

# Broadcast began in Italy: Thank you, Mr. Marconi!



Guglielmo Marconi, born on 25 April 1874 in Bologna, Italy, had the incredible foresight and intuition to create the reality of wireless communication. Triumphant in things that many people

before him had attempted but never succeeded, Marconi knew how to take advantage of his success by becoming, at just 23 years of age, the chief of a first-class international industry and one of the most important personalities in the history of technological development.

At a very young age Marconi dedicated his time to school and experimenting with electromagnetic waves; any means that would help him reach his goal – wireless transmission. Marconi himself reminisced about this when he won the Nobel Prize in December 1909. “In my house in Bologna, Italy, in 1895 I embarked upon experiences and tests in order to establish whether or not it was possible to transmit wireless telegraphic signals via hertzian waves...”

Marconi is a fundamental part of the broadcast industry and hence an important figure for our guide, demonstrating how Italy boasts a unique position with regard to broadcast advancements in this sector.

## Rich and qualified market

The broadcast domain in Italy has been booming since the 1970s with the number of radio and television stations increasing continuously. Today the country enjoys about 1,000 radio and 600 television stations on a local and national level.

In addition, the country boasts approximately 1,000 production and post production facilities, which makes for an extremely dynamic, competitive marketplace, encouraging the development of cutting-edge solutions for both high and low frequency ranges.

This guide provides plentiful information on the Italian firms that offer services and products to the broadcast industry. From audio and video to transmission and accessories, it comprises an extensive list of more than 200 firms and features 30 company profiles, highlighting the most innovative companies.

## In Marconi's words

As the ingenious Marconi recalled in 1932: “In December 1901, I was able for the first time, by means of stations specifically constructed for the purpose, to transmit and receive telegraphic signals right across the Atlantic Ocean, from Poldhu in Cornwall to St John's Newfoundland, a distance of about 1,800 miles.

Early in 1902, during a trip on the American liner Philadelphia to New York, I was able to receive signals from Poldhu in Cornwall

for the entire distance during the night, although during the day the transmission range fell to 700 miles. I was thus able to discover the now well-known fact that wireless signals transmitted by wavelengths of a few hundred meters can be received over much greater distances by night than during the day.

It was in June 1913 that Dr Leitzner employed the oscillating valve for the first time as carrier wave generator for transmitting speech between Berlin and Nauen, a distance of 23 miles. My first tests with a valve generator were made the following year. In March 1914, I had the apparatus installed on an Italian warship at Augusta in Sicily and speech was received on a second vessel. The two ships steamed out to the high seas and for further tests off the Sicilian coast and, consistently, perfect perception was registered over a distance of 35 kilometers, a distance subsequently increased to 70 kilometers with very limited power.

Communication was maintained constantly for 12 hours, and experiments including periods when signals were transmitted entirely over sea and also when land intervened. One complete wireless installation was also sent to New York, and communication was established between New York and Philadelphia by telephone, working both ways. (...)

At the end of the war, it became possible for European countries to resume their tests, and in March 1919, with the objective of demonstrating that transatlantic telephony could be achieved using comparatively small power, one-way communication was established and satisfactorily maintained for 10 days with Louisbourg, Canada, by transmission from my station at Ballybunnion, Ireland, using a valve transmitter with only 2.5 kW output power from the generator, a wavelength of 3,800 meters, and an aerial 500 feet high. (...)

The year 1920 is memorable for a number of important wireless telephone transmissions, which carried both news and entertainment content, and thus had the same character that broadcasting has today. To encourage public interest, demonstrations were given to show that no special skill was required to talk into the telephone, and that musical items could be transmitted and satisfactorily received with ease.

In February 1920, a vocal and instrumental music program, for two half-hourly periods each day for a fortnight, was broadcast from the Chelmsford station, using a 5-kW aerial, and the same wavelength of 2,800 meters which was being employed by Poldhu for the news broadcast to ships.

This was in order to test the transmitter range. Amateurs and shipping companies were advised, and asked to send in reports. Dame Nellie Melba gave her first broadcast in June 1920, from this station, and Malracks Melshaw in July. Worldwide interest was aroused by these broadcast concerts, and good reception was reported from distances as far away as Persia and Canada.”