

Innovation

A leader in technology with innovative power

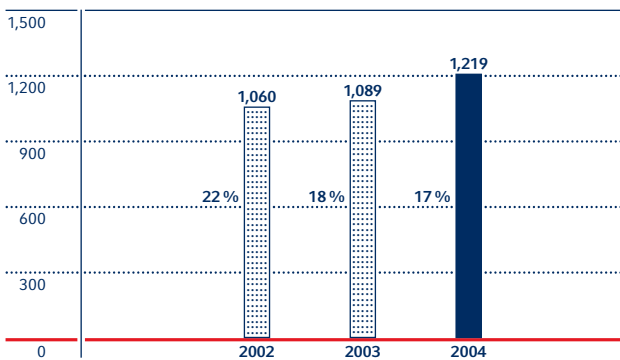
The efficient use of developmental resources improves profitability
 Infineon invests in research centers and partnerships all over the world
 Moving from micro to nanotechnology

Infineon is a technological leader and key player in the exceptionally dynamic semiconductor industry. Research and development therefore play a crucial role in Infineon's work towards realizing growth potential and ensuring its competitiveness.

The importance we attach to innovation work throughout our business groups is reflected in our expenses for research and development: in the 2004 financial year, Infineon invested 1.2 billion euros in future technology – a rise of 12 percent or 130 million euros from the previous year. ... *Business groups, p. 16*

As of the 2004 financial year, the company had some 7,200 employees working in research and development throughout the world – 1,200 more than at the end of the previous financial year.

Research and development expenses
 in € million, % of revenues



Efficient use of developmental resources

The company ensures its future by investing strongly in research and development. Only by continuously developing competitive products that employ the latest technologies are we able to improve our cost situation and, thus, raise our profitability. We pay particular attention

to the efficient utilization of developmental resources, as we can only achieve adequate returns if we maintain a reasonable ratio between product development expenditure and product turnover. Only through careful project management can we meet the requirements necessary to strike such a balance. Close cooperation with our customers and thorough analyses and evaluations of potential risks and opportunities allow the developmental process to run smoothly, especially during the early phases of product development. In addition to running cost analyses, selecting the right time to introduce new products (time-to-market) is of decisive importance in maintaining a competitive edge in terms of cost advantages and sales potential. ... *Focus on customers, p. 27*

Reusing previously developed semiconductor structures and cores in new products is yet another significant way to increase our developmental productivity. Since a number of products and product families share certain similarities, the modular organization of previously developed components helps us to optimize the use of our resources. We will continue to pursue this concept systematically to exploit the immense potential it has for boosting productivity. Involvement of our customers in the developmental process, systematic planning and cost-efficient development are all decisive factors in ensuring that Infineon remains a successful and reliable partner.

In highly innovative industries such as the semiconductor sector, it is essential that the value created through research and development is secured by patents. Over the past financial year, Infineon has filed patents for roughly 1,700 of its inventions – an average of seven patents a working day.

Worldwide development of our products

Infineon combines its global developmental activities for product development in around 40 development centers. The choice of sites is based primarily on close proximity to

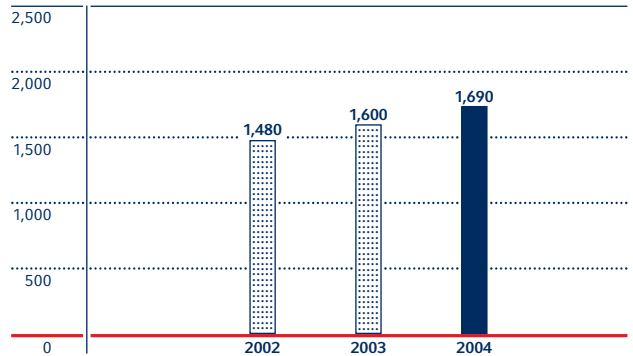
our customers, qualified employees in the area, and a competitive cost structure. In October 2003, Infineon took on some 145 software developers from Siemens ICM in a move to expand the company's developmental competence in the field of mobile communications. We are now able to combine the outstanding software expertise with our base-band and high-frequency semiconductors to create complete platform solutions for cell-phone manufacturers.

... Secure Mobile Solutions, p. 18

We have also expanded our software center in Bangalore, India, by recruiting 200 additional employees. Many of the approximately 400 developers now at the center are working on software for wireless applications, signal processors and security applications, as well as broadband technologies and industrial automation. One of the largest development centers in Asia is now being built in Xi'an, China. The center will provide the facilities necessary to develop mass storage and other innovative products for the communications, automotive and industrial electronics industries. The Xi'an site will strengthen our position in one of the fastest growing markets for electronics products, and also allow us to benefit from the comparatively low costs there. Our competence center for power electronics in Villach, Austria, is now being expanded to include a new building for 270 product developers. The Villach center clearly demonstrates the advantages of bringing together development and production at the same site, thus facilitating the transfer of newly developed products into manufacturing without delay – one of the essential prerequisites for profitable growth. ... Global Presence, p. 30

