

Headquarters

Nanogate AG

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Business model

Nanogate is the leading international integrated systems provider for nanosurfaces, concentrating primarily on enhancing high-performance surfaces. The firm, which is based in Göttelborn (Saarland), enables the programming and integration of additional properties – such as non-stick, antibacterial, anti-corrosive and ultra-low friction – into materials and surfaces. As an enabler, Nanogate gains a competitive edge for its customers by means of product refinement using chemical nanotechnology. Nanogate covers a wide range of industries, functions and substrates. The company thus provides a decisive interface for the commercial use of chemical nanotechnology and bridges the gap between the suppliers of raw materials and industrial conversion into products. In doing so, Nanogate concentrates as an enabler on one of the most attractive segments in the industry. Nanogate has a unique combination of extensive materials expertise paired with comprehensive, first-class process and production know-how. As a systems provider, Nanogate covers the entire value chain, from the purchase of raw materials, to the synthesis and formulation of the material systems, right through to the enhancement and production of the finished surfaces. Nanogate focuses primarily on plastic and metal coatings for all surface types (two and three-dimensional components). So far several hundred solutions have been successfully implemented in the market.

Nanogate-Technologie®

Nanogate-Technologie® is a combination of chemistry and materials sciences which also incorporates product and process engineering.

In technological terms, Nanogate's work in the fields of chemistry and materials sciences concentrates on nanocomposites and nanoformulations manufactured using chemical nanotechnology. Complete platforms are already available for adjusting surface energies, generating barrier layers, tribological functions, electric storage layers and enabling additional properties. Nanogate's core competency in product and process engineering comprises various wet chemical and electrochemical processes as well as PVD processes. The integrated material systems available as a result offer optimum, cost-effective implementation platforms for tailored customer solutions. This allows Nanogate to cover a wide range of functions and substrates for countless industry sectors.

Business segments and application areas

The *Multifunctional Surfaces* segment primarily comprises product refinement by adding new functionalities to high performance surfaces. In this field, the Nanogate Group concentrates primarily on the application areas of Buildings/Interiors, Automotive/Mechanical Engineering, Sport & Leisure and Functional Textiles.

The *Advanced Applications* segment incorporates complex applications and systems for highly specialised markets which share both considerable sales potential and a significantly longer time to market. For example, the segment concentrates on new projects with complex application fields.

Financial data (IFRS)

	2005	2006	2007	2008	2009	2010
Sales (EUR m)	4.8	7.8	10.4	12.2	10.7	20.9
EBT (EUR m)	0.25	1.17	1.55	1.1	-2.6	-0.8

Employees

approx. 250 (as of May 2011)

Share

Segment: Entry Standard
 ISIN: DE000A0JKHC9
 IPO: 18.10.2006
 Share capital: EUR 1.942.639
 Designated sponsor: Landesbank Baden-Württemberg, equinet Bank AG

Shareholder structure

Free float	34 %
Heidelberg Capital Private Equity Fund	33 %
BIP Investment Partners	25 %
Nano Tec Beteiligungen GmbH	8 %

Management Board

- Ralf Zastrau (CEO)
- Michael Jung (COO)

Supervisory Board

- Oliver Schumann (Chairman)
- Dr Farsin Yadegardjam (Deputy)
- Gerhard Asschenfeldt
- Dr Clemens Doppler
- Marc Faber
- Hartmut Gottschild

Equity holdings

Since 2002

HOLMENKOL AG, Ditzingen, Germany

Nanogate has held a stake in Holmenkol AG since 2002 and acquired the majority of shares in 2008. Holmenkol is a long-standing company with more than 85 years of expertise. It is currently being further developed into a leading international supplier of sports surfaces. The company's products draw on leading-edge technology to cater for competitive sports and the premium segment of the leisure and outdoor activities market.

