

Tokai Carbon Acquisition of COBEX

June 17, 2019

We have signed an agreement today (June 17) to acquire COBEX. We will take necessary steps to obtain approval from competition authorities. We expect to complete the acquisition in mid-to-late July 2019.

Under the 3 year Mid-Term Management Plan T-2021 announced in February 2019, we have raised making strategic investments in sectors relevant to our core business of carbon materials and sectors which are automotive-related and in electronics to realize our growth strategy. The acquisition of COBEX is part of such strategic investment.

This presentation explains the background and our company's goals with respect to this acquisition.

Data about economic conditions, trends in product demand, and other information contained in this presentation is based on information obtainable as of the date on which these materials are presented and may change significantly according to a variety of factors in the future.

Company to be acquired	COBEX HoldCo GmbH
Acquisition price	Approximately JPY 100 billion (Enterprise Value) *
Financing	Cash on-hand and bank loans (bridge loans) **

*1 Acquisition price : Enterprise Value = Consideration for stock acquisition + Net Debt

*2 Bank loans : After procuring funding with bridge loans, all or part of the bridge loan will be replaced with long-term funds

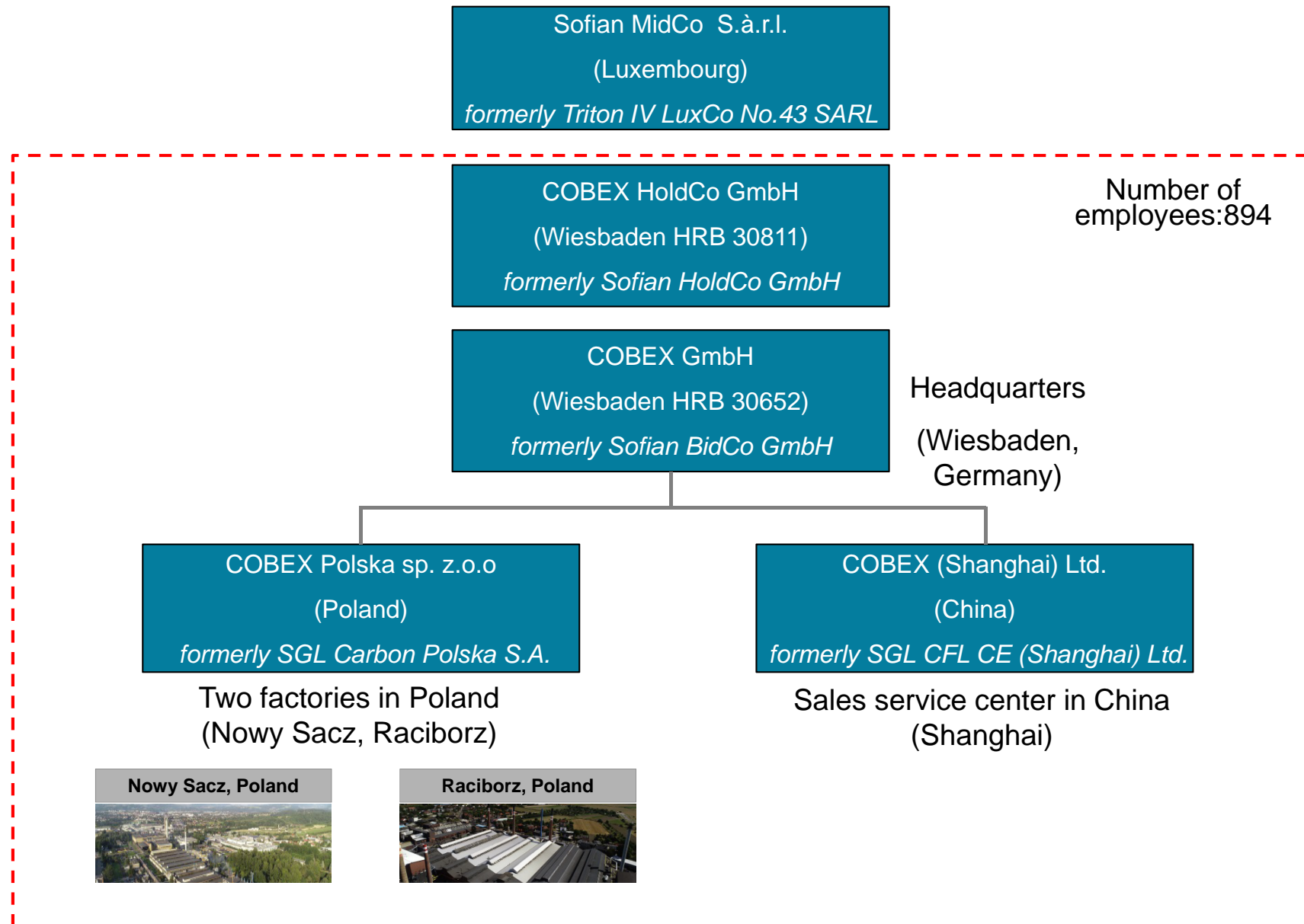
Company name	COBEX HoldCo GmbH (COBEX)			
Date of establishment	September 2016			
Description of business	Manufacturing, sales and R&D of cathodes, furnace linings and carbon electrodes			
Business units	<p>Head office : Wiesbaden (Hessen, Germany)</p> <p>Manufacturing locations :</p> <table border="0"> <tr> <td>Nowy Sacz (Poland)</td><td rowspan="2">} 70kmt per year</td></tr> <tr> <td>Raciborz (Poland)</td></tr> </table>	Nowy Sacz (Poland)	} 70kmt per year	Raciborz (Poland)
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Raciborz (Poland)				
Business results	<p>Year ended December 2018 (actual) :</p> <p>Sales €235 million / EBITDA €76 million</p> <p>(¥29.8billion*) (¥9.6billion*)</p>			
Number of employees	Approximately 900			

