thirty-five years of innovation
While Intel's first products were built on 2-inch wafers, today the company uses 300mm (12-inch) wafers to manufacture chips that contain millions of transistors.
Innovation from the start.

We've been asking "what's next?" since the very beginning. Looking for a better way. Developing a new approach. Because at Intel, our pursuit of innovation never ends.
Starting a silicon revolution

- Bob Noyce and Gordon Moore leave Fairchild Semiconductor and incorporate a new venture as NM Electronics on July 18.
- Noyce and Moore each contribute $245,000 to the new company. Venture capitalist Arthur Rock contributes $10,000 and raises an additional $2.5 million by selling convertible debentures.
- Rock is named chairman. Bob Noyce becomes chief executive officer (CEO), and Gordon Moore becomes executive vice president.
- The company starts operations in a leased building at 365 Middlefield Road in Mountain View, California.
- Intel purchases the rights to use the Intel name from a company called Intelco for $15,000.

1968

Two Found New Firm

Bob Noyce and Gordon Moore leave Fairchild Semiconductor to found Intel, a company that Noyce described as a "community of common interests."
The first products

- Intel announces its first product, the 3101 Schottky bipolar random access memory (RAM).
- The company launches the world’s first metal oxide semiconductor (MOS) static RAM, the 1101.
- Intel receives its first customer order, from Hamilton Electric.

- The company opens its first non-U.S. sales office, in Geneva, Switzerland, and establishes sales and marketing functions in Japan.
- The “dropped-e” Intel logo is adopted.
Gordon Moore (second from the right) and other employees celebrate the launch of Intel's 1103 DRAM.

1970

Silicon topples core memory

➢ Intel announces the 1103 DRAM, which will usurp core memory as the industry-standard technology for computer memory.

➢ To accommodate rapid growth, Intel purchases its first piece of property—a 26-acre pear orchard on the corner of Coffin Road and the Central Expressway in Santa Clara, California.

➢ Intel petitions the Santa Clara City Council to change the name of Coffin Road to Bowers Avenue.

➢ Recognizing that not all customers want to purchase at the component level, Intel launches a memory systems business with the 1103-based MU-10 board product.

➢ Intel's annual revenue totals over $4 million, up from $555,874 the previous year.
A new era in electronics

- With an ad in the November 15 issue of *Electronic News* announcing “A New Era in Integrated Electronics,” Intel launches its first microprocessor, the 4004.
- Intel launches the world’s first erasable programmable read-only memory (EPROM).
- Intel goes public at $23.50 per share, raising $6.8 million.
- The company celebrates its first $1 million month.
- Employees move into Intel’s first owned facility, on the corner of Bowers Avenue and the Central Expressway in Santa Clara.

Dov Frohman, inventor of the EPROM, poses with the system he rigged up to demonstrate the new memory technology.
Factories go global

→ Intel opens its first international manufacturing facility, an assembly plant in Penang, Malaysia—a country that now hosts multiple Intel operations.

→ To help customers learn how to use microprocessors, Intel introduces the primitive SIM 4 and SIM 8 design aids.

→ The company announces the first 8-bit microprocessor, the 8008.

→ Intel enters the then-new digital watch market with the purchase of Microma, a small firm with a prototype liquid crystal display (LCD) watch.

→ The company moves from 2- to 3-inch silicon wafers for manufacturing computer chips.

1972

Intel buys Microma and enters the digital watch business.
In Intel’s factories, bunny suits replace smocks, to keep hairs, skin flakes, and other particles from falling on intricate circuitry.

1973

**A new factory chic**
- Bunny suits are introduced as standard Intel clean room attire.
- Intel opens its first wafer fabrication facility (fab) outside Silicon Valley, in Livermore, California.
- Employees receive custom-labeled champagne to celebrate Intel’s first $3 million month.

**Intel introduces the Intellec 4-40 software development tool, the first in a line of Intellec systems that become key to Intel’s microprocessor sales.**

**The company develops PL/M, the first high-level language for microprocessors.**
The 8080 microprocessor features 4,500 transistors and about ten times the performance of its predecessors.

