Based on its core competence in OPTO-Digital Technology, Olympus engages in research and development in the imaging, medical and industrial fields to provide new value to society.

In fiscal 2003, Olympus committed ¥34.7 billion to research and development in imaging information technologies to keep pace with advances in information technology and networking, technologies for futuristic medical treatment in the genome field, and nano technologies that support these endeavors. In particular, the Company is emphasizing research and development in the areas of micro-electromechanical systems (MEMS) and micro-assembly.

Research Results

Olympus' s research activities in fiscal 2003 resulted in the world's first successful observance of a living cell with an atomic force microscope (AFM). When the field of life sciences begins to manipulate biological cells on the DNA level, observation equipment will be needed with precision on the atomic and subatomic levels. Olympus was able to achieve extremely high levels of sensitivity in AFM through the use of a miniaturized probe.

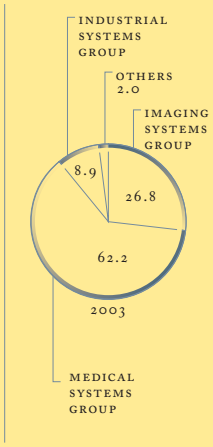
Olympus also succeeded in the development of a prototype digital video camera with an ultra-high resolution of 8 megapixels. The Company expects this new digital video camera to be used in digital cinema and for medical applications. Olympus also developed Vision Plex technology for video image correction equipment. This new technology enables the seamless projection of high-resolution digital images on large screens by aligning a collection of multiple projector images.

RESEARCH AND DEVELOPMENT

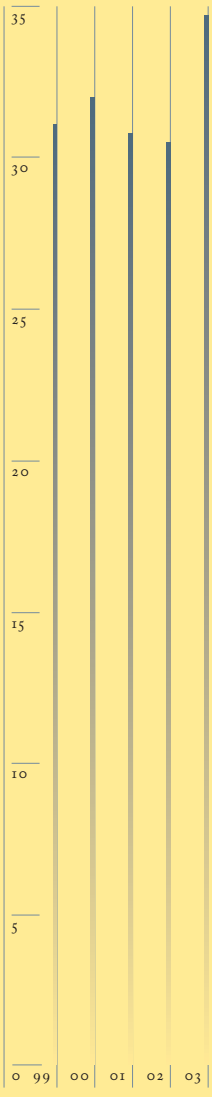
development of a stage for 3d measurements using an atomic force microscope
The stage provides a wide viewing area of 100 micrometers and high resolution of 0.04 nanometers, enabling highly reliable 3D measurements.

vision plex technology for video image correction equipment
This SXGA-compatible, automated video image correction equipment is able to display high-definition images with 8 megapixels on a large screen by arranging a number of different projector images.

R&D EXPENDITURES BY SEGMENT (%)



R&D EXPENDITURES (BILLIONS OF YEN)



0.04nm

8megapixels