

## Research and Development Structure

Toyota Industries has a diversified range of businesses, and each of its business divisions has distinctive technological strengths, core technologies and market characteristics. For this reason, product improvement, technology development and applied research are all carried out by the development department of each division. Each division also has its own engineers, experimental facilities and research laboratories.



The autonomous Technology Development Center takes the initiative in basic R&D activities in the materials field as well as research in the latest technologies, such as electronics. We also collaborate with Toyota Central Research &

Development Laboratories, Inc., an R&D facility of the Toyota Group, and other outside R&D institutions.

In January 2002, following reorganization of the headquarters, Toyota Industries established the Technical Planning Department within the Corporate Center. This department engages in the lateral transfer of technologies among the different divisions and the examination of new technology development themes in order to establish a strong and efficient corporate R&D structure.

The Business Planning Department utilizes the long-accumulated technological know-how and outside network (both people and information) of each division to systematically and continually explore the potential for new products and services that might become our future business pillars.

"E-Lab," our IT research laboratory opened in May 2002, serves as a support organization for the information system division as well as our R&D facility for information technology. The lab is responsible for researching digital simulation technologies with a view to reducing lead-times from development to manufacture to shipment. It is also involved in developing an optimal network system for joint development of parts with suppliers, and for parts procurement.

BT Industries has its own network of R&D facilities, which engage mainly in warehouse equipment research. Toyota Industries conducts technological exchanges with BT Industries, and is preparing to jointly develop key parts of materials handling equipment.

At TIBC Corporation, one of our subsidiaries, our joint venture partner Ibiden Co., Ltd. contributes to product development, while Toyota Industries offers support in the manufacturing technology field. ST Liquid Display Corp., our affiliate accounted for by the equity method, benefits from the product development technologies of Sony Corporation, our joint venture partner, and our own manufacturing technologies.