



PRESS RELEASE

Nanogate technology launches wide-ranging application in field of tribological layers

Nanogate plans to enter billion-dollar market in 2006

Saarbrücken/Hannover, 24 April 2006. Nanogate AG is presenting at the Hannover Fair a technological breakthrough in the field of tribological layer systems. In engine parts, modern manufacturing plants and entire production lines, friction and abrasion cost companies millions every year. Nanogate's NANOglide® product platform opens up new application areas and offers cost-cutting solutions. Together with partners in mechanical engineering and plant construction, Nanogate plans to enter the billion-dollar market and the rollout process in the field of tribological layers.

Ilmenau University claims that friction and abrasion lead to the industrial countries sustaining annual losses of up to 5% of their gross domestic product. Annual losses in Germany are estimated at around €35 billion. Friction limits system performance and leads to material loss and surface changes. Higher processing speeds, lower use of lubricants and longer service intervals are further tribological requirements of modern production facilities or the automobile industry. In the latest technology analysis by the Association of German Engineers (VDI) the annual world market volume in this area is estimated to amount to between €1 billion and €5 billion in 2006.

Nanogate AG has made a technological breakthrough in composite layers. Based on many years of experience with layer systems in the metals sector, the exclusive Nanogate technology, and strategic partnerships in the field of chemical nickel dispersion layers, Nanogate scientists and engineers have succeeded within a year in developing the NANOglide® product platform.

In current conventional chemical nickel dispersion layers, particles are incorporated in the chemical nickel matrix via expensive electrolytic process engineering. Optimal alignment is problematic and must be individually adjusted to the geometry of each substrate. The remaining layers also show an uneven



particle distribution, which leads under tribological stress to limited layer performance. NANOglide® now provides an opportunity to incorporate particles into the nickel matrix systematically and homogeneously by means of the simplest technology. The remaining layer benefits from clear process and quality advantages such as wear protection, minimising of friction, reduced soiling and both good corrosion protection and a high level of resistance to chemicals. These qualities open up an extremely wide range of applications.

Based on the Nanoglide® technology platform, further layer systems with new functions are currently under development and undergoing trials in Nanogate's laboratories. Development work extends from the lab to the innovation partners' technical standard. "With NANOglide® we have been able to make a strategic addition to our product portfolio and develop our technology base. As in other market segments, we work the world market with our technology along with competent partners who have industry know-how in electrolytic processes," says Nanogate AG Managing Director Michael Jung.

Queries? Please feel free to contact:

Christian Dose

equinet Communications AG
Tel. +49 (0)69 5899 7313
Fax +49 (0)69 5899 7349
christian.dose@equinet-ag.de

Nanogate AG

Gewerbepark Eschbergerweg
D-66121 Saarbrücken
Tel. +49 (0)681 980 52-0
Fax +49 (0)681 980 52-52
www.nanogate.com

Marita Leykauf/Klaus Reuning

MPW Finance Public & Investor Relations GmbH
nanogate@mpwfinance.com

Background information:

Nanogate AG

Nanogate is a leading international enabler in the nanotechnology growth market and so opens the gate to nanotechnology for its customers. The Saarbrücken-based company enables the programming and integration of additional properties such as non-stick, anti-bacterial, anti-corrosive, ultra-low friction. Nanogate thereby gains a competitive edge for customers by product refinement using chemical nanotechnology. Nanogate covers a wide range of industries, functions and substrates, forming a crucial interface for the commercialisation of chemical nanotechnology. It bridges the gap between raw materials and their industrial



conversion into products and concentrates as an enabler on the most economically attractive segment in the industry.

As a partner in innovation, Nanogate provides many services along the value chain – from development and production of innovative nanocomposites and nanostructured materials to powerful support for innovation and product integration. The Nanogate Group currently has 45 employees and since commencing operations in 1999 has been a pioneer in nanotechnology. The company has first-class customer references and many years' experience of different industries and applications. Nanogate is a high-growth company and has been profitable since financial year 2004. The Group's consolidation entity also includes Nanogate Advanced Materials GmbH, which specialises in safety engineering and optics in a joint venture with US corporation Air Products. Nanogate also holds a stake in HOLMENKOL Sport-Technologies GmbH & Co. KG.