Indygotech Minerals S.A.

Fair Value: PLN 2

Initiating Coverage

Indygotech Minerals S.A. (IDG) is a Polish industrial holding, which controls companies that operate in the area of ceramic technology. The products, which the subsidiaries already produce or will soon manufacture, are complementary and increase the efficiency of energy production, transport and consumption significantly.

IDG's portfolio companies LZMO S.A., Baltic Ceramics Investments S.A. and Electroceramics S.A. are all listed, which increases their transparency and makes them easier to value. While LZMO, which already generates revenues, provides ceramic inserts and chimneys for single-family houses, Baltic Ceramics Investments and Electroceramics (through fully-owned SPVs) will produce ceramic proppants and electro-insulators, which are used in the production of energy from unconventional sources e.g. shale, tight gas, deep water, respectively in energy transport. The construction of their production facilities is supposed to be completed at the end of 2015.

IDG operates in areas, which are set to experience significant growth in the coming years. According to Grand View Research and ResearchandMarkets, the market for proppants will grow from 45.1m tons in 2013 to 96m tons in 2020. IEA expects the share of production of gas from unconventional sources to grow from 14% in 2010 to 32% by 2035. The growth of isostatic chimneys and insulators will likely be spurred by EU policy, whose aim is to reduce energy consumption by 27% until 2030 and CO2 emissions from the energy sector by 80-95% until 2050.

We have calculated a fair value for IDG's shares based on a DCFbased Sum-of-the-Parts model, which derives a value of PLN 2. The company's current market valuation is PLN 0.81 per share. While we believe that IDG will complete its investment program as planned, we see some risks: (1) lack of a distribution network, which IDG's subsidiaries still have to develop (2) cheap competition from Asia and (3) in the area of proppants, preference for cheaper sand proppants and strong competition by both large global players and Asian producers.

| in PLNm | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|----------------|--------|---------|---------|---------|--------|---------|
| Net sales | 1.75 | 2.83 | 12.62 | 4.46 | 0.74 | 3.46 |
| EBITDA | -0.28 | 0.23 | -2.82 | -8.87 | -2.93 | 0.38 |
| EBIT | -0.36 | 0.17 | -2.95 | -8.99 | -2.97 | 0.30 |
| Net income | 0.45 | 2.95 | 10.26 | -4.95 | 5.10 | -1.08 |
| EPS | 0.01 | 0.07 | 0.23 | -0.11 | 0.12 | -0.02 |
| Diluted EPS | 0.01 | 0.07 | 0.19 | -0.09 | 0.10 | -0.02 |
| | | | | | | |
| Dividend yield | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| RoE | 2.16% | 10.45% | 25.07% | -11.32% | 14.35% | -3.93% |
| Net gearing | 0.26% | -18.44% | -62.51% | -95.62% | 2.65% | 8.40% |
| EV/Sales | 23.62x | 14.59x | 3.27x | 9.25x | 55.70x | 11.94x |
| EV/EBITDA | neg | 180.23x | neg | neg | neg | 108.32x |
| P/E | 81.00x | 11.57x | 3.52x | neg | 6.75x | neg |
| P/Diluted EPS | 81.00x | 11.57x | 4.26x | neg | 8.10x | neg |

Company profile

Indygotech Minerals S.A. is a Polish holding, which through subsidiaries operates in the area of ceramic technology.

| Website | www.indygotechminerals.com |
|-----------|----------------------------|
| Sector | Industrials |
| Country | Poland |
| ISIN | PLLSTIA00018 |
| Reuters | IDGP.WA |
| Bloomberg | IDG PW |
| | |

Share information

| Last price | 0.81 |
|----------------------|---------------------|
| Number of shares (m) | 52.31 |
| Market cap. (PLNm) | 42.37 |
| Market cap. (EURm) | 10.26 |
| 52-weeks range | PLN 1.58 / PLN 0.58 |
| Average volume | 381,559 |
| | |

Performance

| 4-weeks 13-weeks 26-weeks 52-weeks YTD | 1.22% -32.52% 9.21% -30.83% 12.16% |
|--|--|
| YID | 12.16% |
| | |

Shareholder structure

| Dariusz Janus (CEO) Innovators Capital (Cyprus) Lt Artur & Malgorzata Slawinski Free float | 23.48% 8.53% 6.68% 61.31% |
|---|------------------------------------|
| Financial calendar Q2/15 report | August 31, 2015 |
| Analyst Adrian Kowollik a.kowollik@eastvalueresearch | 1.com |



Rating: n.a

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Investment Case

- Indygotech Minerals S.A. is an investment holding, which has invested in promising companies that operate in the area of ceramic technology. The products, which its subsidiaries already produce or will soon manufacture, are complementary and make the production, consumption and transport of energy much more efficient. All subsidiaries are listed, which makes them more transparent and ensures a market-based valuation.
- IDG has three fully-consolidated subsidiaries: Baltic Ceramics Investments S.A. (BCI), LZMO S.A. (LZMO) and Electroceramics S.A. (EC). In the last years, they have raised more than PLN 50m of EU money, which along with equity and debt has been used for investments relating to R&D of innovative ceramic products for the oil & gas, construction and energy industry. While LZMO has already been generating sales in the last years, Baltic Ceramics Investments and Electroceramics, which through SPVs are currently constructing their production facilities, will likely report first revenues in 2016. Both have already signed letters-of-intent with first potential clients.
- IDG's subsidiaries are targeting areas, which are expected to develop very well over the next years. BCI will offer own patented ceramic proppants, which are required in hydraulic fracturing, a process, which is used in the exploration of unconventional gas sources. According to Grand View Research and ResearchandMarkets, the market for proppants will grow from 45.1m tons in 2013 to 96m tons in 2020. The International Energy Agency IEA expects the share of production of gas from unconventional sources to increase from 14% in 2010 to 32% by 2035. LZMO (isostatic ceramic chimneys) and Electroceramics (ceramic insulators and corps) will likely benefit from EU legislation, whose aim is to reduce energy consumption by 27% until 2030 and CO2 emissions from the energy sector by 80-95% until 2050.
- We have valued IDG's shares by using a DCF-based Sum-of-the-Parts valuation. Our approach derives a fair value of PLN 2 compared to current market value of PLN 0.81 per share. We believe that the products, which IDG's portfolio companies develop, have a good chance to succeed globally due to (1) their innovativeness and attractive pricing (2) promising target markets and (3) a trend towards energy efficiency, which is supported by EU-wide legislation. Risks, which we see, are: (1) a lack of a distribution network, which IDG's subsidiaries still have to develop (2) cheap competition from Asia and (3) in the area of proppants, preference for cheaper sand proppants and strong competition by both large global players and Asian producers.

SWOT Analysis

Strengths

- Industrial holding with investments in companies that are supposed to offer ceramic technologies, which improve energy efficiency
- IDG has filed for or has already received patent protection for its products and respective production processes in Poland, Europe and the US
- IDG owns the rights to an 203.7k sqm area with max. 3m tons of ceramic clay and a 28.2k sqm area with max. 0.6m tons of fireproof clay; both are located not far from its production facilities and could be used from 2016
- High entry barriers, especially in the ceramic proppants industry
- PLN >50m of EU subsidies granted to date
- CEO is the largest shareholder with 23.5% of the shares

Opportunities

- The global market for proppants is expected to grow from 45.1m tons in 2013 to 96m tons by 2020 (CAGR of 11.4%); The International Energy Agency expects that by 2035 the share of gas production from unconventional sources will increase from 14% in 2010 to 32%
- LZMO's products are 2.5x cheaper than of German peers; its growth potential stems from (1) market entry in much more developed markets in Western Europe and (2) the catch-up potential of the Polish market, where just 3-5% of chimneys are isostatic ones vs. >50% in the Germanspeaking region
- As a B2B supplier, subsidiary Electroceramics plans to produce ceramic insulators and corps, which increase the efficiency of transformators, condensators, power and distribution lines; Investments in energy efficiency in the EU could reach EUR >1tr by 2050
- Significant one-off dividends if a portfolio company was to be sold to a strategic or financial investor

Weaknesses

- Apart from LZMO, all subsidiaries will only start production in 2016 as their production facilities are still not ready
- Indygotech's profits have so far only stemmed from revaluation of its portfolio companies
- IDG's subsidiaries are all listed in the illiquid NewConnect segment of the WSE

Threats

- Sales of chimneys are highly correlated with the condition of the construction sector
- Risk that customers use cheaper sand proppants instead of those made of ceramics; some market research firms e.g. Freedonia expect that sand proppants will continue to grow the fastest in the coming years and growth of ceramic proppants will be limited to areas requiring highperformance products
- Competition by cheap producers from Asia and much larger global players: Schiedel, Raab Gruppe (isostatic chimneys), CARBO Ceramics, Saint-Gobain, Fores (proppants)
- Risks associated with larger scope of operation
- Loss of key employees

Valuation

We have valued Indygotech Minerals by using a DCF-based Sum-of-the-Parts model, which derives a fair value for the stock of PLN 2 compared to a current market price of PLN 0.81 per share. We have not accounted for the peer group as IDG is still at an early stage of development.

