Electron Beam Processing, A.J. STIRLING, AECL Accelerators, Kanata, Ontario, Canada - Electron beam processing is used in a wide range of industrial processes, either to improve the quality of materials or to reduce manufacturing costs. This field of application is discussed together with a review of commercially available accelerators that are currently available for this purpose. The construction of one type of accelerator is described as well as the parameters for designing an industrial plant for the bulk irradiation of materials. The future of this technology, the merits of competing modalities and its economic and public acceptability are discussed.