

All about impriving efficieny in agriculture and industry to, in principle, give people better lives - primarily in the UK

Invention of Selective Breeding 1760s

Robert Bakewell bred animals with certain traits to produce more animals with those traits Invention of the Seed Drill

Invented by Jethro Tull, the seed drill was made to sow seeds in neat rows, and it helped make farming more efficient

Enclosure Movement 1760 - 1832

The movement when land started to be enclosed with fences, and wealthy landowners bought land from farmers who then moved to cities. Farming became a profitable business.

Some people would move into cities, creating urban areas, which resulted in more crops, which were also cheaper, which meant a larger population and people lived longer due to price and availability of good food

> Invention of the Water Frame 1769

The water frame was a large spinning machine invented by Richard Arkwright that would be able to cope with the increased demand. It got its name because it needed energy from a water mill to power it.

### **British Agricultural Revolution** 1750 - 1850

### Development of Textile Mills 1771

The development of textile mills improved farming and also helped people make cloth and clothing faster than before.

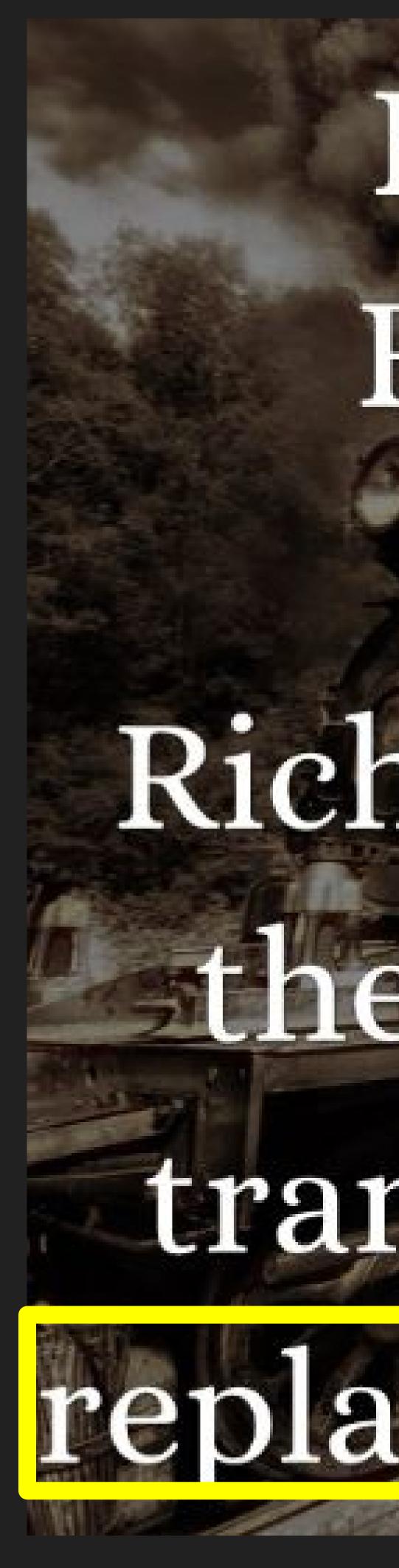
Invention of the Power Loom 1784/85

The power loom, designed by Edmund Cartwright, was a mechanized oom powered by a line shaft.

Invention of the 10-Horsepower Steam Engine 1781 James Watt's 10-horsepower steam engine was a steam engine that produced continuous rotative motion. Invention of the Cotton Gin April 1793

Invented by Eli Whitney, the cotton gin was a machine that automated the separation of cotton seed from the shortstaple cotton fiber.

This is the Big Invention that will become "commercialized" by about 1820 and this forever changes the relation between Man and Nature and strongly reinforces the Mechanical View of the World



