

Nanogate

A world of new surfaces

Since 2014, Nanogate has achieved stellar growth, doubling revenues to hit its €100m goal earlier than expected. This is the result of a sequence of acquisitions that has created a vertically integrated business, which designs and manufactures components with the optical qualities of glass or the durability and shine of chrome-plated parts, as well as taking the group into the lucrative North American market.

Successful execution of strategy during FY16

During FY16 management announced two acquisitions, each of which fulfils a key strategic ambition. The first was plastic specialist Goletz in April 2016, which substantially strengthens the group's capability to manufacture and glaze smaller and mid-sized, design-orientated plastic components. This enabled the group to secure a €20m+ multi-year contract to supply plastic components with optically high-quality surfaces to a luxury car manufacturer. The second, US-based Jay Plastics, which was bought at the start of 2017, gives a platform for expansion in North America as well as a strong leap in group revenues from FY17 onwards. In September 2016, the production facilities for the new N-Metals Chrome advanced metals treatment were opened.

Medium-term target of €100m revenues reached early

Sales grew by 24% year-on-year during FY16 to a record €112.5m, benefiting from strong demand for advanced metals and advanced polymers and the Goletz acquisition. As a result, the group hit the medium-term target of doubling revenues that was set in 2014, when it initiated the Phase 5 growth programme, earlier than planned. EBITDA rose by 21% to €12.4m, also a record, despite the increased costs relating to investment in technology capability and acquisitions.

Valuation: Strong growth justifies premium rating

Nanogate's share price has risen from less than €30 in August 2016 and is now trading at a premium to the mean of our sample of European speciality chemicals and companies that use specialist chemical processes to provide a service on many metrics. This implies that the market is confident that Nanogate will succeed in realising both the sales growth from the Jay Plastics deal and a meaningful improvement in EBITDA margin from FY18 onwards.

Consensus estimates

Year end	Revenue (€m)	PBT (€m)	EPS (€)	DPS (€)	P/E (x)	Yield (%)
12/15	90.9	0.6	0.16	0.11	295.8	0.2
12/16	112.5	3.4	0.70	0.11	67.6	0.2
12/17e	161.8	4.0	0.56	0.13	84.5	0.3
12/18e	182.5	6.6	0.96	0.14	49.3	0.3

Source: Bloomberg

Advanced Materials Technology

15 May 2017

Price €47.32
Market cap €213m

Share price graph



Share details

Code	N7G
Listing	XETRA
Shares in issue	4.5m
Net debt as at 31 December 2016	€14.6m

Business description

Nanogate is a leading international integrated systems provider for high-performance surfaces. It endows materials and surfaces with new properties, thus improving the competitiveness of its customers.

Bull

- Transition to integrated systems provider creates strong growth opportunity.
- Diversity of applications gives access to emerging growth markets.
- Acquisition of Jay Plastics strengthens presence in US.

Bear

- Capital cost of succession of acquisitions.
- Cost of investment in technology and capacity.
- Customer concentration.

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Company description: Touching their surfaces everyday

Nanogate develops and manufactures innovative coatings for a wide range of materials including metals, glass, plastics, textiles and stone. These coatings operate at the nanoscale level, incorporating advances in chemistry and materials sciences to modify the surface properties, for example making them resistant to scratching, fingerprints or corrosion. This is complemented with in-house capability for designing and manufacturing the plastic components on which the enhanced surfaces are applied to provide a complete system capability.

Nanogate is benefiting from two megatrends: a shift towards the use of high-performance materials where enhanced surface properties contribute towards a more desirable end-product and a shift towards differentiation of consumer products through design aesthetics. These trends are manifest in a multiplicity of sectors. Nanogate consequently serves a wide range of sectors: transportation; mechanical and plant engineering; the interior and exterior of buildings; sport and leisure, and is therefore relatively protected from changes in demand in any one segment. As the sectors addressed include growth markets such as e-mobility, Nanogate has been able to demonstrate growth significantly ahead of the German chemical industry as a whole.

