

# Status of ILD Resource Survey

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@ILD Analysis/soft meeting

# Purpose

- This survey has two-fold purposes
  - Input to the MEXT TDR validation WG
    - Budget and human resource needed for preparation (R&D), construction, and operation
  - Input to a LCB subcommittee on governance and management
    - Number of people on-site
    - Requirements on campus / facilities

# Status of the survey

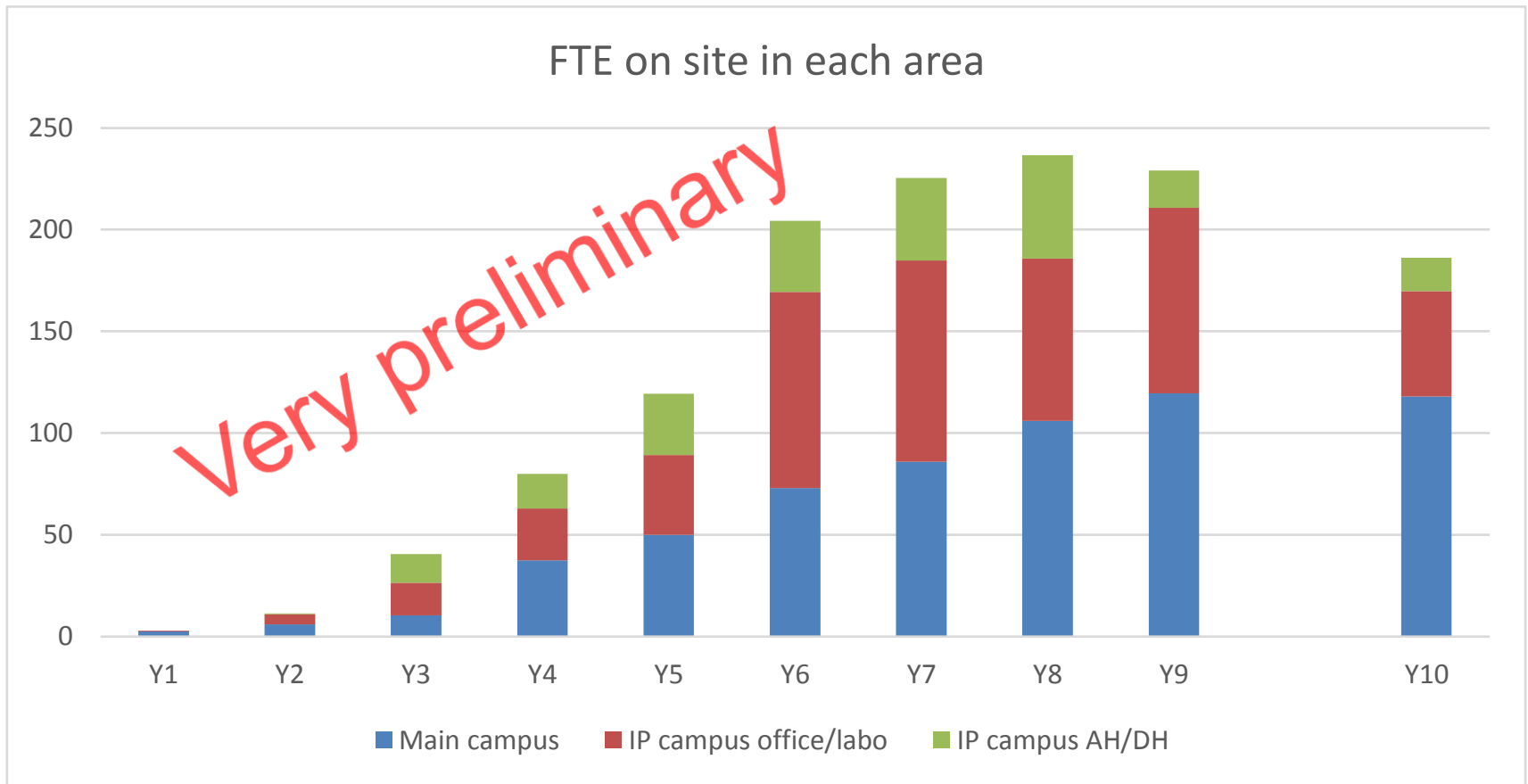
- Still temporary numbers are given for
  - Yoke
  - Coil
  - Common engineering
  - SET/ETD
  - FCAL
- Not included yet
  - Global DAQ
  - Running cost (Y10)
  - Preparation (R&D) cost
- FTE distribution in each area on site is made
  - Main campus
  - IP campus office/laboratory
  - IP campus assembly hall/detector hall
- New request for information on budget and human resource needs during preparation (R&D) phase

