15 Years
of Innovation

by Wim Roelandts, CEO, Xilinx

Xilinx invented the FPGA just 15 years ago. Since that time, we have seen dramatic advances in device performance and density, while prices have steadily declined. These breakthroughs, combined with matching advances in our development tools, intellectual property, and support technologies, have created a revolution in logic design.

Our first FPGA, the XC2064, was shipped in 1985; it offered 800 gates, sold for $55, and was produced on a 2.0µ process. We have been shipping that device for 15 years and today it sells for just $5. Our latest generation of FPGAs, the Virtex family, is produced with a leading 0.22µ fabrication process, and offers advanced system-level features with densities over one million gates. Virtex FPGAs, along with our new Internet Reconfigurable Logic (IRL) technologies, are creating new design possibilities that no one could have dreamed of back in 1985.

Our use of the most advanced process technology is a key element of our aggressive development plan. For example, in 1997 our 0.35µ XC4000XL family went from concept to production in less that a year, the fastest product development effort in our history. With the XC4000XL family, Xilinx became the first company in the industry to ship a complete new line of ten 3.3V FPGAs. Our XC4085XL, the largest member of that family, provides up to 180,000 system gates.

By the end of 1997, we began shipping our XC4000XV family, the industry's first 0.25µ FPGAs, offering densities of up to 500,000 system gates. In 1998 we began shipping our Spartan family, the lowest cost FPGAs, ever. Today we are shipping million-gate, 0.22µ Virtex devices, and we have 0.18µ devices, operating at gigahertz speeds in our laboratories. This rapid pace of product development demonstrates our commitment to innovation, backed by the highest research and development budget of any company in our industry.

Xilinx is unquestionably the technology leader in producing the most innovative programmable logic devices. However, it takes much more than devices to capture the minds and imaginations of today's engineers. That's why we continue to push the boundaries of technology in the key areas that make programmable logic compelling and useful. We now have the most productive tools, with the shortest compile times in the industry, and we are continuously expanding our list of intellectual property (cores), so you can go from concept to full production faster and with less effort than ever before. In addition, we are creating new enabling technologies such as Internet Reconfigurable Logic that allow you to develop and test your designs remotely; you can now add features or fix bugs at your customers' locations, anywhere in the world, over the Internet. This not only extends the life of your product, it also creates exciting new possibilities for products such as Internet-based "appliances."

Our goal is to bridge the gap between your imagination and the physical world. We do this by making it as easy as possible for you to create the most advanced systems, get them to market sooner, and keep them in the market longer. Soon we will offer two-million gate devices, team-based development tools, and many more ways to use programmable logic in new and unique applications.

The future is close and arrives very quickly these days. ∑:

Major Xilinx Milestones

1984 Xilinx is founded by Bernie Vonderschmitt, Jim Barnett, and Ross Freeman.

1985 Introduced the XC2000 series, our first family of field programmable gate arrays (FPGA).

1987 Introduced XC3000 series, our second family of FPGAs.

1988 Established a subsidiary in Japan.

1989 More than one million FPGA devices sold.

1990 Initial public offering.

1991 Introduced XC4000 series, third family of FPGAs.

1992 Expanded into market for complex programmable logic devices (CPLDs).

1993 Established a subsidiary in Hong Kong.

1995 Ranked world's 10th largest ASIC supplier; Xilinx Ireland facility opens.

1996 Ranked world's 8th largest ASIC supplier; Wim Roelandts joins as CEO.

1997 World's 1st 0.35 and 0.25µ FPGAs.

1998 Introduced Spartan and Virtex FPGAs, unveiled Internet Reconfigurable Logic.

1999 Xilinx celebrates 15th anniversary; introduced XC9500XV, 1st 2.5V CPLD family.