DCF-based SOTP

| Baltic Ceramic Investments S.A. | | 2015E | 2016E | 2017E | 2018E | 2019E | 2020E | 2021E | 2022E | 2023E |
|--|--------|--------|-------|--------|--------|----------|-----------|--------|--------|--------|
| Net sales | | 0.00 | 23.03 | 64.76 | 103.62 | 107.93 | 116.93 | 125.92 | 134.92 | 143.91 |
| (y-o-y change) | | n.a | n.a | 181.3% | 60.0% | 4.2% | 8.3% | 7.7% | 7.1% | 6.7% |
| Operating profit | | 0.00 | 3.45 | 11.01 | 19.69 | 22.67 | 26.89 | 28.84 | 30.76 | 32.67 |
| (operating margin) | | n.a | 15.0% | 17.0% | 19.0% | 21.0% | 23.0% | 22.9% | 22.8% | 22.7% |
| NOPLAT | | 0.00 | 2.80 | 8.92 | 15.95 | 18.36 | 21.78 | 23.36 | 24.92 | 26.46 |
| + Depreciation & amortisation | | 0.45 | 1.15 | 3.24 | 5.18 | 5.40 | 5.85 | 6.30 | 6.75 | 7.20 |
| = Net operating cash flow | | 0.45 | 3.95 | 12.16 | 21.13 | 23.76 | 27.63 | 29.65 | 31.66 | 33.66 |
| - Total investments (Capex and WC) | | -40.45 | -3.45 | -7.77 | -12.43 | -12.95 | -14.03 | -15.11 | -16.19 | -17.27 |
| Capital expenditures | | -40.45 | -1.15 | -3.24 | -5.18 | -5.40 | -5.85 | -6.30 | -6.75 | -7.20 |
| Working capital | | 0.00 | -2.30 | -4.53 | -7.25 | -7.56 | -8.18 | -8.81 | -9.44 | -10.07 |
| = Free cash flow (FCF) | | -40.00 | 0.50 | 4.38 | 8.69 | 10.80 | 13.60 | 14.54 | 15.47 | 16.39 |
| PV of FCF's | | -37.85 | 0.41 | 3.23 | 5.66 | 6.21 | 6.90 | 6.51 | 6.12 | 5.72 |
| | | | | | | | | | | |
| PV of FCFs in explicit period | 2.91 | | | | | | | | | |
| PV of FCFs in terminal period | 82.43 | | | | | | | | | |
| Enterprise value (EV) | 85.34 | | | | | | | | | |
| + Net cash / - net debt | 14.00 | | | | | | | | | |
| Shareholder value | 99.34 | | | | | | | | | |
| Number of shares outstanding (m) | 49.67 | | | | | Terminal | EBIT marg | gin | | |
| WACC | 13.3% | | | 21.7% | 22.7% | 23.7% | 24.7% | 25.7% | 26.7% | 27.7% |
| Cost of equity | 13.3% | - | 9.3% | 4.00 | 4.18 | 4.35 | 4.53 | 4.70 | 4.88 | 5.06 |
| Pre-tax cost of debt | 10.4% | | 10.3% | 3.31 | 3.45 | 3.60 | 3.74 | 3.88 | 4.03 | 4.17 |
| Normal tax rate | 19.0% | U | 11.3% | 2.78 | 2.90 | 3.01 | 3.13 | 3.25 | 3.37 | 3.49 |
| After-tax cost of debt | 6.5% | WACC | 12.3% | 2.36 | 2.45 | 2.55 | 2.65 | 2.75 | 2.85 | 2.95 |
| Share of equity | 100.0% | × × | 13.3% | 2.01 | 2.10 | 2.18 | 2.27 | 2.35 | 2.43 | 2.52 |
| Share of debt | 0.0% | | 14.3% | 1.73 | 1.80 | 1.88 | 1.95 | 2.02 | 2.09 | 2.16 |
| Fair value per share in PLN | 2.00 | | 15.3% | 1.50 | 1.56 | 1.62 | 1.68 | 1.74 | 1.81 | 1.87 |
| Fair value per share in PLN (in 12 months) | 2.27 | | | | | | | | | |

| Electroceramics S.A. | | 2015E | 2016E | 2017E | 2018E | 2019E | 2020E | 2021E | 2022E | 2023E |
|--|---------|--------|-------|--------------|-----------------------------|----------|-----------|-------|-------|-------|
| Net sales | | 0.00 | 2.48 | 9.92 | 25.79 | 30.75 | 34.72 | 39.68 | 44.64 | 49.60 |
| (y-o-y change) | | n.a | n.a | 300.0% | 160.0% | 19.2% | 12.9% | 14.3% | 12.5% | 11.1% |
| Operating profit | | 0.00 | 0.51 | 2.10 | 10 5.62 6.89 7.99 9.09 10.1 | | | 10.18 | 11.26 | |
| (operating margin) | | 0.0% | 20.6% | 21.2% | 21.8% | 22.4% | 23.0% | 22.9% | 22.8% | 22.7% |
| NOPLAT | | 0.00 | 0.41 | 1.70 | 4.55 | 5.58 | 6.47 | 7.36 | 8.24 | 9.12 |
| + Depreciation & amortisation | | 0.10 | 0.12 | 0.50 | 1.29 | 1.54 | 1.74 | 1.98 | 2.23 | 2.48 |
| = Net operating cash flow | | 0.10 | 0.54 | 2.20 | 5.84 | 7.12 | 8.20 | 9.34 | 10.48 | 11.60 |
| - Total investments (Capex and WC) | | -20.10 | -0.37 | -1.19 | -3.10 | -3.69 | -4.17 | -4.76 | -5.36 | -5.95 |
| Capital expenditures | | -20.10 | -0.12 | -0.50 | -1.29 | -1.54 | -1.74 | -1.98 | -2.23 | -2.48 |
| Working capital | | 0.00 | -0.25 | -0.69 | -1.81 | -2.15 | -2.43 | -2.78 | -3.12 | -3.47 |
| = Free cash flow (FCF) | | -20.00 | 0.17 | 1.01 | 2.75 | 3.43 | 4.04 | 4.58 | 5.12 | 5.65 |
| PV of FCF's | | -18.92 | 0.14 | 0.74 | 1.79 | 1.97 | 2.05 | 2.05 | 2.02 | 1.97 |
| | 6.10 | | | | | | | | | |
| PV of FCFs in explicit period | -6.19 | | | | | | | | | |
| PV of FCFs in terminal period | 27.25 | | | | | | | | | |
| Enterprise value (EV) | 21.06 | | | | | | | | | |
| + Net cash / - net debt | 0.20 | | | | | | | | | |
| Shareholder value | 21.26 | | | | | | | | | |
| Number of shares outstanding (m) | 1647.20 | | | | | Terminal | EBIT marg | gin | | |
| WACC | 13.3% | | | 19.7% | 20.7% | 21.7% | 22.7% | 23.7% | 24.7% | 25.7% |
| Cost of equity | 13.3% | | 9.3% | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| Pre-tax cost of debt | 10.4% | | 10.3% | 0.02 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| Normal tax rate | 19.0% | 0 | 11.3% | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 |
| After-tax cost of debt | 6.5% | WACC | 12.3% | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Share of equity | 100.0% | ž | 13.3% | 0.01 | 0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 |
| Share of debt | 0.0% | | 14.3% | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Fair value per share in PLN | 0.01 | | 15.3% | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Fair value per share in PLN (in 12 months) | 0.01 | | | | | | | | | |