*This number is fulltime equivalents.

Applied exchange rate is JPY127.00 to the EURO in accordance with final official TTM quotation by MUFG Bank, Ltd. on December 31, 2018

Reference) COBEX Corporate Organization

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※Scope of Transaction

- Grown to become the top player for SGL Carbon's products such as cathodes and furnace linings. The company was spun-out in 2016 and was acquired by the European fund Triton in 2017

1895	Established a electrode factory (ZEW S.A.) in Raciborz (Poland)
1960	Established a electrode factory (Polgraph S.A.) in Nowy Sacz (Poland)
1995	Acquisition of Polgraph S.A. by SGL Carbon
2000	Acquisition of ZEW by SGL Carbon
2000 ~ 2007	Consolidation of the business to Poland including cathodes, furnace lining, and carbon electrodes when SGL Carbon reorganized its European manufacturing plants
2016	SGL Carbon spins-off the cathode and furnace lining business into SGL CFL CE GmbH
2017	Triton acquired SGL CFL CE GmbH. Corporate name changed to COBEX GmbH(2018)

Production Facilities of COBEX

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- Top class European production capacity with total production capacity from 2 factories of 70kmt per year
- Cost advantage from labor and energy costs and automated production facilities and environmental facilities

Raciborz



- Non-graphitised cathodes
- Furnace linings

Nowy Sacz



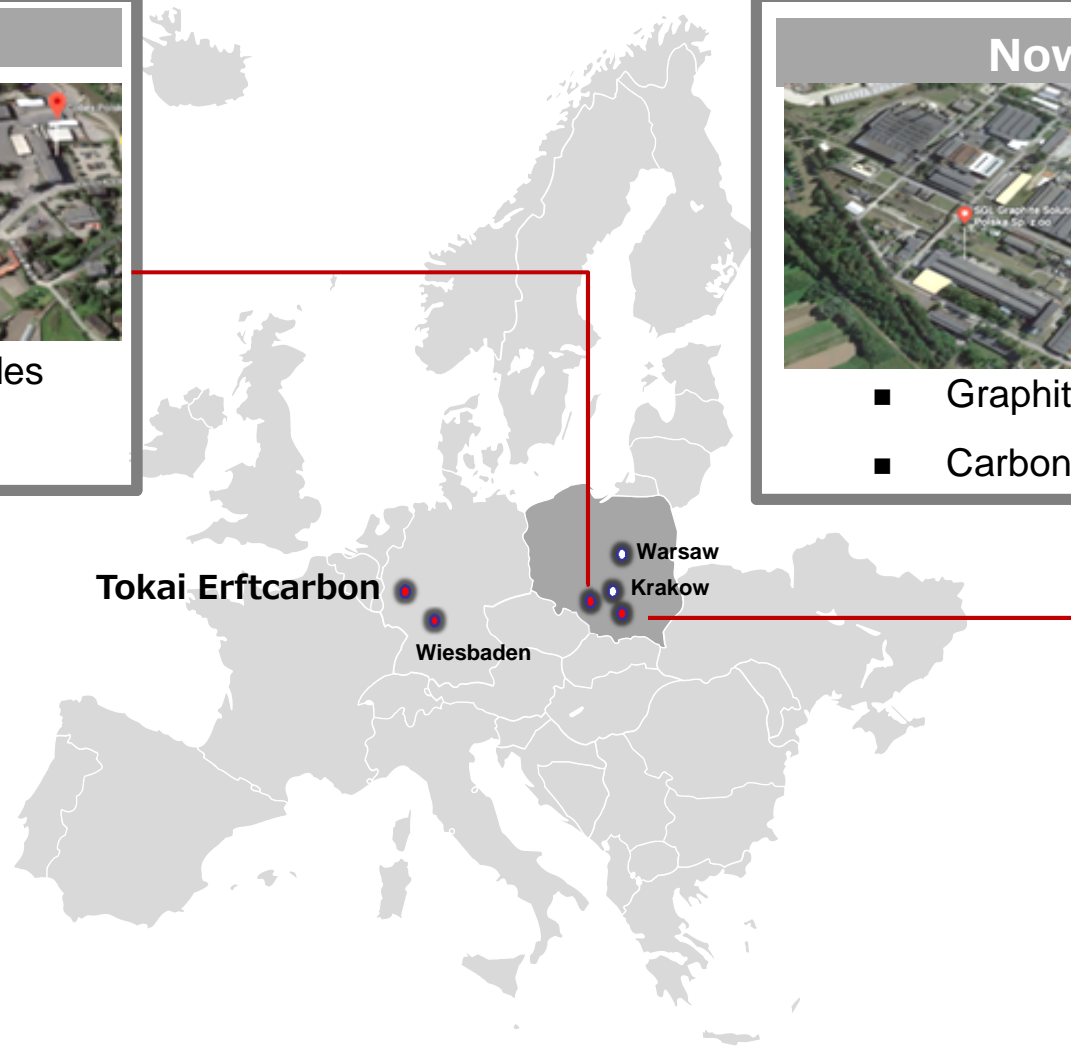
- Graphitised cathodes
- Carbon electrodes

Tokai Erftcarbon

Wiesbaden

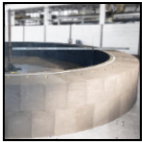
Warsaw

Krakow



- COBEX is the leading global provider of cathodes, furnace lining materials and carbon electrodes

Illustrative Sales Contribution

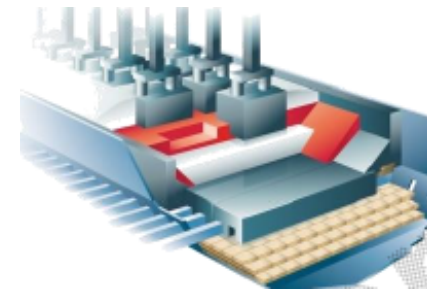


Furnace Linings

Carbon and graphite lining materials for blast furnaces used in hot metal production for steel

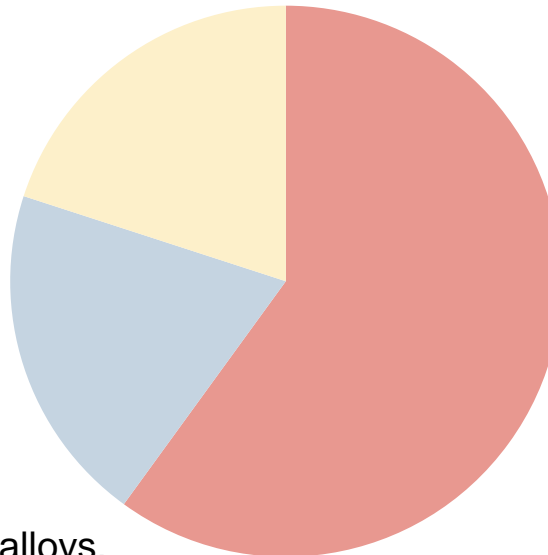
Cathodes

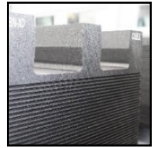
Carbon and graphite materials applied in the lining of electrolysis cells for the aluminium smelting



