Building on own strengths -

Ways to master global competition for the Polish Chemical Industry

Warsaw, December 3rd, 2007

Roland Berger Strategy Consultants

Building on own strengths – Five main thesis for the Polish Chemical Industry future

1. In particular after EU accession, the Polish Chemical Industry is in open competition with Western competitors, domestically and internationally
2. Western competitors mainly decided to compete with imports of value-added chemicals
3. Polish Chemicals industry output structure does not differ dramatically from the West, but companies are still comparably small
4. Western companies do not participate in cross country consolidation – CEE companies rely on themselves
5. Consequent strategic consolidation, combined with best-in-class operational practices allow a competition on par with Western players

Source: Roland Berger Strategy Consultants



1. After EU accession the Polish Chemical Industry faces open competition with Western competitors

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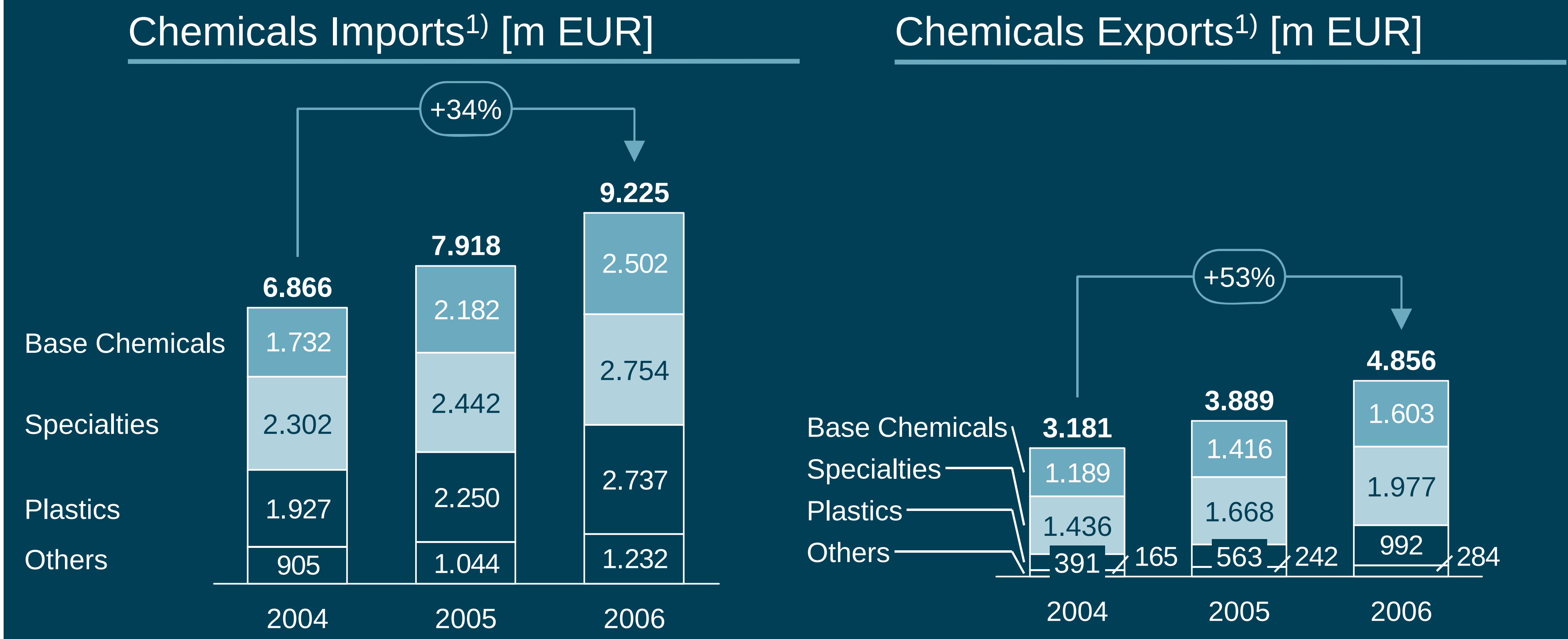
Despite significant growth in exports – Poland remains net importer of chemicals