Source: East Value Research GmbH

| LZMO S.A. | | 2015E | 2016E | 2017E | 2018E | 2019E | 2020E | 2021E | 2022E | 2023E |
|---|--------------|-------|-------|-------|--------|----------|----------|-------|-------|-------|
| Net sales | | 7.00 | 8.68 | 10.01 | 28.00 | 36.40 | 44.80 | 53.20 | 61.60 | 70.00 |
| (y-o-y change) | | n.a | 24.0% | 15.3% | 179.7% | 30.0% | 23.1% | 18.8% | 15.8% | 13.6% |
| Operating profit | | 1.40 | 1.79 | 2.12 | 6.10 | 8.15 | 10.30 | 12.18 | 14.04 | 15.89 |
| (operating margin) | | 20.0% | 20.6% | 21.2% | 21.8% | 22.4% | 23.0% | 22.9% | 22.8% | 22.7% |
| NOPLAT | | 1.13 | 1.45 | 1.72 | 4.94 | 6.60 | 8.35 | 9.87 | 11.38 | 12.87 |
| + Depreciation & amortisation | | 0.35 | 0.43 | 0.50 | 1.40 | 1.82 | 2.24 | 2.66 | 3.08 | 3.50 |
| = Net operating cash flow | | 1.48 | 1.88 | 2.22 | 6.34 | 8.42 | 10.59 | 12.53 | 14.46 | 16.37 |
| - Total investments (Capex and WC) | | -3.84 | -1.04 | -1.20 | -3.36 | -4.37 | -5.38 | -6.38 | -7.39 | -8.40 |
| Capital expenditures | | -3.35 | -0.43 | -0.50 | -1.40 | -1.82 | -2.24 | -2.66 | -3.08 | -3.50 |
| Working capital | | -0.49 | -0.61 | -0.70 | -1.96 | -2.55 | -3.14 | -3.72 | -4.31 | -4.90 |
| = Free cash flow (FCF) | | -2.36 | 0.84 | 1.02 | 2.98 | 4.06 | 5.21 | 6.14 | 7.06 | 7.97 |
| PV of FCF's | | -2.23 | 0.70 | 0.75 | 1.94 | 2.33 | 2.64 | 2.75 | 2.79 | 2.78 |
| PV of FCFs in explicit period | 14.46 | | | | | | | | | |
| PV of FCFs in terminal period | 37.80 | | | | | | | | | |
| Enterprise value (EV) | 52.26 | | | | | | | | | |
| + Net cash / - net debt | 15.50 | | | | | | | | | |
| Shareholder value | 67.76 | | | | | | | | | |
| Number of shares outstanding (m) | 10.93 | | | | | Terminal | EBIT mar | gin | | |
| WACC | 13.3% | | | 19.2% | 20.2% | 21.2% | 22.2% | 23.2% | 24.2% | 25.2% |
| Cost of equity | 13.3% | | 9.3% | 10.56 | 10.95 | 11.34 | 11.73 | 12.12 | 12.51 | 12.90 |
| Pre-tax cost of debt | 10.4% | | 10.3% | 9.14 | 9.46 | 9.77 | 10.09 | 10.41 | 10.72 | 11.04 |
| Normal tax rate | 19.0% | 0 | 11.3% | 8.04 | 8.30 | 8.56 | 8.83 | 9.09 | 9.35 | 9.61 |
| After-tax cost of debt | 6.5% | WACC | 12.3% | 7.17 | 7.39 | 7.61 | 7.83 | 8.05 | 8.27 | 8.49 |
| Share of equity | 100.0% | Ň | 13.3% | 6.47 | 6.65 | 6.84 | 7.02 | 7.21 | 7.39 | 7.58 |
| Share of debt | 0.0% | | 14.3% | 5.89 | 6.05 | 6.20 | 6.36 | 6.52 | 6.68 | 6.84 |
| Fair value per share in PLN Fair value per share in PLN (in 12 months) | 6.20 7.02 | | 15.3% | 5.40 | 5.54 | 5.68 | 5.81 | 5.95 | 6.08 | 6.22 |

Fair value calculation

| in PLNm | |
|---|-------|
| Baltic Ceramics Investments | |
| DCF-based fair equity value | 99.34 |
| Implied equity value of IDG's 47.63% share | 47.32 |
| LZMO | |
| DCF-based fair equity value | 67.76 |
| Implied equity value of IDG's 46.27% share | 31.35 |
| <u>Electroceramics</u> | |
| DCF-based fair equity value | 21.26 |
| Implied equity value of IDG's 64.22% share | 13.65 |
| Sum | 92.32 |
| Number of IDG's shares | 52.31 |
| Implied equity value per share (today) | 1.76 |
| Implied equity value per share (in 12-months) | 2.00 |

Source: East Value Research GmbH

Market cap-based SOTP

| in PLNm | | | | | | | |
|--|-------|--|--|--|--|--|--|
| Baltic Ceramics Investments | | | | | | | |
| Current market cap | 48.68 | | | | | | |
| Implied equity value of IDG's 47.63% share | 23.19 | | | | | | |
| LZMO | | | | | | | |
| Current market cap | 20.22 | | | | | | |
| Implied equity value of IDG's 46.27% share | 9.36 | | | | | | |
| <u>Electroceramics</u> | | | | | | | |
| Current market cap | 16.47 | | | | | | |
| Implied equity value of IDG's 64.22% share | 10.58 | | | | | | |
| Sum | 43.12 | | | | | | |
| Number of IDG's shares | 52.31 | | | | | | |
| Implied equity value per share | 0.82 | | | | | | |

Peer Group

Our peer group comprises listed and privately-held companies, which can be considered competitors of Indygotech Minerals' portfolio companies.

Manufacturers of proppants:

(1) CARBO Ceramics Inc.: CARBO, which is based in Houston, is an oilfield services technology company that provides production enhancement and environmental protection solutions e.g. FRACPRO – a fracture simulation software, ceramic proppants, fracture evaluation technologies. We estimate its production capacity relating to proppants at >1m tons per year. In 2014, CARBO generated revenues of USD 648.3m.

CARBO Ceramics is currently valued at an EV/Sales 2016E of 2.5x.

- (2) *Saint-Gobain Proppants:* Saint-Gobain Proppants (previously Norton Company) is a division of Saint Gobain SA, the world's largest manufacturer of industrial ceramics, plastics and glass. It operates production facilities in Fort Smith, Little Rock as well as Guanghan/China, which have a total capacity of 385k tons of ceramic proppants per year. In 2014, the division, which is part of Saint-Gobain's business segment "Innovative Materials", generated sales of EUR 4bn.
- (3) *FORES Proppants:* Headquartered in Ekaterinburg/Russia, Fores is a privately held company that has been in the ceramic proppant business since 2002, and the resin coating ceramic proppant business since 2008. Fores is currently the 2nd largest producer of ceramic proppants in the world with >2,000 employees globally and the industry leader in Russia by measure of volume of proppants delivered. We estimate the company's yearly production capacity at c. 700k tons.
- (4) *Prop Supply & Service LLC*: Prop Supply & Service LLC, which is based in Houston/US, is a leading supplier of ultra-lightweight, lightweight, intermediate- and high-strength ceramic proppants. The company operates five manufacturing plants in China.
- (5) *U.S. Silica Holdings Inc.:* U.S. Silica, which is based in Frederick/US, is a leader in industrial silica products. In its Oil & Gas division, which in 2014 contributed sales of USD 662.8m, the company manufactures raw sand and resin-coated sand proppants. We estimate its total yearly production capacity relating to silica sand at 8.3m tons.

U.S. Silica Holdings is currently valued at an EV/Sales 2016E of 2x.

- (6) *Mineracao Curimbaba*: Mineracao Curimbaba, which is a subsidiary of the Brasilian family-owned industrial group Grupo Curimbaba, manufactures sintered bauxite, activated bauxite, sintered refractory clay and proppants, which are mainly delivered to customers in North and South America as well as Europe. We estimate its total yearly production capacity relating to proppants at 241k tons.
- (7) Imerys SA: Imerys, which is based in Paris/France, provides mineral-based specialty solutions for the industry. It processes, enriches and combines a unique range of minerals, which in many cases are mined from its own deposits. Its "Energy Solutions and Specialities" unit generated EUR 1.3bn of revenues in 2014. We estimate Imerys' yearly production capacity in the area of proppants at 225k tons.