Carbon Electrodes

Used for smelting of silicon metals, ferroalloys, phosphorus and etc.

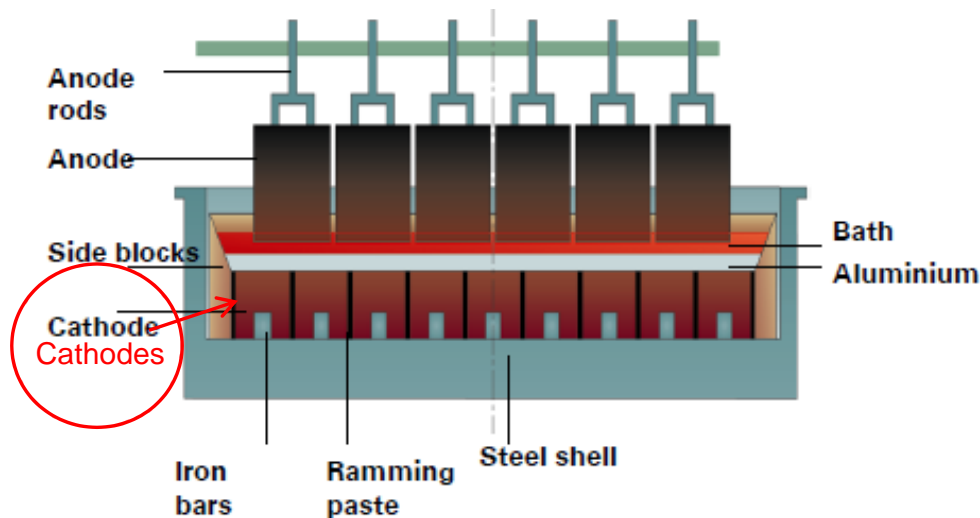




Cathodes

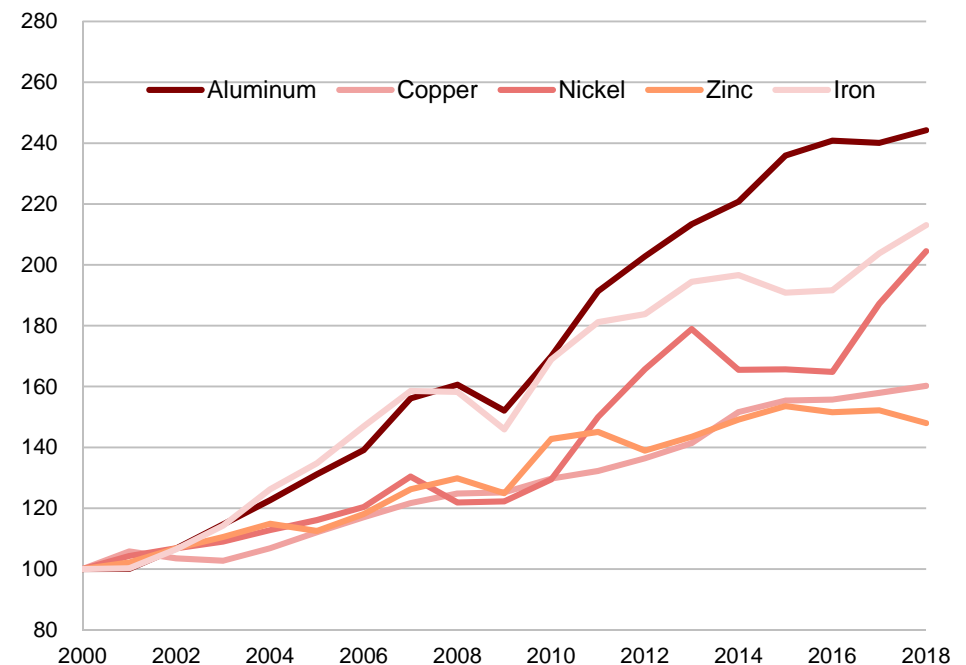
- Supplies cathodes for use in aluminum refining electrolysis cell
- High repeat rate, high entry barrier market
- Largest supplier to global aluminum smelting industry(excl. China)