Import/Export balance in Poland



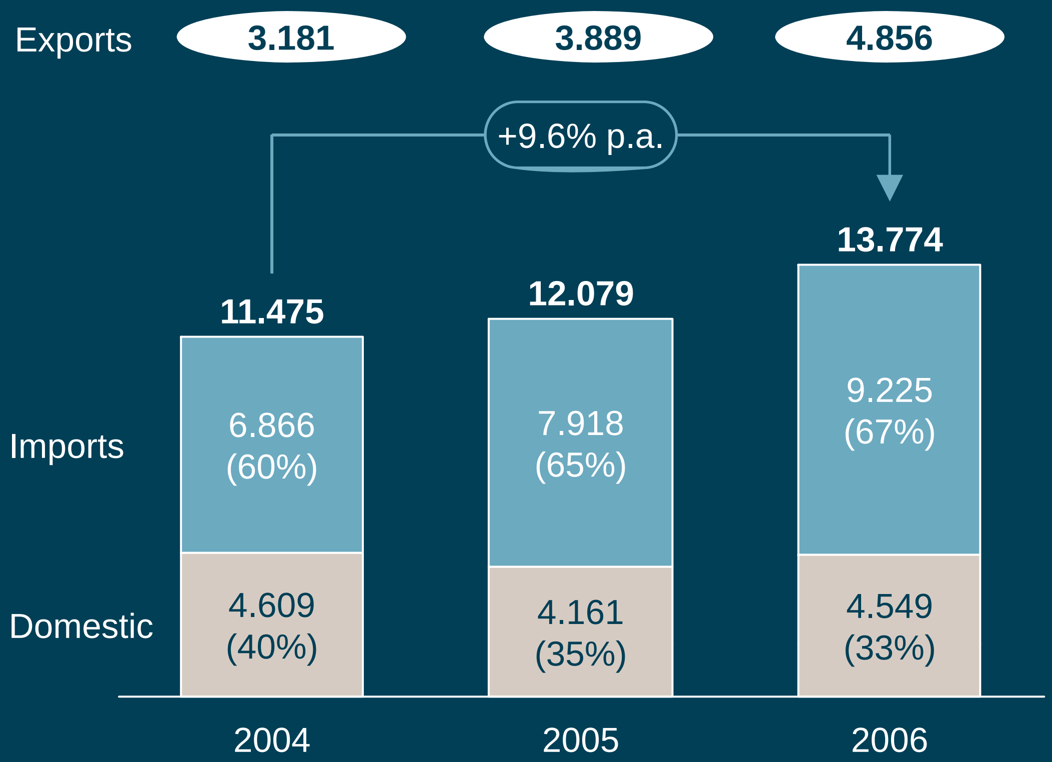
1) W/o pharmaceuticals, industrial gases, rubber

Source: Polish Chamber of Chemical Industry, Roland Berger Strategy Consultants

The share of domestic production decreases and importers benefit from the market growth

Supply structure of Polish chemicals[1)] demand

Supply by Origin [m EUR]



Comments

- Polish market is continuously growing
- Polish Chemicals industry is not participating from that growth, increasing demand is served by imports
- Share of Polish companies shrink from 40% to 33%
- At the same time, Polish chemical industry growth is driven by exports

1) W/o pharmaceuticals, industrial gases, rubber
Source: GUS, Roland Berger Strategy Consultants

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2. Western competitors mainly decided to compete with imports of value-added chemicals

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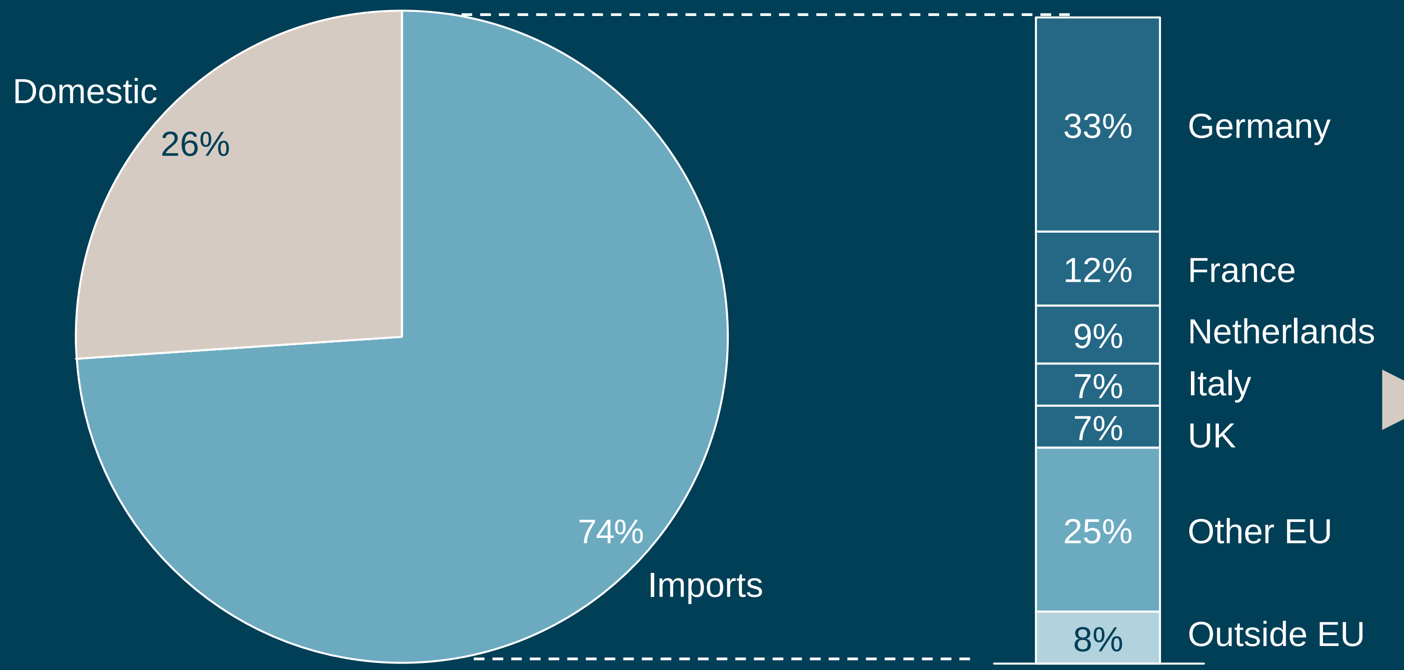
The lion share of Specialty/Fine chemicals is imported, mostly by Westerners