1974

Launching a classic
- The company introduces the Intel® 8080 microprocessor, considered by many to be the first true general-purpose microprocessor.
- Intel opens its first international design center, in Haifa, Israel.
- The company expands international manufacturing operations to the Philippines with the opening of an assembly facility in Manila.

Early Intel microprocessors begin to find applications in many areas, including traffic lights and an eye refraction system that calculates and prints out eyeglass prescriptions.

The density of dynamic RAMs reaches 4K bits with the introduction of the 2107.
Computers get personal

→ The Intel 8080 processor is used in one of the first personal computers, the Altair 8800, a $439 hobbyists' kit.
→ Bob Noyce is named Intel chairman, Gordon Moore becomes president, and Andy Grove becomes executive vice president.
→ Intel's Penang, Malaysia, assembly facility is up and running in a rented plant two weeks after a non-injury fire destroys the original plant.
→ Intel continues to innovate its line of microprocessor development tools, launching ICE-80, the world's first in-circuit emulator, and the Intellec Model 800, a disk-based system.
→ The company introduces MULTIBUS, an interconnection mechanism that allows systems builders to link a number of microprocessor boards.

1975

Despite its primitive aspects, the Intel 8080 processor-based Altair computer attracts thousands of purchasers after its introduction in Popular Electronics.
A chip that takes control

Intel introduces the world's first microcontrollers, the 8748 and 8048, which combine a central processor, memory, peripherals, and input-output functions on a single piece of silicon.

The company launches the world's first single-board computer, the iSBC 80/10.

Intel begins producing chips on 4-inch wafers.

The faster Intel® 8085 microprocessor is introduced, bringing a 5-volt power supply advantage.

Intel opens a small test facility in Santa Cruz, California, and expands into Oregon with the opening of its first fab outside California, in Aloha.

1976

Microcontrollers allow manufacturers to embed intelligence in home appliances, cars, thermostats, and thousands of other products.
Transparent garnet wafers are used in the production of bubble memories, a business Intel enters in 1977 and pursues for the next 11 years.

1977

Bubbles that don’t break
- With a subsidiary called Intel Magnetics, Intel begins making bubble memories, which are highly reliable even when exposed to electrical shocks, dust, humidity, temperature extremes, vibration, and other hazards.
- Intel opens an assembly site in Barbados, West Indies.

- EPROMs reach 16K densities with the introduction of Intel’s 2716.
- The company’s development systems business expands with the Intellec Series II.
- Intel launches the 2910, the first single-chip codec (coder/decoder), which becomes a telecommunications industry standard.
Employees celebrate Intel's tenth anniversary with an all-out bash at the San Francisco Cow Palace.

1978

**Ten years, 10,000 employees**
- Employees celebrate Intel's tenth anniversary with an all-out bash at the Cow Palace in South San Francisco.
- Intel hires its 10,000th employee.
- Intel introduces the 8086 16-bit microprocessor, which becomes an industry standard.

**Intel exits the digital watch business, selling the Microma name to a Swiss company and its watch designs and inventory to Timex.**

**The company moves into Arizona with the opening of operations in Deer Valley, which later move to Chandler.**
**Fame and fortune grow**

- Intel debuts on the Fortune 500 list at position 486 and is named one of ten “Business Triumphs of the Seventies” by *Fortune*.
- Gordon Moore is named Intel chairman and CEO, Bob Noyce becomes vice chairman, and Andy Grove becomes president and chief operating officer.
- Bob Noyce receives the National Medal of Science from U.S. President Jimmy Carter.
- Intel launches the 8088 microprocessor, a lower cost version of the 8086 with an 8-bit data path.
- Intel introduces the 2920 signal processor, the first microprocessor capable of performing real-time digital processing of analog signals.

**1979**

Although their roles change, the same three men—Andy Grove, Bob Noyce, and Gordon Moore (left to right)—continue to lead Intel.
Ethernet spurs networking

- Intel, Digital Equipment Corporation (DEC), and Xerox announce the cooperative Ethernet project, which allows different computers to communicate with each other in local area networks (LANs).
- Intel introduces the 8087 math coprocessor, which boosts microprocessor performance by offloading complex math functions.
- Intel introduces the 8051 and 8751 microcontrollers, which become the best-selling microcontrollers in the world.
- Intel opens a major campus in Chandler, Arizona.
- To encourage employees to continue their professional development, Intel launches a program to provide tuition assistance for job-related education.