# FTE in each area on site

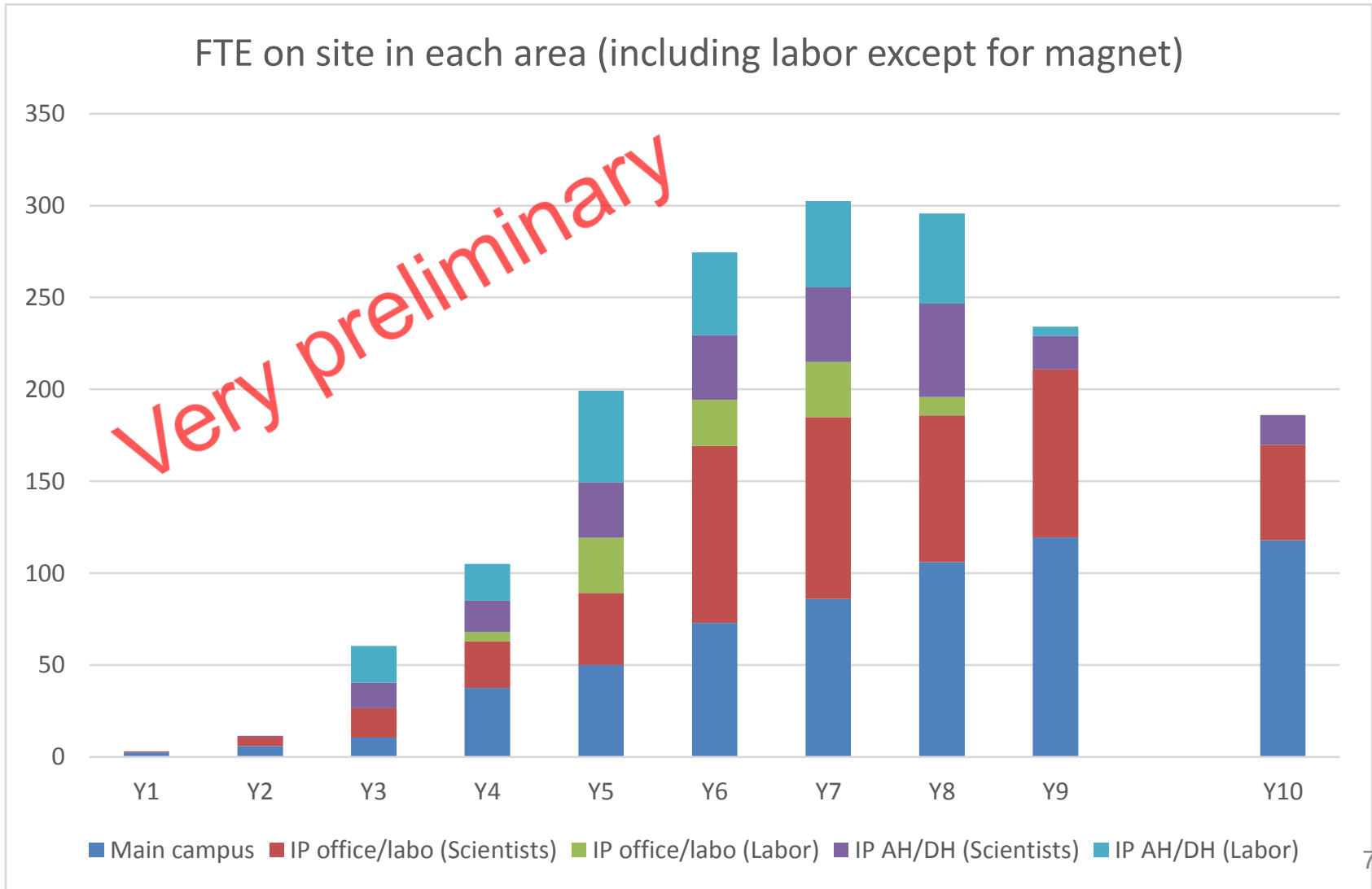
- Assumption
  - There are main campus and satellite campus near (above) IP (IP campus)
  - In IP campus, there is a main building which includes office rooms, laboratories, and **clean rooms**
  - VTX, SIT, and FTD are installed into the inner support tube in a clean room, and installed into ILD as a “Inner Si tracker” in the detector hall
  - TPC MPGD modules are installed into the end-plate in a clean room, and whole TPC is installed into ILD in the detector hall
  - Calorimeter/Muon-detector modules are tested in a laboratory at IP campus, and installed into ILD in the assembly hall



# FTE in each area on site



# FTE in each area on site including “Labor” except for magnet



# Resource need in R&D phase

- Assumption in TDR validation WG
  - After approval of the ILC project, 4 years are necessary for the preparation to get ready for construction
- We can expect larger amount of budget in this preparation period
- We are requested to clarify budget and human resource needed in this period
  - A rule of thumb; 10 – 20% of construction cost/manpower
  - But we should try to estimate by ourselves
  - Estimate of each sub-detector will not be disclosed: ILD R&D cost as a whole
- What happens on detectors in this period
  - R&D
  - Proposal
  - Technology choice
  - Detailed (construction ready) design
  - Industrialization
  - TDR of sub-detectors



# Calendar

- Next TDR validation WG meeting: late January
  - Discussion issues
    - e+e- sources, DR, RTML, BDS, MDI, Detectors (5 min.)
    - How to secure and develop human resource?
  - Deadline for material submission on January 6
    - We cannot update it before the meeting in late Jan.
- SiD workshop / MDI/CFS meeting: Jan.12 – 15
  - Consistency check of resource need between ILD and SiD
    - Magnet labor issue has to be clarified: There is a large discrepancy of estimates of “Labor” for magnet between SiD (40 MY) and ILD (500 MY)
  - Requirements for surface facilities
    - Space for assembly and test of detector modules (clean rooms, etc.)
    - etc.