Specialty/Fine Chemicals Supply Poland 2006

Supply structure Specialty/Fine Chemicals

Split of Imports by Country/ Region

Total demand: 3.7 bn EUR



92% of high-value market imports from EU

Source: Roland Berger Strategy Consultants

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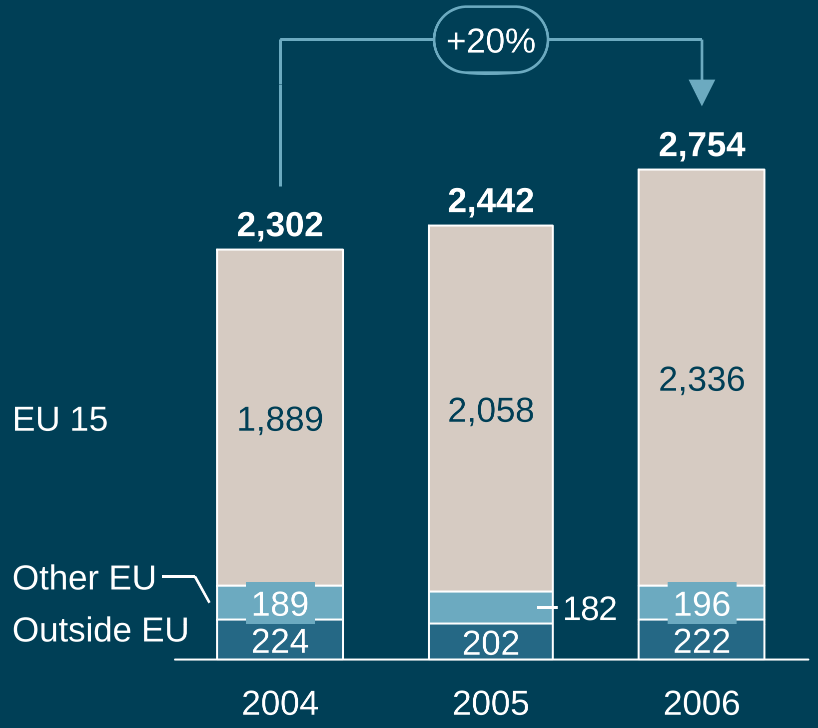
Also in the past, EU15 are dominating the imports of Specialty/Fine Chemicals into Poland

Imports of Chemicals in Poland

Origin Specialty/Fine Chemicals [m EUR]



Comments

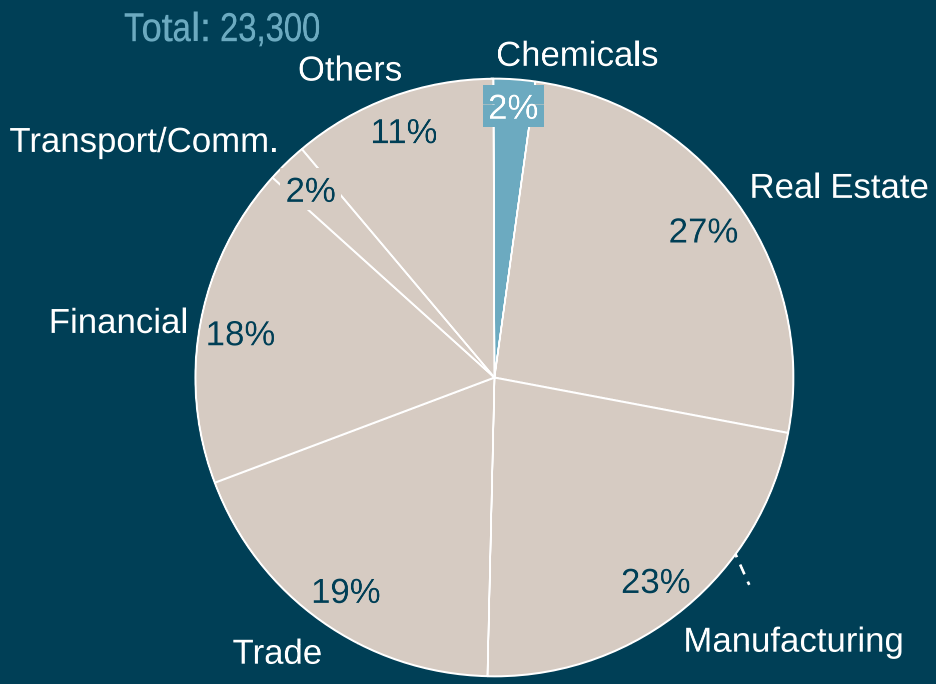
- The imports of high-value chemicals into Poland grew strongly
- Most of the growth is covered by Western European companies – EU 15 making up 85% by 2006
- Therefore the domestic companies lost market share, despite growth, in this segment

