

EuCARD He-LHC'10 AccNet

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Motivation, Status, and Strategy

- Motivation
 - Should come from the users (previous talk)
- Status
 - Magnets, detectors, cryogenics, vacuum, beam dynamics, injectors,
 - Should come from the 4 major sessions
- Strategy
 - Should come from the CERN Directorate

Accelerator Strategy

- CERN is the energy frontier laboratory
- We have
 - LHC at 7TeV/beam; the highest energy collider on the planet for the foreseeable future
 - HL-LHC; proposed luminosity upgrade for installation 2020-2021 and operating until around 2030 (included the upgrade of the LHC Injectors)
 - A study for an electron proton collider LHeC supported by ECFA and a CDR due at the end of 2010/2011

Accelerator Strategy

- On the electron-positron front we have
 - CLIC linear collider study to complete the CDR by 2011 and the Technical design by 2016-2020, depending on funding.
- Strategically the Linear Collider would be constructed probably be after the HL-LHC (>2030)
- BUT: what happens if LC does not fly? (politics, finances, governance, energy and climate situation,.....). What alternatives are there?
 - HE-LHC
 - Neutrinos

Long preparation lead time

CERN Accelerator Strategy

1. LHC Operation at 7 TeV/beam up to design luminosity
2. HL-LHC for installation in 2020/2021
3. Linear collider TDR for 2016-2020
4. Study HE-LHC as a feasibility study
5. R&D on high power proton drivers
6. CDR for a LHeC (ring-ring, ring-linac)

Thank you and have a
good mini workshop