RESEARCH AND DEVELOPMENT

The objectives of Tokyo Electron's group-wide R&D efforts are to further enhance the Company's competitiveness in the core businesses of semiconductor and FPD production equipment, and to develop the new products and businesses that will support the Company's further growth in years to come.

Broad Research Themes for Semiconductor Production Equipment

Semiconductor manufacturers, our customers, require production equipment that allows them to achieve finer geometries, higher speed, lower power consumption and higher productivity. SPE manufacturers are playing an increasingly important role in supporting semiconductor manufacturers in this regard. We believe Tokyo Electron's competitiveness is based on our capability to provide production equipment that can realize the process performance customers require. Tokyo Electron therefore collaborates closely with customers in developing new production equipment.

Accelerating R&D Efforts to Develop New Businesses That Can Support Future Growth

In addition to efforts to enhance existing products, Tokyo Electron is also developing new products and business arenas that can contribute to growth 5 and even 10 years into the future.

One example is the area of photovoltaic (PV) cells, which have strong potential as a solution to environmental and energy-related issues. After conducting extensive exploratory research on PV cell production equipment, in February 2008, the Company established Tokyo Electron PV Limited to develop and commercialize plasma CVD (Chemical Vapor Deposition) systems for the thin-film silicon PV market. Thin-film silicon PV cells, solar cells containing a thin layer of silicon deposited on a glass substrate, have attracted significant interest in recent years. Tokyo Electron will develop high-productivity CVD systems by utilizing vacuum plasma production equipment technology developed from its semiconductor and FPD production equipment businesses.

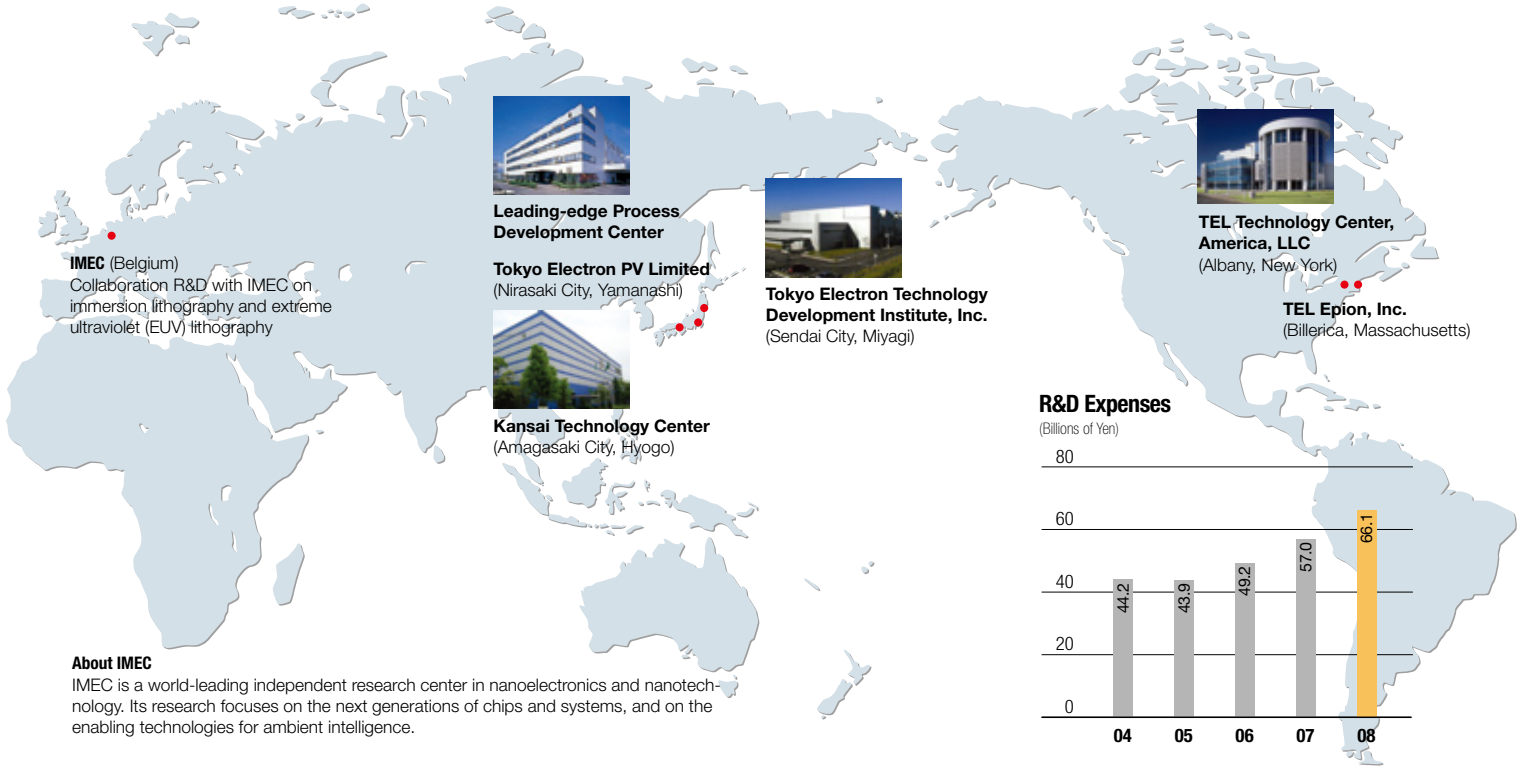
Promoting More Efficient R&D Via Consortia and Ties With Industry and Academia