Nanogate was formed in 1999 as a spin-off from the Leibniz Institute for New Materials in Saarbrücken and listed on the Deutsche Börse in 2006. It has doubled revenues since 2014, through a combination of acquisitions (see Exhibit 2), expansion of the technology portfolio and internationalisation. Exports accounted for 52% of FY16 revenues, just over half of which were to other EU countries. The group is headquartered in Göttingen, Germany and employs around 1,100 people following the acquisition of US-based Jay Plastics, which completed in January 2017.

Strategy

Management's Phase 5 strategy, which was instigated in 2014 with the intention of doubling revenues to €100m, reached this target earlier than originally planned in FY16. Phase 5 continues to provide the overall direction for the group.

Vertical integration

Exhibit 1: Group capabilities

Design In-house component and tool development	Materials Development of wet chemical multi-functional coating materials	Chemistry Development of industrial-scale chemical production processes	Tools Manufacture of high-quality injection moulding tools	Process Integration of product and process engineering	Manufacturing Production of high-quality plastic components	Enhancement Coating of 2D and 3D components using in-house chemistry	Service Assembly, packaging, logistics, after-sales
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Source: Nanogate

In response to the increasing use of its specialist coatings on plastic components to give a lightweight substitute for glass, Nanogate has built up a vertically integrated platform enabling it to design and manufacture specialist components, as well as creating a customised surface on them (Exhibit 1). This has been achieved in part through acquisition (see Exhibit 2). For example, the Goletz acquisition in April 2016 strengthened the group's ability to create smaller and medium-sized plastic components, complementing its existing ability to provide large glazed components.

Growing the technology portfolio

Management has identified advanced metals and advanced polymers as key areas for growth. These were the main drivers of underlying revenue growth achieved during FY16, although management has not disclosed the proportion of revenues from this source.

Advanced metals – new N-Metals Chrome technology

Nanogate's proprietary N-METALS technique combines physical vapour deposition (PVD) and UV-based wet chemistry to create high-quality, multi-functional coatings on a variety of surfaces, geometries and substrates including stainless steel, aluminium and plastic. This helps customers generate a competitive advantage through the superior performance and more aesthetically pleasing appearance of their products. For example, within the industrial sector, non-stick coatings on valves, filters and heat exchanges prevent contamination and corrosion. Effective protection against scratches and fingerprints on high-quality stainless steel consumer goods means that the items are easier to clean and stay looking good for longer. Nanogate's N-Metals Chrome technology presents a cost-effective and environmentally friendly alternative to electroplating since it does not use dangerous materials such as chromium trioxide, which is banned under the existing EU RoHS (Restriction of Hazardous Substances) legislation. This novel technology enables Nanogate to give a variety of substrates, primarily plastics, a chrome appearance, opening a diversity of new applications. Nanogate opened production facilities for the new N-Metals Chrome technology platform at its Neunkirchen site, which is close to the Göttelborn site, in September 2016, incurring capital expenditure in the high single-figure million range across FY15 and FY16 and leading to meaningful revenues from FY17 onwards. The development of this new technology platform and associated facilities is one of the largest investments in the group's history. Management estimates that advanced metals represents an attractive market for Nanogate in the three-figure million range.

