





Challenges for the European Chemical Industry and Plastics Value Chain

17. KUNSTSTOFF-DIA(hr)LOG®




GRUPA
AZOTY

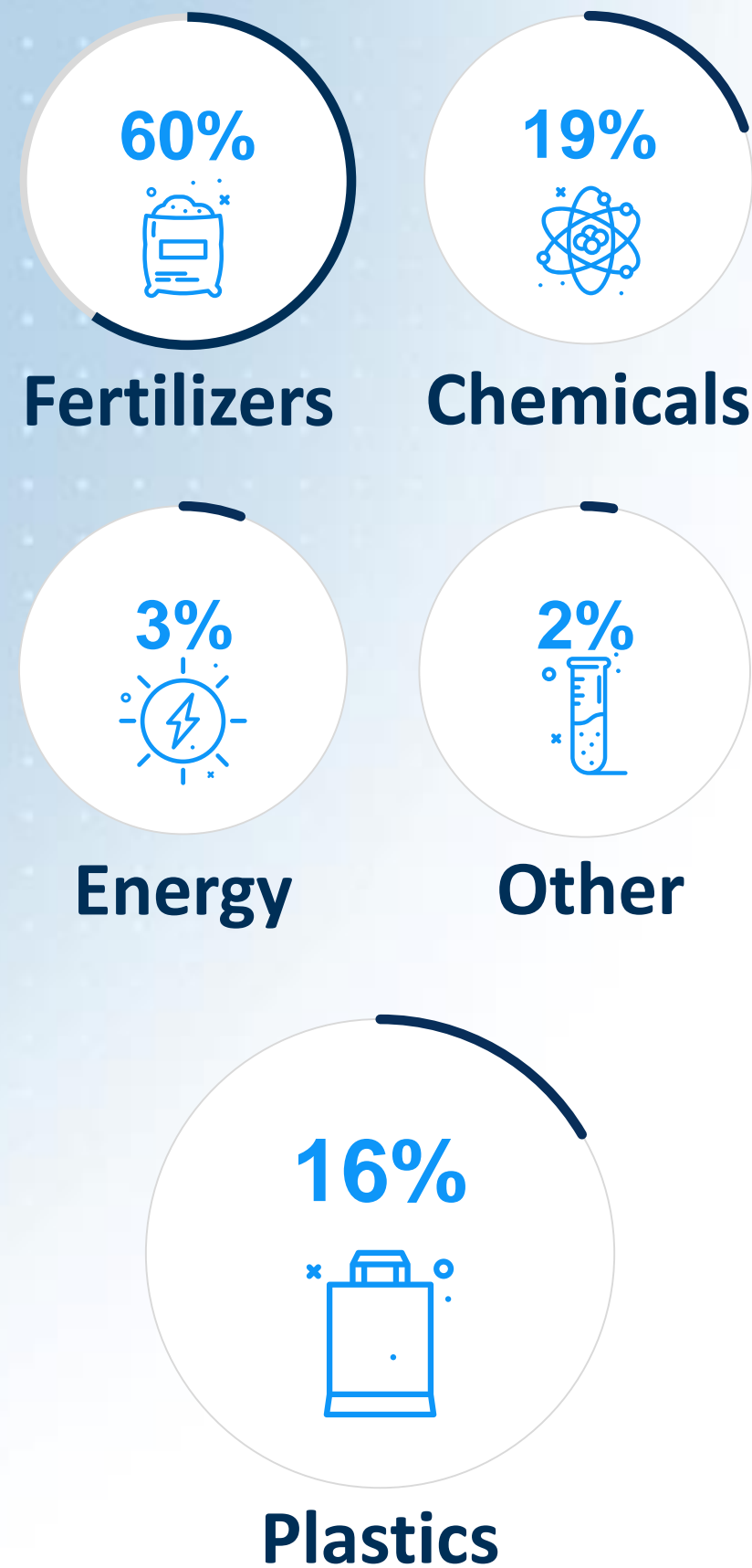
01

Grupa Azoty at a glance



Grupa Azoty – Plastics Business Segment

Grupa Azoty is one of the leading corporate groups in the European chemical industry. In the plastics business, the company focuses on supplying high-quality products to a wide range of industrial sectors.



- 1 Tarnów (Sales, Production)**
GRUPA AZOTY S.A. / GRUPA AZOTY COMPOUNDING
PA 6, COMPOUNDS, CPL
- 2 Puławy (Sales, Production)**
GRUPA AZOTY PUŁAWY
CPL
- 3 Guben (Production)**
GRUPA AZOTY ATT POLYMERS
PA 6
- 4 Hamburg (Sales)**
GRUPA AZOTY ATT POLYMERS
ATT Sales Office

