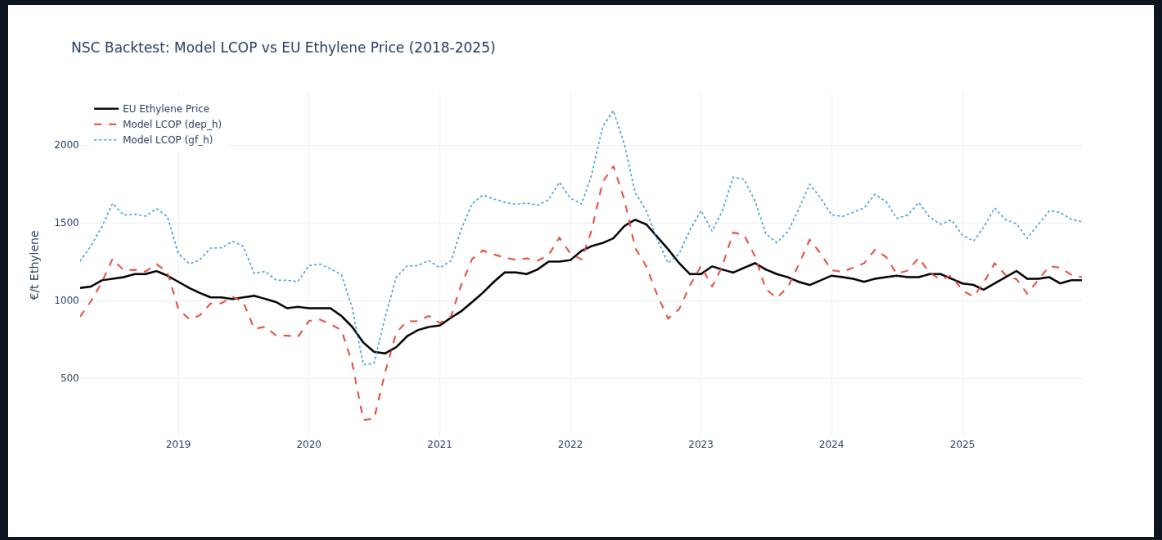
Naphtha steam cracker model



Design and operation

Cost to make a tonne of ethylene

A paid-off plant against a new one, and the market price



BUT

“I didn’t understand the world anymore.”

The old rules stopped working. EU didn’t face a one-off shock — It’s one after another.

What is happening?

How fast?

Where?

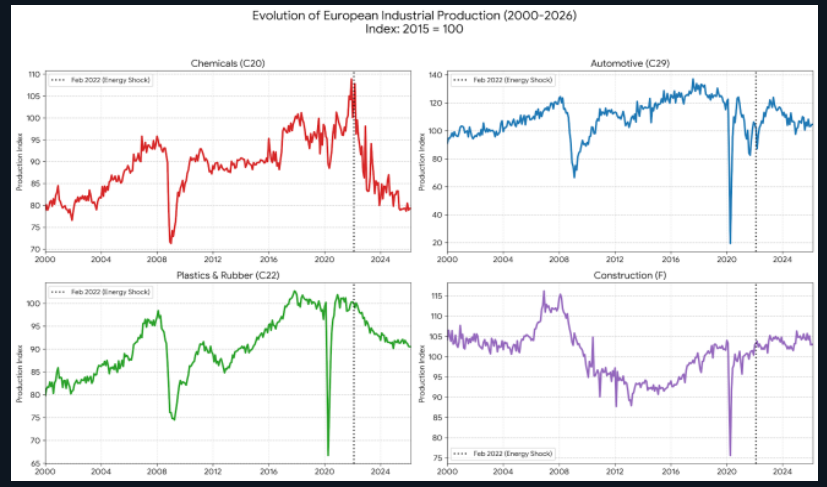
WHY?

*We needed to understand **systems**, correlation, causation better*

The broken leash

Correlation between EU chemicals production and 3 key downstream sectors.

