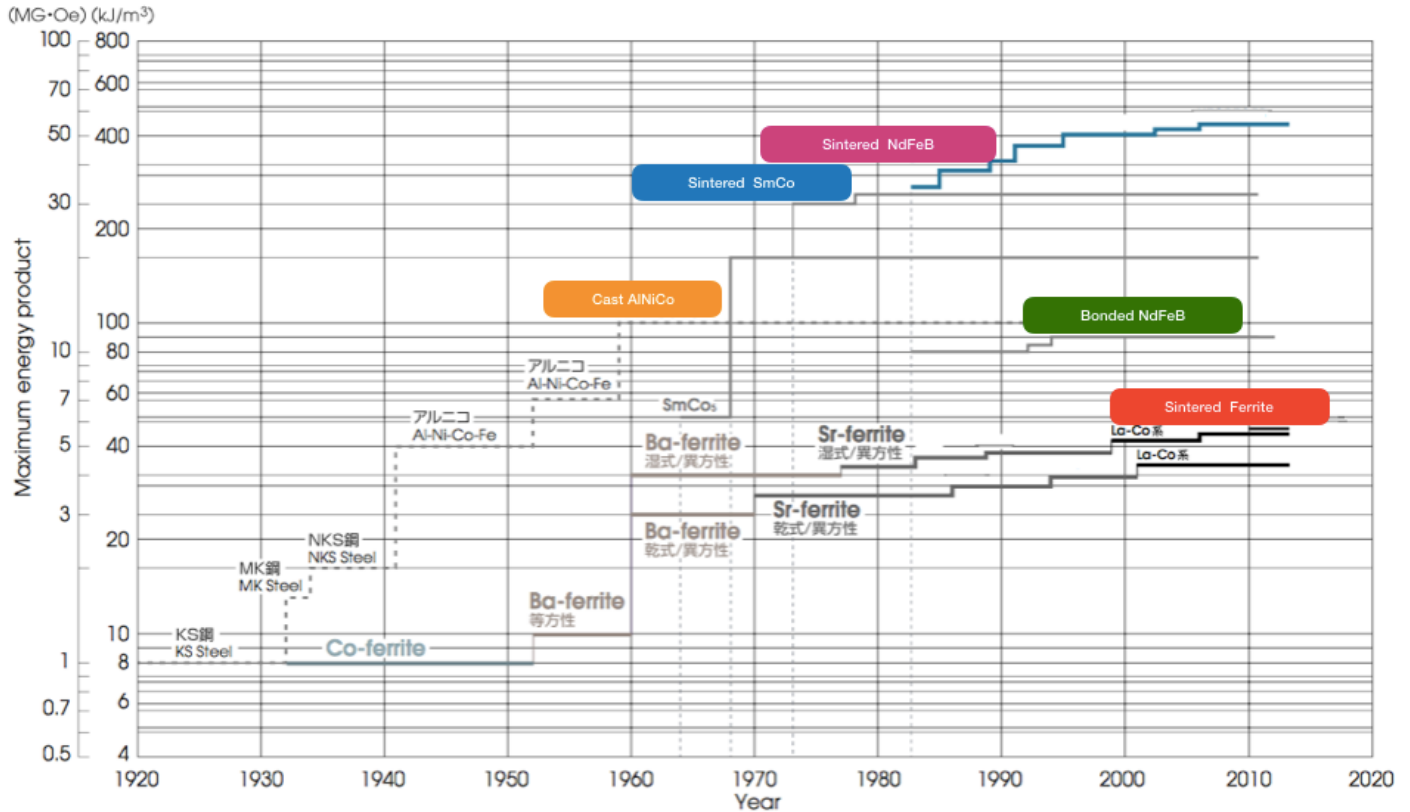


History of Magnets



In past 50 years, magnets are applied to various products including home electronics, automobiles, and infrastructure and industrial equipment, and are indispensable for modern life.

A neodymium magnet (also known as NdFeB, NIB, or Neo magnet), the most widely used type of rare-earth magnet, is a permanent magnet made from an alloy of neodymium, iron, and boron to form the $\text{Nd}_2\text{Fe}_{14}\text{B}$ tetragonal crystalline structure. Developed in 1982 by General Motors and Sumitomo Special Metals, neodymium magnets are the strongest type of permanent magnet made. They have replaced other types of magnet in the many applications in modern products that require strong permanent magnets, such as motors in cordless tools, hard disk drives, and magnetic fasteners.

Ferrite magnets are sintered permanent magnets composed of Barium or Strontium Ferrite. This class of magnets, aside from good resistance to demagnetization, has the popular advantage of low cost.

Sintered ferrite and NdFeB magnets are most popular in applications, around 90% market share. SmCo and Alnico are dedicated in special industrial equipments.