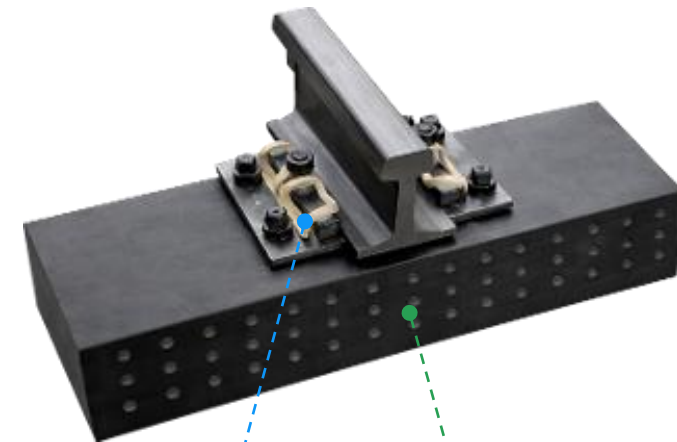
PA 6 applications

Passenger seat frame



Tarnamid® / T-27 GF30 FRV0 BK
MODIFIED PA6

Angled guide plate



Tarnoprop® PIR / C S25 BK
MODIFIED PP

Composite railway sleepers

Tarnamid® / T-27 GF30 BK9005
MODIFIED PA6

Rear view mirror



Tarnamid® / T-27 GF30 LS
MODIFIED PA6

Car handle



Tarnamid® / T-27 GF30 GT
MODIFIED PA6
Tarnamid® / T-27 GF30 LM
MODIFIED PA6

Our goal: to be the first-choice PA6 polymer solution source for our customers

Our assets: balanced spectrum of business activities and end-markets

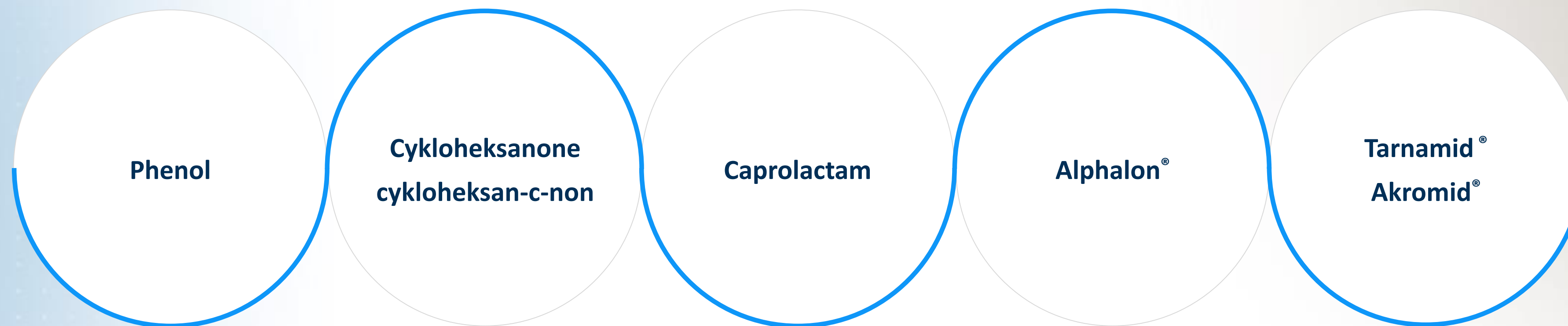
- Film
- Monofilaments
- Semi-finished goods

- BCF carpet yarn
- Technical filaments

- Compounding
- Engineering plastics

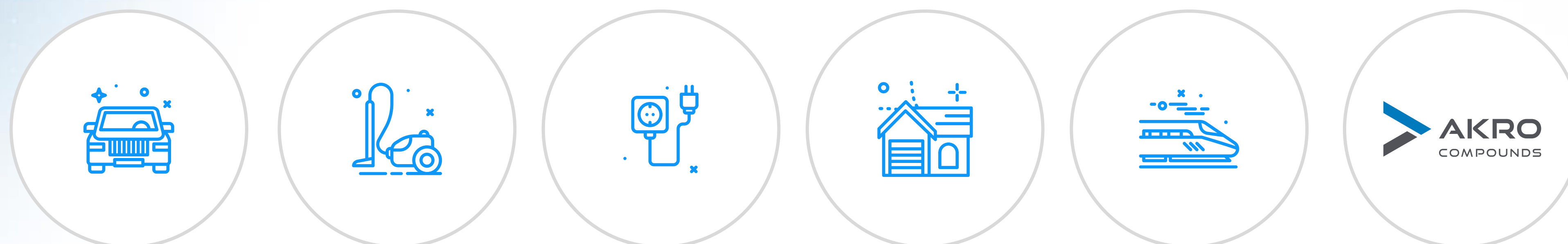
We use FEDDEM ICX® Technology

Production chain



Our customers benefit from the full integration of compounding **PA 6 - CPL chain - stable quality.**
Controlled from raw material to compound.