Chemicals and its three customer sectors · 2000–2026, 2015 = 100

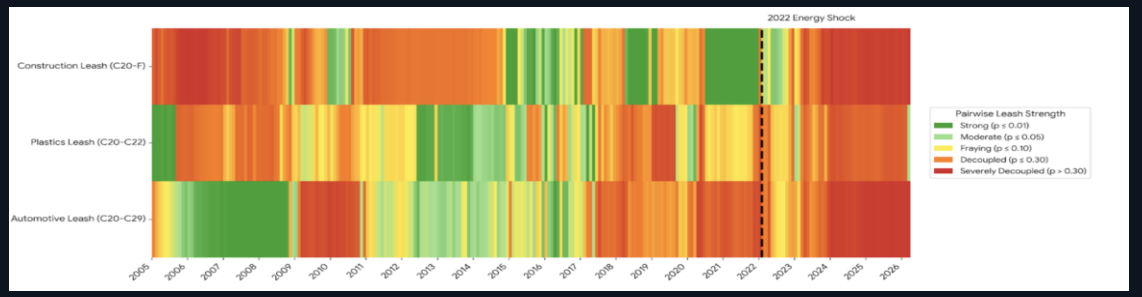


> **Will downstream demand stimulus help EU chemicals production?**

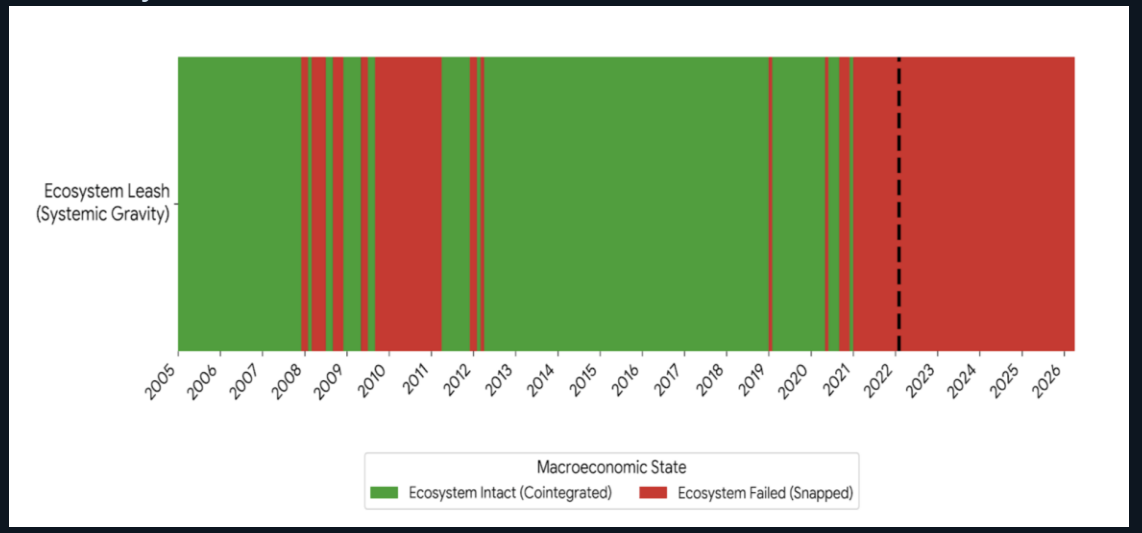
Cointegration of chemicals, plastics, automotive and construction industries in EU.

