

FCC-contacts – September 29th

- Meeting FCC-contacts avant Noël

| | | |
|-------|------------|------|
| Lundi | 25 Octobre | 9H15 |
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| Mercredi | 17 Novembre | 9H15 |
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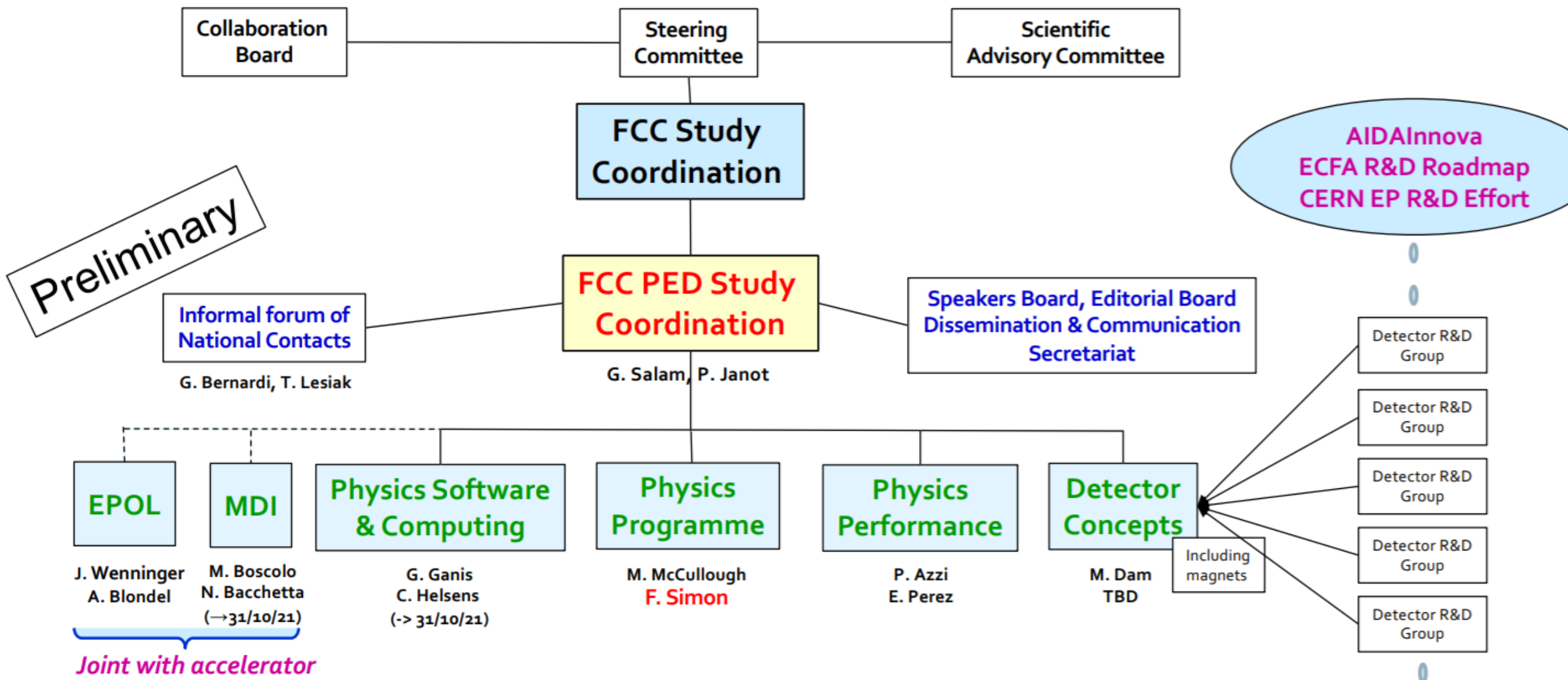
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| Mercredi | 15 Décembre | 9H15 |
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- News from FCC coordination meeting

- Agenda FCC-France

- Demandes Dialog

The PED Pillar Organisation - preliminary



- Once all names are known, there will be a “global fit” to ensure the geographical balance
→ Deemed essential to get the support from the various Member States to the Project