Uses of cathodes (aluminum refining electrolysis cell)

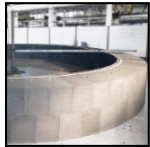


Aluminum smelters (pots)

Global production of major metal products (the year of 2000 = 100)

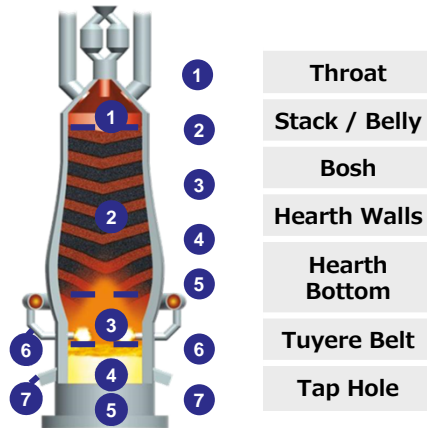


* World Metal Statistics, World Steel Association



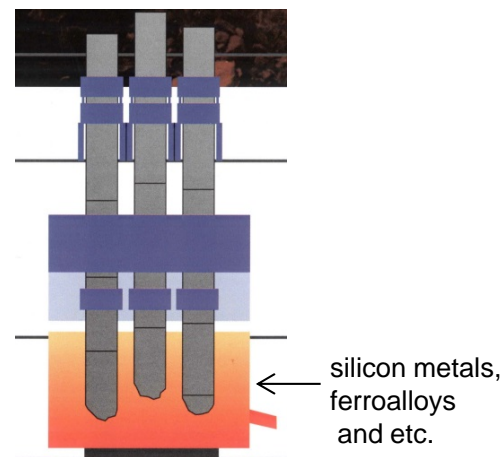
Furnace Linings

Carbon and graphite linings of differing grades are applied to ②~⑦ zone of the blast furnace



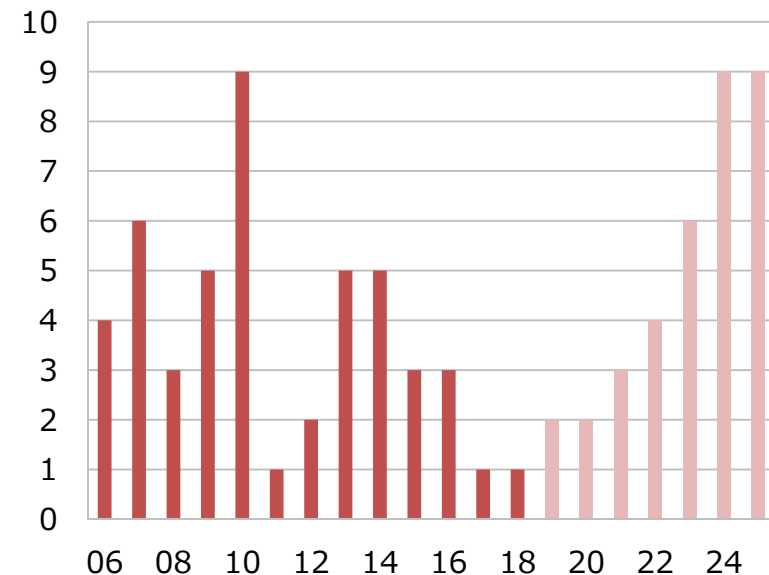
Carbon Electrodes

It is called submerged arc furnace because an electrode tip is buried directly in melting metal materials. The carbon electrodes are completely different from graphite electrodes for steel products



- Leading player in the global market including China
- Industry focuses on product quality. High entry barrier market