1980

Dun's Review names Intel one of the five best-managed companies in America.
IBM picks Intel

→ IBM selects Intel's 8088 microprocessor to power the IBM PC.

→ Intel announces the first recipients of its Individual Achievement Award, the highest recognition for employees. The name later changes to the Intel Achievement Award.

→ Intel opens an assembly and test facility in Las Piedras, Puerto Rico and a design center in Tsukuba, Japan.

→ Intel launches the revolutionary iAPX 432 microprocessor. Although it eventually proves unsuccessful in the market, many of its advanced features are later incorporated into Intel processors.

→ Amid a high-tech industry recession, Intel launches the “125% Solution” program, through which salaried employees voluntarily work an extra 25 percent each week without pay to help accelerate new products to market.
Producing a microprocessor like the Intel® 286 is a team effort. Here, part of the design team checks the layout of the chip.

1982

The PC industry takes off

➤ Intel launches the high-performance, 16-bit 80286 (Intel® 286) microprocessor, which features 134,000 transistors and is built into numerous PCs.

➤ IBM announces it will purchase 12 percent of Intel for $250 million to ensure Intel's independence during a prolonged recession. As business conditions improve, IBM sells its shares, closing out its stake in 1987.

➤ The 8096, Intel's first 16-bit microcontroller, enters the market.

➤ Intel announces its first LAN controller, the 82586, which boosts system performance by offloading network functions from the main microprocessor.

➤ Intel gets into the automotive market in a big way with the introduction of 8061/8361 16-bit electronic engine control chips for Ford Motor Company.
High performance, low power

→ Intel introduces complementary high-performance metal-oxide semiconductor (CMOS) technology, which boosts chip performance and decreases power consumption.

→ Intel passes $1 billion in annual revenue for the first time.

→ Bob Noyce is inducted into the National Inventors Hall of Fame.

→ Intel produces its first chips on 6-inch silicon wafers at a new fab in Rio Rancho, New Mexico.

→ Author Tom Wolfe pens an article about Bob Noyce for an Esquire special edition entitled “50 Who Made the Difference: A Celebration of 50 American Originals.”

1983

A parody edition of Intel's employee magazine starts an annual tradition of April Fools' Day fun, a continuing part of Intel's Great Place to Work culture.
It's a great place to work

- Intel is chosen one of the “100 Best Companies to Work for in America” in a book by that name.
- Intel opens a board assembly facility in Singapore and a wafer fabrication plant in Jerusalem, Israel.
- The U.S. Congress passes the landmark Semiconductor Chip Protection Act, which allows semiconductor makers to copyright their circuit designs.
- IBM launches the PC-AT; based on the Intel 286 microprocessor, spawning an industry of 286 processor-based clone PCs.
- Intel announces the world’s first CHMOS DRAMs, with densities as high as 256K.
- Fortune magazine names Andy Grove one of the ten “toughest bosses in America” and highlights Intel as one of “eight big masters of innovation.”

1984

The book *The 100 Best Companies to Work for in America* calls Intel one of the “premier whiz outfits in California’s Silicon Valley.”
Most significant events at Intel call for a T-shirt, mug, or trinket, such as this button commemorating Intel's move into Folsom, California.

1985

Farewell, DRAMs
- Intel makes the painful decision to exit its original DRAM business to concentrate on microprocessors.
- Intel launches the advanced Intel386™ processor, a 32-bit chip that incorporates 275,000 transistors and can run multiple software programs at the same time.
- Intel opens what will later become a major campus in Folsom, California.

- The company enters the parallel supercomputer business, introducing the IPSC/1, which incorporates multiple Intel 286 microprocessors working simultaneously to solve complex problems.
- Intel enters the retail market with its AboveBoard products, which allow PC owners to expand their computer's memory capacity.
IEEE presents its Corporate Innovation Recognition to organizations that have contributed to major advances in electrotechnology.

1986

**Intel goes to Washington**

- The historic U.S.-Japan Semiconductor Trade Agreement is signed, opening Japanese markets to U.S. semiconductor makers.
- U.S. courts rule that microcode (software embedded in silicon) is covered by U.S. copyright laws.
- The company announces its first 1-megabit EPROMs: the 27010, 27011, and 27210.

