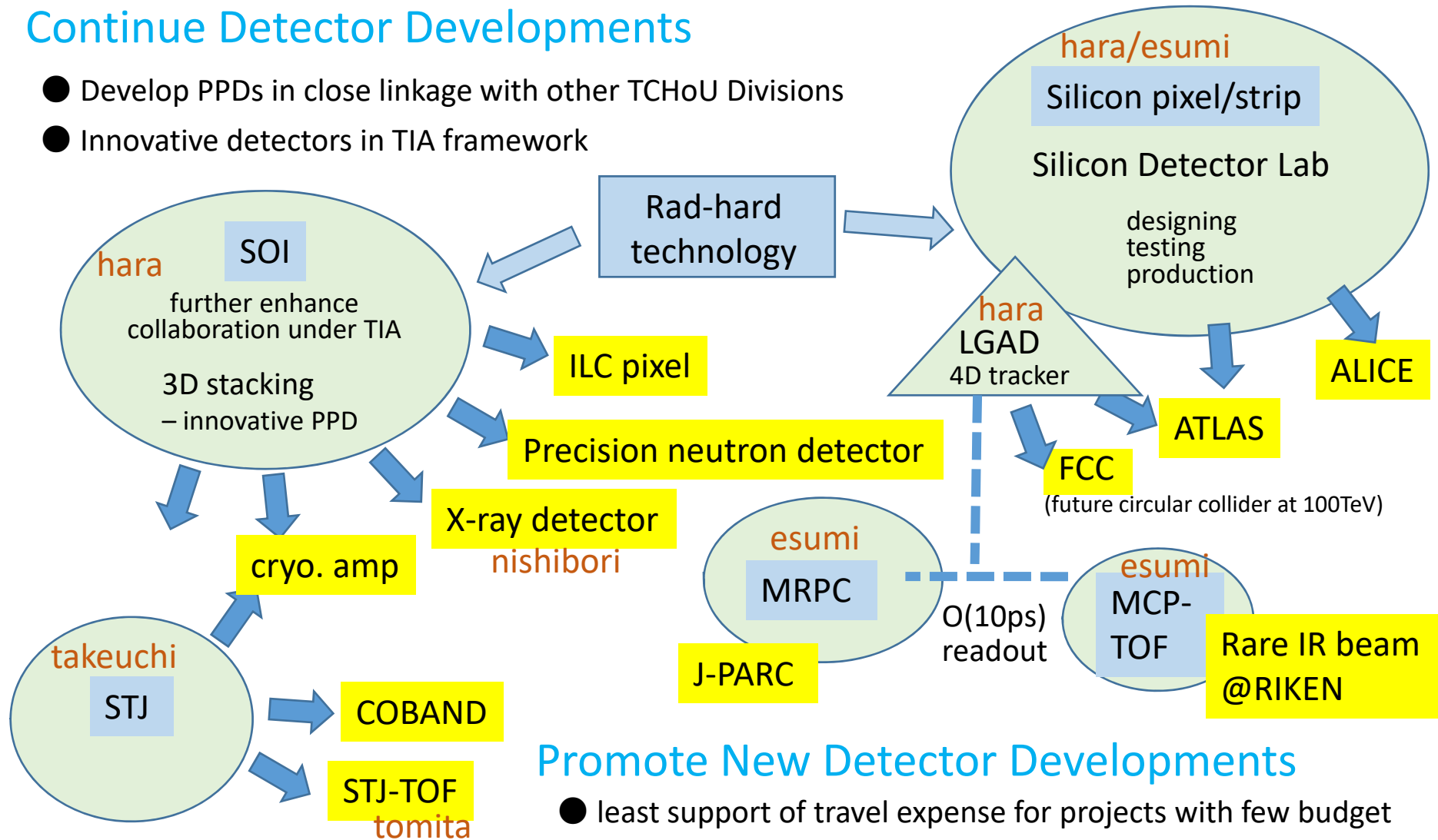


- Development of ATLAS Pixel Detectors for the HL-LHC
50x50um ピクセル(バイアス構造をもつ)をFE65p2でセンサー試験(@CERN)⇒量産へ
- Forward Silicon Calorimeter for future ALICE upgrade
W/Siパッド+APVのモジュール試験(@ELPH)。Mip信号確認、var<10%⇒complete module試験へ
- Development of TOF detector for Rare-RI Ring
thin-film/MCP based TOF試験(@HIMAC)。53-83ps達成(要求100ps)、 $\epsilon=98\%$
- Development of Microwave Kinetic Inductance Detector for Astronomical Observations
109ch MKID (100GHz, alive=87%) good NEP $\sim 10^{-16}$ W/ $\sqrt{\text{Hz}}$ (@1kHz) ⇒1THz
- R&D of quantum photo-sensor based on superconductor with cryo-SOI readout
Nb-Al/STJ-SOI amp: S/N ~ 2 for visible light/25meV photon⇒new SOI amp
- Multi-gap Resistive Plate Chamber for Time-of-Flight detector (for QGP@J-PARC)
large scale ($\sim 25\text{cm}/70$) 試験(@ELPH)。114ps/30 (center)⇒single-end, impedance matching,,
- Low-Gain Avalanche Detector (LGAD) for 4D Tracking
diode(1mm ϕ)試験+DRS4(@FNAL)。<30ps達成⇒strip type. Ampl設計
- Silicon-on-Insulator (SOI) Pixel Detector
0.65 μm 空間分解能達成(FPIX2), 2.0 μs 時間分解能達成(SOFISTv2), 1MGy⇒高機能ピクセル

Continue Detector Developments

- Develop PPDs in close linkage with other TCHoU Divisions
- Innovative detectors in TIA framework



Promote New Detector Developments

- least support of travel expense for projects with few budget
- pursuit realizing a testbeam at KEK AR (~4GeV e)