Advanced polymers – proprietary N-Glaze technology

Nanogate offers its customers an integrated portfolio for the design, production and enhancement of plastic components with glass-like properties (glazing) under the N-Glaze umbrella brand. Vertical integration means that optically high-quality, transparent or coloured flat and 3D plastic components manufactured within the group are treated with a proprietary N-Glaze Sicralan coating to protect against external effects such as the weather, UV rays, chemicals and wear. The surface treatments are applied using inkjet technology, enabling them to be applied to selected areas of the component without requiring templates. Innovative plastics can replace glass or metal as a material and offer more scope for designing high-quality components. The glazed components are particularly popular in automotive construction as they can reduce weight by up to 50%, thus reducing fuel consumption and CO₂ emissions, and are also used in household goods and electronic products. N-Glaze Security components are made from large sheets of coated polycarbonate material to give scratch- and impact-resistant windows for heavy goods vehicles, police vehicles, buses and special purpose vehicles such as forestry and harvesting machinery. Management established the group centre of excellence for N-Glaze applications at the Bad Salzuflen site, expanding capacity there during FY15 to meet strong demand. Management estimates that the advanced polymer market also represents an attractive opportunity in the three-figure million range.

Internationalisation – Jay Plastics stepping stone into US

During 2016 Nanogate took several key steps in strengthening its international presence. It established a subsidiary in Istanbul to serve Turkey and the Middle East and one in Connecticut to serve North America. During FY16 it secured an order from an automotive manufacturer to make glazed components used in vehicle exteriors, with an annual sales volume in the mid-single digit

million range. Towards the year end it announced the acquisition of Jay Plastics (see below), thus securing a manufacturing base in the US and strengthening its access to the Asian market, where it has been active for about three years, for example serving car manufacturers in China.

Management estimates that the Jay Plastics acquisition gives the group access to a market worth more than €1bn globally. During FY16 revenues from customers outside Germany were 52% of the total.

Subsidiaries

Since the group has expanded its technology portfolio through a sequence of acquisitions, its activities are now spread across a number of sites. Most of these are based in Germany and the Netherlands, but the group has recently begun to expand its operations internationally to address customers across the globe.

Exhibit 2: Business units

Nanogate Industrial Solutions	Göttelborn & Neunkirchen, Germany	Development and production of wet-chemical coating materials for metals, plastics, glass, ceramics and minerals (concrete/stone). Automotive industry, white goods, mechanical engineering and engineering, interior and exterior design products. 100% stake acquired 2008.
Nanogate Eurogard Systems	Geldrop, Netherlands	Coating of 2D and 3D transparent plastics for construction/building, aviation, automotive and mechanical engineering applications. 100% stake acquired 2011.
Nanogate GfO	Schwäbisch Gmünd, Germany	Mass coating of complex 3D components to give glass-like optical properties, metallisation of plastics. Automotive and mechanical engineering, electrical and automation technology, building services, communications and medical technology. Majority stake acquired 2010, remainder 2014.
Nanogate Textile & Care Systems	Göttelborn, Germany	Development and supply of multi-functional enhancement systems for technical textiles in the industrial sector, particularly to air purification filters used in large spaces and easy-to-clean, flame-retardant textiles for the automotive industry. Care (cleaning and protection) systems for specialist textiles used in sportswear. Established 2012.
Nanogate PD Systems	Bad Salzungen, Germany	Development and production of optically demanding components made of plastic. Automotive, motorcycle and white goods. Majority stake acquired 2012, remainder 2017.
Nanogate Glazing Systems	Geldrop, Netherlands	Manufacture and glazing of large flat components in high-performance plastics for use as substitutes for glass in heavy duty areas, eg machinery, public transport, buildings, forestry. Established 2013.
Nanogate Vogler Systems	Lüdenscheid, Germany	Development and production of system components, coating and laser marking, specialising in decorative and transparent multi-functional surfaces. Automotive, electronics and white goods. New coating facility opened 2016 to expand capacity and technology offer. 100% stake acquired 2014.
Nanogate Goletz Systems	Kierspe, Germany	Services for manufacturing and finishing smaller and mid-size, design-oriented plastic components. Expertise in metallisation and surface enhancement. Automotive, electronics and white goods. 75% stake acquired April 2016.
Nanogate Medical Systems	Kierspe, Germany	Production of high-quality plastic articles for medical technology. Multi-component injection moulding, metal inserts, assembly spraying and hand assembly. Subsidiary of Goletz Systems and acquired with the parent in April 2016.
Nanogate Teknoloji AS	Istanbul, Turkey	Subsidiary serving Turkey and the Middle East. Established 2016.
Nanogate Technologies Inc.	Connecticut, US	Subsidiary serving North America. Established 2016.
Nanogate Jay Systems	Ohio, US	Acquisition of 80% stake completed 2017.