Green = still coupled to its customer · red = decoupled

Each customer sector



The whole system

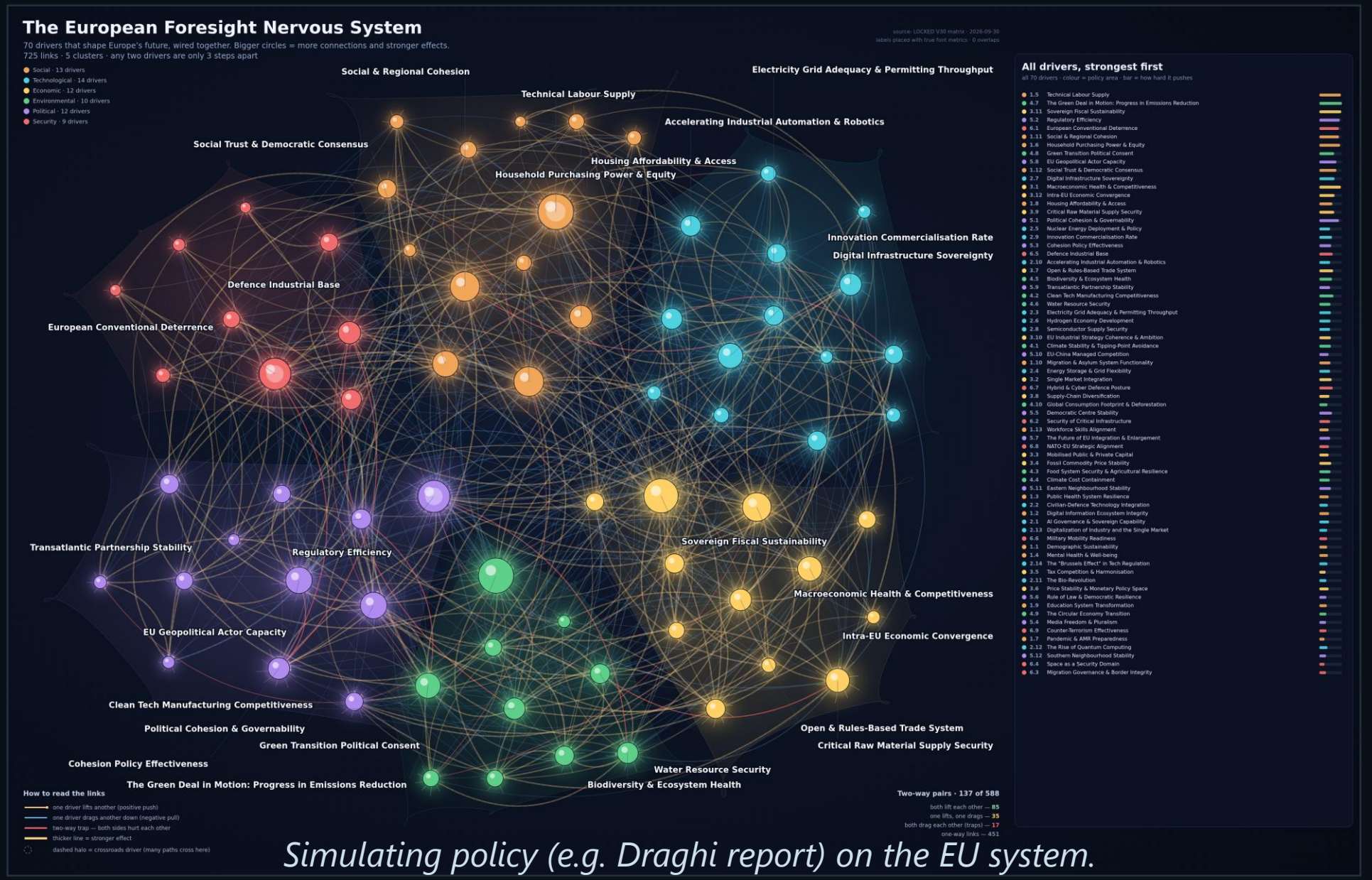


Early warning screening for dumping



Proof of concept

EU foresight brain (neural network)