Producers of isostatic chimneys:

- (8) *Schiedel AG*: Schiedel, which is based in Munich/Germany, is the largest provider of chimney, heating and ventilation systems in Europe. It is part of the Luxembourg-based Braas Monier Building Group, which operates in 35 countries worldwide. In 2014, 14.4% of its total revenues of EUR 1.2bn stemmed from chimneys and energy systems.
- (9) *Joseph Raab GmbH & Cie. KG*: The Raab Group, which is based in Neuwied/Germany, provides a full range of solutions in the areas of chimney systems and exhaust gas technologies.
- (10) *JAWAR Sp. z.o.o*: JAWAR, which is based in Ciechanow/Poland, is a provider of a full range of chimney and ventilation systems. According to its company website, it offers the widest range of isostatic chimney systems on the Polish market.

Producers of electro-insulators:

- (11) *ZAPEL S.A.*: ZAPEL, which is based in Boguchwala/Poland, is the largest producer of low and high voltage insulators in Poland. The company also manufactures ceramic chimneys.
- (12) *CERALEP*. CERALEP, which is based in Saint Vallier, is the last French porcelain insulator manufacturer to specialise in high and very-high voltage insulators. The company is able to produce all types of ceramic insulators: hollow and solid cores, insulators with a special body for high frequency stations and electrostatic precipitators.
- (13) ABB Group: ABB, which is based in Zurich/Switzerland, is a global leader in power and automation technologies. In 2014, its Power Products division had a share of 24% in the group's total revenues of CHF 39.8bn. As a company, which plans to operate in the B2B segment, IDG's subsidiary Electroceramics targets ABB as a customer.

- (14) *Siemens AG*: Siemens, which is based in Munich/Germany, is global technology company with core activities in the fields of energy, healthcare, industry and infrastructure. In fiscal-year 2014, its Power Transmission (now Energy Management) division generated revenues of EUR 5.3bn, or 7.4% of the group's total sales. Like ABB, Siemens is one of the companies, which Electroceramics targets with its offering.
- (15) *LAPP Insulators Holding GmbH*: LAPP Insulators, which is based in Wunsiedel/Germany, is the leading manufacturer and supplier of low- to high-voltage insulators (made of ceramics or silicon) with global sales in more than 70 countries. We estimate the company's yearly revenues at EUR >145m.

Recent results

Revenues and Profitability

In Q1/15, Indygotech Minerals had revenues of PLN 2k compared to PLN 106k last year. Due to the fact that it is a venture capital firm IDG's sales include proceeds from the sale of subsidiaries as well as R&D services. As its administration costs grew from PLN 436k to PLN 791k, the company's EBIT (PLN -807k vs. PLN -361k) was below last year. However, net income improved from PLN -822k to PLN -408k due to a higher net financial result (PLN 1.3m vs. PLN -962k; depends on the market valuation of IDG's subsidiaries). At the end of March 2015, Baltic Ceramics Investments' share price equaled PLN 2.05 (31/03/2014: PLN 4.09), while LZMO and Electroceramics were valued at PLN 2.84 (PLN 4.69), respectively PLN 0.04 (PLN 0.01) per share.

The subsidiary LZMO reported weaker revenues y-o-y as competitors lowered their prices and last year the building season started earlier due to warm winter. However, profitability improved due to an EU subsidy of PLN 482k. At Baltic Ceramics Investments, net income significantly improved y-o-y (PLN 2.2m vs. PLN -292k) as the company revalued its investment in 100% subsidiary Baltic Ceramics S.A. Electroceramics' net income deteriorated from PLN 6k to PLN -512k as in contrast to last year the company reported administration expenses of PLN 203k and a write-down of goodwill of PLN 146k.

| | Baltic C Invest | | LZM | 10 | Electroceramic | | |
|---------------|--------------------|-------|--------|--------|----------------|--------|--|
| in PLNm | Q1/15 | Q1/14 | Q1/15 | Q1/14 | Q1/15 | Q1/14 | |
| Net sales | 0.00 | 0.00 | 0.55 | 1.32 | 0.00 | 0.01 | |
| EBITDA | -0.24 | -0.23 | 0.16 | -0.10 | -0.20 | 0.01 | |
| EBITDA margin | n.a | n.a | 29.7% | -7.9% | n.a | 100.0% | |
| EBIT | -0.24 | -0.23 | 0.09 | -0.29 | -0.20 | 0.01 | |
| EBIT margin | n.a | n.a | 16.6% | -22.0% | n.a | 100.0% | |
| Net income | 2.18 | -0.29 | -0.24 | -0.46 | -0.51 | 0.01 | |
| Net margin | n.a | n.a | -43.5% | -34.6% | n.a | 100.0% | |

Source: Company information, East Value Research GmbH

Balance sheet and Cash flow

At the end of March 2015, IDG had equity of PLN 25.8m, which corresponded to a share of 25.8% in the balance sheet total. The largest positions on its balance sheet were fixed assets & investment property (PLN 53.7m), which related especially to the fully-consolidated subsidiaries Baltic Ceramics Investments S.A. and Electroceramics S.A., goodwill (PLN 16.9m) and at-equity investments (PLN 15.2m) relating to IDG's 46.3% stake in LZMO S.A. As of 31 March 2015, IDG had interest-bearing debt of PLN 4.3m (Q1/14: PLN 5.3m), while its liquid funds amounted to PLN 5.4m (PLN 11.6m).

Between January and March 2015, Indygotech Minerals generated an operating cash flow of PLN -0.2m compared to PLN 3.2m in Q1/14. The main reason was a higher net income y-o-y. Cash flow from investing equaled PLN -7.2m (Q1/14: PLN -2.9m) as IDG participated in the capital increases of Baltic Ceramic Investments S.A., while cash flow from financing amounted to PLN 9.3m (PLN 8.9m). In total, IDG's cash position increased since January 2015 by PLN 1.9m to PLN 2.4m.

Financial forecasts

Revenues and Profitability

As Indygotech Minerals is only a holding company and its actual value stems from its shareholdings, our model is based on the forecasts of the company's subsidiaries Baltic Ceramic Investments S.A., LZMO S.A. and Electroceramics S.A. We have conservatively assumed that Baltic Ceramics and Electroceramics, which are currently constructing their production facilities, will only start generating revenues in late 2016.

Baltic Ceramics Investments: The Special Purpose Vehicle (SPV) Baltic Ceramics S.A., which is 100%-owned by this subsidiary, is expected to complete the construction of its production plant for ceramic proppants by the end of 2015 (Production capacity: 60k tons per year). In our model, we have forecast that the capacity utilization will be 16% in 2016 and reach 100% by 2023. We have not modeled for any increase of the total production capacity as we believe that competition among producers of proppants will remain fierce, especially due to cheap providers from Asia. In our view, the revenue CAGR will reach 30% by 2023E and EBITDA margin will amount to 27.7-28% in the long run. Although the company has already signed a letter-of-intent with an Ukrainian client, our estimates are below the guidance for 2016E-2018E, which Baltic Ceramics Investments has recently published.

BCI's strength are its low production costs. In our view, it will be able to manufacture highquality ceramic proppants at c. 50% lower prices than companies from Western Europe and North America. However, its success will largely depend on three factors: (1) the oil price and investments in exploration and (2) its ability to gain international customers and transport products over long distances. Key risks are that oil & gas companies will increasingly use sand proppants, which are significantly cheaper than ceramic ones, and that cheap Asian competitors will improve their product quality.

Electroceramics: The SPV Industry Technologies, EC's 100% subsidiary, is constructing a production plant with a capacity of 1.6m electro-isolating elements e.g. ceramic corps, covers and isolators, which is supposed to be completed by the end of 2015. In our model, we have assumed that the subsidiary will gradually increase its capacity utilization from 5% in 2016 to 100% in 2023 at constant prices. We expect that the EBITDA margin will reach 27.7-28% in the long run. EC, which targets the B2B segment, has already signed a letter-of-intent with a leading manufacturer of medium- to high-voltage fuses, who could buy up to 580k of its insulators per year in the future.

As there will likely be high demand for solutions, which improve energy efficiency, especially due to EU regulations, which aim to reduce CO2 emissions by 80-95% until 2050, we expect that the revenue CAGR 16E-23E will reach 53.4%. In our opinion, the main risk factor for EC is competition from cheap manufacturers from Asia.