FCC feasibility study organization - preliminary

| FCC Study Study leader | Study support and coordination | | | | |
|--|--|--|--|---|---|
| | study/collaboration secretariat | study support unit | EU projects | collaboration building E. Tsesmelis | Communications J. Gillies (local com.) |
| Physics, experiments and detectors P. Janot, G. Salam | Accelerators T. Raubenheimer, F. Zimmermann | Techn. coordination techn. infrastructure K. Hanke | Host State processes and civil engineering T. Watson (1 Nov. '21) | Organisation and financing models P. Collier (interim) | |
| physics programme M. McCullough, F. Simon | ee design K. Oide, A. Chance | Electricity distribution J.-P. Burnet | administrative processes F. Eder, J. Gutleber | project organisation model NN | |
| detector concepts M. Dam, NN | hh design M. Giovannozzi | cooling & ventilation G. Peon | placement studies J. Gutleber, V. Mertens | financing model F. Sonnemann | |
| physics performance P. Azzi, E. Perez | technology R&D R. Losito | integration, installation, transport, logistics, JP Corso, C Colloca, C Prasse | environmental evaluation J. Gutleber | procurement strategy and rules NN | |
| software and computing G. Ganis, C. Helsens | ee injector P. Craievich, A. Grudiev | general safety, access, radiation protection, T. Otto | tunnel, subsurface design J. Osborne | in-kind contributions NN | |
| ee MDI M. Boscolo, NN | | Computing, controls, communication, networks D. Duellmann | surface buildings design NN | operation model P. Collier & J. Wenninger | |
| ee energy calibration & polarization (EPOL) J. Wenninger?, A. Blondel | | geodesy & survey H. Mainaud Durand, A. Wieser | surface sites layout and access NN | | |
| | | Cryogenics systems L.P. Delprat | | | |
| | | Operation, maintenance, availability, reliability J. Nielsen | | | |

Action items from July coordination meeting

□ Software and Computing work package

- Proposals invited for participants in a software & computing task force aimed at revising the mandate, establishing a Work Breakdown Structure, and finding a co-coordinator (see p.11 of Patrick's slides)

□ A dedicated “task force” could help in this perspective, with

- ◆ Experts (former Computing/SW coord.) from CMS, ATLAS, LHCb, ALICE, Linear Collider (*)
- ◆ A few direct stakeholders (users and developers) from FCC study
 - The specific composition is being discussed, and will be presented next time

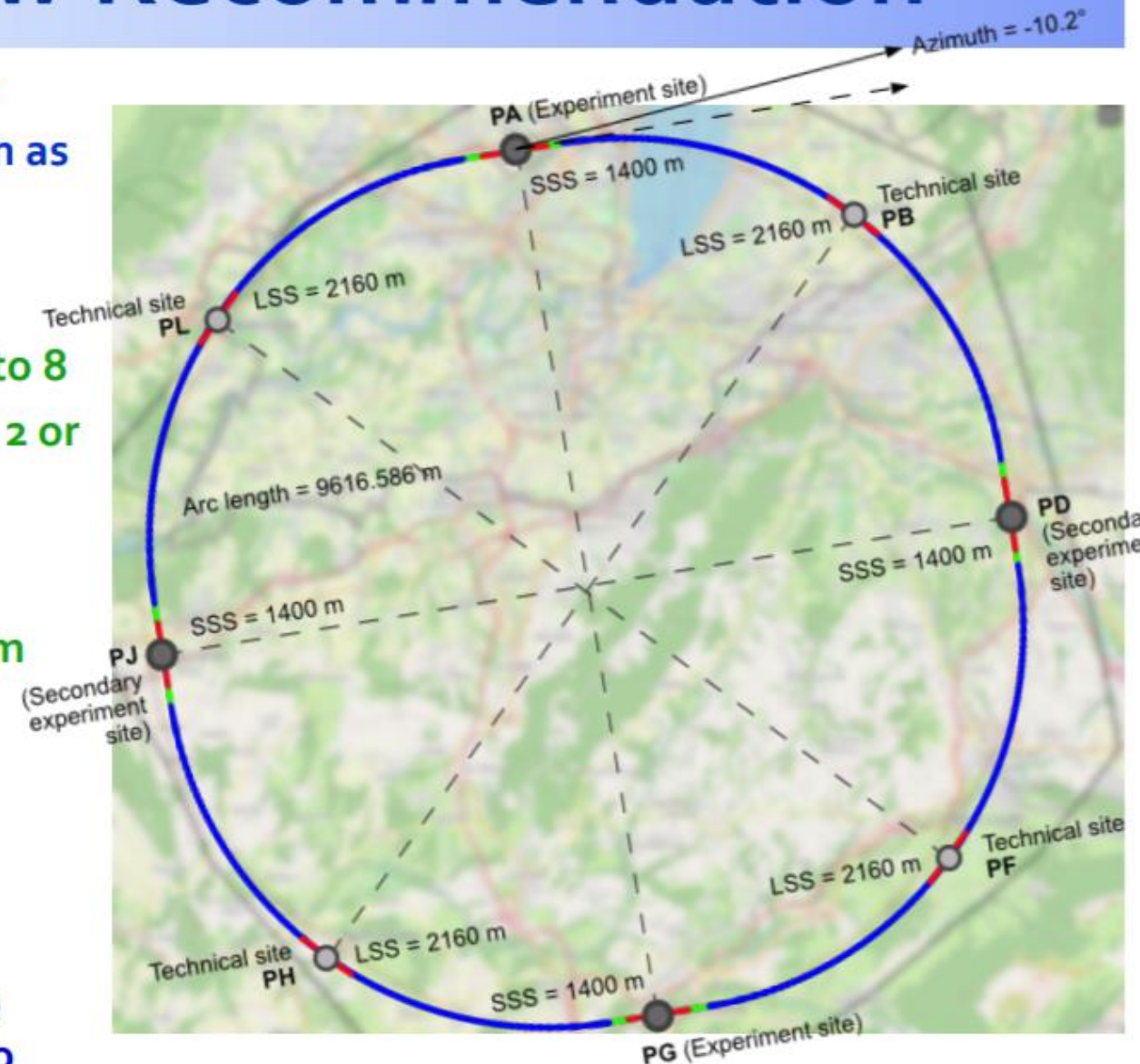
Please send proposals for participants to the task force !