Industry sectors we're in



Automotive



**Householding
goods**

**Electrical and
Electronics**

Construction

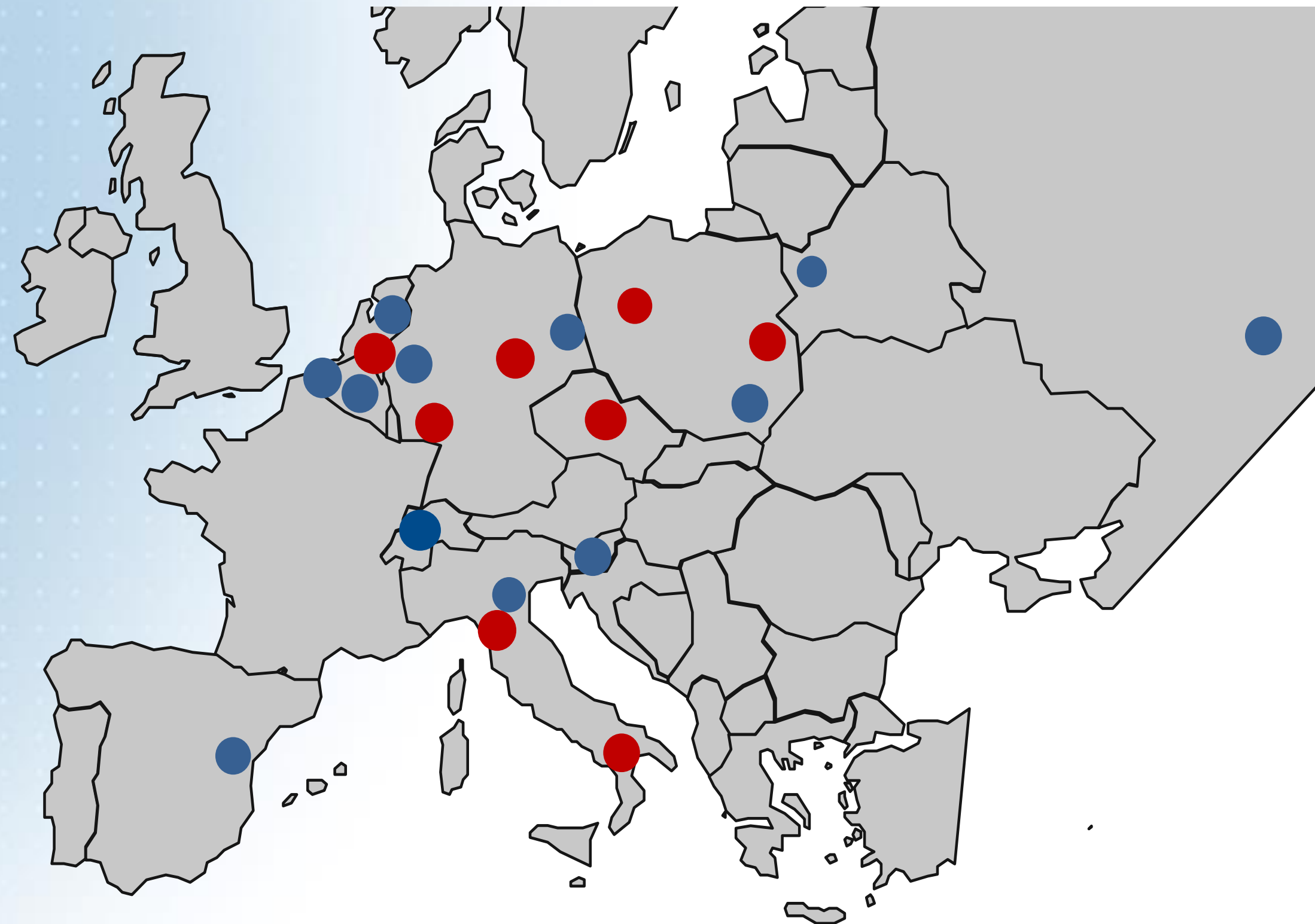
Railway

**Toll
Compounding**

02

European chemical Industry and the current challenges

The EU market – systemic collapse and rationalisation of the CPL and PA 6 supply chain



- Production problems (restructuring, plant closures)
- Active producers (CPL, PA 6)

Key trend in the CPL and PA 6 market in the EU

- ▶ Restructuring
- ▶ The closure of facilities belonging mainly to non-integrated CPL producers
- ▶ Sale of businesses to strategic investors
- ▶ Relocating investments outside Europe

