ICFA Panel 2026

Questions

1. Delivering the flagship

Particle physics' laboratories have committed a decade and a substantial share of its resources to major projects now under construction or just recently starting operations.

- Where do you see the principal challenges to delivering these projects: technical, financial, human resources, or dependence on external partners?

2. Lab identity: focus versus diversification

Every laboratory has a core mission, but each has also grown a broader portfolio around it. A construction program of large scale inevitably constrains those other activities, at the laboratory and across the funding landscape of the region.

- Is that breadth a strength for the field, and how do these experiments coexist with the flagship when they compete for the same people and resources? How do you see that balance evolving at your laboratory over the next decade?
- Particle physics increasingly shares its funding, its technology, and its public case with the rest of science. How important are connections with other areas of physics and with science more broadly, and what steps are you taking to build alliances or joint initiatives with other fields?

3. Politics and science

Over the last few years, politics has become a much more direct factor in how science is done, through funding priorities, export controls, visas, and the conditions for international cooperation.

- How does the current political environment affect your laboratory's program, and what does it mean in practice for lab scientists and users?
- Where do you see your laboratory most vulnerable in this regard?
- What would you ask ICFA or the community specifically to do or to stop doing in response to this environment?

4. Building global facilities today

The next generation of machines will be expensive enough that no single region can build them alone.

- What does it mean to create a *global facility* today, compared with a generation ago?
- What would make it easier to build a global collaboration today, and what can laboratories do to get there?
- Can the next large facility be realized without all major regions taking part, and what would change if some did not?
- The next large machine will also depend on a generation of physicists and engineers. So even if we secure the money and the politics, will we have the people? Is this a concern?

5. The public and political case for investment

Governments increasingly expect funding to return an investment—not a list of spin-offs, but a coherent, quantified case for public money at a time when it competes with many other priorities.

- Do you think that this has become more explicit? Is it harder to justify curiosity-driven physics today? How are you making that case, and is it working?

6. Artificial intelligence

As many presentations show this week, AI is entering particle physics faster than policies can keep up. In many countries, it is also becoming linked to research funding.

- Before AI tools can be fully exploited, is the underlying computing infrastructure ready to support the next facilities, and is this being addressed at the right level across the community?
- Where do you see AI making the most substantial difference in particle physics' laboratories, and what are the main challenges in adopting it?
- Our field has long committed to open data and open-source software, but with AI, the organizations best placed to exploit that data may be technology companies rather than physicists. Do you see industry as a partner or a competitor here, and does it change how you think about openness?