Source: Edison Investment Research

Market

Addressing megatrends

The group is benefiting from a general trend toward the use of higher-performance materials such as those where the surface is protected from corrosion or abrasion, thus extending the life of the product, or where the surface is easier to clean, is more hygienic or contributes towards a more energy-efficient end-product. Nanogate also benefits from a shift towards incorporating components where aesthetics as well as functionality is important because consumers are basing their purchasing decision on the appearance of the finished product. The trend of reducing the weight of aircraft and automobiles to save fuel is also helpful, because it encourages customers to switch from glass to specially coated plastic materials, which are also shatter-resistant and therefore safer.

Broad customer base

The ability to offer products that incorporate surfaces with enhanced properties helps Nanogate's customers differentiate their products and gain competitive advantage. As a result, Nanogate has become a longstanding innovation partner to large corporate groups including Airbus, Audi, August Brötje, BMW, BSH Hausgeräte, Daimler, FILA, Fresenius, Jaguar, Junghans, Porsche and Volkswagen. The group has implemented several hundred volume projects for customers. Components with Nanogate's precision-controlled surfaces are used in the automotive and motorcycle industry, for example as windshields, anti-misting headlight covers and helmet visors, dashboard panels and flame-retardant, dirt-resistant textiles and in the aerospace industry for windows resistant to fingerprint marks. Its lightweight, scratch-resistant components with multi-functional surfaces are used in kitchen cabinets, white goods such as cookers and electronic products.

Growing market for nanosurfaces

Since Nanogate serves a wide range of sectors – automotive, aviation, energy, healthcare, household goods, buildings and textiles – it is not subject to changes in demand in any one segment. Industry commentators MarketsandMarkets has forecast that the global market for nanosurfaces will increase with a CAGR of 25% to reach US\$14bn in 2022. The market research institute Zion Research expects the market for plastic surfaces to rise from US\$5.6bn in 2015 to more than US\$7.7bn by 2021. The most important sales market for surfaces based on new materials is the automotive industry. According to the industry association VDA, automotive sales figures reached new record levels in the US and China during 2016. New registrations in Western Europe rose by almost 6% to about 14 million vehicles. In Germany new registrations reached 3.4 million passenger cars, the highest level so far in this decade

Nanogate itself sees an accessible market of well over €1bn for its available products and applications worldwide. This strong growth is in contrast with the German chemical industry where the industry association, Verband der Chemischen Industrie (VCI), estimates that production volumes grew by only 0.5% in 2016.

Competitive position

Nanogate differentiates itself through its high level of vertical integration or breadth of offer. The ability to design and manufacture components in unusual shapes, as well as treat the surface of those components puts Nanogate at a competitive advantage to those companies that can only offer a subset of its capabilities. This ability to combine both the design aspects and the manufacturing aspects was key to winning some significant contracts in the automotive industry, for example an electric vehicle charging station project and a €20m contract from a luxury car manufacturer, both of which we discuss later.

Jay Plastics acquisition

In December 2016 Nanogate announced that it was acquiring an 80% stake in Ohio-based Jay Plastics, an integrated provider of high-quality plastic components and enhancement, with particular expertise in metallisation of surfaces using PVD technology and in lighting systems. Jay Plastics serves all the major US automotive groups, and Japanese and South Korean automotive OEMs located in the US, as well as other industries in the US including household appliances. Ohio is a good location strategically, being close to the US automotive industry and major manufacturers in other industries. The transaction strengthens the group's position in the US and provides a route for expansion in Asia. Nanogate will transfer technology from its European operations to Ohio (and vice versa), with particular emphasis on the N-Metals Chrome platform, as management sees big

opportunities for high-quality metallisation of surfaces. Both companies are already in joint negotiations with customers over possible new projects.