The scope of research and development that Tokyo Electron needs to address is expanding. In order to improve the efficiency of research efforts, Tokyo Electron has been working in collaboration with universities and making active efforts in industry consortia as well as projects that involve both manufacturers and academic institutions.

Tokyo Electron's R&D Framework (As of June 2008)

Product development in existing SPE and FPD business units	
Tokyo Electron AT Limited	Etch system, CVD system, FPD Etch/ash system
Tokyo Electron Kyushu Limited	Coater/developer, Cleaning system, FPD Coater/developer
Tokyo Electron Tohoku Limited	Thermal processing system
Tokyo Electron TS Limited	Wafer prober
Tokyo Electron Software Technologies Limited	Software technology
Timbre Technologies, Inc.	Integrated metrology
R&D for new and advanced technologies	
Tokyo Electron Technology Development Center	Research and development
Tokyo Electron Leading-edge Process Development Center	Process development
Tokyo Electron Technology Development Institute, Inc.	RLSA plasma technology
Tokyo Electron PV Limited	Thin-film silicon PV cell plasma CVD technology
TEL Technology Center, America, LLC	Process development
TEL Epion, Inc.	Gas cluster ion beam technology
Identification of promising technologies	
TEL Venture Capital, Inc.	

Accelerating R&D to Drive Growth



About IMEC
IMEC is a world-leading independent research center in nanoelectronics and nanotechnology. Its research focuses on the next generations of chips and systems, and on the enabling technologies for ambient intelligence.

R&D Expenses

In Japan, one example is the semiconductor industry's MIRAI project (Millennium Research for Advanced Information Technology). Overseas, Tokyo Electron is participating in the International SEMATECH project in the United States and the Albany NanoTech project promoted by the New York State Government, as well as collaborating with IMEC in Belgium. In February 2007, the Company became a new member of the Semiconductor Research Corporation (SRC), a semiconductor research consortium that unites leading semiconductor-related manufacturers with world class universities.

Unearthing the World's Most Promising Technologies

Tokyo Electron's growth strategy over the longer term calls for the Company to pursue new innovations and create and develop new businesses. The Company is supplementing in-house research activities with efforts to identify, evaluate and utilize promising technologies developed outside the Company. In July 2006, Tokyo Electron established TEL Venture Capital, Inc. to identify, evaluate and utilize promising new technologies on a global scale. TEL Venture Capital is based in California's Silicon Valley, home to many start-ups and venture capital firms.