First Locomotive February 22, 1804

**Richard Trevithick built** the first steam engine tramway locomotive to replace horse-drawn carts

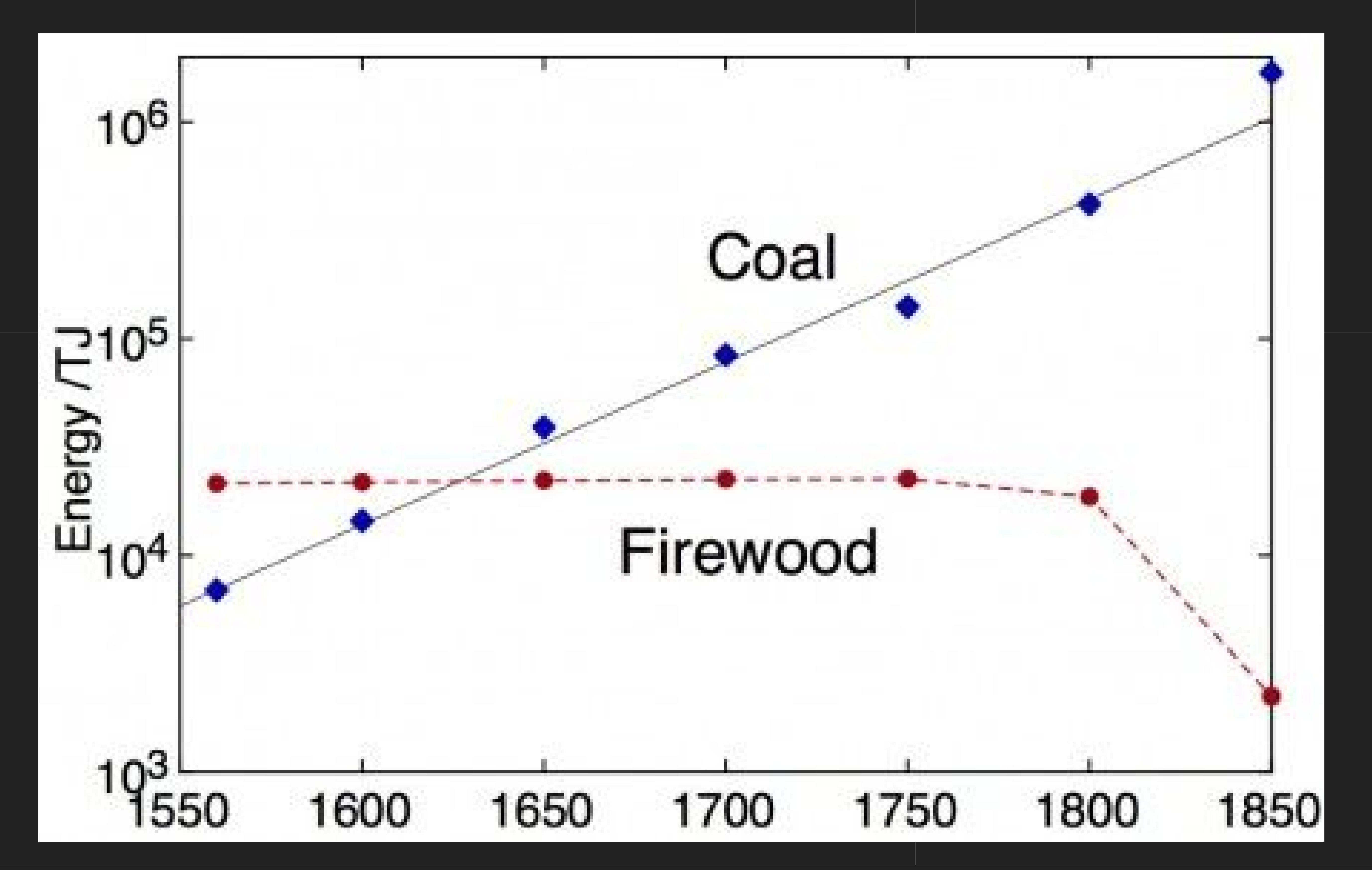
## Liverpool-Manchester Railway Founded

## The Liverpool-Manchester Railway was founded in 1830, and it was the first twin-track, inter-urban passenger railway.

Standard Oil was founded by John D. Rockefeller, and, by the early 1880s, it controlled around 90% of U.S. refineries and pipelines.

## Development of the Standard Oil Company and Trust 1870

### Ever Increasing Throughput and Efficiency and this trend will exponentially increase in the post World War 2 epoch of mass consumption which ulimately leads to Earth system changes



# **Coal Mining in Britain:** 1800-1914

	1800	1 ton of coal
	1850	30 tons
	1880	300 million ton
	1914	250 million ton

### 50, 000 miners 200, 000 miners 500, 000 miners 1, 200, 000 miners