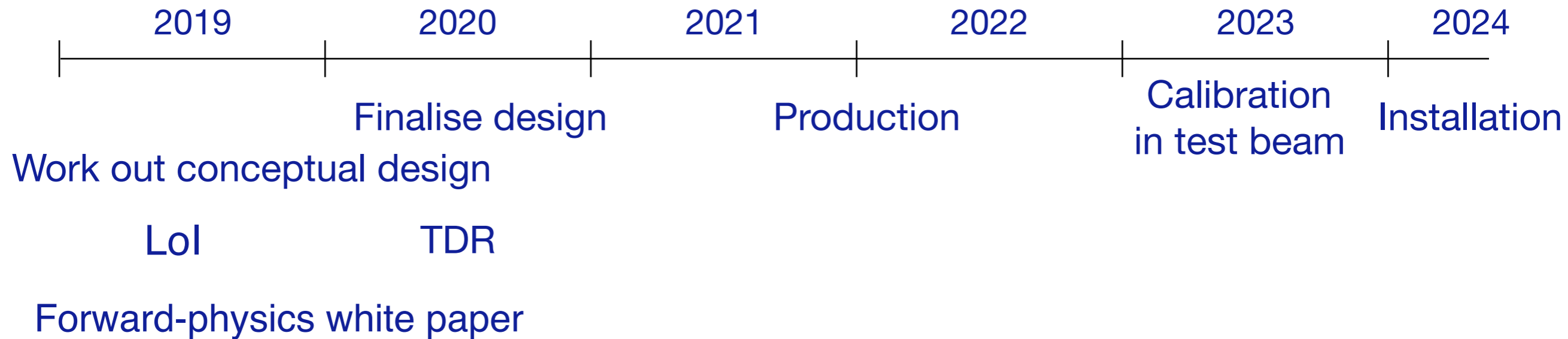


Wrap up discussion

A tentative schedule



Need to make concrete steps/decisions this year to have a final design by end of 2020

In parallel: understand needed/available resources

First draft of TDR by end of 2019?

What is needed for the Lol?

- Position of FOCAL
 - Consider moving to larger rapidity — needs study
- (Tentative) decision on analog readout ASIC
 - Discussions ongoing
- Evaluate options for inter-layer distance
 - So-far, have assumed small distance; implies long cables
 - Study impact of larger distance in simulation
- Follow-up discussion of LHCb plans for forward photons?
- FIT integration — some first steps would be useful

Moving to larger rapidity?

- Extend rapidity range to 6?
 - Improves uniqueness! Also e.g. explore lower x in proton PDFs
- Implies move to 8-10m, close to beam (4cm)
 - More conversions in the beam pipe; may be prohibitive
 - Larger energies; smaller opening angles
 - does π^0 rejection still work?

Need simulation studies; could get first answers with modest amount of effort (1 experienced-postdoc-month?)

Future meetings/following up

- Resume weekly FOCAL meetings
- Collaboration meeting ~ 1-2 months from now?

Thanks to the local organisers:
Tatsuya, Motoi, Yasuo, Norbert, Toru and team
for hosting us!

Topics under discussion

See also recent meeting at CERN: <https://indico.cern.ch/event/782776/>

- PAD layers
 - Key point: selection of digitisation ASIC
 - Long lead time, in particular if we need/want a development step
 - Implications for cooling, layout, etc
- PIXEL layers
 - ALPIDE is the main technology; verify high-occupancy use
- Integration/mechanical design
 - Key point: distance between W layers; Molière radius
 - Electronics in layer or outside sensitive volume
- Trigger/readout
 - Synchronisation between PAD and PIXEL
 - Data rates/readout infrastructure
- HCAL
 - Start exploring options — make conceptual design
- Integration in ALICE
 - FIT and FOCAL: clear overlap in phase space; integrate functionality?