Source: Roland Berger Strategy Consultants

In the CEE Chemicals sector, foreign direct investments are comparably low

Example: FDI in Poland and regional split

Cumulative FDI 2004-2006 [m EUR]



Top Investments 2006 [m EUR]

Company	Volume	Industry
Bridgestone	200	Tires
Dell	200	Electronics
Sharp	150	Electronics
Green Source	150	Renewables
Toyota	134	Automotive
Toshiba	42	Electronics
Funai	17	Electronics
Polimoon Group	10	Packaging

Source: PAIZ, GUS, Roland Berger Strategy Consultants

Many Western Chemical companies are active in CEE, but have limited production activities here

Selected Western Chemical companies and their activities

Company	Activities in Poland
BASF The Chemical Company	4 local sales offices, production site for constructions chemicals in Poznan, production site for admixtures in Myslenice
DSM	Production site for Nutritional Products in Mszczonów, 2 sales offices in Warsaw
Dow	2 local sales offices (Lazy office equipped with laboratory and warehouse)
Evonik Industries	Production site for Advanced Fillers & Pigments Business Unit, and sales office with responsibilities for 11 of 12 Business Units in the region
Akzo Nobel	Production site for Coatings in Wloclawek and 2 R&D facilities (Industrial finishes, Coatings), 5 sales offices
DuPont The miracles of science	Local powder coatings enterprise, other products via sales agents
Lanxess	No direct activities – 2 product groups handled by non-Polish Lanxess sales companies; others via sales agents

Source: Company information, Roland Berger Strategy Consultants

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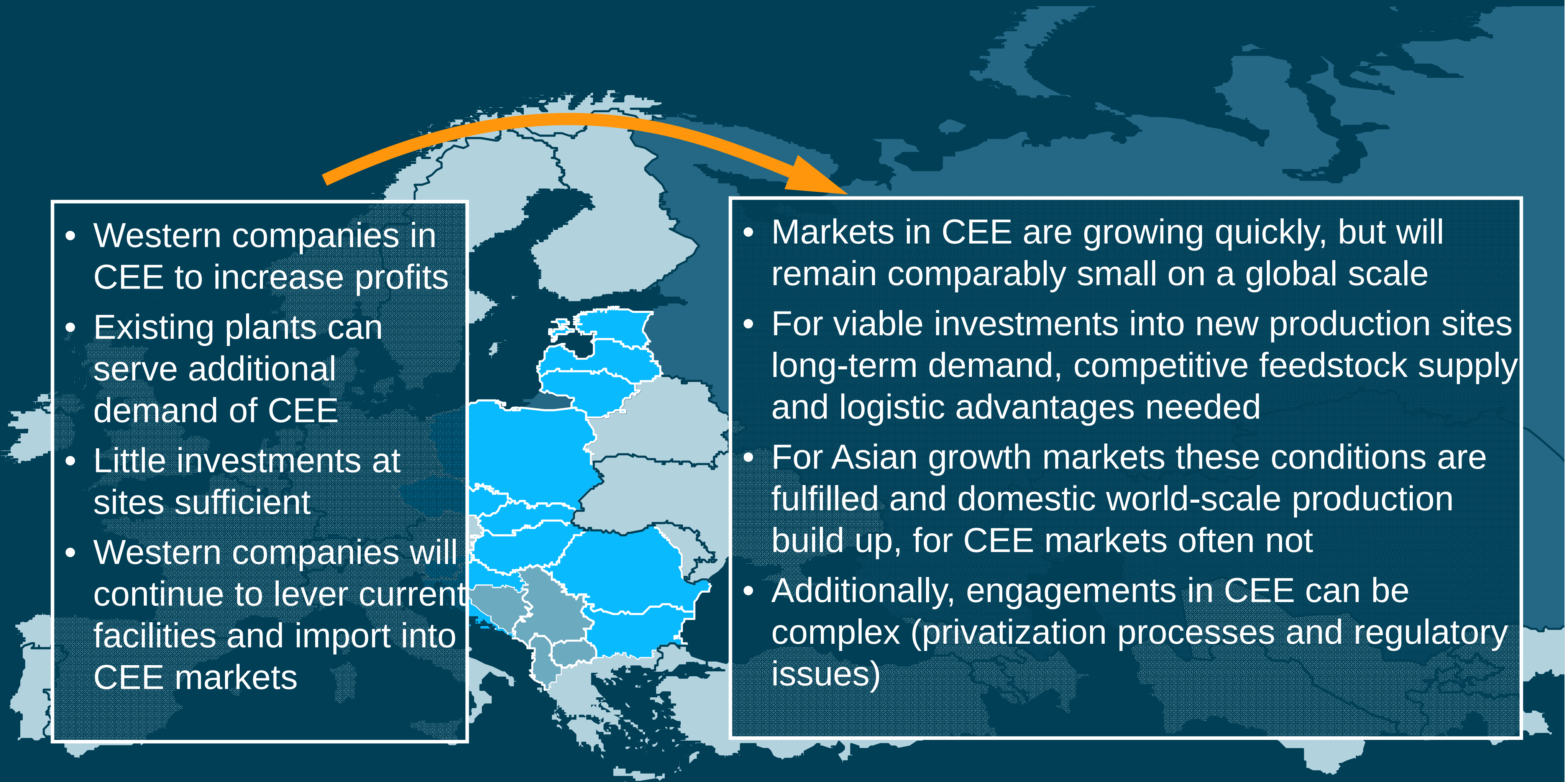
For the Western global players this import strategy is quite rational – also for the future



