

## The Second Industrial Revolution

The Second Industrial Revolution is a phrase used by some historians to describe an assumed second phase of the Industrial Revolution. This period includes the rise of industrial powers other than Great Britain, such as Germany and the USA. The Second Industrial Revolution occurred in the late 1800s and many countries began to rapidly industrialize to become a world power.

### The United States

The Industrial Revolution quickly spread to the textile industry of the United States, which enjoyed the same factors of production as England. The stable legal and political systems that had encouraged enterprise and rewarded initiative in Great Britain also did so, with minor variations, in the United States. No nation was more open to social mobility. Railroads played a major role in industrialization in the United States, especially after the conclusion of the Civil War in 1865. Industrialization led to the rise of large corporations owned by stockholders who shared in the profits but assumed very little risks. The United States was relatively open to change. It quickly adopted many of the technologies, forms of organization, and attitudes shaping the new industrial world, and then proceeded to generate its own advances.

1. What technological advance allowed the U.S to successfully industrialize?

### Continental Europe

Railroads were also a key factor in the expansion of the Industrial Revolution throughout Europe. With Belgium taking the lead, other nations followed, frequently bringing the factory system to small regions rather than entire nations. Germany began to industrialize in the 1830s, and by the end of the nineteenth century, became a strong industrial and military power. The German Empire came to replace Great Britain as Europe's primary industrial nation during this period. This occurred as a result of three factors: firstly, Germany, having industrialized after Britain, was able to model its factories after those of Britain thus saving a substantial amount of capital, effort, and time. Secondly, while Germany made use of the latest technological concepts, the British continued to use expensive and outdated technology and therefore were unable (or unwilling) to afford the fruits of their own scientific progress. And lastly, in the development of science and pure research, the Germans invested more heavily than the British.

The Industrial Revolution came to France in the 1850s because of a network of canals that were built, so that coal and other bulk goods could be cheaply transported by barges. Soon after this shipment of resources began, the government began building railroads. However, not all of Europe was able to set up factories. Obstacles such as mountainous terrain that prevented adequate construction and insufficient waterways kept empires like Austria-Hungary and countries such as Spain from early industrialization.

1. What allowed Germany to replace Great Britain as the major industrial power?
2. Why couldn't all countries experience industrialization?

### Egypt

Industrialization came to Egypt as a result of the ottoman ruler Muhammad Ali (1769-1849). In addition to improving communication in Egypt, he also set up factories to produce cotton cloth, refined sugar, and glass. Turning to commercial agriculture in order to realize huge profits, he forced farmers to leave their own plots and work instead on commercial plantations, growing cash crops for sale to European markets.

### Russia

The Russian czars encouraged industrialization by promoting the building of railroads. Especially significant was the trans-Siberian railroad, completed in 1904, which linked Moscow and the ports along the Pacific Ocean. Russian railroads also linked Western Europe with East Asia. Russian industrialization also reached the armaments industry, which received government support. Even with its early success, Russian industrialization was far behind many countries. It wasn't until Stalin in the 1930s that Russia was fully industrialized and producing mass goods.

### Japan

The Japanese Meiji government also encouraged industrialization, hiring foreign industrial experts to instruct the Japanese. Railroads, business and technological schools, and banks received government support. When businesses were stable enough to function on their own, the Japanese government sold them to private owners. By 1900, Japan was the most highly industrialized nation in Asia.

1. How did Egypt become industrialized?
2. How did Russia industrialize its nation?
3. What did the Japanese do to industrialize their country?