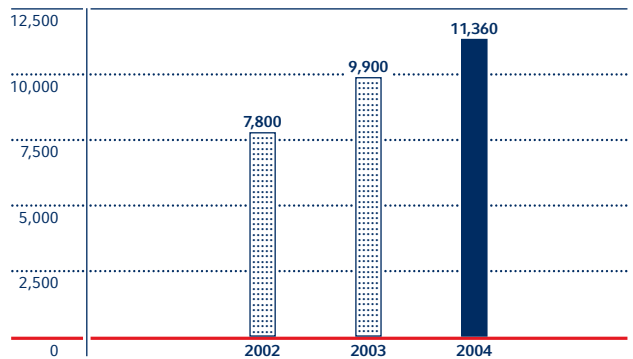
Infineon has concentrated its development of base technologies for memories in Dresden. The Memory Development Center (MDC) located there is to be expanded to accommodate 120 additional employees by the beginning of 2005. Work at the center revolves around the development of innovative concepts and production processes, as well as the examination of new materials for memory technologies. In the future, we will also allow external partners to take advantage of the ideal working conditions provided by the development center. The new Center for Nano-electronic Technologies (CNT), established jointly with the Fraunhofer Society and Advanced Micro Devices Inc. (AMD), will be located at Infineon's Dresden site and make use of our infrastructure there.

First applications for patents¹



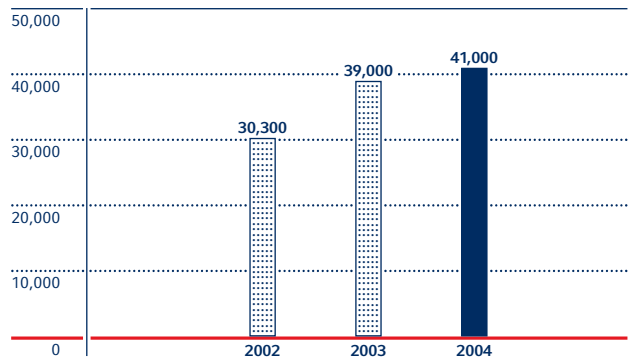
¹ Initially, inventions are filed at only one patent office.

Active patent families¹
September 30



¹ Patents have a maximum life span of 20 years; all active patents count cumulatively. Patents relating to the same invention form a "patent family".

Active patents and patent applications, worldwide¹
September 30



¹ Infineon files subsequent applications for its most important inventions in foreign countries within a year. On average, four patent applications are derived from one invention.

Optimizing costs through cooperation

Logic and memory components are subject to strong competition. To meet this challenge successfully we are required to increase research and developmental expenses. We can share the costs and risks with others by pursuing strategic partnerships; by choosing partners that best complement Infineon's own expertise, we can benefit from their strengths. At the MDC in Dresden, for instance, we are developing the latest 90- and 70-nanometer DRAM technologies in cooperation with Nanya Technologies of Taiwan. The 90-nanometer DRAM technology developed at the MDC already achieves considerable yields. The first prototypes for 70-nanometer technology have now been developed there as well. In a further strategic partnership with Chartered Semiconductors, IBM and Samsung Electronics, we are developing a technology platform for the production of logic components at the IBM development center in East Fishkill, New York. Our efforts currently focus on production technology for 65-nanometer chip structures, and will later turn to 45-nanometer structures. Each of the participating companies will transfer the processes and technologies developed there to its own manufacturing lines. AMTC has also begun operations in Dresden. At AMTC, AMD, DuPont Photomasks, and Infineon are developing and producing state-of-the-art lithographic masks for semiconductor manufacturing. The masks provide the patterns for the integrated circuits in the lithography process, with increasingly sophisticated photomasks needed for ever smaller chip structures.

Infineon is also involved in public sector funded research programs such as the NANOCMOS project, with which the European Commission is seeking to maintain Europe's leading position in semiconductor technology. Europe's three largest semiconductor manufacturers, Infineon, Philips and STMicroelectronics, together with the fore-

most European technology research laboratories such as CEA Leti in France and IMEC in Belgium, are working towards miniaturizing CMOS technology structures below 45 nanometers.

From micro to nanoelectronics: power semiconductors made of carbon nanotubes

Continual reduction of the size of chip structures to achieve further extension of the frontiers of semiconductor technology: this remains one of the greatest challenges facing the semiconductor industry. That is why we consider our own research efforts to be of the utmost importance. And Infineon researchers have now successfully achieved a cutting-edge development in molecular electronics; they were the first in the world to have created a power semiconductor out of carbon nanotubes. These are the smallest of all conductors conceivable today, consisting of only a single molecule shaped as a perfect, seamless tube with ideal physical properties. Carbon nanotubes conduct heat exceptionally well, withstand high current density, and their electrical resistance is virtually independent of their length. Two years ago, Infineon was already the world's first company to use carbon nanotubes as "vias", or links between two chip levels. The new power semiconductors made of carbon nanotubes drive light-emitting diodes (LEDs) and small electromotors at 2.5 volts, opening up new methods of powering electronics components with little power loss, and thus high cost-efficiency.

Innovation plays an important role in determining the economic success of Infineon. We focus research and developmental resources on pioneering future-oriented products and technologies, so that as a leader in the field of technology, we can secure profitable growth in the future, too.