Since 2004

Nanogate Industrial Solutions GmbH

Nanogate Industrial Solutions GmbH (former Nanogate Advanced Materials GmbH, founded 2004) is a wholly owned subsidiary of Nanogate AG and bundles the core expertise in the area of industrial high-performance surfaces. The company focuses on innovative material systems and high-quality optical surfaces for the application areas buildings/interiors and automotive/mechanical engineering.

Since 2008

FNP GmbH, Göttingen, Germany

FNP GmbH was established in November 2008 and is a wholly owned subsidiary of Nanogate AG. The Feldten brand acquired in November 2008 – under whose name care products for sports and leisure articles have been marketed for more than 120 years – also belongs to the company. FNP concentrates on products in the Sport & Leisure sector and covers new segments in the high-volume market.

Since 2009

sarastro GmbH, Göttingen, Germany

The nanotech company sarastro GmbH specialises in developing and marketing biologically active functional surface finishes. Established in 2001, sarastro offers innovative solutions based on chemical nanotechnology for applications from the fields of medicine, medical technology, life science, hygiene, cosmetics and food. In February 2011 Nanogate has converted its equity holding of 25.1 % in sarastro into a dormant equity holding.

Since 2010

GfO Gesellschaft für Oberflächentechnik mbH, Schwäbisch Gmünd, Germany

GfO was established in 1977 as a subsidiary of Degussa AG in Schwäbisch Gmünd and was acquired by its current management in 1993. The technology company with some 150 employees enhances surfaces with new characteristics on behalf of industrial clients. Besides the established surface finishing processes for plastic with effective electromagnetic shielding layers or transparent scratch resistant coatings against environmental influences, GfO now can rely on the complete Nanogate-Technology® and will be positioned as a comprehensive innovation partner for the industrial high performance surfaces market.

The current customer base consists of companies in the communications, automation, automotive, aerospace, medical devices, HVAC, decoration and jewellery, and white goods industries.

Equity holdings

Since 2011 Eurogard B.V.

Eurogard specialises in enhancing surfaces on two-dimensional components and is the global market leader in the lucrative specialist sector of transparent plastics. Based in Geldrop (Netherlands), the company was established in 1992 as a surfaces centre for the global GE Plastics group after it began operating in this segment in the 1980s. Most recently, the firm was owned by Vokes-Air Holding AB. The firm primarily focuses on supplying the buildings/interiors, aviation and automotive/mechanical engineering sectors. Its most important clients include the SABIC Group (formerly GE Plastics, one of the world's largest manufacturers of plastics) and the Hörmann Group. Eurogard coatings can be used on aircraft windows, utility vehicles, building elements and ski goggles, for example. Eurogard operates two production lines – a thermal cure coating facility and a UV cure coating facility – as well as a test plant.

Company history

1999	The company begins operating as a spin-off from the Leibnitz Institute for New Materials, Saarbrücken
2000	Takeover/integration of the Wiesbaden-based Colloid Surface Technologies GmbH's business activities Introduction of an integrated quality management system (ISO 9001:2000)
2001	Subsidiary Nanogate Coating Systems GmbH founded
2002	Stake acquired in Holmenkol Sport-Technologies GmbH & Co. KG
2003	Surface technologies pooled within Nanogate Coating Systems GmbH
2004	Nanogate Advanced Materials GmbH established
2005	Decision to transform Nanogate Coating Systems GmbH into a stock corporation
2006	Company renamed Nanogate AG IPO (18.10.2006, Entry Standard Deutsche Börse)
2007	Certified in line with the international environmental management norm (ISO 14001:2004) Launch of the strategy programme NEXT
2008	Majority stake acquired in Holmenkol AG Nanogate Advanced Materials GmbH acquired in full Subsidiary FNP GmbH established
2009	Stake acquired in sarastro GmbH
2010	Majority stake acquired in GfO Gesellschaft für Oberflächentechnik mbH Further development of Nanogate Advanced Materials GmbH to Nanogate Industrial Solutions GmbH with focus on industrial surfaces Completion of the innovation drive started 2008
2011	Takeover of the Dutch Eurogard B.V.