- Intel receives the first "Corporate Innovation Recognition" award from the Institute of Electrical and Electronic Engineers (IEEE).
- Intel begins to place more emphasis on the emerging "micro-communications" field, creating products and helping set standards that make networking easier.
**Back in the black**

- After a two-year recession, employees celebrate a return to profitability with worldwide "Back in the Black" parties, and Intel closes out the year with record revenue and net income.

- Andy Grove is named Intel president and CEO, Gordon Moore continues as chairman, and Bob Noyce continues as vice chairman.

- Bob Noyce receives the National Medal of Technology from U.S. President Ronald Reagan.

- The company launches its second-generation iPSC/2 supercomputers, based on Intel386 microprocessors and 80387 math coprocessors.

- Intel opens a development fab and systems headquarters at campuses in Oregon.

1987

Bob Noyce shakes U.S. President Ronald Reagan's hand upon receiving the National Medal of Technology.
Flash forward with new memories

- Intel enters the flash memory business with its innovative EPROM Tunnel Oxide (ETOX™) technology.
- Bob Noyce becomes president and CEO of SEMATECH, a consortium of Intel and other high-tech companies aimed at keeping the U.S. at the forefront of semiconductor manufacturing research.
- The Intel Foundation is started to expand and coordinate Intel’s contributions to communities in which the company operates.
- Employees receive bonuses based on company performance as part of the first payout of Intel’s new Employee Cash Bonus Plan.
- Employees worldwide celebrate Intel’s 20th anniversary with a touring show featuring 100 professional actors, singers, and dancers.

1988

Employees celebrate Intel’s 20th birthday with custom-labeled beverages and all-out parties at the company’s major sites around the world.
A million transistors on a microprocessor

- Intel launches the first commercially available microprocessor containing more than 1 million transistors, the i860 processor for scientific and supercomputing applications.

- The Intel486™ microprocessor is introduced, with 1.2 million transistors and a built-in math coprocessor to speed performance.

- The National Academy of Engineering names the microprocessor one of ten outstanding engineering achievements for the advancement of human welfare.

- Intel launches its "Red X" ad campaign to encourage consumers to upgrade from Intel 286 to Intel386 processor-based systems.

- The Intel Foundation announces the first recipients of Minority Fellowships and Graduate Fellowships.
"Bob [Noyce] believed his mission in life was to leave the world a better place." —Arthur Rock, venture capitalist and first Intel chairman

1990

The passing of a pioneer

- Employees, friends, and family mourn the loss of Bob Noyce, who dies suddenly of a heart attack.
- Intel launches the first of several generations of NetPort print servers, which allow printers to be easily connected to LANs and shared by PC users.

- Gordon Moore receives the National Medal of Technology from U.S. President George Bush.

- Craig Barrett becomes Executive Vice President of Intel, joining Chairman Gordon Moore and President and CEO Andy Grove in the executive office.
- Intel starts operations in Ireland, with the opening of a systems manufacturing facility in Leixlip.
Becoming a household name

- Intel Inside logos begin appearing in ads and on PCs worldwide, as Intel launches a brand marketing campaign to help users identify PCs based on Intel microprocessors.
- Intel announces 23 new networking products in one month, including EtherExpress™ adapter cards and other innovations aimed at helping users form and maintain computer networks more easily.
- The company announces it will cease development of EPROMs and concentrate on flash memory.
- Intel's Touchstone Delta system, based on 860 processors, breaks the world's supercomputing record, operating at 32 GFLOPS (32 billion floating-point operations per second).
- Intel announces annual Intel Quality Awards, for internal organizations that demonstrate excellent performance to corporate values.

1991

How to spot the very best PCs.

The Intel Inside campaign takes off and soon makes Intel one of the most recognized brand names in the world.
We're number one

- Intel becomes the largest semiconductor supplier in the world, according to market research firm Dataquest.
- Intel introduces its first OverDrive ® processors, which allow users of certain upgradable PCs to boost the performance of their systems.
- The company produces its first chips on 8-inch silicon wafers.