- Western companies in CEE to increase profits
- Existing plants can serve additional demand of CEE
- Little investments at sites sufficient
- Western companies will continue to lever current facilities and import into CEE markets

- Markets in CEE are growing quickly, but will remain comparably small on a global scale
- For viable investments into new production sites long-term demand, competitive feedstock supply and logistic advantages needed
- For Asian growth markets these conditions are fulfilled and domestic world-scale production build up, for CEE markets often not
- Additionally, engagements in CEE can be complex (privatization processes and regulatory issues)

Source: Roland Berger Strategy Consultants

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3. Polish Chemicals industry output structure does not differ dramatically, but companies are still comparably small

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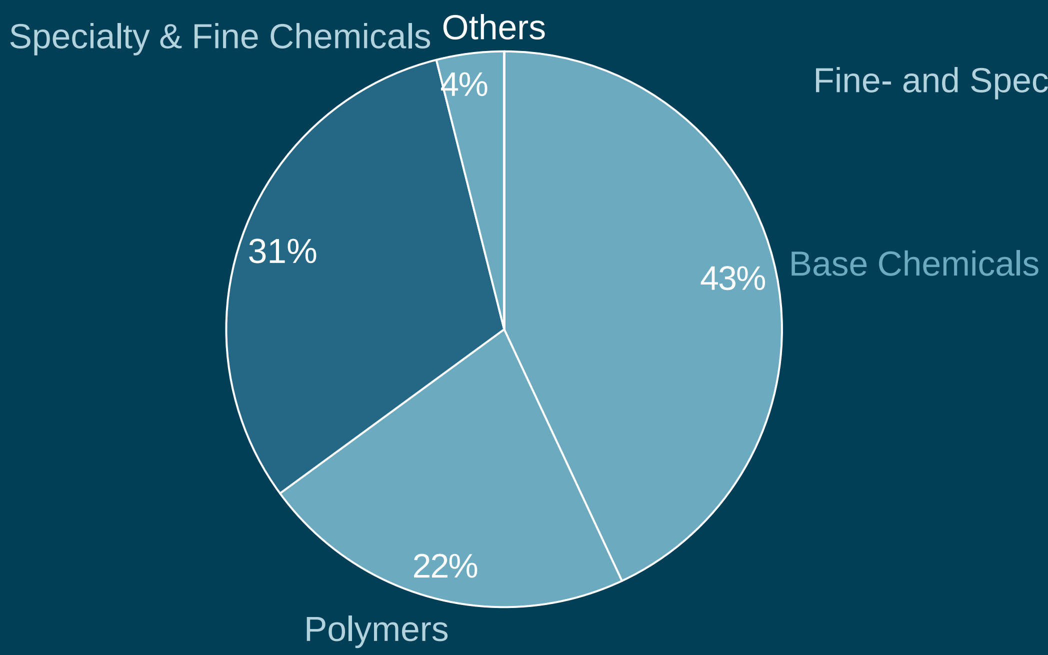
Polish producer rely more on base chemicals – compared to mayor EU-producers as Germany