- ◆ Not many proposals received, but “task force” is formed
 - David Lange (Princeton, CMS) accepted to chair the effort
 - All contacted people agreed to participate !
 - First meeting Thursday 23 September, 4-6pm
- ◆ One or two people can be added, if specific profile missing in the list

Patrizia Azzi
Tommaso Boccali (CMS)
Gloria Corti (LHCb)
Giulio Eulisse (ALICE)
Frank Gaede (ILC)
Gerardo Ganis
Paolo Giacomelli
Clément Helsens
Patrick Janot
David Lange (Chair)
Edward Moyse (ATLAS)
Emmanuel Perez
Frank Simon

FCC Placement Review Recommendation

- **Main recommendation of the placement review**
 - ◆ “The lowest-risk 8-point option should be chosen as the preferred variant for carrying out the next concrete steps towards understanding the FCC feasibility.”
 - Number of surface points reduced from 12 to 8
 - Fourfold super-periodicity compatible with 2 or 4 IPs (choice to be made later) for FCC-ee
 - ➔ Request came from the FCC PED Coordination Group, quite feasible !
 - Total length reduced from 97.75 to 91.17 km
 - ➔ PA close to LHC Pt8
 - ➔ PG about 10 km north from Annecy
 - LSS: 2.16 km; SSS: 1.4 km
 - ◆ Seek concertation with local authorities
 - ◆ Key representatives of French “Ministère de l’Enseignement Supérieur, de la Recherche et de l’Innovation” were met end of August at CERN to discuss FCC placement and feasibility study



Possible FCC placement

FCC Placement (cont'd)

- **Civil Engineering Process with Host States**
 - ◆ Iterative process with the HS authorities
 - Territorial impact analysis, access concepts and update of costs
 - On our side (PED), it includes special requirements about the four surface sites that could host HEP experiments
 - Buildings, laboratories, facilities, etc.
 - Help welcome ! Werner Riegler has been approached.
- **Consequences on FCC parameters (and therefore on PED) to be integrated**
 - ◆ FCC-ee : Luminosities, energy spread, beam backgrounds, polarisation, maybe 4 IPs ...
 - ◆ FCC-hh : Maximum energy, other ?
 - Weekly meeting (Tuesday, 3pm) organized by Tor Raubenheimer – kicked off yesterday
- **Full iteration by FCC Week 2022**

FCC Collaboration Board Meeting

Michael Benedikt

- **Tuesday 14 September 2021, remote zoom meeting**
 - First ICB meeting since FCCW 2019 in Brussels.
 - **Starting point for Feasibility Study Phase**, based on **new MoU**
 - Institutes that wish to continue should sign in coming months the new MoU.
- **Draft agenda:**
 - Formal approval of institutes that signed the (old) MoU since the last ICB at FCCW 2019.
 - New governance structure, deliverables and milestones, new MoU
 - Confirmation of institutes' intention to continue participation during the Feasibility Study
 - Update of CB representatives and
 - Discussion of procedure to elect CB chair (present chair Philippe Chomaz was elected at ICD during FCCW 2018 in Amsterdam "for a first period of three years until Jan 2022")
 - Discussion of procedure to appoint up to 5 SC members from participating institutes
 - Date for extraordinary CB meeting