The company announces it will pay its first cash dividend on Intel Common Stock.

The introduction of the Intel® 82420 chipset for Intel486 microprocessor-based systems marks Intel's transition from PC component supplier to PC system definer.

1992

The transition from 6- to 8-inch wafers increases Intel's manufacturing productivity and lowers costs.
The newly introduced Pentium® processor is featured on the cover of Fortune as the leading player in "The New Computer Revolution."

1993

A new name for a new processor

- The 3.1-million-transistor Intel® Pentium® processor is introduced.
- Craig Barrett is named Intel's executive vice president and chief operating officer; Gordon Moore remains chairman, and Andy Grove remains president and CEO.
- The Intel® 82430 PCIset contributes to the industry's record transition to the Intel Pentium processor.

- Intel co-authors PCMCIA, a standard technology that makes it easy for mobile computer users to attach modems, sound cards, network adapters, and other devices.
- Just two years after the start of the Intel Inside® program campaign, Financial World ranks the Intel® brand as the third most valuable in the world.
Bunny-suited employees pose at Intel's new wafer fabrication facility in Leixlip, Ireland.

1994

Simplifying network management

- The company launches the first of its LANDesk Network Manager software products, which allow software distribution, virus protection, remote diagnosis, and other functions on computer networks.

- A “Jeopardy” television game show contestant correctly guesses that Intel is the company whose chips power about 85 percent of all desktop computers.

- A flaw that could affect a minimal number of users is discovered in the Intel Pentium processor. Intel learns customer relations lessons and offers replacement processors for all who request them.

- Intel opens its first fabrication facility in Ireland, in Leixlip.

- Intel helps define the Plug-and-Play standard, which makes it easier to add peripherals to PCs.
Becoming a chipset leader

- The Intel® 82430FX PCIset for Pentium processor-based PCs propels Intel into the chipset business.
- Intel launches the Pentium® Pro processor, a high-performance chip for 32-bit workstations and servers.
- Astronauts on the Space Shuttle Endeavour conduct the first real-time, PC-based conference from space, using Intel’s ProShare videoconferencing technology.
- Extending the company’s networking product line, Intel begins making hubs, switches, routers, and other products that link groups of computers and manage traffic flow on networks.
- Andy Grove gives the keynote address (sharing the stage with Nelson Mandela) at the telecommunications industry’s largest conference, Telecom 95, in Geneva, Switzerland.

1995

Andy Grove and Nelson Mandela share the cover of Intel’s employee magazine following their joint appearance at the Telecom 95 conference.

Photo by Tom Burič '95
The microprocessor turns 25

Ted Hoff, Stan Mazor, and Federico Faggin are inducted into the National Inventors Hall of Fame for their roles in developing the microprocessor at Intel 25 years earlier.

The Intel Involved program begins, with thousands of employees donating their time to make their communities better places to live and work.

Intel is a major sponsor of the Smithsonian Institution's 150th anniversary traveling exhibition of artifacts.

Intel and Sandia National Laboratory build a parallel supercomputer that runs at a record one trillion floating-point operations per second (teraflops).

Intel expands into DuPont, Washington, with systems manufacturing and engineering operations.

1996

The National Inventors Hall of Fame honors Stan Mazor, Federico Faggin, and Ted Hoff (left to right) during the microprocessor's silver anniversary year.
Intel® BunnyPeople™ characters make their televised dancing debut in a Super Bowl football game advertisement.

1997

Dancers deliver fun
→ Intel® BunnyPeople™ dancers appear in ads announcing the arrival of the Pentium processor with Intel® MMX™ technology and the 7.5 million-transistor Pentium® II processor.
→ Intel becomes the title sponsor of the International Science and Engineering Fair, a prestigious annual high school science competition.

→ Intel launches Intel StrataFlash® memory, which significantly increases the density of flash memory devices by allowing the storage of multiple bits of data in a single cell.
→ *Time* magazine names Andy Grove “Man of the Year.”
→ Craig Barrett becomes Intel president, Andy Grove becomes chairman, and Gordon Moore becomes chairman emeritus.
One Digital Day, a book published for Intel's 30th birthday, features photos taken during a 24-hour period to document the microprocessor's influence.

