Work packages

Detector simulation
  Geometrical acceptance
  Size of tiles
  Scintillator + SiPm choice (BC408,418,420,422, EJ232[1] + Sensor with right sensitivity)
  Position and number of sensors
  Reflective vs. absorptive wrapping

Physics simulation
  Forward endcap, backward endcap, barrel
  Timing applications
    event timing
    event selection
    relative TOF
  Fast track seed
  Physics channels
  Conversion probability/detection

Experimental R&D
  scintillator
    radiation hardness
    light yield
    emission spectrum
    chemical stability
  test of sensors + amplifiers
    time resolution
      time response
      amplitude
      signal/noise
    radiation hardness
    matching spectral sensitivity
    coupling to scintillator, glueing

  electronics
    discriminator ASIC (NINO, PADI, ..., double threshold...)
    TDC ASIC (GET4, ...)
    SiPM-ASICs(...)
    communication chip
    prototyping

  mechanics
    construction design of modules (light tightness, wrapping, ...)
    integration with DIRC
    prototyping

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1   Eljen Technologies