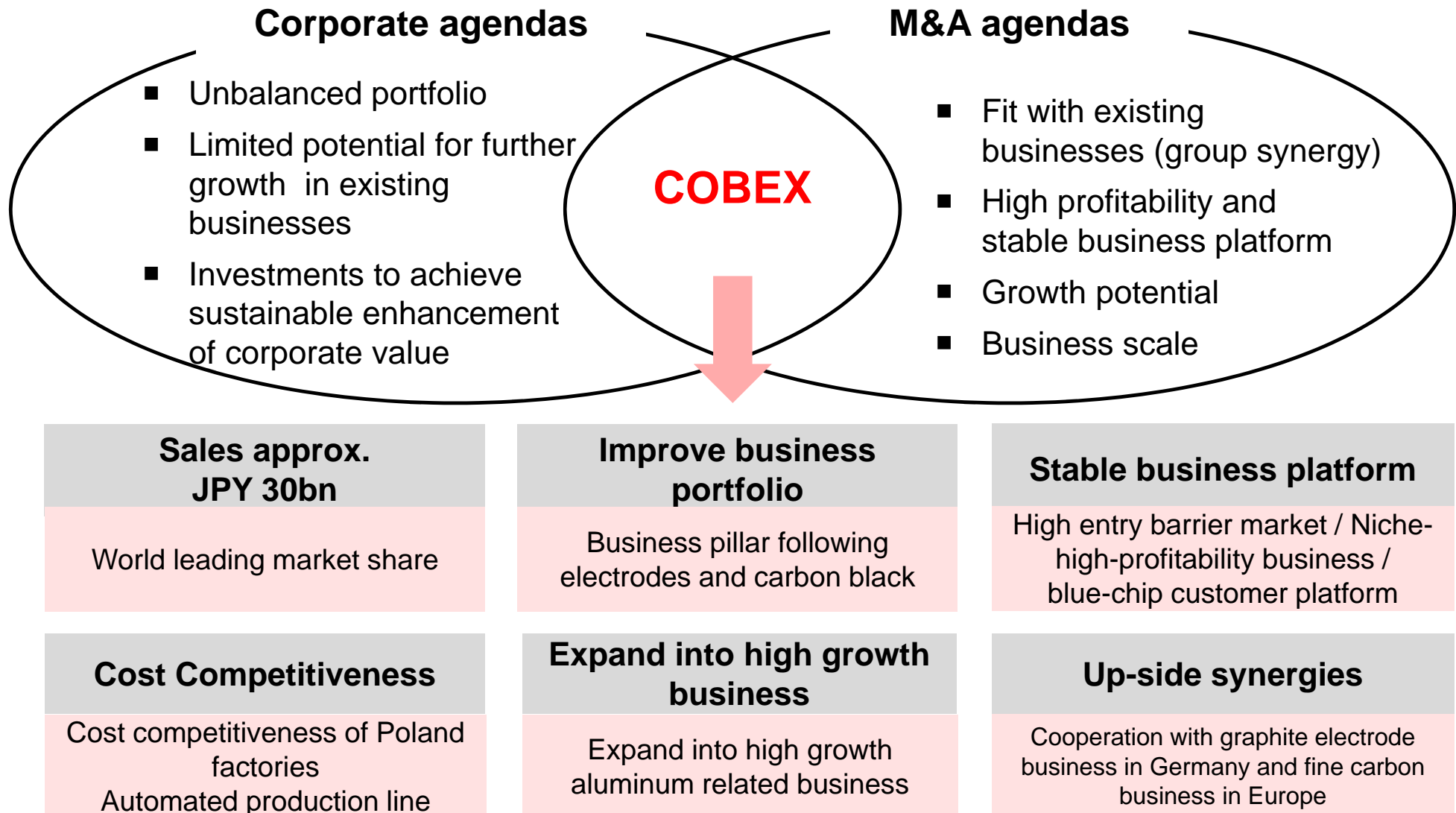
Forecast of large blast furnace repairs (East Asia)



*Number of blast furnaces repairs

- Strong position in markets excluding China as well
- Competitive advantage with strong customer base for special uses

- The acquisition of COBEX fits with our corporate agendas and will enhance our long-term corporate value



- Enter into the global market as a leading player in three businesses and enhance our business scale and profitability

