

	<i>World</i>	<i>Europe</i>
Lighting	1	1
Consumer electronics	3	2
Corded/Cordless phones (in units)	1	1
Shavers	1	1
Steam irons	2	2
Semiconductors	9	4
Color picture tubes	1	1
Laser optics	2	1
Medical imaging equipment	3	2
PolyGram (music)	1	1

■ Company history and achievements

The foundations for what was to become one of the world's biggest electronics companies were laid in 1891 when Gerard Philips established a company in Eindhoven, the Netherlands, to 'manufacture incandescent lamps and other electrical products'.

The company initially concentrated on making carbon-filament lamps and by the turn of the century was one of the largest producers in Europe.

Developments in new lighting technologies fueled a steady program of expansion, and, in 1914, it established a research laboratory to study physical and chemical phenomena, so as to further stimulate product innovation. Marketing companies had already been established in the US and France before the First World War, and in Belgium in 1919, and the 1920s saw an explosion in their number.

It was at this time that Philips began to protect its innovations with patents, for areas taking in X-ray radiation and radio reception. This marked the beginning of the diversification of its product range. Having introduced a medical X-ray tube in 1918, Philips then became involved in the first experiments in television in 1925. It began producing radios in 1927 and had sold one million by 1932. One year later, it produced its 100 millionth radio valve, and also started production of medical X-ray equipment in the United States.

Philips' first electric shaver was launched in 1939, at which time the company employed 45 000 people worldwide and had sales of 152 million guilders.

Science and technology underwent tremendous development in the 1940s and 1950s, with Philips Research inventing the rotary heads which led to the development of the Philishave electric shaver, and laying down the basis for later ground-breaking work on transistors and integrated circuits. In the 1960s, this resulted in important discoveries such as CCDs (charge-coupled devices) and LOCOS (local oxidation of silicon).

Philips also made major contributions in the development of the recording, transmission and reproduction of television pictures, its research work leading to the development of the Plumbicon TV camera tube and improved phosphors for better picture quality.