The origins of the man-made fiber (MMF) industry are found in the first commercial production of artificial silk using cellulosics by De Chardonnet in France in 1892. Regrettably the business declared bankruptcy in 1894! However, not to be discouraged, the industry continued to develop other cellulosics and acetates until the arrival of nylon, which was discovered by Wallace Carothers at DuPont in the 1930s. His discovery brought the first truly MMF to the market. Initial applications including military uses during World War II and replacing silk in women’s hosiery. Nylon was followed by the ICI development of polyester, discovered in the early 1940s by two British scientists working for Calico Printers.

From these early beginnings the MMF industry was born, and through continuous development it recorded demand in 2014 of 55.2 million tons (122 billion pounds) of synthetic fiber, in addition to man-made cellulosic fiber demand of 5.2 million tons. The natural fiber industry, including cotton and wool, has a demand of 25.4 million tons.

Figure 1 shows the history of fiber demand in millions of tons, and demonstrates the dominant role that polyester has had in fiber demand growth. The graph also shows the continuing dominance of polyester going forward, as calculated by England-based PCI Fibres in its forecast out to 2030. Polyester demand passed that of cotton in 2002, and has continued to grow at a significantly faster rate than all other fiber types.

In 1980, polyester demand was only 5.2 million tons globally and by