FCC Global Collaboration WG

- **Last meeting took place this morning**
 - ◆ Several countries being formally approached
 - See presentation from Emmanuel Tsesmelis (chair) later today
 -
 - ◆ Engagement meetings being scheduled with some countries
 - Korea: 3 Sept 2021; Pakistan: 14 Sept 2021; Portugal: Oct/Nov 2021.
58 participants 165 registered (!)
 - ◆ Current format of engagement meetings (~2h)
 - Introduction to the FCC Feasibility Study (Michael Benedikt)
 - Presentation on the FCC Physics case and FCC PED Studies (PED representative)
 - Presentation on the FCC Accelerator Science and Technology (Frank Zimmermann)
 - The FCC Global Collaboration (E. Tsesmelis)
 - Presentation(s) from the Country Scientific Community
 - ◆ Web page: <https://fcc-global-collaboration-working-group.web.cern.ch/>

The PED Pillar organisation, to be done soon

□ Work Packages

- ◆ Seek and nominate missing co-coordinator, when needed (DC, S&C, MDI)
- ◆ Finalise / Update / Initialise the work package structure and coordination body
 - Identify relevant stake-holders (e.g., working group conveners)
 - May organize mini-review to this aim ?
- ◆ Mailing lists

□ The PED Coordination Group will consist of

- ◆ The work package coordinators
- ◆ The chairs of the support groups
 - Editorial Board, Speakers Büro, Dissemination and Communication, IFNC, ...
- ◆ The organizers of the monthly PED general meetings
- ◆ Plus a few add'l members chosen by the pillar coordinators

□ Some of the support groups will need to be installed

- ◆ Editorial Board, Dissemination and communication (see Marcin's presentation), ...

Upcoming Events

- ❑ **ECFA Higgs Factory workshop**
CERN, November 9-10: (TBC)
- ❑ **FCC France Workshop**
 - ◆ Annecy, 30 Nov – 2 Dec 2021 (hopefully in person)
- ❑ **Lepton-Photon 2021 ([link](#))**
 - ◆ Manchester, 10– 14 Jan 2022
 - Deadline for abstracts: 15 Sep 2021
- ❑ **FCC PED Workshop**
 - ◆ Liverpool, 7 – 11 Feb 2022 <https://indico.cern.ch/event/1066234/>
- ❑ **FCC Week 2022**
 - ◆ Paris, 30 May - 3 June 2022

FCC Week 2022 - preparations

Michael Benedikt

- **Date: Monday 30 May 2022 – Friday 3 June 2022**
- **Location downtown Paris**
 - Preferred: Hotel with conference facilities to easy potential hygienic measures.
 - Alternative conference centre
 - CERN IPT presently collecting offers
- **Local organizing committee:**
 - Preparatory meeting mid September
 - Invited: Ursula Bassler, Gregorio Bernardi, Jean-Luc Biarrotte, Philippe Chomaz, Anne-Isabelle Etienvre, Pierre Vedrine.
- **Meeting format:**
 - Following format of previous FCC Weeks
 - Monday plenary, Tuesday – Thursday parallel, Friday plenary
 - “Public” event: proposal to focus on local *scientific community*

- Faire le points sur les derniers développements/projets en France sur détecteurs/R&D, Analyse, Theorie, Accélérateurs.
- Augmenter la participation Française au Feasibility Study.
- Associer les communautés FC
- Préparer les meetings PED de Liverpool en Février (7-11) et FCC-week à Paris fin Mai-Début Juin (30/5-3/6)
- Miser sur le présentiel (les speakers en particulier), repas communs
- Heures de début et de fin:
Début Mardi 13h30 (et repas sur place if arriving early)
Fin Jeudi 15H30 (ou 17H00 ?)

Proposition d'Agenda (suite aux discussions du 14/9)

Mardi 30/11:

lunch (12h00-13H30)

13h30 - 15h00 Session Welcome/Intro, avec G. Lamanna et plusieurs extérieurs (including FCC, CEPC, ILC)

15h30 - 17h00 Session Accélérateurs

17h15 - 18h45 Session R&D Detectors (part-1)

19h00: Cocktail au LAPP

Si Laurent V. est présent possibilité de table ronde de 19h à 20h et cocktail à 20h.

Mercredi 1/12

09.00-10.30 Théorie

11.00-12.30 Session R&D Detectors (part-2)

lunch (12h30-14H00)

14h00-15h30 HF & QCD

16h00-18h00 EW / WW

18h15-19h15 table ronde

20h30 Banquet en ville

Jeudi 2/12

08h30-10h30 Higgs

11h00-12h30 Top

Lunch (12h30-13h30)

13h30-15h00 Special session ILC/FCC det ?

15h00-15h30 Conclusions/prospects IN2P3 (en particulier si LV vient le mercredi plutôt que le lundi).