LZMO: We have assumed that LZMO will not increase its total production capacity of 350 km of chimney pipes in the coming years and that its prices will remain stable (PLN 200k per km). In our opinion, in full-year 2015 capacity utilization of LZMO's plant, which like other IDG's portfolio companies is currently buying raw materials from external suppliers, will reach 10% on average translating into revenues of PLN 7m. By 2023, the capacity utilization should increase to 100% and revenues by 33.4% on average. We believe that the EBITDA margin will reach 27.7-28% in the long run. According to IDG's management, LZMO is currently one of only four companies in Europe, which are allowed to sell their isostatic chimneys in the largest chimney markets in Europe Germany and Austria.

We think that the main growth drivers for LZMO will be a robust development of the Polish construction sector and investments in energy efficiency due to EU-wide legislation. Currently, the share of energy-efficient isostatic chimneys and inlets in the Polish chimney market amounts to just 3-5% vs. >50% in the German-speaking countries. Key risks are in our view competition by larger players such as Schiedel and Raab Gruppe as well as by cheap producers from Asia in the future.

| in PLNm | 2015E | 2016E | 2017E | 2018E |
|---------------------------------------|-----------|-----------|-----------|-----------|
| Baltic Ceramics Investments | 0.00 | 23.03 | 64.76 | 103.62 |
| EBITDA margin | 0.0% | 20.0% | 22.0% | 24.0% |
| Yearly production capacity (t) | 60,000 | 60,000 | 60,000 | 60,000 |
| Capacity utilisation | 0.0% | 16.0% | 45.0% | 72.0% |
| Average price per ton (PLN) | 2,399 | 2,399 | 2,399 | 2,399 |
| Electroceramics | 0.00 | 2.48 | 9.92 | 25.79 |
| EBITDA margin | 0.0% | 25.6% | 26.2% | 26.8% |
| Yearly production capacity (in units) | 1,600,000 | 1,600,000 | 1,600,000 | 1,600,000 |
| Capacity utilisation | 0.0% | 5.0% | 20.0% | 52.0% |
| Average price per unit (PLN) | 31 | 31 | 31 | 31 |
| LZMO | 7.00 | 8.68 | 10.01 | 28.00 |
| EBITDA margin | 25.0% | 25.6% | 26.2% | 26.8% |
| Yearly production capacity (km) | 350 | 350 | 350 | 350 |
| Capacity utilisation | 10.0% | 12.4% | 14.3% | 40.0% |
| Average price per km (PLN) | 200,000 | 200,000 | 200,000 | 200,000 |

Forecasts for IDG's subsidiaries

| in PLNm | 2015E | 2016E | 2017E | 2018E |
|-----------------------------|-------|-------|-------|--------|
| Baltic Ceramics Investments | | | | |
| Capacity utilisation | | 25.0% | 50.0% | 90.0% |
| Revenues (in USD) | | 9.75 | 19.50 | 35.10 |
| Revenues (in PLN) | | 36.07 | 72.15 | 129.87 |
| EBITDA | | 8.14 | 22.20 | 42.55 |
| Net income | | 0.60 | 10.49 | 25.47 |
| LZMO | | | | |
| Revenues (in PLN) | 7.40 | 8.90 | 10.80 | |
| EBITDA | 2.00 | 2.50 | 3.00 | |
| Net income | 0.45 | 0.95 | 1.30 | |

Guidance Baltic Ceramics Investments & LZMO

Source: Company information, East Value Research GmbH

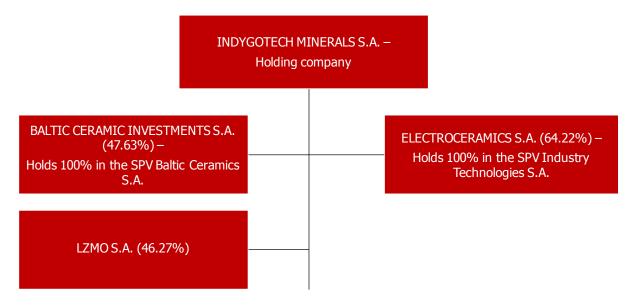
CAPEX and Working capital

We estimate that CAPEX in 2015 will amount to PLN 40m (Baltic Ceramics Investments), PLN 3m (LZMO) and PLN 20m (Electroceramics). As we have not assumed any capacity expansion of the plants in the next years, we have forecast that for all of IDG's shareholdings yearly CAPEX will equal their D&A expenses. Working capital investments should amount to 10% of sales during production roll-out at BCI and EC in 2016, however in the long run we expect that they will equal 7% at all of IDG's portfolio companies.

Business description

Indygotech Minerals S.A. (IDG), which is based in Warsaw, is a holding with investments in innovative companies that operate in the area of ceramic technology and thus are able to generate significant synergies. The company has been listed on the Warsaw Stock Exchange since 2008.

Organizational structure



Source: Company information, East Value Research GmbH

Company history

- 1950: Foundation of a clothing factory in Zary (Zarskie Zaklady Przemyslu Odziezowego).
- 1995: Change to a joint-stock company.
- 2005: Change of the name to Lusatia S.A.
- 2008: IPO in the NewConnect segment of the Warsaw Stock Exchange, which was accompanied by a capital increase of PLN 3.7m (1m shares at PLN 1.50 and 800k shares at PLN 2.70).

Change of the strategy towards venture capital investments.

2010: Change of the name to LST Capital S.A and listing in the main market of the WSE, which was accompanied by a capital increase of PLN 14m (10m new shares at PLN 1.40).

Listing of subsidiary IN Point S.A. in the NewConnect segment, which was accompanied by a capital increase of PLN 1.7m (1m shares at PLN 1.65).

Listing of subsidiary LZMO S.A. in the NewConnect segment, which was accompanied by a capital increase of PLN 2.7m (1m shares at PLN 2.70).

- 2011: Completion of LZMO's production facility, which was financed by the IPO proceeds as well as an EU subsidy of PLN 8.3m.
- 2012: Subsidiary Baltic Ceramics S.A. issues 9.4m new shares at PLN 0.55 per share.
- 2013: Focus on ceramic technology and change of the name to Indygotech Minerals S.A.

Subsidiary Baltic Ceramics S.A. conducts an IPO in the NewConnect segment of the WSE.

2014: Merger of IN Point S.A. and Baltic Ceramics S.A. to Baltic Ceramics Investments S.A.

Capital increase of Baltic Ceramics Investments S.A. worth PLN 4.5m (1.6m at PLN 2.80 per share)

Two bond issues worth in total PLN 7.8m by subsidiary LZMO S.A.

2015: Private placement of 8m new shares of Indygotech Minerals at a price of PLN 0.80 each (value of PLN 6.4m).

Issuance of 2m shares by LZMO to Indygotech Minerals S.A.

Private placement of 2.2m shares of Baltic Ceramics Investments at PLN 1.30 per share.

Business segments

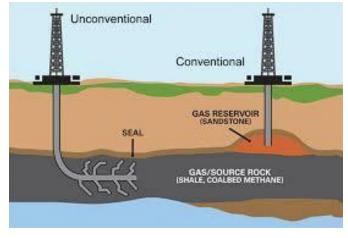
Baltic Ceramics Investments: Indygotech Minerals owns 47.6% in this listed subsidiary, which through its 100% shareholding Baltic Ceramics S.A. is about to complete a new production facility for its own patented ceramic proppants in the Polish city of Lubsko. The plant is supposed to have a total production capacity of 60k tons per year, however management could imagine to expand it to 180k tons in the future. The project is co-financed by an EU subsidy of PLN 33.1m. Baltic Ceramics has filed patent applications in the US, Poland and Europe for both its proppants and the respective production processes.

