

Innovation at Corning

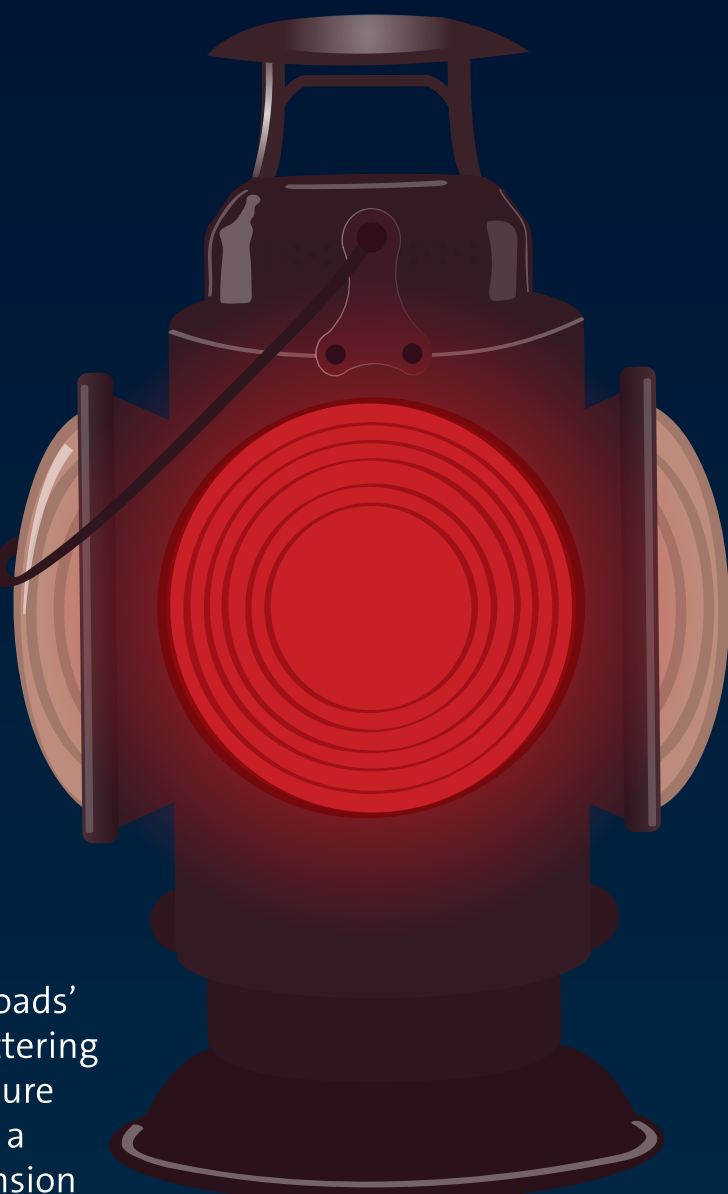
Corning is one of the world's leading innovators in materials science. For more than 160 years, Corning has applied its unparalleled expertise in specialty glass, ceramics, and optical physics to develop products that have created new industries and transformed people's lives. Our rich history is full of life-changing innovations.

Founded
1851



1879

Corning invents a bulb-shaped glass encasement for Thomas Edison's incandescent lamp. Later, Corning developed the ribbon machine to mass produce these bulbs, making Edison's electric lamp more affordable to the masses.



1912

The glass globes of signal lanterns, vital to the railroads' safe operation, were shattering due to extreme temperature changes. Corning invents a heat-resistant, low-expansion glass able to withstand sudden jolts of heat and cold.

1915

Dr. Jesse Littleton, a Corning physicist, asks his wife Bessie to bake a cake on a piece of heat-resistant glass. The glass holds up beautifully and later becomes known as the PYREX® brand, a line of highly durable cookware and laboratory glass products still available today.