1998

Special processors for special markets

- Intel launches its first processor for the value PC market segment, the Intel® Celeron® processor.
- The company rolls out the Intel® Pentium® II Xeon™ processor for mid-range and high-end workstations and servers.
- Intel becomes the title sponsor of the Science Talent Search, often called the "Junior Nobel Prize."

- Intel expands manufacturing and development into Shanghai and Beijing, China; opens a development center in Bangalore, India; expands assembly and test into Belen, Costa Rica; and moves into Massachusetts with the acquisition of a fab in Hudson.
- Intel announces its first high-performance, low-power processors based on the Intel® StrongARM® architecture, for handheld computing and communications devices.
A new generation of winners

- Intel opens a fabrication facility in Oiryat Gat, Israel.
- The company’s networking product line expands with the introduction of the Intel® IXP 1200 Network Processor and related products.

- The company launches the Intel® Pentium® III and Pentium® III Xeon™ processors.
- The Dow Jones Industrial Average adds Intel to its list.
- Mattel and Intel launch the Intel® Play™ toy line for PCs, which eventually includes a computer microscopes, cameras, sound morphers, and more.

1999

Intel CEO Craig Barrett poses with the first students to win the Intel Science Talent Search competition after Intel becomes the title sponsor.
Going wireless

- The company's emphasis on wireless computing grows with the launch of the Intel® XScale™ microarchitecture and Intel® PRO/Wireless LAN PC cards.
- Intel introduces the 42-million-transistor Intel® Pentium® 4 processor.
- The Intel® Teach to the Future program begins a worldwide effort to provide technology training to hundreds of thousands of teachers.
- With the Museum of Science, Boston, and the MIT Media Lab, Intel launches the Computer Clubhouse Network to provide facilities where children in under-served communities can work with adult mentors to develop technology skills.
- Intel establishes a software development center in Nizhny Novgorod, Russia and expands manufacturing operations into Colorado with the purchase of a fab in Colorado Springs.

Students in China are among thousands of children who experience technology at the growing global network of Intel® Computer Clubhouses.
Moore moves on

- Intel co-founder Gordon Moore retires from the company’s board of directors.

- The company begins shipping the Intel® Itanium® processor for powerful workstations and servers.

- Intel rolls out Intel® Xeon™ processors for high-performance and mid-range multiprocessor workstations.

- Intel builds the world’s smallest and fastest transistor, which is only 15 nanometers (15 millionths of a meter) wide.

- Intel starts an industry consortium of semiconductor companies working to develop extreme ultraviolet (EUV) lithography, a technology considered key to making smaller semiconductor devices in the future.
Chips manufactured using 0.13-micron technology on 300mm (12-inch) wafers deliver consumers more computing power at a lower cost.

2002

**Pizza-sized wafers**
- Intel delivers its first chips built using 0.13-micron technology on 300mm (12-inch) wafers.
- Paul Otellini becomes Intel's president and chief operating officer, Craig Barrett remains CEO, and Andy Grove continues as chairman.
- Gordon Moore receives the Presidential Medal of Freedom from U.S. President George W. Bush.

- Intel introduces Hyper-Threading Technology, which improves system performance in multitasking environments by enabling multiple threads of information to run simultaneously on one processor.
- The company launches the Intel Itanium 2 processor for high-performance servers and workstations.
Happy 35th, Intel

➔ On July 18, Intel marks its 35th anniversary.

➔ Intel ships its 1 billionth processor.

➔ The newly introduced Intel® Centrino™ mobile technology brings high performance, long battery life, and integrated wireless LAN capability to thinner, lighter portable PCs.

➔ Intel introduces the Intel® PXA800F cellular processor, a microchip that combines key components of cellular phones and handheld computers on a single piece of silicon.

➔ Intel announces it has provided technology training to more than 1 million teachers worldwide via the Intel Teach to the Future program.

2003

Worldwide Intel® Centrino™ mobile technology launch events include demonstrations like this one in New York City.
Innovation has no endpoint.

By continually advancing silicon technology and moving the industry forward, we empower people to do more. To enhance their knowledge. To strengthen their connections. To change the world.
“Don’t be encumbered by history. Go off and do something wonderful”

Intel Co-founder
Robert Noyce