The purchase price for the 80% stake is in the mid-double digit million range, with an initial consideration of €43m cash and 14m new ordinary shares. The agreement includes performance-based elements as part of a graduated pricing model for acquiring the outstanding shares. The transaction completed in January 2017.

Management

Ralf Zastrau (CEO): Mr Zastrau has been with the company as managing director since 1999, and led its transformation from a scientific start-up to a market-orientated technology company. He is currently responsible for strategy, company development as well as company communication and involvements. Mr Zastrau has many years of experience in industry, both in medium-sized enterprises and international groups. After his first managerial position in a medium-sized company, he joined the strategic development team at Asea Brown Boveri (ABB), then took on the role of a member of the management for a subsidiary company.

Daniel Seibert (CFO): Mr Seibert assumed responsibility for finance at Nanogate in May 2012. He has many years of experience in finance, having most recently held the position of CFO at the publicly quoted company GENEART, which was taken over by the US corporation Life Technologies in 2010. Prior to that he was CFO at Renegys Group, Zurich until 2009 and MD of Scout24 Holding GmbH. Mr Seibert has considerable expertise in mergers and acquisitions, having worked as head of investment analysis and controlling at T-Online International. He started his career at American Express in 1996.

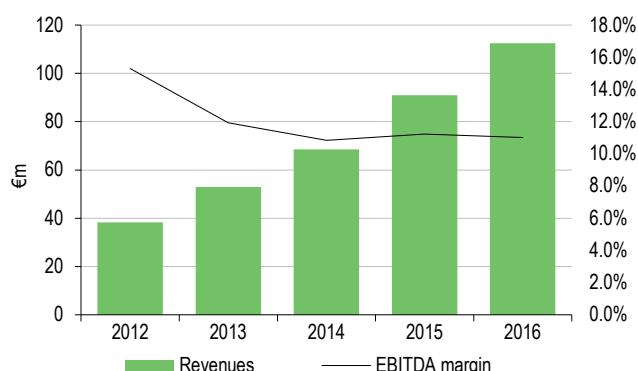
Michael Jung (COO): Mr Jung is in charge of all operational aspects, technological direction, quality management and human resources. He joined Nanogate in 2001 and became MD in 2004. He is also MD of GfO, Plastic Design and Vogler. Having started his career in the development and commercialisation of complex polymer systems, he was subsequently member of the management board for a medium-sized company where he was in control of the plant engineering activities. Mr Jung was a member of the NanoKommission from 2006 to 2011 and is VP of the German association for nanotechnology (Deutscher Verband Nanotechnologie).

Shareholders

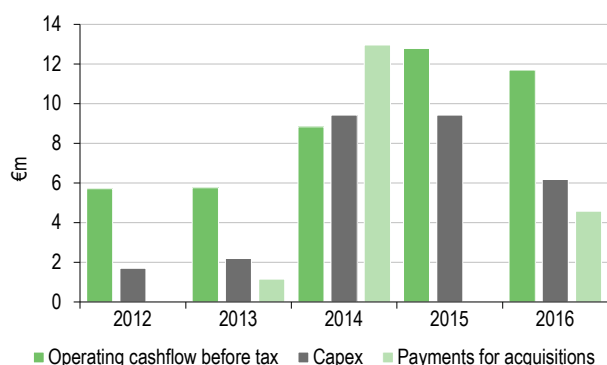
34% of shares are held by three anchor investors: HeidelbergCapital Private Equity Fund, Luxempart S.A. and Jay Industries. The remaining 66% is free-float.