Output of Chemical Industry in Poland and Germany in 2006

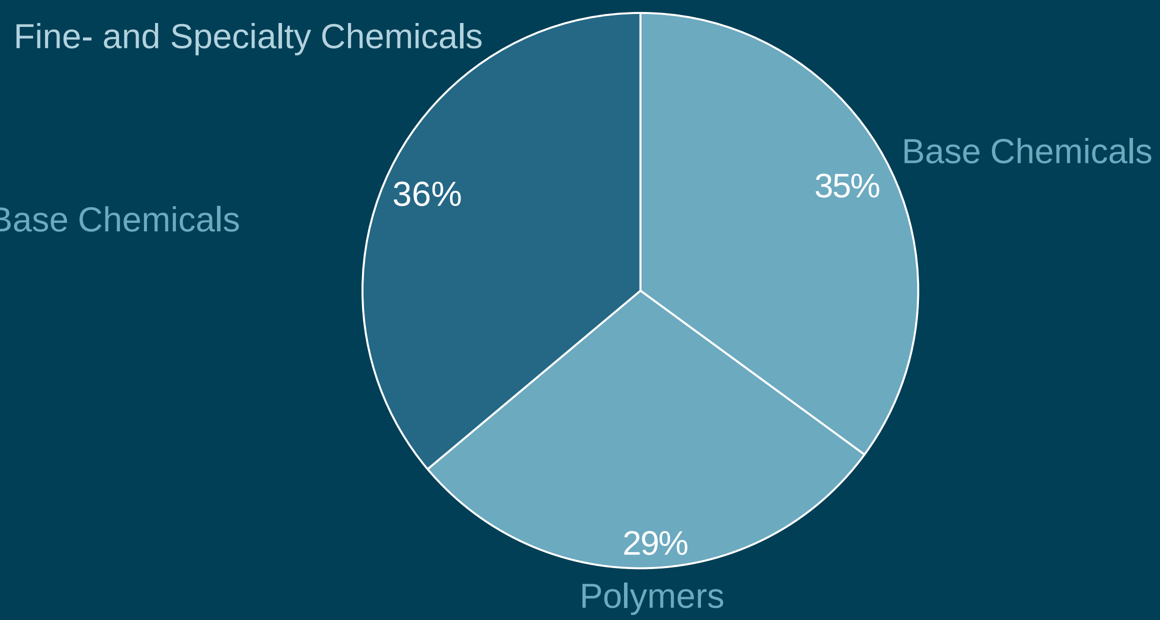
Output Polish Chemical Industry[1)]

Total: 9.5 bn EUR



Output German Chemical Industry[1)]

Total: 90.2 bn EUR



Note: Excl. pharmaceuticals, industrial gases and rubber

Source: GUS Cefic, Polish Chamber of Chemical Industry, Statistisches Bundesamt, VCI, Roland Berger Strategy Consultants