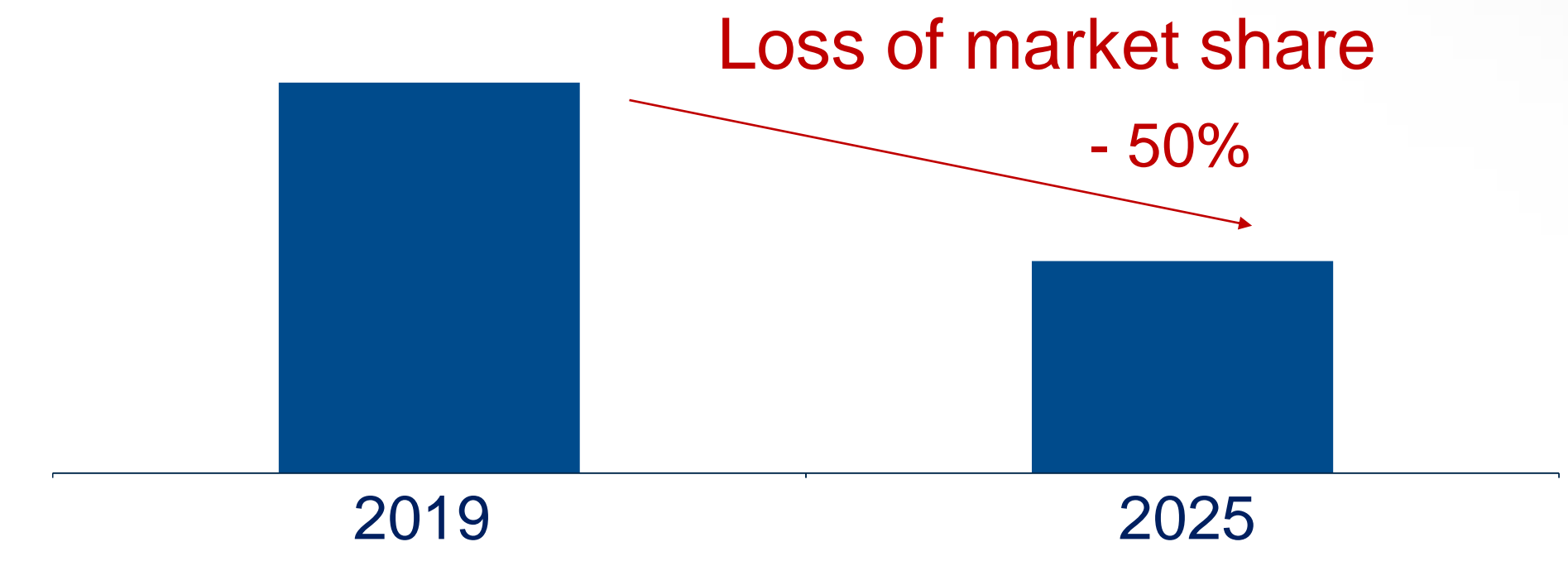
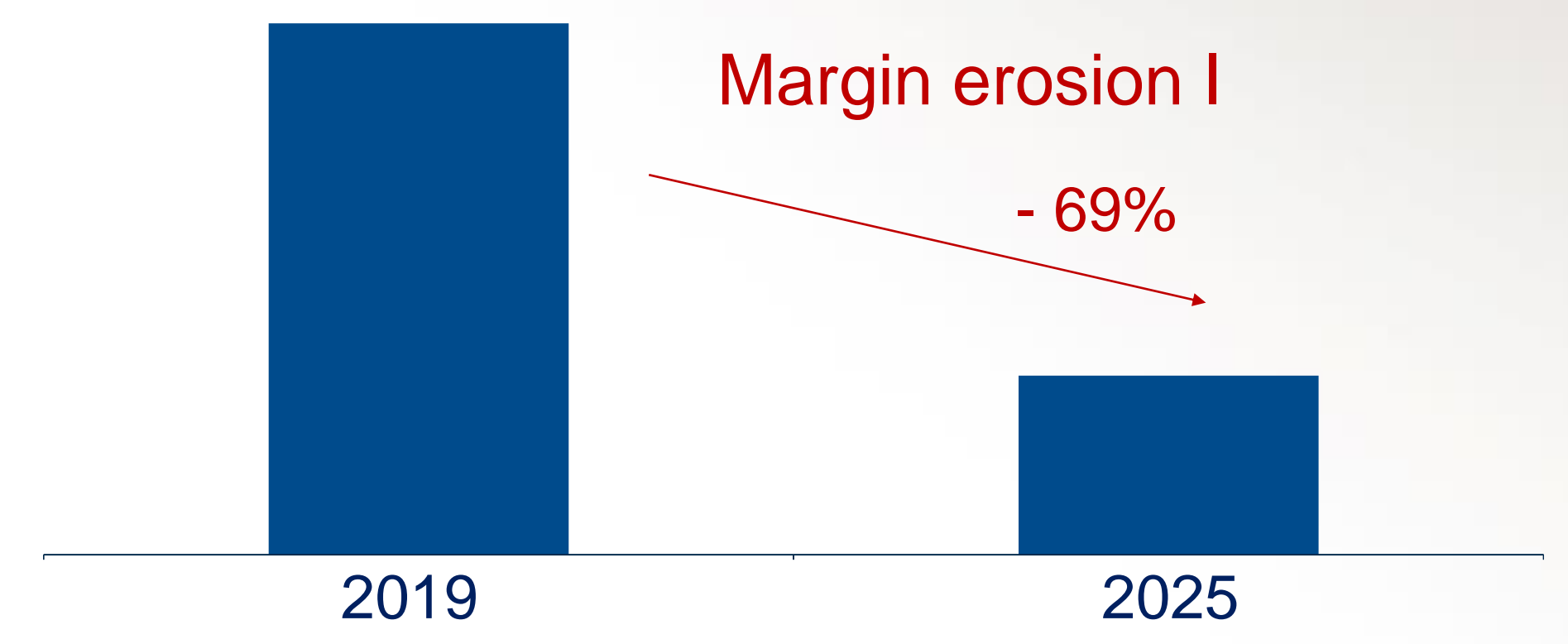
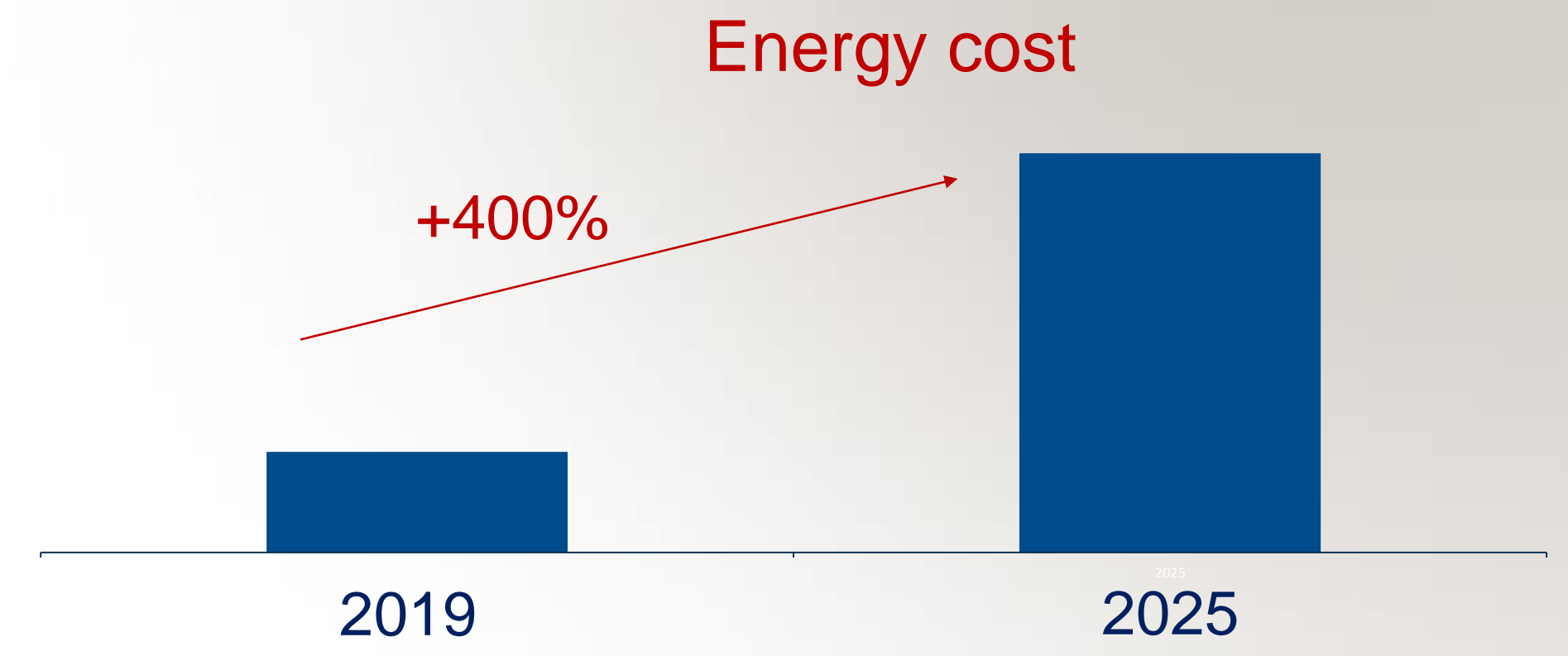
Effect

- ▶ The market situation in the Plastics segment in Europe is deteriorating – CPL production capacity in Europe is declining
- ▶ Pressure from PA6 imports from China is mounting (currently accounting for ~5–10% of European demand, a twofold increase year-on-year)
- ▶ A decline in contract prices for caprolactam and PA 6 has been observed
- ▶ Possible market consolidation by strategic investors from outside Europe