1934

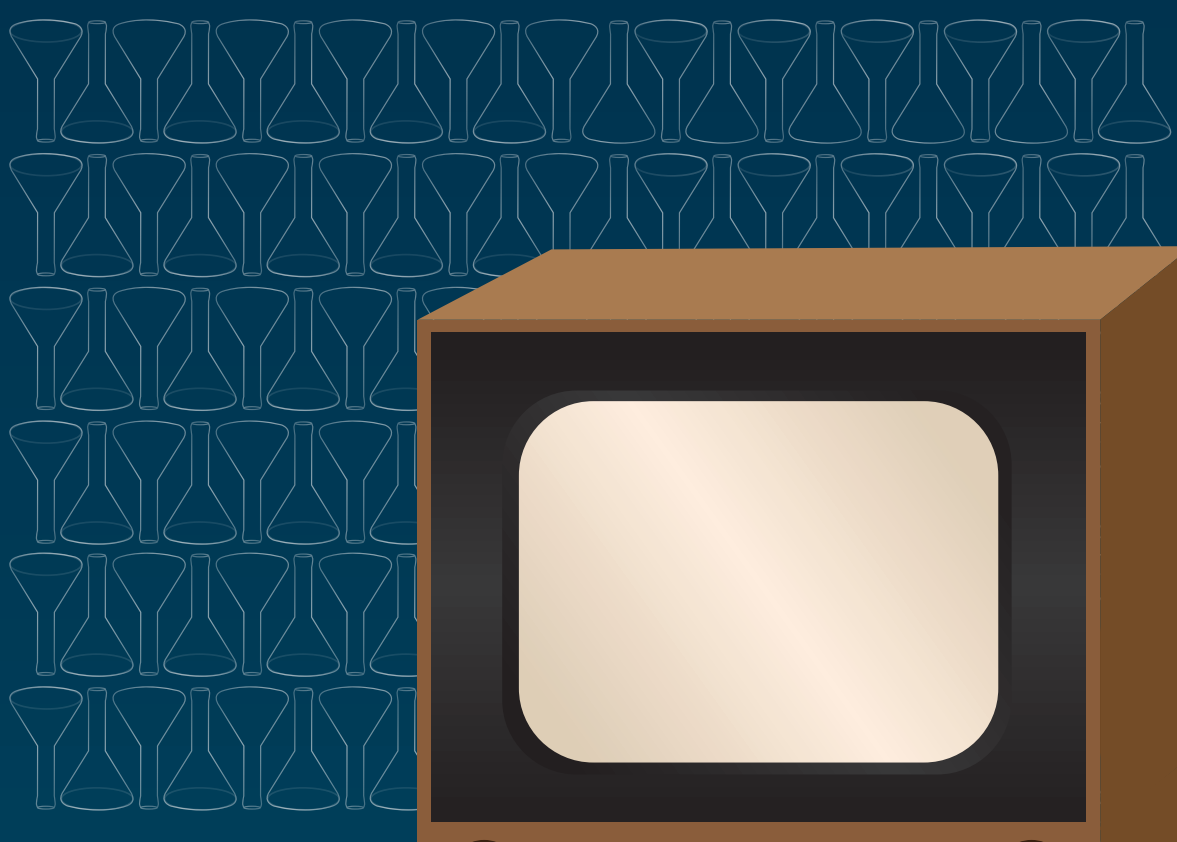
Corning scientist Dr. J. Franklin Hyde, an organic chemist, develops silicones, an engineered material that is a cross between glass and plastic. His work becomes the foundation for the joint venture, Dow Corning.

1935

Dr. George McCauley, a Corning physicist, designs and directs Corning's production of a 200-inch mirror blank for the Hale Telescope at Mount Palomar – the world's largest piece of glass at that time.

1939-1947

Corning's 9-inch circular cathode ray tube goes on display at RCA's futuristic demonstration of television at the 1939 World's Fair in New York City. By 1947, Corning invents a process to mass produce TV picture tubes, making televisions affordable for millions.