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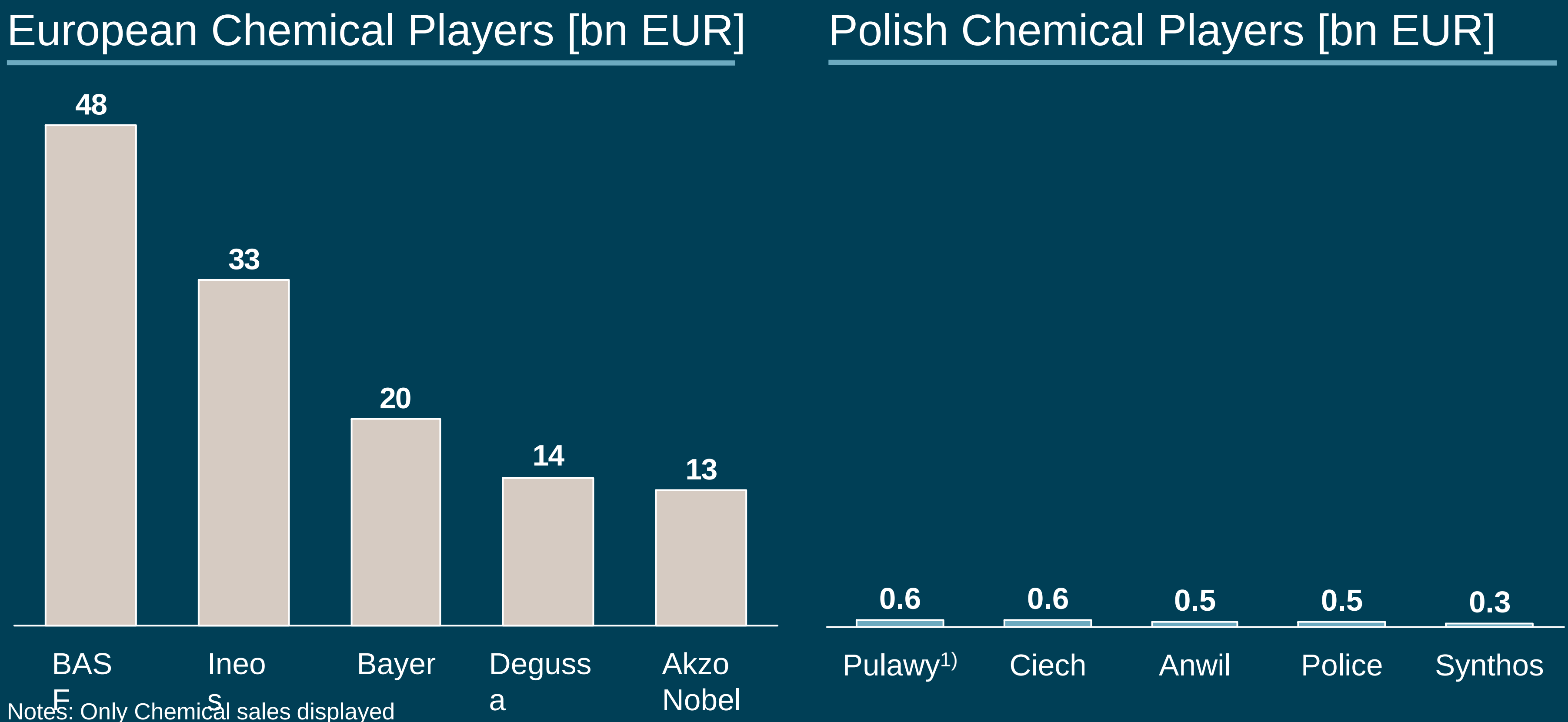
In terms of turnover even Top 5 Polish chemical companies lie far behind European competitors

Turnover of chemical companies in Europe and Poland 2006



Notes: Only Chemical sales displayed
1) Year 2006/2007

Source: Annual Reports, Chemical Week, Roland Berger Strategy Consultants

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4. Western companies do not participate in cross country consolidation – CEE companies rely on themselves

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CEE companies drive cross-country consolidation internally

Selected consolidation activities in the CEE region in Chemicals

Company	Activities in CEE countries
Ciech	Consolidation of soda activities of Ciech, USG Govora and Sodawerk Stassfurt, becoming European # 2 in soda
synthos chemical innovations	Consolidation of Dwory (Polish)/Kauzuk Kralupy (Czech) synthetic rubber/polystyrene activities, regional leading company in that segments
Anwil® GRUPA ORLEN	Consolidation of PVC activities of Anwil and Spolana, creating leading CEE player in these segments

Further activities to come...

Source: Roland Berger Strategy Consultants

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The CEE region is changing and strategic rationales imply increasing speed

- Strength needed for leading consolidation and co-operation – Strong market participants already prepare for the future
- Polish players quite active in the recent past – and more potent Westerners stay away because of different rationales
- Still fragmented markets with many companies of different size in Poland – even more in the rest of CEE
- Window of opportunity to shape future market for strong players

