The match of a high energy accelerator and of Energy from Nuclei: a wedlock against nature or a realistic, "cleaner" energy source ?, C. RUBBIA, CERN - The remarkable potentialities of high current particle Accelerators will be critically reviewed in the light of the most recent developments in the fields of waste incineration and energy production. Accelerator Driven Transmutation (ADT) will be specifically discussed, with special consideration for expected performance, acceptability and safety. Issues related to the ultimate, residual Radiotoxicity of the "waste" and of cost will be analysed and related to other competing technologies and in particular of Fusion. Finally the possibility of enhanced, accelerator driven neutron capture (TARC) for medical isotopes production as a substitute to a Reactor will be briefly illustrated.