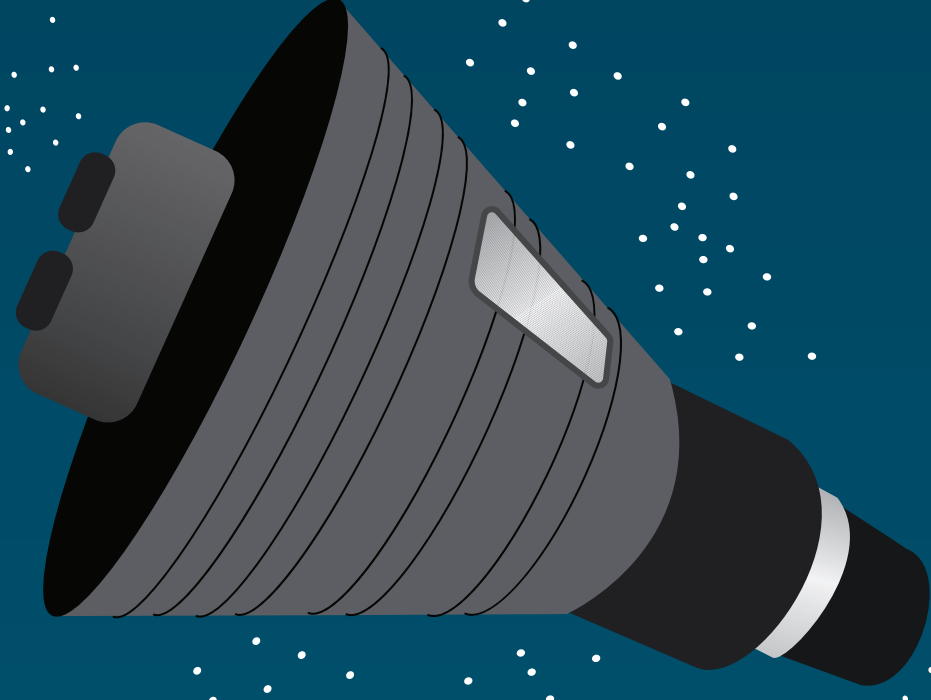
1952

Through an accidental discovery, Dr. S. Donald Stookey invents a glass that can withstand extreme temperature changes and doesn't break when its dropped. The result is the CorningWare® brand and a new family of materials, glass ceramics.