Source: Roland Berger Strategy Consultants

5. Consequent strategic consolidation and operational best practice for competition on par with Western players

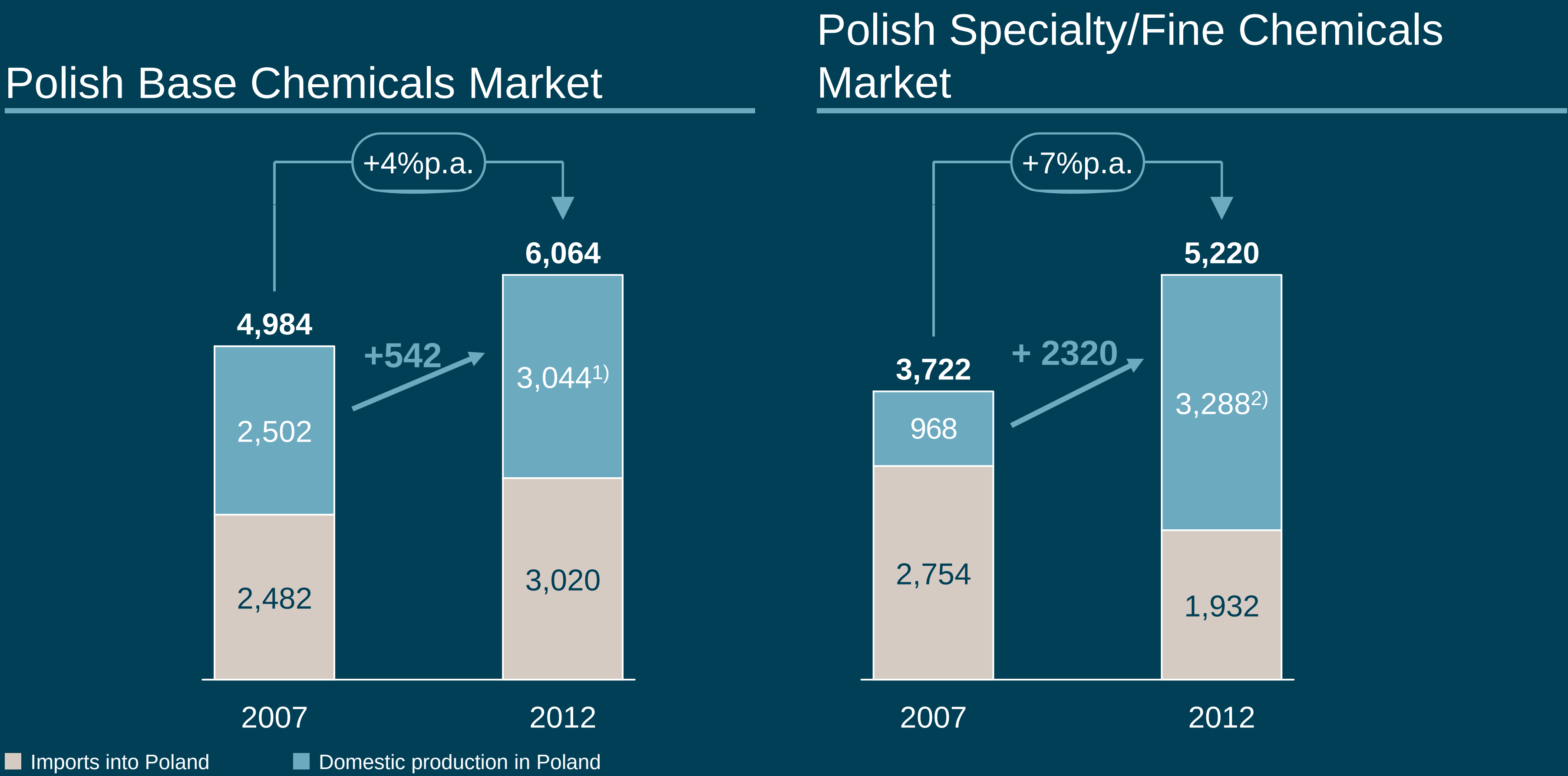
Polish companies have all capabilities to steer changes and to compete on par with Westerners…

- Supported by EU accession, the Polish market and its neighboring countries represent a consistent economic area with sufficient size and considerable growth
- Polish companies hold strong domestic positions and generate significant cash with commodities in the home market
- For selected products strong footholds are achieved and can be utilized (e.g. TiO_2, Soda, Melamine)
- Recent and further investments are strengthening the position of Polish players (e.g. PP/PE, PX/PTA, TDI) in base chemicals
- These strengths allow to penetrate the CEE region and to obtain on top additional growth with specialty and fine chemicals

Source: Roland Berger Strategy Consultants

… and generate real growth consequently developing specialties business

Business potential 2007-2012 [m EUR]



1) Market share of base chemicals producers remains constant 2) Additional growth by 50% substitution of imports by specialty companies

Source: GUS, Roland Berger Strategy Consultants

If fulfilling key success criteria, CEE companies can follow the Western success path

Success criteria for the Chemical Industry in CEE

Success criteria	Fulfillment[1)]
Strength in domestic market	●
High production efficiency	◑
Economies of Scale	◑
Strong customer relation	◑
Usage of marketing tools	◔
Offer of value services	◔

Comments

- In the recent past the Chemical Industry has identified the right issues
- The Chemical Industry already tackled many success factors
- Although, customers will become more professional in their demands and purchase accordingly
- Therefore, further improvement is possible and needed

1) Fulfillment of CEE Chemicals Industry in general

Source: Roland Berger Strategy Consultants

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Summary

Summary

I **The Polish Chemical Industry has to rely on itself – as companies in the whole CEE region**

II **Market opportunities lie in regional consolidation and co-operation – Polish companies have capabilities to be in the lead**

III **All segments are growing, commodities can provide cash for the step change in value added chemicals**

IV **Competition on par with Western competitors is in reach for the Polish Chemical Industry – if taking the right steps**

- Usage of technical know-how, marketing and customer proximity
- Intelligent co-operation models with Western competitors
- Best practice supply chain solutions
- Operational Excellence in all parts of the value chain

Source: Roland Berger Strategy Consultants