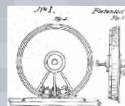


# 200 Years of Innovation and Growth

\$2,000

GDP per person (in 1990 US\$)

Mankind's pursuit of innovative solutions has powered human progress and transformed our world. Two centuries of breakthrough innovations have seen a 15-fold growth in per capita incomes in frontier economies. WIPO's **2015 World Intellectual Property Report** looks at six transformative technologies, and explores the role of intellectual property in innovation.



## 1836 Steam Locomotive

1<sup>st</sup> numbered US patent on the locomotive steam-engine

## 1837 Electric Telegraph

Cooke and Wheatstone patent the Five needle telegraph



## 1856 Plastics

1<sup>st</sup> man-made plastic invented, patented and trademarked as Parkesine

## 1856 Industrial Steelmaking

Bessemer patents an Improvement of the manufacture of iron and steel



## 1866 Scientific Plant Breeding

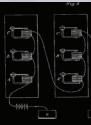
Mendel's scientific publication on plant hybridization

## 1905

First successful high-yielding wheat hybrid

## 1876 Telephone

Bell patents Improvement in telegraphy



## 1879 Automobiles

Benz patents Vehicle with gas engine

Ford mass-produces the Ford T

## 1879 Electric Lamp

Edison patents the Electric lamp



## 1906 Airplanes

Santos-Dumont flies his 14-bis

Wright brothers patent the Flying machine

## 1897 Radio

Marconi patents Transmitting electrical signals



## 1911 Nuclear Energy

Marie Curie wins her 2<sup>nd</sup> Nobel Prize

Nuclear plant APS-1 generates electricity for commercial use



## 1929 Pharmaceuticals

Fleming discovers Penicillin

## 1947

Mass production of Penicillin

## 1925 Television

Jenkins patents "Transmitting pictures by wireless"



## 1950 Semiconductors

Bell Labs' Semiconductor patent

## 1977

1<sup>st</sup> Commodore PET sold



## 1952 Supply Chain Innovations

Barcode patented



## 1954 Robotics

1<sup>st</sup> industrial robot

## 1996

Deep Blue beats chess master Kasparov



## 1953 Just-in-time Manufacturing

Toyota implements Kanban for lean production

## 1957 Sustainable Energy

Solar cells are patented



## 1969 Internet

ARPANET network deployed

## 1991

WWW is created at CERN

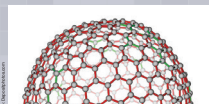


## 1973 Mobile Phone

1<sup>st</sup> mobile telephone call

## 1992

1<sup>st</sup> SMS sent

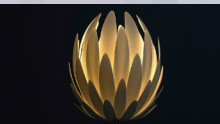


## 1981 Nanotechnology

Scanning probe microscopy developed

## 2005

Bicycle with nanotubes frame in the Tour de France



## 1987 3D Printing

Industrial 3D printers commercialized

## 2009

Low-cost 3D printers commercialized