Financials

Nanogate's strategy has delivered a doubling in growth between 2014 and 2016, accompanied by fairly static EBITDA margins from 2013 onwards. EBITDA margins have been held back by investment for future growth. For example, during FY16 the group incurred the transaction costs associated with two acquisitions as well as the start-up costs for the offices in Turkey and the US. The high levels of investment in technology, capacity and acquisitions (Exhibit 4) have required the group to raise substantial amounts of capital (€28.9m total between FY12 and FY16). This has had a dilutive effect on EPS.

Exhibit 3: Revenue and EBITDA margin growth


Source: Nanogate data

Exhibit 4: Investment in technology, capacity and acquisitions


Source: Nanogate data

Exhibit 5: Financial summary

€m	2014	2015	2016	2017e	2018e
Year end 31 December	IFRS	IFRS	IFRS	IFRS	IFRS
PROFIT & LOSS					
Revenue	68.6	90.9	112.5	161.8	182.5
EBITDA	7.4	10.2	12.4	18.4	23.7
EBITDA margin	10.8%	11.2%	11.0%	11.4%	13.0%
Operating Profit	2.5	3.0	4.6	6.7	9.6
Profit Before Tax (FRS 3)	0.8	0.6	3.4	4.0	6.6
Tax	(0.4)	(0.1)	(0.9)	-	-
Profit After Tax	0.4	0.5	2.5	2.3	4.3
BALANCE SHEET					
Fixed Assets	75.2	85.2	105.7	-	-
Current Assets	33.3	38.7	50.8	-	-
Total assets	108.5	123.8	156.4	-	-
Equity	42.3	51.3	65.8	-	-
Non-current liabilities	45.0	47.7	53.7	-	-
Current liabilities	21.2	24.9	36.9	-	-
Total equity + liabilities	108.5	123.8	156.4	-	-
CASH FLOW					
Operating Cash Flow before taxes	8.8	12.8	11.7	-	-
Net Cash Flow	0.5	4.9	(0.2)	-	-
Closing net debt	21.1	15.5	14.6	58.5	54.3

Source: Company accounts, Bloomberg consensus estimates. Note: *Proposed.

Income statement – stellar growth in revenues

During FY16 group revenues rose by 24% year-on-year (€21.6m) to a record €112.5m. Revenues benefited from the Nanogate Goletz Systems subsidiary, which was acquired in April 2016, together with strong growth in the strategically important advanced metals and advanced polymers segments. Revenues outside Germany rose from 47% of the total to 52%.

Gross margin fell by 1.9pp to 60.3% because of the growing proportion of revenues from the components segment, where materials account for a higher proportion of sales. Personnel costs rose by 18% as the number of employees rose from 593 at end FY15 to 776 at end FY16, reflecting both the Goletz acquisition and expansion of the technology offer, but reduced as a percentage of revenues. Other operating costs increased by 21%. EBITDA grew by 21% (€2.2m) to € 12.4m (also a record), despite the higher personnel and other operating costs. EBITDA margin reduced very slightly, by 0.2pp to 11.0%, reflecting the transaction and integration costs associated with the

Goletz and Jay Plastics acquisitions. Earnings before tax increased fivefold (€2.8m) to €3.4m. This benefited from a positive adjustment in the valuation of deferred consideration payable to subsidiaries, although management notes that the subsidiaries to which this relates are performing at least in line with expectations. EPS showed a fourfold increase to €0.70, reflecting the dilutive impact of the fund-raising in July 2016. The dividend was maintained at €0.11.