An adverse external environment is reshaping the European CPL and PA 6 market, with lasting implication for downstream players

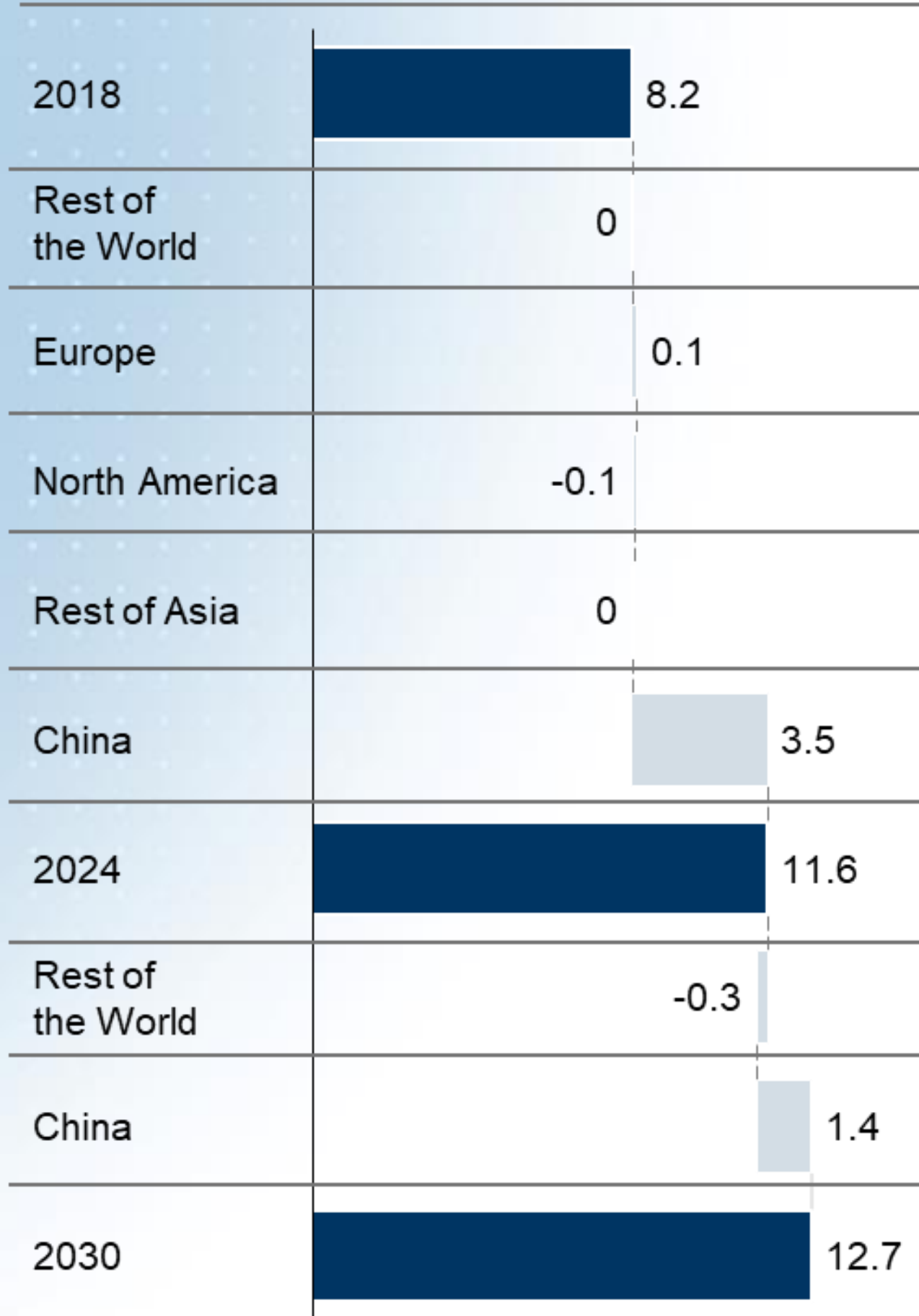
	CPL	PA 6
SUMMARY	<ul style="list-style-type: none"> Rising energy and gas prices have made Europe a marginal producer of caprolactam. 	<ul style="list-style-type: none"> Rising energy costs have weakened the competitiveness of European PA6 producers, PA6 imports from Asia have become more competitive than supply from Western Europe/North America, even after accounting for logistics costs, Energy costs have become the key driver of competitiveness.