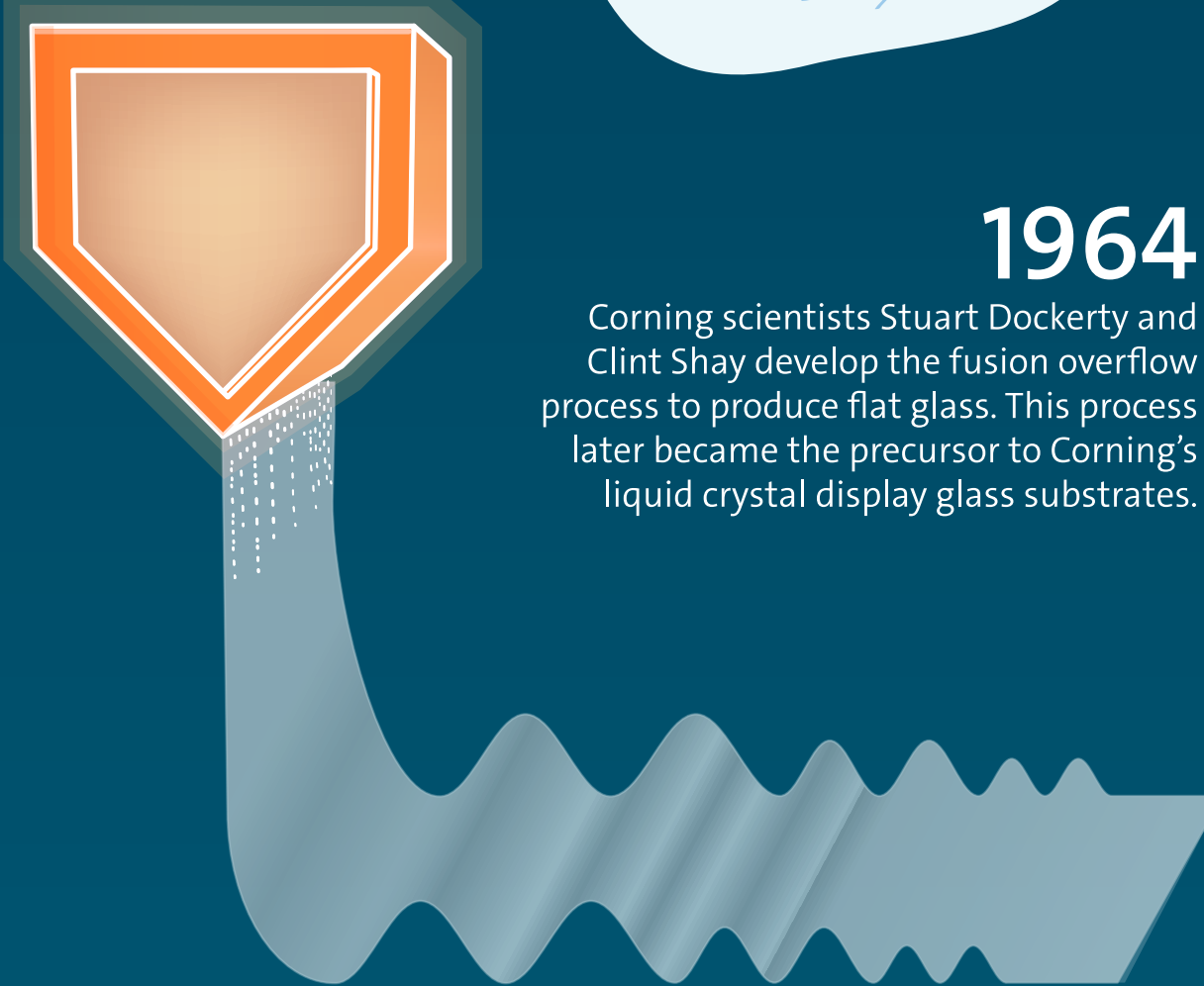
1961

The Mercury spacecraft makes the first successful American manned flight equipped with heat-resistant windows from Corning. Corning created the window glass for every manned American spacecraft from the Gemini and Apollo flights to the space shuttle.



1964

Corning scientists Stuart Dockerty and Clint Shay develop the fusion overflow process to produce flat glass. This process later became the precursor to Corning's liquid crystal display glass substrates.



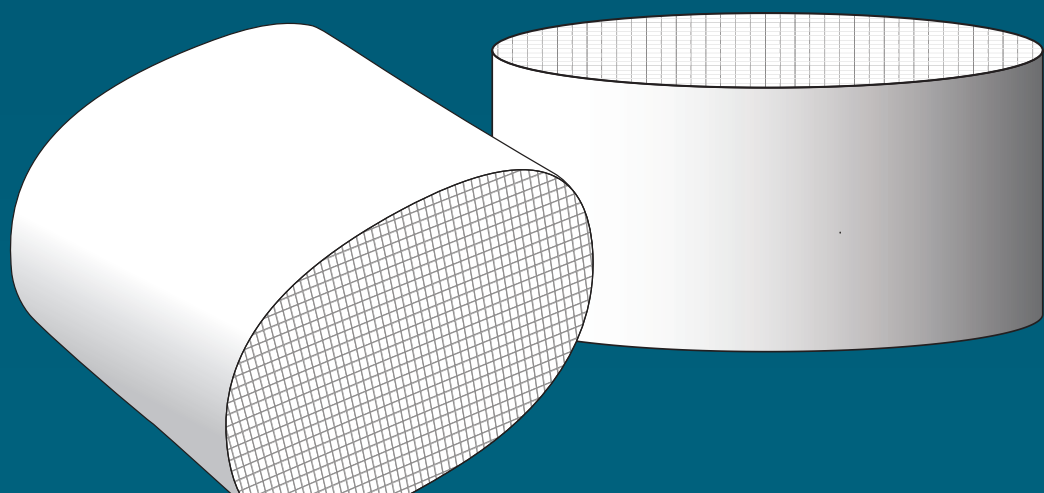
1970

Drs. Robert Maurer, Donald Keck, and Peter Schultz develop the first low-loss optical fiber that paves the way for the communications networks of today.