Balance sheet and cash flow

During FY16 cash flow from operating activities (€11.7m) was broadly balanced by investment activity (€11.9m). Operating cash flow was €1.1m lower year-on-year because of the increase in inventory associated with creating tooling for a major order. €6.2m was spent on property, plant and equipment including completion of the new coating facility at Vogler, which made the operation more flexible and increased capacity, completion of the N-Metals facility at a new site in Neunkirchen close to the group headquarters, and expansion of capacity at Nanogate PD. €4.6m was spent on acquisitions, primarily that of Goletz in April 2016. This high level of investment has required Nanogate to raise finance. There was a capital increase July 2016, raising €9.9m through a private placing at €30.0 per share, which was oversubscribed and attracted new anchor investor Luxempart SA. Part of this cash was used in connection with the Goletz acquisition, the remainder to finance planned growth in additional technologies and capacity. There was a further capital raise in April 2017, generating €14.2m (gross) through a private placing at €42.0, also oversubscribed. The funds raised will be used partly to finance the Jay Plastics acquisition, and partly for investment in additional technologies and capacity. Net debt reduced very slightly, by €0.9m during FY16 to €14.6m at the year end. Gearing (net debt/equity) reduced by 8.0pp to 22.2%, benefiting from the private placement.

Catalysts and the future

Growth ahead of average for German chemical industry

VCI does not expect strong growth in German chemicals production in the coming year, with a growth in production of only 0.5% again. In particular, it expects political uncertainty and mounting economic risks in foreign markets to inhibit growth in the industry. However, Nanogate is well positioned to benefit from faster growth in demand in specific niches. For example, in November 2016 it announced the award of a low single-digit million order for high-quality design surfaces used in next-generation charging stations for electric cars made by a luxury manufacturer. This is its first major win in the e-mobility market.

Guidance raised in January as Jay Plastics transaction completes quickly

In January, management raised its FY17 revenue guidance to more than €160m instead of the minimum €150m projected previously. It reiterated this guidance when announcing the FY16 results in April. The growth is attributable to the Jay Plastics acquisition, which completed in January, a full year of contribution from Nanogate Goletz Systems, and growth in the advanced metals and advanced polymers categories. Management expects consolidated EBITDA to increase to at least €18m in FY17, despite transaction and integration costs associated with the Jay Plastics deal. The reason for raising the sales forecast in January was to reflect consolidation of the majority holding in Nanogate Jay Systems from January onwards, rather than April onwards, as was assumed in the original guidance.

Major automotive orders to benefit FY17 and FY18

Nanogate entered FY17 with a strong order book. This included an order announced in May 2016 worth more than €20m to supply plastic components with optically high-quality surfaces to a luxury car manufacturer. Nanogate will start delivering high-quality interior parts for the centre console of an SUV in 2017. It also included a second high double-digit million euro order, announced in October 2016, to supply plastic components with optically high-quality surfaces to a luxury car manufacturer from 2018 onwards. The components will be used on the exteriors of vehicles, such as on their B-pillars, for example. The automotive manufacturer will use the Nanogate components for several vehicle ranges, including an SUV. Nanogate is responsible for the entire component at all stages of the value chain. It will be in charge of developing and designing the component, including manufacturing prototypes and the associated tooling. Nanogate will increase capacity to accommodate mass production of the components and coating them, incurring capital costs in the low millions across FY17 and FY18. The contract is the first joint project for the Goletz and Vogler subsidiaries, emphasising how the acquisition strategy has strengthened the group's ability to undertake system-level business. Deliveries for the multi-year contract will commence in FY17.

Valuation

As Nanogate has no competitors offering the same range of capabilities, we present a sample of European companies involved in the manufacture of speciality chemicals for comparison. This is not entirely satisfactory, in our view, because Nanogate captures a higher proportion of the value chain than a typical speciality chemical company, has a more diverse skill set and is engaged in multiple markets. We have therefore extended our sample to include companies such as Bodycote that use specialist chemical processes to provide a service