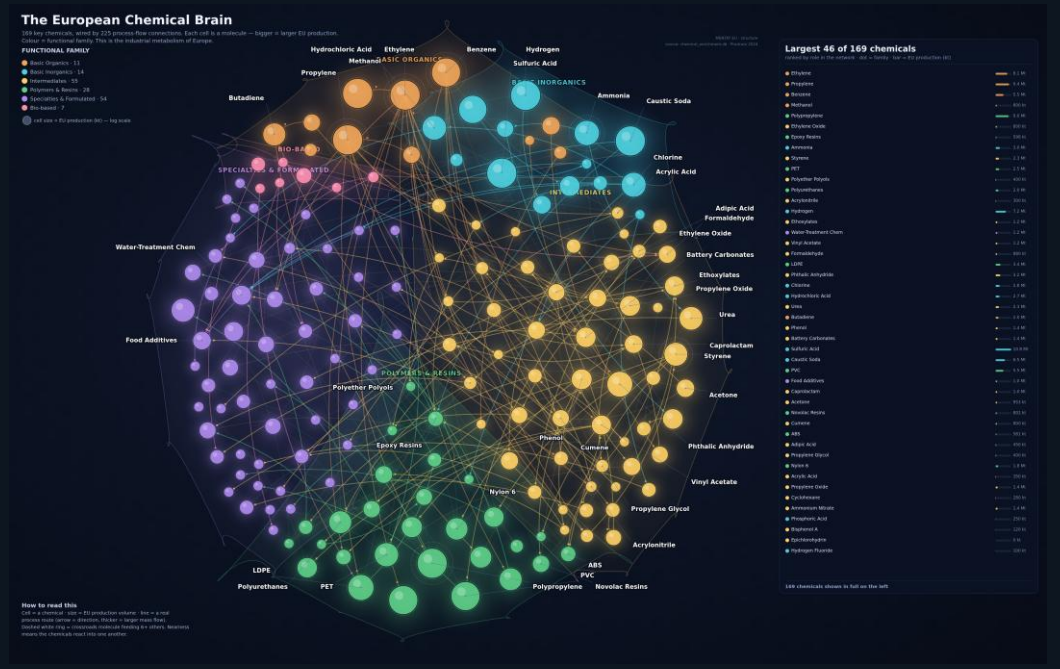
Simulating policy (e.g. Draghi report) on the EU system.

An EU chemicals brain?

Every dot is a chemical product — the lines are the processes and value chains that link them

