The High Intensity Proton Accelerator Project has been approved for construction by the Japanese Government. The project aims to construct the world’s leading accelerator complex with intense beam power. The construction began in JFY2001. The first beam to the experimental areas is expected around the beginning of 2007. This is a joint project between KEK and JAERI (Japan Atomic Energy Research Institute), and the facilities will be located at the Tokai campus of JAERI, about 70km north-east of KEK.

Towards the High Intensity Frontier!

Major proton accelerators

Construction schedule

Various secondary beams produced with high-intensity proton beam

Variety of intense secondary beams are produced at experimental facilities. A broad range of sciences will be pursued using these beams, ranging from elementary particle physics to materials and life sciences.

Nuclear and Particle Physics

Neutron/Muon/Meson Sciences

324 MHz DTL (Drift Tube Linac) used for a part of the 400 MeV Linac.

3 GeV Synchrotron (333µA)

50 GeV Synchrotron (15µA)

600 MeV Linac

(0 - 400 MeV: Normal Conducting 400 - 600MeV: Super Conducting)

Nuclear Transmutation

Muon Science

Muon (μ)

Production of high-intensity pulsed muon beams from pion decay

Neutrino (ν)

K

Hypernuclear, Mesonic To Nuclear Matter, Neutrino Oscillation, X-Ray Decay, Antimatter

Nuclear/Particle Physics

Neutron Transmutation

Neutron Science

Magnetism, Fractals, Polymers, Structural Biology

Towards the High Intensity Frontier!

Broad Range of Sciences with Variety of Beams!