

## ***Microscope Markets Reach \$7.7 Billion By 2015***

LEXINGTON, Massachusetts (February 8, 2009) – WinterGreen Research announces that it has a new study on Worldwide Optical, Transmission TEM, and Scanning SEM Electron Microscope markets. The 2009 study has 723 pages, 335 Tables and Figures. Worldwide Optical, Transmission TEM, and Scanning SEM Electron Microscope markets are poised to achieve significant growth as units used to study nanoparticles. Microscopes are able to detect the characteristics of smaller samples, leading to better research and control of particles, broadening the types of applications for which they are used.

Breakthrough technology in microscopy brings advancements that provide customers with the power to discover things they have never seen before, and to solve problems never before solvable.

Microscope markets are segmented as optical microscopes, electron microscopes, scanning probe microscopes, and focused ion beam microscopy. Optical microscopes are light microscopes. The optical microscope is limited in the minimum size and nature of the features it can resolve by manufacturability constraints and the physics of light. While optical microscopes once accounted for the bulk of all microscopes sold in the world, today their percentage of total revenue is shrinking.

New microscopy technologies have been developed to overcome the limitations of light microscopes. Electron, scanning probe, and focused ion beam microscopy are essential aspects of different approaches to visualization at the nanoparticle level. The field of microscopy continues to evolve rapidly, as new requirements and imaging technologies are developed.

Technology integration, marking the convergence of information technology and digital imaging, is expected to change standard laboratories into advanced research centers. Current innovations in the microscopy industry are towards development of microscopes with higher precision and resolution.

Developments in image restoration, reconstruction, and other related fields will continue to influence the industry.



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Innovations in electronics, engineering and industrial materials permit the industry to effectively overcome conventional barriers, allowing new systems to evolve based on new technologies.

Custom-assembled systems are based on modular approaches to product delivery. Platforms are implemented as frameworks that accept any of a variety of modules. In this manner customization is supported in the microscope industry. These custom-assembled systems enable end users incorporate existing workflow.

The microscope markets are driven by the need for research facilities to attract the most qualified researchers. The best researchers are attracted to good equipment. They will move to where the best equipment is. For enterprises and universities to land and hang on to leading researchers, they have to upgrade their equipment or those people are gone in a year.

The research and industrial use of imaging has shifted rapidly with the increasing significance of nanotechnology. To look at particles on the nano-scale requires increased sophistication and use of more expensive imaging equipment. This means that fewer organizations can afford the imaging equipment needed to stay competitive and that those organizations that can afford the very expensive imaging equipment will tend to be quite large.

Nanotechnology funding at \$8.5 billion in 2008 is anticipated to increase rapidly as countries respond to the economic meltdown. Every dollar invested in nanotechnology research turns \$5 in tax dollars within a year and continues to provide that level of taxes for the next 20 to 50 years. This is a very good investment.

Countries are learning that they need to compete at a level of industrial development in the new global economy. The financial meltdown represents at its core the disintegration of national boundaries in the traditional sense. In its place are global enterprises based in a particular country, providing tax dollars to that base nation.



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In this global economy, innovation is central. Innovation is based on software systems that improve productivity. Software is used to manage information and make it more accessible. Innovation improves enterprise and business decision making. Nanotechnology and electron microscopes are a central aspect of this global initiative.

FEI has had momentum in the microscope research markets unmatched by any competitor. The wins in the research market are significant because the nanotechnology techniques being developed there will work for another generation, driving markets in every segment as the research in nanotechnology being conducted now provides technology that will flow out into industry and government at a rapid pace.

FEI Company (Nasdaq:FEIC) high-resolution imaging and analysis system Titan(3(TM)) 80-300 scanning/transmission electron microscope (S/TEM) competitive win in the National Institute for Materials Science (NIMS) and King Abdullah University of Science and Technology (KAUST) of Saudi Arabia bring enormous opportunity to the company.

Nanoparticles are so tiny that good technology is a basic part of the industry. The best researchers prefer the FEI technology, giving the company significant competitive advantage.

IBM has extended 3D MRI to the Nanoscale. IBM Research (NYSE: IBM) scientists, in collaboration with the Center for Probing the Nanoscale at Stanford University, have demonstrated magnetic resonance imaging (MRI) with volume resolution 100 million times finer than conventional MRI.

Microscope market forecasts indicate that markets at \$3.5 billion in 2008 are anticipated to reach \$7.7 billion by 2015. Growth is stimulated by worldwide government investment in innovation in response to the meltdown of financial markets.



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WinterGreen Research is an independent research organization funded by the sale of market research studies all over the world and by the implementation of ROI models that are used to calculate the total cost of ownership of equipment, services, and software. The company has 35 distributors worldwide, including Global Information Info Shop and Thompson Financial.

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