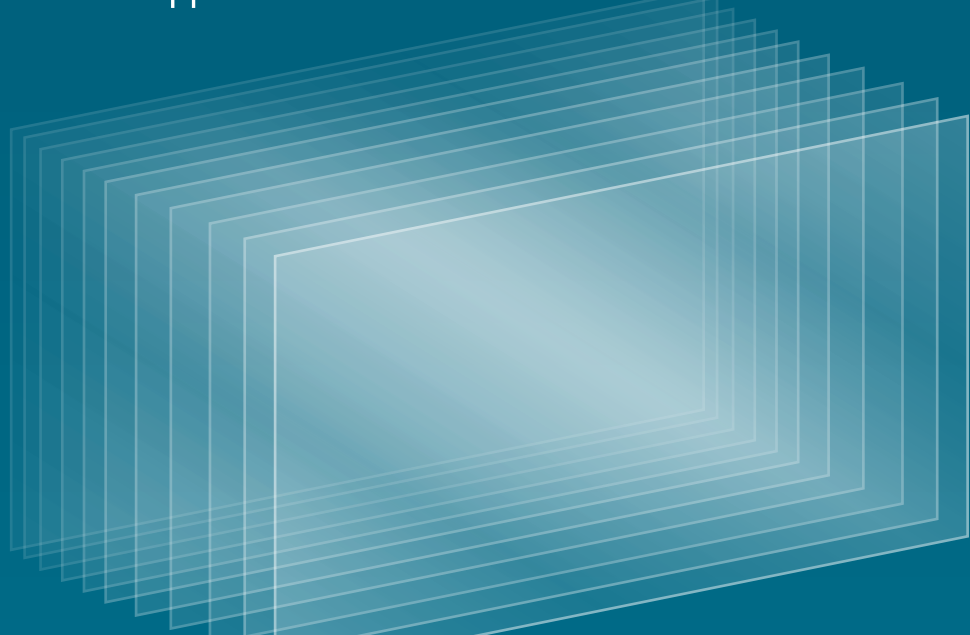
1972

Automobile makers need technology to help them meet new emissions-control policies. Dr. Rodney Bagley, Dr. Irwin Lachman, and Ronald Lewis invent the cellular ceramic substrate for automotive-emissions control that remains the standard for catalytic converters worldwide.



1982

Research labs working on active matrix liquid crystal displays (LCDs) find that ordinary glass was not precise, stable, or durable enough to meet their requirements. Corning's fusion process makes glass that fits the bill perfectly, and later creates large, high-quality flat panel displays for new applications.