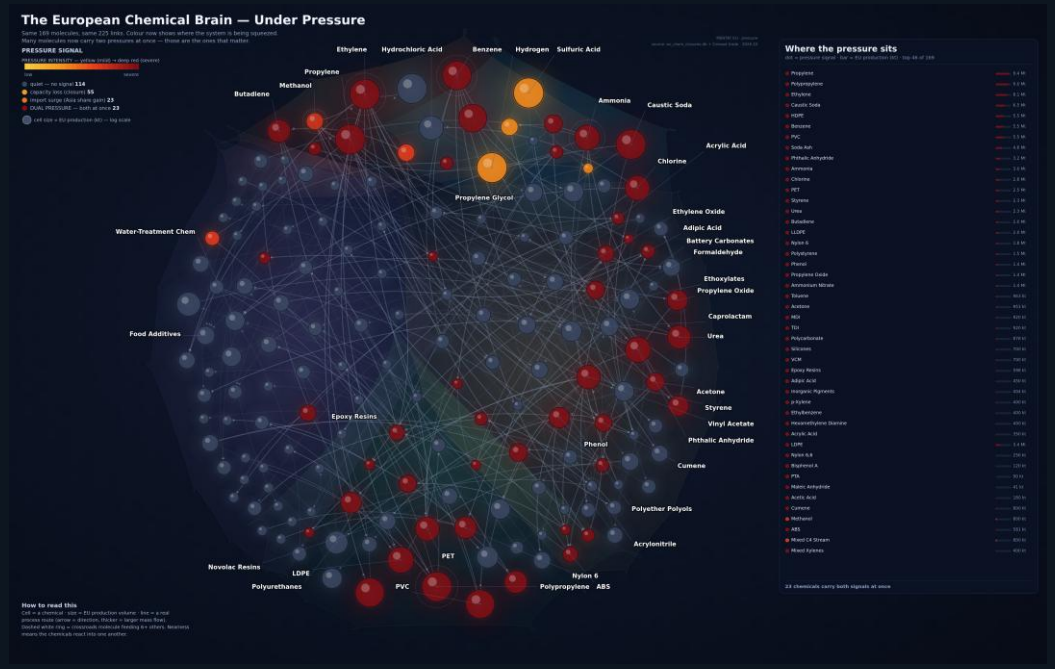
The whole picture

Each dot is a chemical product, sized by EU production, joined to what it feeds.



Where the pressure sits

Red = losing ground fast · blue = import surge · orange = both at once.



Proof of concept

Chemical products: EU Import pressure & site closures

January 2020 → July 2026 *(~2000 products tracked)*



Import pressure vs baseline

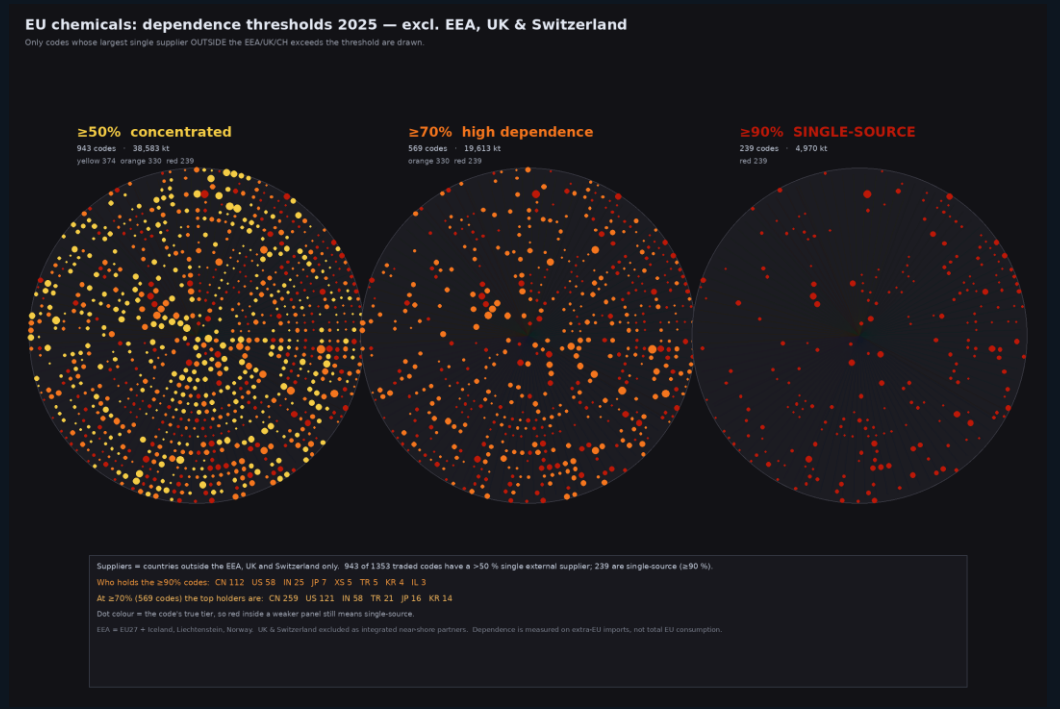
EU site closures

Other examples of mapping

The same method, pointed at two other questions

Risk of dependence (if domestic production collapses more)

Products where EU trade leans on a single extra-EU supplier.



Chemicals for clean technologies: new value chains

The products feeding solar, batteries, wind, IT, …



current value chains ~ new value chains
(this is where closures are happening)

Can be replicated for e.g. energy costs, carbon price exposure, CBAM, …

What’ s next: EU chemicals foresight

See things early

Detect shocks once they reach data statistics.

