Recap – French Symposium

https://indico.in2p3.fr/event/34662/

- In general I have the impression that we had the opportunity to raise our voice
  - … and we didn't even appear quite well coordinated
  - And we made ven some people at least a bit nervous

Slide of the Synthesis by GTS

- The FCC e^+e^- collider has the most compelling scientific program, and opens offers a clear path towards the energy frontier with the FCC-hh.
- The projects discussed below have a reduced physics output, and are considered if FCC-ee is not accepted.
- If Europe leads the development of future accelerators, and FCC-ee is not feasible :
  - a linear collider is the first fall-back. The smaller event rates are partly compensated by beam polarisation and a higher energy reach.
  - In last resort, LEP3 has significantly less reach than the FCC or LCF, but is still in line with the 2020 ESPPU.
  - magnet R&D to be pursued for later hadronic/muonic options.
- in case a (circular) e^+e^- collider is being constructed elsewhere:
  - the threshold for a linear e^+e^- collider to be competitive/complementary is high : >500 GeV (the higher the better).
  - If not, a hadronic program offers more scope : at 100 TeV, in the FCC tunnel if affordable; if not, revert to HE-LHC (~25 TeV). Accelerated R&D on high-field magnets is required for a start-up around ~2050.
  - an ep collider such as the LHeC could operate in the 2040' and is required for a proper interpretation of such data. It also has high scientific value on its own. Technical and financial aspects to be clarified.

Recap – French Symposium Aftermath

- German and Spanish conclusions very similar to French ones
- Poland obviously as well,
- UK is in the making
- Italy is 100% FCC w/o alternatives

- Any substantial news in France since symposium?

- I would have expected that a draft of the GTS synthesis would have been circulated
  - The one shown at the symposium contained a number of mistakes
  - It is important that the messages on last slide are picked up in the “community input”
  - Should we ask for the status of the GTS synthesis?
- The document by the Funding Agencies is another issue
  - Most likely none of us will see it before its publication
  - If we won’t see it I hope that also none of the “others” will see it (mais rien n’est moins sur)
  - Christelle Roy made clear that the time is not the best for an expensive particle physics project is not

LCVision – News

- Main “technical” news, assume now Q_0 for SCRF technology of $2x10^{10}$
  - Can be considered as standard now
  - => Higher lumi at same cost
- Cost and running scenarios see slides by Jenny (shown at last Coordination Meeting)
- LCVision documents
  - Generic
    - Takes shape, text in nearly each section
    - It’s really great to see how many spend lot of effort to get the text done
      - From France: Dirk, Sabine, Angeles, Akira, Walid, R.P.
    - Input for global interpretation needed
    - ERL is a bit behind
    - Decided to drop section on Governance (considered to be too delicate up to detrimental for the goal)
    - Next job is to streamline content
      - Lot of work since we need soon to pass the document for proof reading
    - A first version has to be on arxiv before March 28th
  - Allow me to remind on the non-collider experiments which may be appealing to a community so far not/less connected to linear colliders, e.g. more tau, D and B’s as for SHIP
  - Gammagamma very interesting option (though not trivial to integrate)
    - “Two colliders in one project”

LCVision – Communication

- 30th of January - Newsline article on LCVision event
- Indico page to collect documents on LCVision (may still be beautified)
  - … including link to join the author list
  - It's maybe time for French groups to sign up (including IJCLab)
  - Of course we are in competition with the CERN communication machinery of FCCee
- Several talks in European Countries on ESPPU
  - … e.g. Maxim in Belgium
  - Talk by Michael at US Strategy Meeting this week
- All material is/will be collected on following webpage
  - https://agenda.linearcollider.org/event/10617/
  - … including our contributions to French discussion (even if already in November)
- LCVision document will be published as "EPJST Special Volume: "Benchmarking Physics at Future Lepton Collider in the Light of the LHC"
- I seem to remember that also Nature is following up the discussion on alternatives to FCCee (but I don't recall the details)

LCVision – Communication in France?

- We plan a LCVision seminar at IJCLab
  - Combined talks by Angeles and Roman
  - Everybody would be welcome to come
- However, better would be dedicated seminars at various institutes
  - By default seminar Angeles/Roman could be repeated at other institutes
  - Other local formats might be more appropriate
- Ecole de Gif → futures collisionneurs

LCVision – ESPPU Contribution CCL a l’input?

- Can start from 2 page CCL input to French Discussion
- Emphasize French contributions to linear colliders and its spin-offs (labs but also [French, European] industry)
- … a similar argument applies of course also to colliders
- Present LCF as viable option for CERN (not as Plan B rather A’)
- Say that cost will be comparable to LHC and that cost can be staged