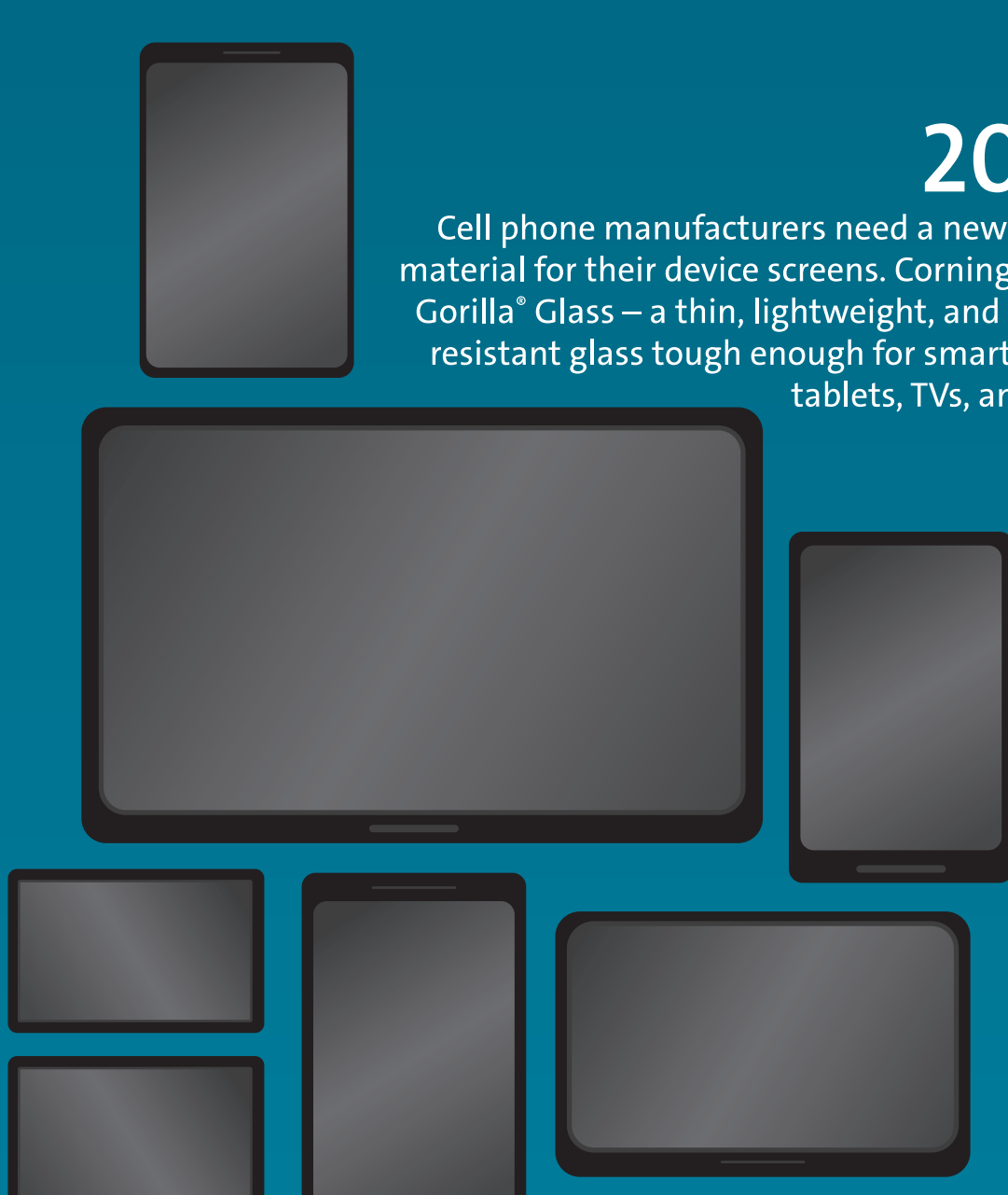


1994

Corning receives the National Medal of Technology for life-changing and life-enhancing inventions that enabled new industries – lighting, television, and optical communications.