Pictures of Baltic Ceramics' production facility – June 2015



Source: East Value Research GmbH

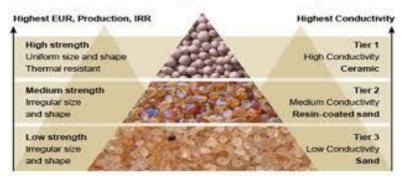
Conventional vs. unconventional drilling



Source: Worldinfo.org, East Value Research GmbH

Qualities of different kinds of proppants

The Hierarchy of Conductivity



Source: ceramic-proppants.com, East Value Research GmbH

| | | | change |
|---|--------|---------|---------|
| Baltic Ceramics Investments S.A. (in PLN m) | 2014 | 2013 | (%) |
| Net sales | 3.59 | 0.17 | 2037.6% |
| EBITDA | -0.12 | -3.77 | -96.9% |
| EBITDA margin | -3.3% | n.a | |
| EBIT | -0.20 | -3.78 | -94.8% |
| EBIT margin | -5.5% | n.a | |
| Net income | -1.61 | 0.97 | -267.2% |
| Net margin | -45.0% | n.a | |
| Equity | 43.65 | 35.97 | |
| Equity ratio | 72.3% | 91.3% | |
| Book value per share | 0.97 | 0.80 | |
| Property, Plant & Equipm. | 31.79 | 0.00 | |
| Working capital | -9.64 | -1.51 | |
| Net debt | -3.39 | -37.63 | |
| Net gearing | -7.8% | -104.6% | |

Baltic Ceramic Investments – Results 2014 vs. 2013

Source: Company information, East Value Research GmbH

Due to their much better conductivity and capacity compared to other types of proppants (e.g. resin-coated ones as well as from frac & silica-based sand) ceramic proppants allow a very efficient exploration, especially of sources, which are difficult to access (so-called unconventional sources). Compared to conventional sources e.g. highly-porous stones, exploration of oil and gas from unconventional ones e.g. deep sea, tight gas, low-porous rocks requires both vertical and horizontal drillings as they are usually located much deeper (2-5 km below the surface).

In order for the oil and gas to flow, an unconventional source first needs to be stimulated e.g. by a method called hydraulic fracturing, which also requires the use of proppants. In general, the number of drillings (and thus proppants), which are required for the exploration of a resource, is typically 10-40 times higher in case of unconventional sources.

As the exploration of shale gas in Poland has been halted (most international companies have left the country) and other EU member states e.g. France have passed laws that forbid hydraulic fracturing, the success of Baltic Ceramics will in our view largely depend on the company's ability to gain customers in the key oil & gas markets. According to Grand View Research, companies from North America consumed >75% of all proppants in 2013 followed by those from Asia Pacific, where consumption is set to experience the fastest growth over the next six years due to high potential of shale gas reserves in China as well as large coal bed methane reserves in Australia. In the last quarters, Baltic Ceramics has already been in discussions with exploration and service companies from North America and the Ukraine, which have expressed interest in a co-operation. However, we would like to emphasize that competition in the market for proppants remains tough both from large players from North America and cheap producers from China. Also, due to their significantly lower price oil & gas companies seem to prefer sand proppants over ceramic ones.

Electroceramics: Electroceramics S.A., which is listed in the NewConnect segment, owns 100% in the SPV Industry Technologies S.A., which is constructing a production facility in Lubsko for electro-isolating elements e.g. ceramic corps, covers and isolators that are used in medium and high voltage power lines, transformators and condensators. The production facility, which is supposed to have a yearly capacity of 1.6m such elements, is scheduled for completion in H2/15 and is co-financed by an EU subsidy of PLN 22.3m. Industry Technologies, which has patented its unique fully-automated production process among others in the EU and North America, plans to target its products at B2B customers e.g. ABB and Siemens.

Electro-isolating elements, which will be manufactured by Industry Technologies, increase the efficiency of energy transfer. Market demand for this kind of elements will likely grow dynamically over the next years due to two factors: (1) Growing consumption of energy and (2) High investments in modernization and efficiency of the energy infrastructure. While according to management, the main advantages of its products are their superior quality and modest pricing, we believe that the success of Electroceramics will largely depend on its ability to build up a global partner network. So far, Electroceramics has signed one letter-of-intent with a leading manufacturer of medium- to high-voltage fuses, who is willing to buy up to 580k isolators per year from the company.



Pictures of Electroceramics' production facility – Year-end 2014

Source: East Value Research GmbH

Product example - Isolator



Source: Company information, East Value Research GmbH

Electroceramics – Results 2014 vs. 2013

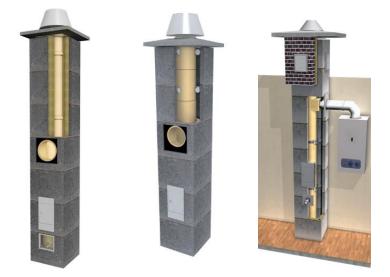
| | | | change |
|---------------------------------|--------|--------|--------|
| Electroceramics S.A. (in PLN m) | 2014 | 2013 | (%) |
| Net sales | 0.01 | 0.08 | -86.6% |
| EBITDA | -2.79 | -1.18 | 136.2% |
| EBITDA margin | n.a | n.a | |
| EBIT | -2.79 | -1.18 | 135.3% |
| EBIT margin | n.a | n.a | |
| Net income | -3.40 | -2.54 | 33.9% |
| Net margin | n.a | n.a | |
| Equity | 11.32 | 0.13 | |
| Equity ratio | 43.3% | 7.4% | |
| Book value per share | 0.01 | 0.00 | |
| Property, Plant & Equipm. | 11.37 | 0.00 | |
| Working capital | -11.07 | -0.67 | |
| Net debt | 0.43 | 0.48 | |
| Net gearing | 3.8% | 355.8% | |

Source: Company information, East Value Research GmbH

LZMO: LZMO S.A., which is listed in the NewConnect segment, has c. 30 employees and has already been generating sales since 2012. It manufactures isostatic chimneys and inlets in a production facility that is also located in the city of Lubsko and has a production capacity of 350k km of pipes per year (of which however just 10% were used in Q1/15). LZMO's competitive advantage is its efficient production process, which requires less raw materials, energy and manpower. The chimney pipes are pressed at the same rate, which makes them very resistant.

Although there is strong competition from Western European players, we believe that LZMO has a good chance to succeed on the market. First, due to its Polish production facility the company is able to manufacture isostatic chimneys at significantly lower costs. Second, as one of only four European companies (the only one in PL) LZMO owns the W3G certificate, which allows it to sell its products in Germany and Austria that are considered the largest markets in Europe. In Poland, where it is one of the top players in the area of isostatic chimneys, the company covers almost the whole country with its regional sales directors.

Product example – Chimney system



Source: Company information, East Value Research GmbH

| | | | change |
|---------------------------|-------|--------|---------|
| LZMO S.A. (in PLN m) | 2014 | 2013 | (%) |
| Net sales | 6.92 | 7.59 | -8.9% |
| EBITDA | 1.74 | -0.20 | -955.4% |
| EBITDA margin | 25.1% | -2.7% | |
| EBIT | 1.48 | -0.54 | -375.4% |
| EBIT margin | 21.4% | -7.1% | |
| Net income | 0.54 | 6.36 | -91.5% |
| Net margin | 7.8% | 83.7% | |
| Equity | 17.50 | 16.96 | |
| Equity ratio | 46.1% | 50.3% | |
| Book value per share | 1.96 | 1.90 | |
| Property, Plant & Equipm. | 14.27 | 15.17 | |
| Working capital | 1.93 | -4.71 | |
| Net debt | -1.43 | -6.63 | |
| Net gearing | -8.2% | -39.1% | |

LZMO – Results 2014 vs. 2013

Source: Company information, East Value Research GmbH

Management

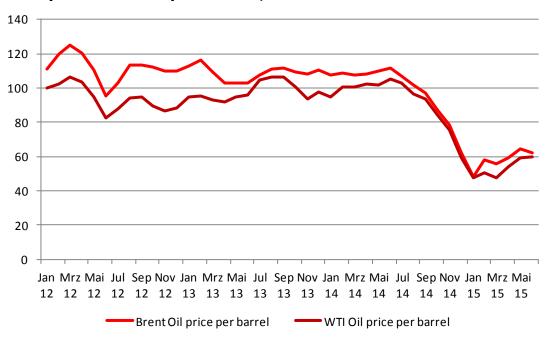
Dariusz Janus (CEO): Dariusz Janus, who is also the company's largest shareholder, has been CEO of Indygotech Minerals since 2008. Previously, he was among others equity analyst at Bank Handlowy (subsidiaryof Citigroup) and BRE Bank (subsidiary of Commerzbank) as well as Director of the Office for Financial Investments at PZU Zycie S.A. He graduated with a Master's degree in Business Administration from Humboldt Universität zu Berlin. He also completed post-graduate studies in Management and Financial Accounting as well as Economic Analysis and Investment Theory at the Warsaw School of Economics.

