

Informal Forum of National Contacts



Introduction / Structure
Goals of the Meeting
Focus on PED here but similar challenges for the Accelerator

Goals of the FCC/PED Feasibility Study

- Design the experimental setup and prepare the theoretical tools
 - To be able, demonstrably, to fully exploit (and communicate) the FCC capabilities
 - To prepare the ground towards detector operation and data analysis in 2040+
- A proactive preparation is necessary from all sides
 - Consolidate the physics case for both colliders of FCC
 - Develop the necessary theoretical calculations
 - Tune the accelerator design and running mode to optimize the physics case
 - Provide coherent sets of detector requirements and physics analysis tools & methods
 - Benchmark several (at least four) detector concepts for FCC-ee to match these requirements
 - Develop a common software infrastructure
 - Evaluate computing requirements
- Last but not least
 - Build an international community of particle physicists around the project

From P. Janot presentation
at Plenary-ECFA, Nov. 2021

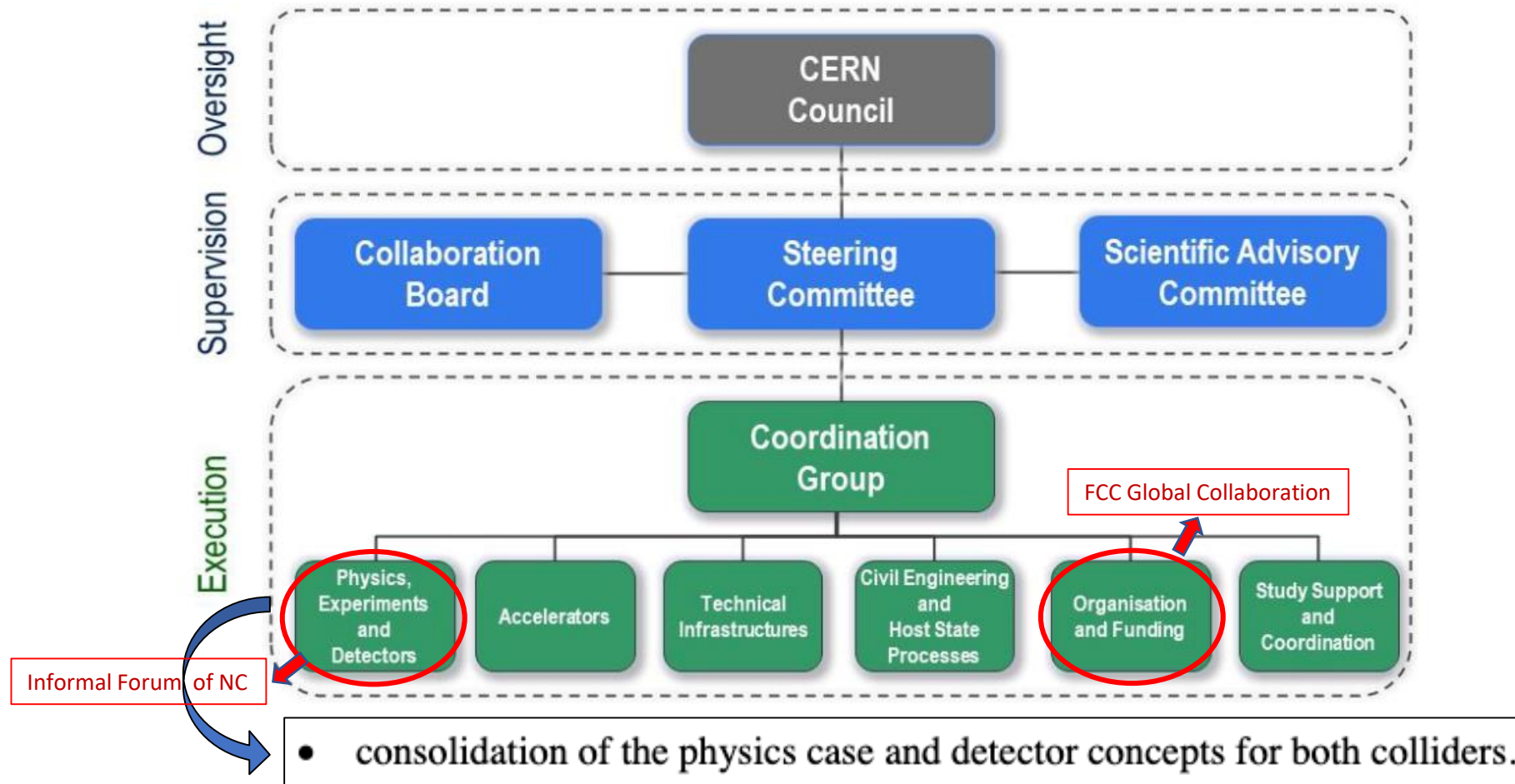
Actions to widen the community support

- Important point noted in the FCC submission to the ESPP'2020

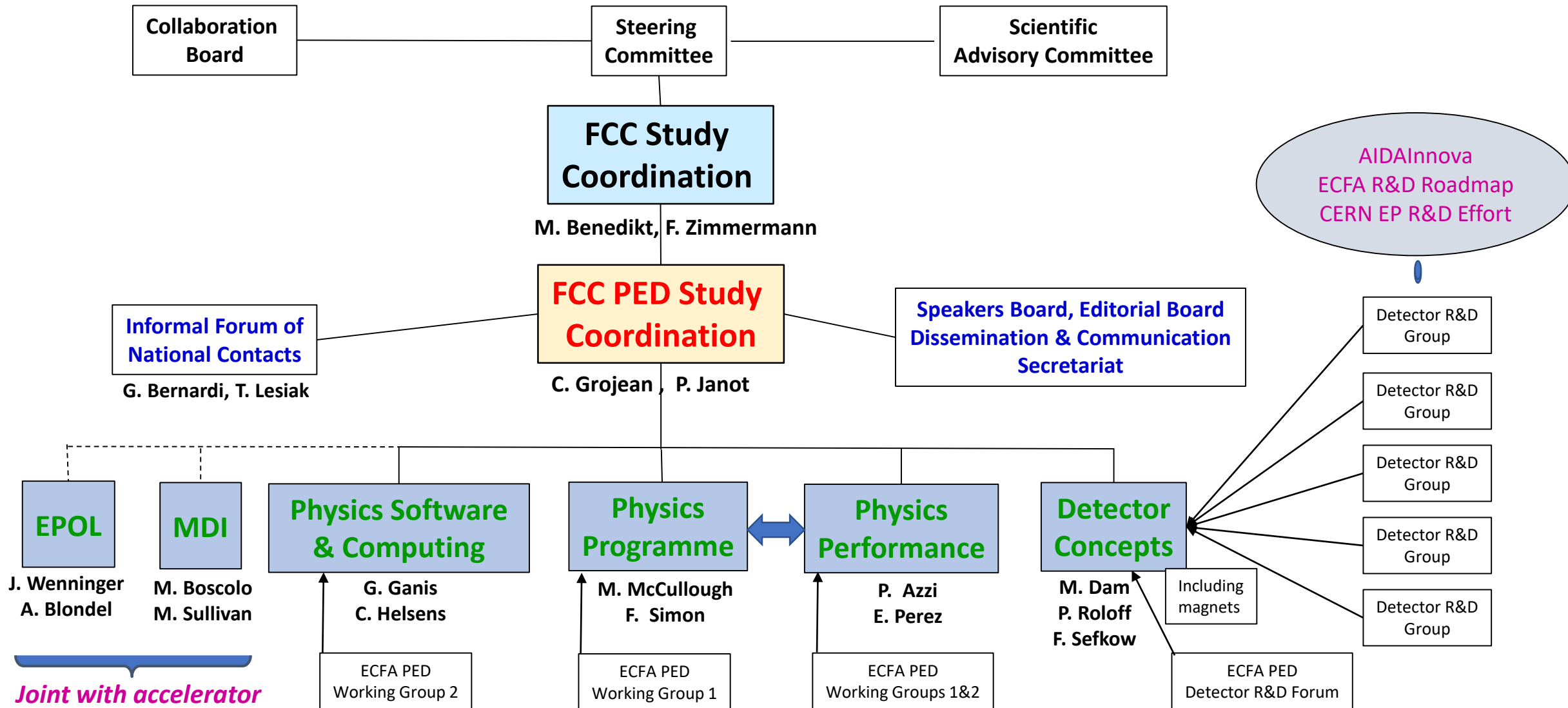
"The greatest remaining challenge is the creation of a world-wide consortium of scientific contributors who reliably commit resources to the development and preparation of the FCC science project from 2020 onwards"

- Meanwhile, the Council approved the FCC Feasibility Study and the related funds
 - ➔ solid basis to communicate about the FCC project and encourage participation
- Several networking efforts to build the community are now in place
 - E. Tsesmelis' work as Global Collaboration WG coordinator
 - G. Bernardi, T. Lesiak & M. Chrzaszcz animation of the Informal Forum of National Contacts
 - P. Charitos' communication work
- Important goal of the meeting
 - Foster and organize the commitment of national institutes with (human) resources