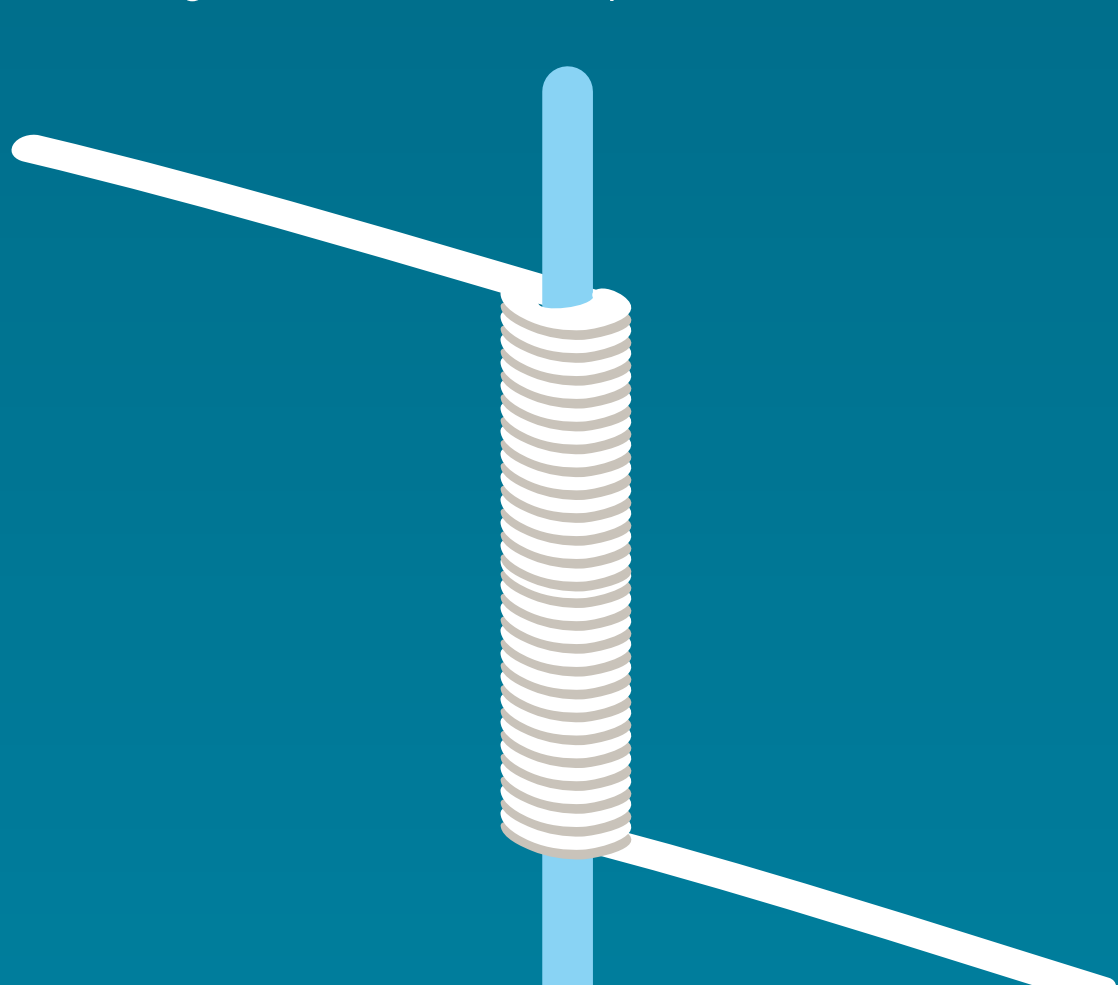
2007

Cell phone manufacturers need a new durable material for their device screens. Corning invents Gorilla® Glass – a thin, lightweight, and damage resistant glass tough enough for smartphones, tablets, TVs, and more.



2007

Corning scientists develop ClearCurve® optical fiber, an industry-changing fiber that is able to be bent at 90-degree angles with minimal signal loss, bringing optical fiber connections to buildings, data centers, and enterprise networks.



2012

Corning introduces a Gorilla™, ultra-thin, and bendable type of glass. Slimmer than a dollar bill, lightweight, and conformable, Corning® Willow® Glass revolutionizes how glass can be used and what it can do.



2013

Corning launches ONE™ Wireless, the first all-optical, converged in-building wireless solution to satisfy the increasing demand for hotels, convention centers, and arenas for high-speed, high-capacity wireless networks and virtually unlimited bandwidth.



2015

Corning's high-precision opto-mechanical assembly plays a key component in NASA's New Horizons mission that has returned the closest-ever color images of Pluto. This continues Corning's role in space exploration including the production of mirrors for the Hubble, Gemini, and Subaru telescopes.

Today

From Edison's electric light, to a lens into space, or information that moves at the speed of light, Corning's technologies are at the heart of breakthrough innovations that transform lives and industries.