Market environment

The global market for ceramic proppants

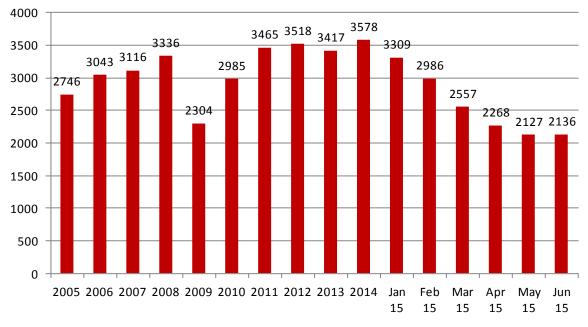
A proppant is a solid material, typically sand, treated sand or ceramics, designed to keep an induced hydraulic fracture open, during or following a fracturing treatment. It is added to a fracking fluid (gel, foam or slickwater-based), whose composition depends on the type of fracturing used. Thus, the demand for proppants depends on the number of horizontal drillings, a method that is required for oil and gas production from unconventional sources (e.g. shale, tight gas, deep water).

As shown by Baker & Hughes, the global rig count has gone down quite significantly since 2013 in-line with the oil price. However, recent data seems to indicate a recovery. Moody's expects that in 2015 proppant volume will be lower y-o-y, however should recover from H2/16 due to increasing oil prices and a potential backlog of drilled but uncompleted wells.



Development of the oil price in USD, Jan 2012-Jun 2015

Source: indexmundi.com, East Value Research GmbH



Global rig count, 2005-2015

Source: Baker & Hughes, East Value Research GmbH

According to latest research by Grand View Research Inc., the global volume of proppants is expected to reach 96m tons in 2020 (up from 45.1m tons in 2013 according to ResearchandMarkets). Although sand is by far the largest product segment with a share of >75%, the demand for ceramic proppants (c. 10% market share) should exhibit significant growth over the next years. The reason are their superior properties such as high strength, crush resistance and conductivity, which despite their high price makes them very interesting for producers of shale gas and oil. While Grand View Research expects that the US and Canada (account for >75% of the global market) will remain the largest markets for proppants, large technically recoverable shale gas reserves in Algeria, Russia, China and Australia in particular should also spur the growth. The leading oil service company Halliburton also counts UK, Turkey, the Ukraine and Poland to promising countries for the shale gas industry, however in the past there have been issues with legal and financial regulations (e.g. many licenses, which took much more time than in North America to be granted). The International Energy Agency IEA estimates that gas from unconventional sources constitutes >44% of total global gas reserves of >750bn m³ and that by 2035 the share of production from unconventional sources will increase from 14% in 2010 to 32%.

Regarding ceramic proppants, there is a risk that exploration, production and oilfield service companies will prefer sand proppants, which are significantly cheaper than ceramic ones. This holds especially for periods, when the oil price and drilling activity are low, resulting in strong pressure on margins. Oil & gas companies could also shift to Asian proppant manufacturers, which however are known for their low quality products.

Construction and chimney market in Poland and Europe

According to the Central Statistical Office (GUS), in June 2015 the volume of construction work increased by 2.9% vs. June 2014, while the number of started and approved apartment constructions increased in Jan-May 2015 by 12.2% and 13.2% respectively y-o-y. Eecpoland.eu estimate that there are still 1-3m less apartments in Poland than needed.

According to Euroconstruct, the total output in the European construction sector is expected to grow in 2015 for the first time in seven years (by 1.9% to EUR 1.4bn). In the next two years, the yearly growth rate should stabilize at 2.5%. In Eastern Europe, civil engineering is expected to grow between 2015 and 2017 at a rate of >10% on average y-o-y, while growth rates of residential and non-residential construction are forecast at 3.6-4.3% y-o-y.

In November 2013, the European Union introduced new rules, which significantly tightened the technological requirements relating to the production of chimneys. According to our research, it is likely that this will reduce the number of respective manufacturers in Europe and increase market prices by >20%. Moreover, it will lead to significant changes of the market structure: Chimneys for wet conditions (have to be airtight such as isostatic chimneys), which in Germany already constitute the majority, will also become more important in other countries. Because of that, LZMO estimates that the market share of isostatic chimneys in Poland, which currently make up 3-5% of the PLN 200m market, could grow to 40-50% by 2025.

Situation on the energy market in Poland and Europe

The market for isolators and corps is strongly correlated with investments in modernization of energy generation and transmission networks as well as growth of energy consumption. It is expected that both on EU level and in Poland large investment project in the area of energy will be undertaken in the coming years.

In Poland, the energy infrastructure is considered very old and inefficient. Market experts estimate that 12% of energy is lost during transmission, which is more than twice the average value in EU. Given that according to the Polish Energy Agency energy consumption is expected to increase by 40% over the next 20 years, by 2030 Polish utilities will have to spend EUR >10bn in order to modernize their infrastructure.

On EU level, the main factor, which will positively impact investments in the energy sector, is the goal to reduce energy consumption by 27% until 2030. According to the "EU Energy Roadmap 2050" from 2011, the EU plans to reduce CO2 emissions from the energy sector by 80-95% compared to the 1990 level until 2050. The German Institute for Economic Research (DIW) estimates the volume of required investments in transmission and distribution grids at EUR >1tr until 2050.

Profit and loss statement

| in PLNm | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---------------------------------------|----------|----------|-----------|-----------|-----------|-----------|
| Revenues | 1.75 | 2.83 | 12.62 | 4.46 | 0.74 | 3.46 |
| Cost of goods sold | -1.39 | -1.55 | -13.33 | -11.59 | -1.36 | -0.13 |
| Gross profit | 0.36 | 1.28 | -0.71 | -7.13 | -0.62 | 3.32 |
| Other operating income | 0.01 | 0.10 | 0.04 | 0.26 | 0.76 | 2.00 |
| Administration and distribution costs | -0.64 | -1.14 | -1.77 | -1.59 | -1.94 | -3.48 |
| Other operating expenses | -0.01 | -0.02 | -0.38 | -0.41 | -1.12 | -1.46 |
| EBITDA | -0.28 | 0.23 | -2.82 | -8.87 | -2.93 | 0.38 |
| Depreciation | -0.08 | -0.06 | -0.13 | -0.12 | -0.05 | -0.09 |
| Operating income | -0.36 | 0.17 | -2.95 | -8.99 | -2.97 | 0.30 |
| Net financial result | 0.85 | 3.28 | 15.67 | 3.95 | 4.93 | -1.56 |
| EBT | 0.50 | 3.45 | 12.72 | -5.04 | 1.96 | -1.26 |
| Income taxes | -0.05 | -0.50 | -2.47 | 0.09 | 2.56 | 0.26 |
| Minorities | 0.00 | 0.00 | 0.00 | 0.00 | 0.58 | -0.08 |
| Net income / loss | 0.45 | 2.95 | 10.26 | -4.95 | 5.10 | -1.08 |
| EPS | 0.01 | 0.07 | 0.23 | -0.11 | 0.12 | -0.02 |
| Diluted EPS | 0.01 | 0.07 | 0.19 | -0.09 | 0.10 | -0.02 |
| DPS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Share in total sales | | | | | | |
| Revenues | 100.00 % | 100.00 % | 100.00 % | 100.00 % | 100.00 % | 100.00 % |
| Cost of goods sold | -79.45 % | -54.68 % | -105.59 % | -259.93 % | -183.94 % | -3.85 % |
| Gross profit | 20.55 % | 45.32 % | -5.59 % | -159.93 % | -83.94 % | 96.15 % |
| Other operating income | 0.52 % | 3.68 % | 0.29 % | 5.76 % | 102.16 % | 57.75 % |
| Administration and distribution costs | -36.35 % | -40.12 % | -14.00 % | -35.65 % | -261.81 % | -100.75 % |
| Other operating expenses | -0.57 % | -0.78 % | -3.04 % | -9.08 % | -151.69 % | -42.13 % |
| EBITDA | -15.86 % | 8.09 % | -22.35 % | -198.90 % | -395.28 % | 11.02 % |
| Depreciation | -4.46 % | -2.01 % | -1.02 % | -2.65 % | -6.07 % | -2.49 % |
| Operating income | -20.32 % | 6.08 % | -23.37 % | -201.55 % | -401.35 % | 8.54 % |
| Net financial result | 48.88 % | 115.98 % | 124.19 % | 88.54 % | 665.86 % | -45.05 % |
| EBT | 28.56 % | 122.06 % | 100.82 % | -113.00 % | 264.51 % | -36.52 % |
| Income taxes | -2.80 % | -17.71 % | -19.55 % | 2.09 % | 344.80 % | 7.64 % |
| Minorities | 0.00 % | 0.00 % | 0.00 % | 0.00 % | 78.68 % | -2.34 % |
| Net income / loss | 25.76 % | 104.35 % | 81.27 % | -110.92 % | 687.99 % | -31.22 % |