SUPPLY AND DEMAND [FORECAST]	<ul style="list-style-type: none"> Between 2024 and 2030, a sustained oversupply is expected both globally and in Europe, Global demand is projected to grow at 2.7% p.a. (+1.2 million tonnes), driven primarily by China, while European demand is expected to decline by 0.9% p.a, An increase in global capacity of 1.6 million tonnes will keep capacity utilization rates low in the absence of industry rationalization. 	<ul style="list-style-type: none"> Between 2024 and 2030, global and European markets are expected to remain significantly oversupplied, Global demand growth will be driven by China (2.8% p.a.), while Europe is expected to grow at a slower pace (1.6% p.a.), Global production capacity is projected to increase by 1.3 million tonnes, Without improved capacity utilization in Europe, the risk of capacity rationalization remains high.
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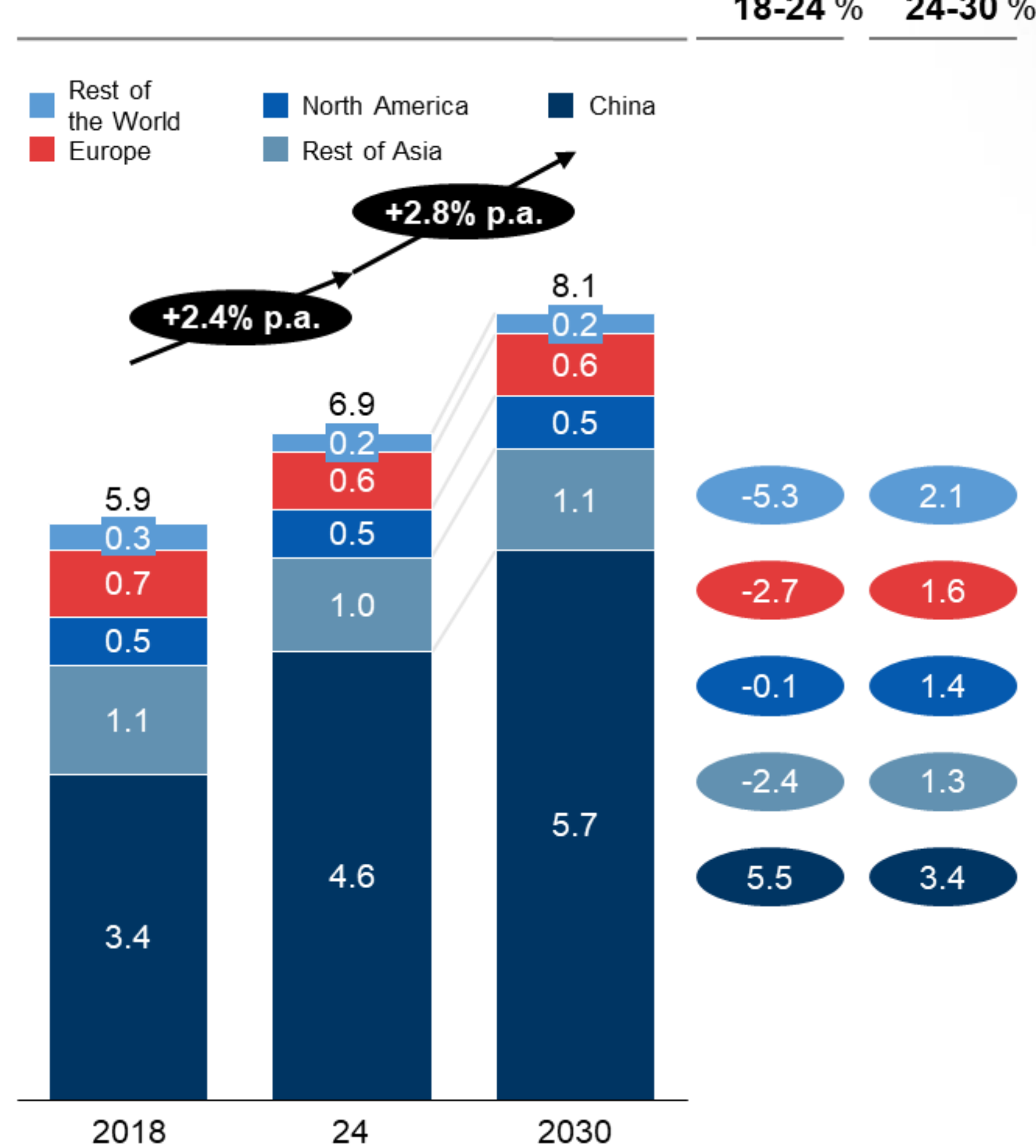


PA 6 | Utilisation rates are unlikely to improve significantly, as new Chinese production capacity will largely offset the rise in demand

Global increase in production capacity by region (million tons)



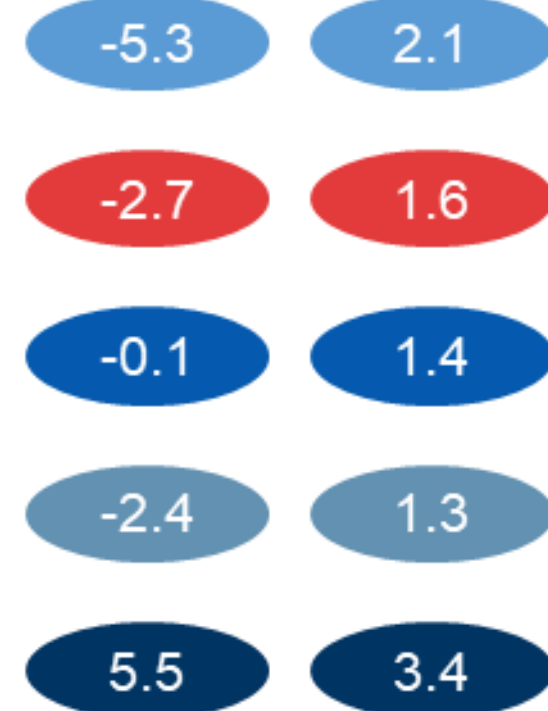
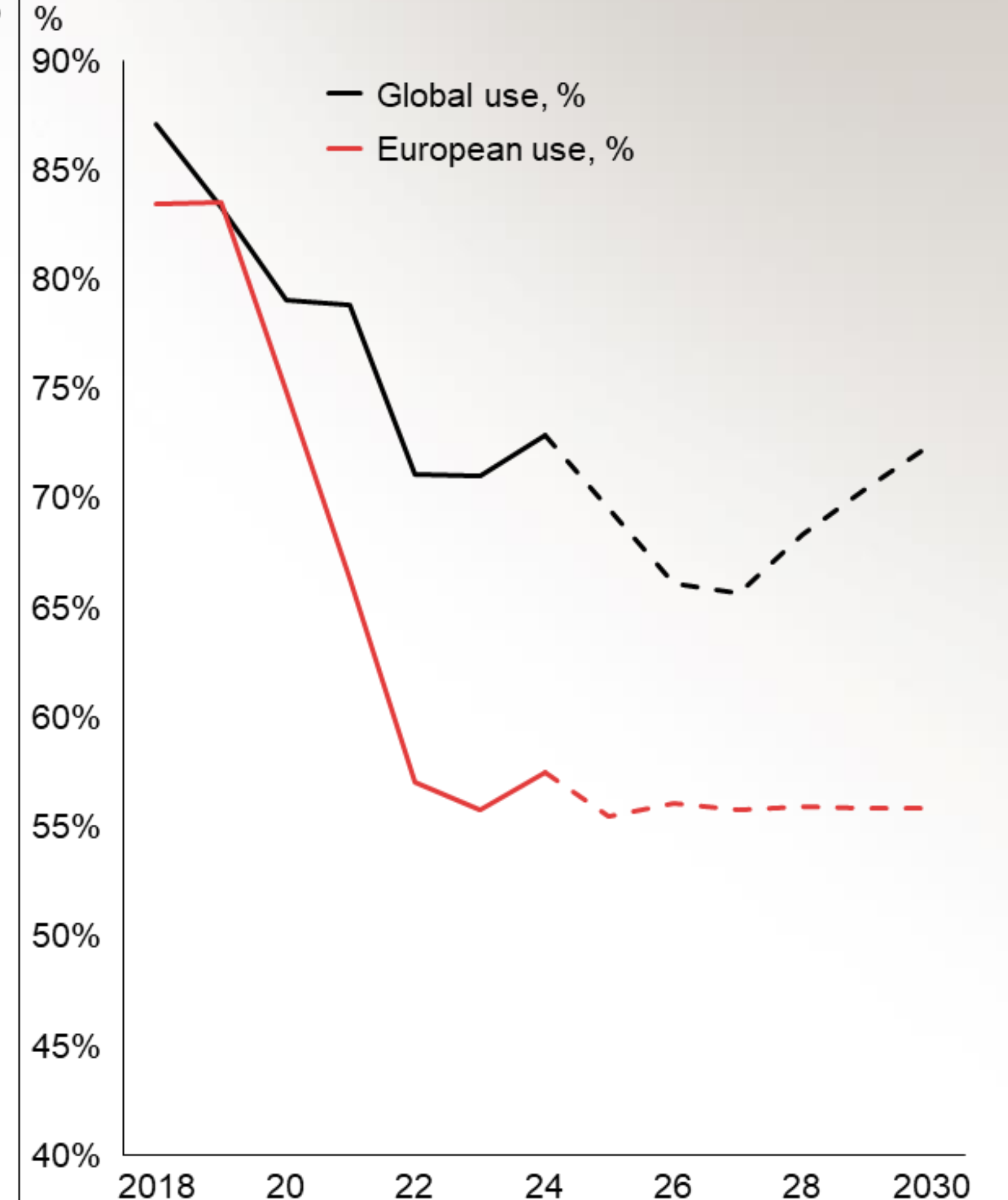
Global demand by region (million tons)