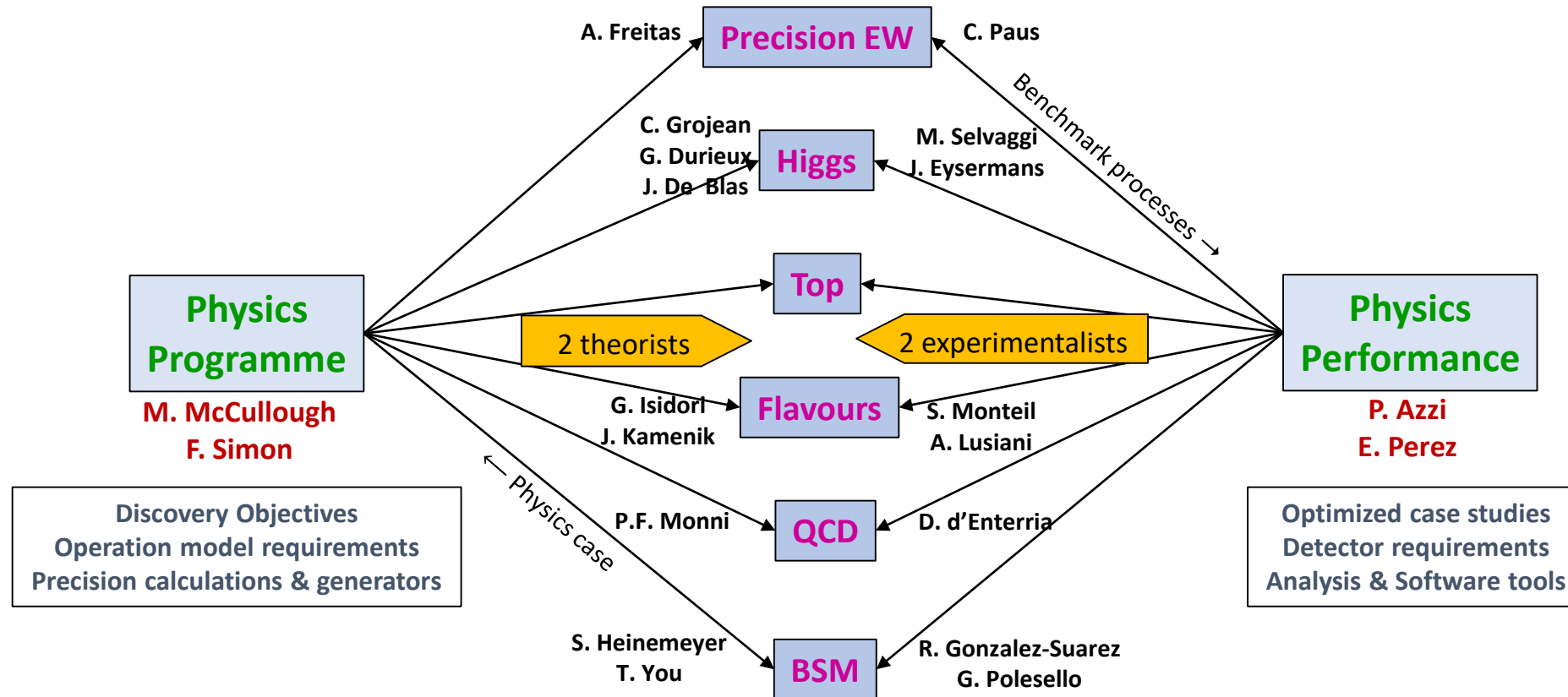
FCC Feasibility Organization



PED Organisation & conveners



Joint Physics groups



PED End Goals

- Match detectors with the physics opportunities offered by the facility
 - Establish a coherent set of detector requirements from physics studies
 - To fully benefit from statistics, variety of channels, new physics sensitivity
 - Provide a coherent set of detector solutions (or path to solutions)
 - To maximally exploit the new collider layout compatibility with four interaction points
 - To deliver preliminary infrastructure requirements and cost estimates
 - Deliver the corresponding software and computing infrastructure
- Ideally, by the end of the Feasibility Study, four full detector concepts (or more) can be ready, to be presented to the next strategy

→ Physics Programme

→ Physics Performance

→ Detector Concepts

→ Software & Computing



But time is short

IFNC and FCG objectives

- Help National Contacts / Representatives to
 - Define their scientific/technical FCC program (→ pointing to the right conveners) to contribute to this effort which must be concluded by 2025 or so.
 - Define their MOU/addendum
 - Organize their National community (workshops, regional if there is opportunity)
 - Share experience (for instance how to make different ee communities inside a country evolve)
 - Etc...



FUTURE
CIRCULAR
COLLIDER

Informal Forum of FCC-ee national contacts



Thursday 10 Feb 2022, 18:00 → 19:45 Europe/Zurich



Gregorio Bernardi (APC Paris CNRS/IN2P3) , Marcin Chrzaszcz (Polish Academy of Sciences (PL)) ,
Tadeusz Lesiak (Polish Academy of Sciences (PL))

Description **Videoconference link:** [ZOOM auto-join url](#)

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|--|---------|---|-------|
| 18:00 | → 18:10 | Welcome, News, Goals | 🕒 10m |
| Speaker: Gregorio Bernardi (APC Paris CNRS/IN2P3) | | | |
| 18:10 | → 18:20 | FCC as a global collaboration | 🕒 10m |
| Speaker: Emmanuel Tsesmelis (CERN) | | | |
| 18:20 | → 19:20 | Round table reports from FCC-national groups | 🕒 1h |
| Speakers: All National Contacts | | | |
| 19:20 | → 19:45 | Conclusions / General discussion | 🕒 25m |