- COBEX has significant market share in cathodes for aluminum cells, furnace linings and carbon electrodes
- COBEX leads the industry in production capacity, customer base and quality control
- COBEX established a highly profitable business platform with strengths in production of high-performance / value-added graphitized cathodes and cost competitiveness of its production facilities in Poland and
- Historically, COBEX has strong competitiveness due to cost-down efforts from business consolidation by SGL Carbon, automated production lines and investments in environment facilities
- Furthermore, we see stable growth in aluminum due to acceleration of urbanization in the building material sector and weight reduction in mobility equipment. Cathode demand is expected to achieve stable growth
- Despite COBEX's business is new to us, COBEX and Tokai Carbon have knowledge in the common area of production technology of carbon and graphite production technology and we have strong fit. As the business of COBEX is a new business to us, COBEX will also contribute to the diversification of our portfolio

Concept of this Acquisition within the Mid-term Management Plan

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Basic Policies of T-2021, the new Mid-Term Management Plan

Strengthening the revenue base

- Generating stable cash flow from core businesses
- Post-merger integration for three acquisition projects (establishment of a global production system)
- Major renewal of facilities, environmental investment

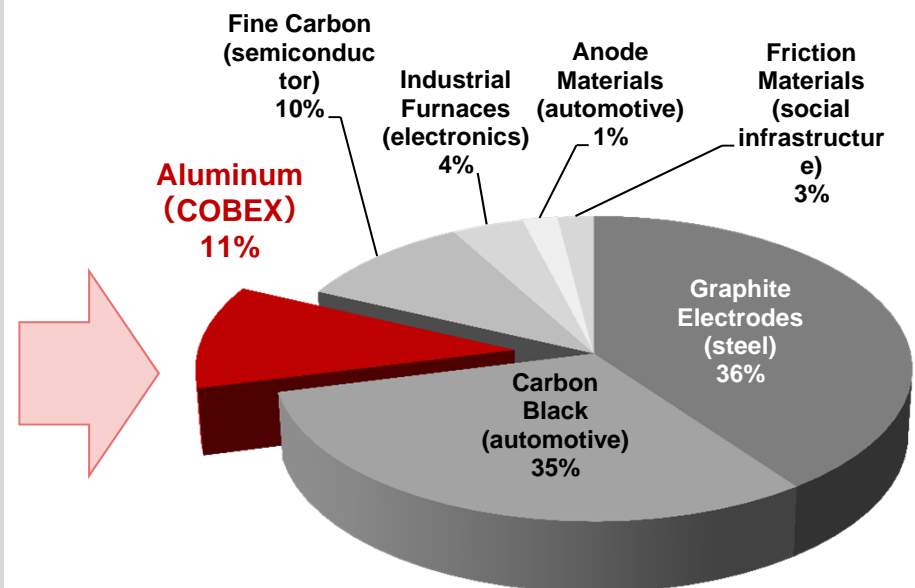
Expanding opportunities for growth

- Expanding capacity in growth areas
- Optimizing business and product portfolios
- Ongoing M&A and investment in strategic areas
- Ongoing initiatives in strengthening technology development

Building a consolidated governance structure

- Head office re-organization and systems review
- Expanding functions of regional headquarters in North America
- Securing and developing human resources

Revenue image after this acquisition (Full year conversion)



Timetable

- Execution of the share purchase agreement: June 17, 2019
- Completion of the share acquisition: Mid-to-late July 2019 (planned)
- This timetable is as of June 17, 2019, and is subject to change depending on approval procedures with regulatory authorities according to competition laws and other circumstances such as fulfillment of closing conditions, etc.

Impact on results

- The impact on consolidated financial results for the year ending December 2019 will be reviewed and will be promptly disclosed in the event of any changes in performance forecasts or any other matters that needs to be disclosed.

Cautionary statement regarding future prospects 14

The earnings forecasts and other forward-looking statements in this document are based on information obtainable at the time this document was published and assumptions as of the date of publication concerning elements of uncertainty that could affect future earnings.

Actual results may differ substantially, depending on various future factors. Factors that affect business performance include, but are not limited to, economic conditions, trends in product demand and market prices, and fluctuation in exchange rates.

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