CAGR 18-24 %

CAGR 24-30 %

Capacity utilisation worldwide and in Europe

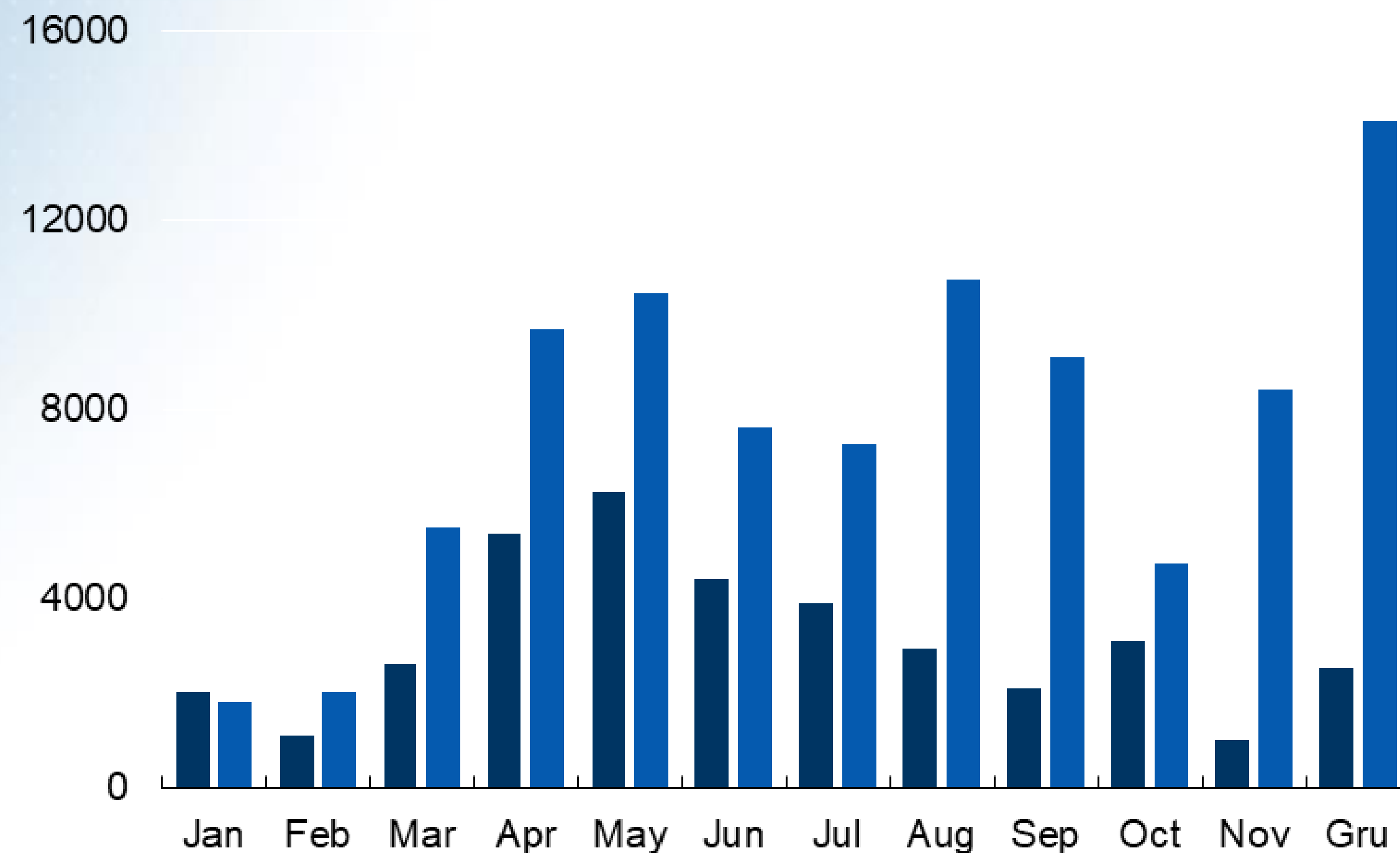


Across Europe, product prices are declining amid increasing pressure from imports

Increasing import pressure

PA6 exports from China to Europe (tonnes)

■ 2024 ■ 2025



Observations

Chinese exports to Europe continued to grow sharply, reinforcing China's expanding presence in the European market.