Balance Sheet

| in PLNm | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|--|--------------|--------------|--------------|--------------|--------------|--------------|
| Assets | | | | | | |
| Cash and equivalents | 0.11 | 0.08 | 0.88 | 0.01 | 0.05 | 0.49 |
| Short-term financial assets | 0.00 | 6.65 | 31.60 | 43.55 | 4.58 | 1.85 |
| Inventories | 0.61 | 0.00 | 0.00 | 0.00 | 0.22 | 0.00 |
| Trade accounts and notes receivables Other current assets | 2.07 0.46 | 0.13 4.67 | 4.18 0.79 | 0.65 0.25 | 0.34 1.35 | 0.29 4.24 |
| | | | | | | |
| Current assets, total | 3.25 | 11.53 | 37.45 | 44.45 | 6.53 | 6.87 |
| Property, plant and equipment | 0.51 | 0.32 | 0.22 | 0.10 | 28.18 | 53.14 |
| Other intangible assets | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| Goodwill | 0.00 | 0.00 | 0.00 | 0.00 | 17.00 | 17.00 |
| At-equity investments | 17.81 | 26.10 | 16.44 | 3.62 | 8.93 | 9.15 |
| Other long-term assets | 0.06 | 0.43 | 0.42 | 0.42 | 2.05 | 2.14 |
| Other financial assets | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.02 |
| Deferred tax assets | 0.10 | 0.22 | 0.79 | 2.22 | 2.03 | 1.12 |
| Non-current assets, total | 18.50 | 27.08 | 17.86 | 6.36 | 58.20 | 82.58 |
| Total assets | 21.75 | 38.61 | 55.31 | 50.81 | 64.73 | 89.45 |
| Liabilities | | | | | | |
| Trade payables | 0.57 | 1.60 | 1.54 | 0.06 | 1.54 | 3.76 |
| Other short-term liabilities | 0.08 | 0.57 | 0.18 | 0.27 | 5.76 | 3.42 |
| Short-term financial debt | 0.17 | 0.00 | 1.92 | 2.11 | 0.63 | 4.45 |
| Pension provision | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 |
| Provisions | 0.00 | 0.02 | 0.14 | 0.13 | 0.07 | 0.49 |
| Current liabilities, total | 0.82 | 2.19 | 3.78 | 2.57 | 8.01 | 12.11 |
| Long-term financial debt | 0.00 | 0.16 | 1.71 | 2.03 | 4.77 | 0.00 |
| Pension provision | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Other long-term liabilities | 0.06 | 0.00 | 0.00 | 0.00 | 0.43 | 21.7 |
| Deferred tax liabilities | 0.00 | 0.62 | 3.66 | 4.99 | 3.62 | 2.4 |
| Long-term liabilities, total | 0.06 | 0.78 | 5.37 | 7.03 | 8.82 | 24.21 |
| Total liabilities | 0.88 | 2.97 | 9.14 | 9.60 | 16.83 | 36.32 |
| Shareholders equity, total | 20.87 | 35.64 | 46.17 | 41.22 | 29.84 | 25.08 |
| Minority interests | 0.00 | 0.00 | 0.00 | 0.00 | 18.06 | 28.05 |
| Total liabilities and equity | 21.75 | 38.61 | 55.31 | 50.81 | 64.73 | 89.45 |

Cash Flow Statement

| in PLNm | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|-------------------------------------|-------|--------|--------|-------|-------|--------|
| Net income / loss | 0.45 | 2.95 | 10.26 | -4.95 | 5.10 | -1.08 |
| Depreciation & amortization | 0.08 | 0.06 | 0.13 | 0.12 | 0.05 | 0.09 |
| Change of working capital | -0.73 | -0.54 | -1.26 | 2.33 | 4.88 | 2.07 |
| Others | -0.85 | -0.54 | 4.28 | 8.69 | -8.85 | -0.85 |
| Net operating cash flow | -1.06 | 1.93 | 13.40 | 6.19 | 1.17 | 0.22 |
| Cash flow from investing | 1.83 | -13.62 | -16.34 | -5.67 | 0.42 | -26.76 |
| Free cash flow | 0.77 | -11.69 | -2.93 | 0.52 | 1.60 | -26.53 |
| Cash flow from financing | -0.91 | 11.65 | 3.74 | -1.39 | -1.61 | 26.98 |
| Change of cash | -0.14 | -0.04 | 0.81 | -0.88 | -0.02 | 0.45 |
| Cash at the beginning of the period | 0.25 | 0.11 | 0.08 | 0.88 | 0.06 | 0.05 |
| Cash at the end of the period | 0.11 | 0.08 | 0.88 | 0.01 | 0.05 | 0.49 |

Financial ratios

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---------|---------|---------|----------|----------|---------|
| Profitability and balance sheet quality | | | | | | |
| Gross margin | 20.55% | 45.32% | -5.59% | -159.93% | -83.94% | 96.15% |
| EBITDA margin | -15.86% | 8.09% | -22.35% | -198.90% | -395.28% | 11.02% |
| EBIT margin | -20.32% | 6.08% | -23.37% | -201.55% | -401.35% | 1.00% |
| Net margin | 25.76% | 104.35% | 81.27% | -110.92% | 687.99% | -31.22% |
| Return on equity (ROE) | 2.16% | 10.45% | 25.07% | -11.32% | 14.35% | -3.93% |
| Return on assets (ROA) | -1.86% | -0.85% | -9.79% | -17.51% | 0.25% | 0.53% |
| Return on capital employed (ROCE) | -1.53% | 0.40% | -4.61% | -18.29% | -12.08% | 0.30% |
| Economic Value Added (in PLNm) | 0.00 | 0.00 | 0.01 | 0.06 | 0.03 | 0.00 |
| Net debt (in PLNm) | 0.06 | -6.57 | -28.86 | -39.41 | 0.79 | 2.11 |
| Net gearing | 0.26% | -18.44% | -62.51% | -95.62% | 2.65% | 8.40% |
| Equity ratio | 95.97% | 92.32% | 83.47% | 81.12% | 46.10% | 28.04% |
| Current ratio | 3.97 | 5.27 | 9.92 | 17.30 | 0.82 | 0.57 |
| Quick ratio | 2.67 | 3.14 | 9.71 | 17.20 | 0.62 | 0.22 |
| Net interest cover | 0.42 | -0.05 | 0.19 | 2.28 | 0.60 | 0.19 |
| Net debt/EBITDA | -0.20 | -28.70 | 10.23 | 4.44 | -0.27 | 5.53 |
| Tangible BVPS | 0.46 | 0.85 | 1.04 | 0.92 | 0.30 | 0.15 |
| Capex/Sales | n.a | -4.91% | 0.13% | 0.11% | 6089.61% | 724.65% |
| Working capital/Sales | 142.36% | 93.14% | 25.76% | 12.69% | -727.80% | -76.56% |
| Cash Conversion Cycle (in days) | 442 | -360 | 79 | 51 | -187 | -10294 |
| Trading multiples | | | | | | |
| EV/Sales | 23.62 | 14.59 | 3.27 | 9.25 | 55.70 | 11.94 |
| EV/EBITDA | -149.00 | 180.23 | -14.64 | -4.65 | -14.09 | 108.32 |
| EV/EBIT | -116.26 | 239.95 | -14.00 | -4.59 | -13.88 | 139.90 |
| P/Tangible BVPS | 1.75 | 0.96 | 0.78 | 0.88 | 2.68 | 5.41 |
| P/E | 81.00 | 11.57 | 3.52 | -7.36 | 6.75 | -40.50 |
| P/Diluted EPS | 81.00 | 11.57 | 4.26 | -9.00 | 8.10 | -40.50 |
| P/FCF | 54.81 | -3.63 | -14.45 | 82.12 | 26.57 | -1.60 |

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