See them whole

Map sectors, molecules and suppliers as one connected picture.

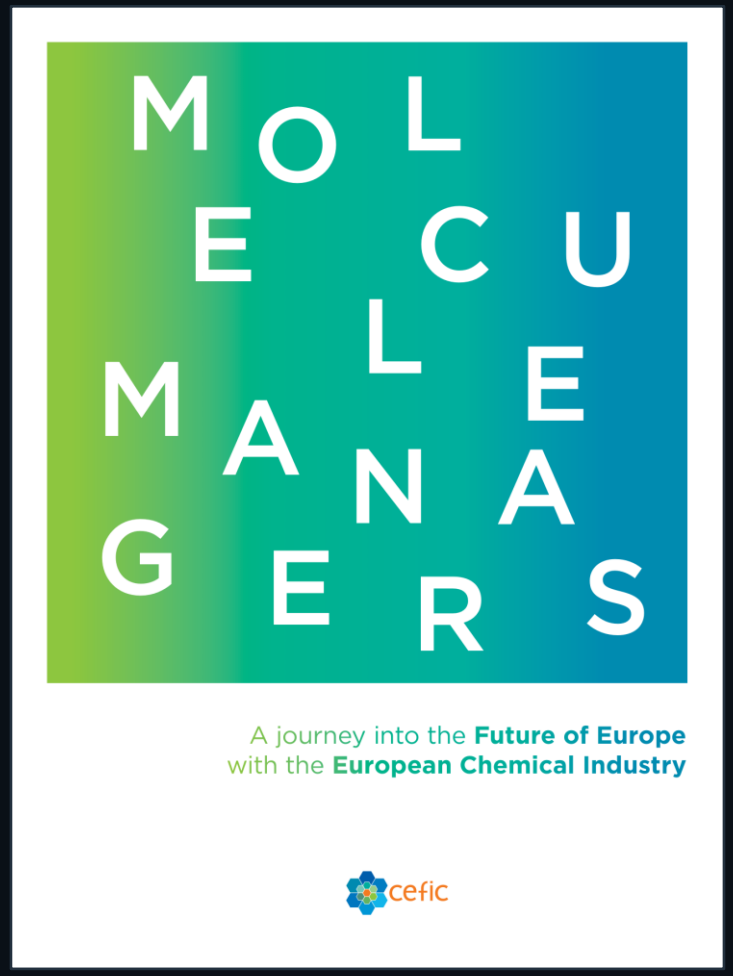
See the future

Extrapolate trends and scenarios

> **In 2019, someone already tried to answer this.**

Molecule managers

Cefic's foresight exercise — 2019



What it got right

- A Delphi of 300+ experts, over a year — serious foresight work
- Mapped the drivers and built four scenarios out to 2050
- Right on regionalisation, protectionism, and a world with no single guarantor

Two things it missed

- Growth: assumed about 1% a year — Current system shock invisible
- AI: framed as an internal tool, not as a disruption

No update in past 7 years

What if it never stopped?

A smart self-improving molecules manager

Molecule managers 2.0

What it could be

- Plugged into terabytes of raw data — trade, energy, policy
- Instant analysis; news and sentiment; long-horizon impacts
- Scanning for high-impact, low-probability events
- Early-warning systems
- Hypotheses and scenarios, updated continuously
- Transition and competitiveness KPIs, tracked live
- Live risk assessment of new regulations

AI-assisted, with experts in charge

Human experts and stakeholders stress-test, debug and challenge.

AI must make the sector smarter and more resilient not the other way round.

Our story (part 2)

- Our research group was virtually fired, a year ago
- We found the tools — and used them well
- We secured long-term funding
- We became smarter

> ***"This can be replicated."***

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Questions?



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Thank you for your attention



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