The price difference between Asia and Europe outweighs logistics costs.

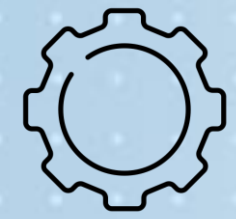
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Summary and conclusions



Polyamide is not a “commodity plastic” — it is Europe’s competitive advantage

Unlike commodity plastics:



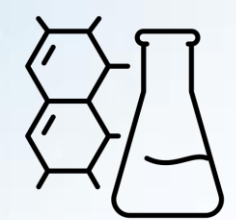
Polyamide are engineering Polymers,



Competition should not be based solely on energy prices,



Competitive advantage comes from know-how, formulations, proximity to OEMs, certification, and regulatory compliance,



Europe continues to benefit from strong R&D and remains a leader in specialty polyamides and bio-based polyamides.

Polyamides are well aligned with the circular economy, unlike many other polymers

Progress in:



Mechanical recycling of polyamides (e.g. carpets, fishing nets),

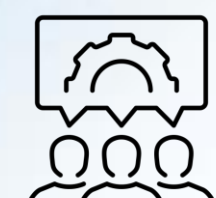


Chemical recycling (depolymerization back to monomers),



Bio-based polyamides.

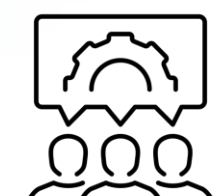
Polyamides are actively reflected in:



The Packaging and Packaging Waste Regulation (PPWR),



The Circular Economy strategy,



“Design for recycling” initiatives.

Grupa Azoty – AKRO: Local for Local



Full integration within the value chain, modern PA 6 plant,



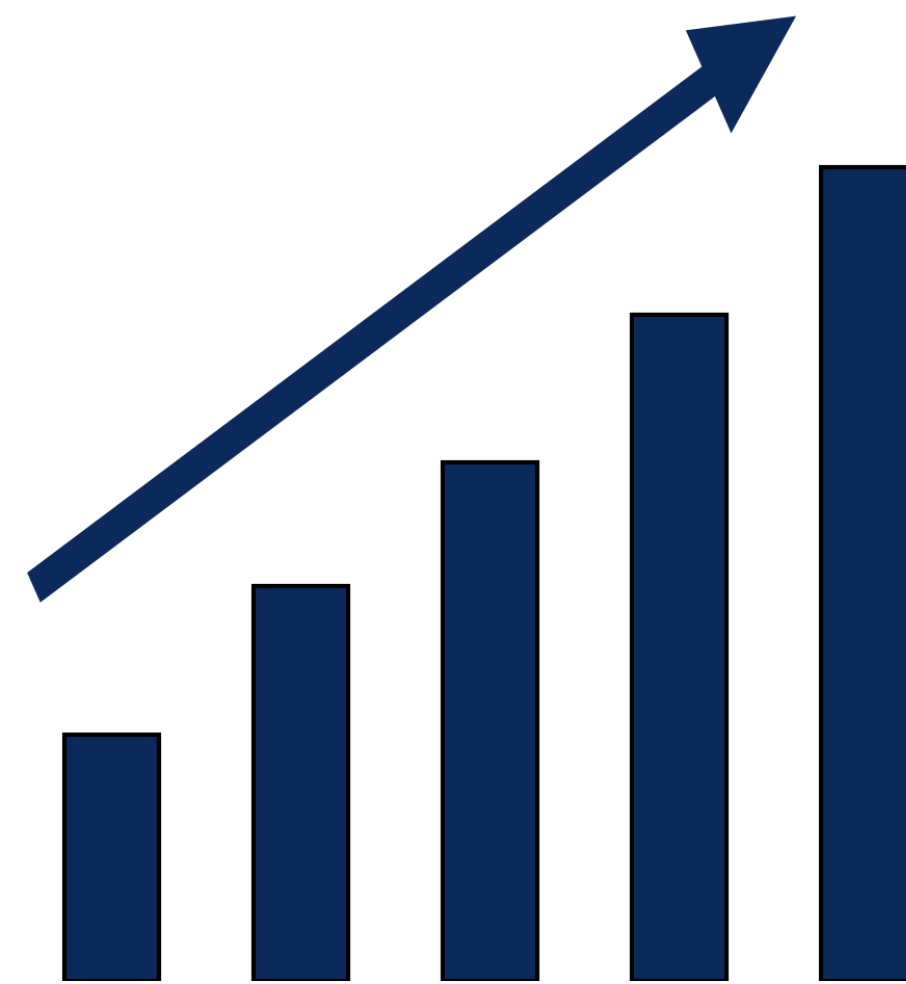
Logistical advantages for Europe,



Close cooperation with AKRO Plastic, FEDDEM ICX® Technology plant.

Strategic objective — AKRO

- Ensuring secure supply of PA 6 of European origin, including GA, over the medium and long-term,
- Further development of compounding, with a significant share of locally sourced PA 6 (GA), and safeguarding the continuation of cooperation with GA Compounding.



Strategic objective — Grupa Azoty

- Building long-term, sustainable relationships among European companies,
- Entering new, fast-growing market segments, including the European value chains of Chinese automotive manufacturers and other industries.



Thank you for your attention