Exhibit 6: Prospective multiples of listed peers

Company	Market cap (€m)	Current EV/Sales (x)	Next EV/Sales (x)	Current EV/EBITDA (x)	Next EV/EBITDA (x)	Current P/E (x)	Next P/E (x)	CAGR (%)
Akzo Nobel NV	19,151	1.4	1.3	9.1	8.7	17.7	16.8	3.4
Bodycote	1,857	2.4	2.3	9.1	8.7	19.6	18.4	9.2
Clariant	6,404	1.4	1.3	9.2	8.6	17.1	15.7	-
Croda International	6,104	4.0	3.9	14.3	13.4	22.7	21.1	11.2
Elementis	1,280	1.7	1.6	8.7	7.6	15.6	14.0	7.8
Encres Dubuit	13	0.5	0.5	4.4	7.8	61.0	26.7	-
Givaudan	16,410	3.8	3.6	16.9	15.9	25.5	23.7	5.6
Johnson Matthey	7,266	0.5	0.5	10.3	9.6	15.5	14.6	10.9
Kemira OYJ	1,807	0.9	0.9	7.1	6.5	15.4	12.9	5.3
Koninklijke DSM NV	11,885	1.6	1.6	10.2	9.5	18.0	16.3	2.2
Nabaltec	130	1.0	0.9	6.2	5.6	16.0	13.0	19.2
Symrise	8,455	3.3	3.1	15.0	14.0	27.0	24.6	18.7
Umicore	6,540	0.6	0.7	11.9	10.7	23.9	21.5	8.5
Victrex	2,052	6.1	5.6	13.2	12.1	19.4	17.6	23.2
		2.1	2.0	9.9	9.5	19.5	17.7	10.4
Nanogate	214	1.6	1.4	13.7	10.7	88.8	52.0	23.9

Source: Bloomberg. Note: Grey shading indicates exclusion from mean. Prices at 11 May 2017.

If we look at prospective EV/Sales multiples, Nanogate is trading at a discount to the mean. If we look at prospective EV/EBITDA multiples, Nanogate is trading at a significant premium to the mean for the current year but at only a small premium for next year. This suggests that the market is confident in Nanogate succeeding not only in realising the sales growth from the Jay Plastics division, but also in achieving a meaningful improvement in EBITDA margin from FY18 onwards. This will be more achievable once the transaction and integration costs associated with Goletz and Jay Plastics are out of the way. Nanogate's prospective P/E multiples are significantly higher than the rest of the sample. This reflects the dilutive impact of shares issued to raise capital and issued in part payment for Jay Plastics, both of which support sales growth that is substantially stronger than any of the other stocks.

Sensitivities

- **Dependence on individual customers:** during FY16, the top 10 customers accounted for 47% of sales, so there is some exposure to changes in demand from individual customers. As discussed, the length of time customers take to evaluate materials means that relationships tend to be long-lasting. Moreover, Nanogate is able to customise materials, making switching suppliers even more onerous. Increased internationalisation and expansion of product portfolio helps balance exposure to individual industries and customers.
- **Regulatory issues:** the EU RoHS legislation is currently beneficial for Nanogate as it encourages the use of metal coating processes that do not involve chromium trioxide, but could potentially restrict the use of chemicals that are required for its surface treatments in future. Current legislation to reduce CO₂ emissions acts in Nanogate's favour by encouraging the reduction of weight in automobiles.
- **Technological change:** changes in technology could lead to customers switching to alternative materials. Nanogate addresses this risk by maintaining close contact with customers and developing new materials for them, so this also represents an opportunity.
- **Economic conditions:** demand for end-products incorporating Nanogate's components and surface treatments, eg automobiles, furniture and household appliances, is affected by the economic environment. Since only half of Nanogate's revenues are derived from customers in Germany, and these Germany-domiciled customers are themselves exporting product, this makes Nanogate less exposed to the economic situation in any one country.
- **Currency fluctuations:** with a growing proportion of the business now generated outside the eurozone, currency fluctuations are becoming more significant. Management therefore makes use of some hedging arrangements to protect itself from wide fluctuations in exchange rates. While the acquisition of Jay Plastics brings a higher proportion of dollar-denominated revenues, this is balanced against a substantial dollar-denominated cost base, providing a natural hedge.

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