Globalization of HEP

Subgroup of Young Physicists
Forum steering committee

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Overview

- Demise of SSC:
  - Lack of international cooperation in the project
  - Need for consensus
- International Cooperation in HEP
  - Coordination of long term issues/decisions
- Funding and Construction of Large Projects
- Operation of Large Projects
International Cooperation

Right now: no international steering group

- Now: Ad hoc committees \(\Rightarrow\) form, report, disband
- Future: a semi-permanent advisory group?
  - Perhaps some funding control (eventually)?

Important to have government representatives

Theorists, particle experimentalists, accelerator physicists: all need to be represented

Some questions to consider:
- Will national pride suffer? Implications?
- What will be the reaction of national governments and funding agencies if not fully in control?
The International Laboratory

- National facilities:
  - Operated by host country
  - Planning/project definition by international collaboration

- Larger facilities:
  - Operated by host country
  - Planning/project definition by international collaboration
  - Construction by several countries
  - HERA model

- Very large shared projects
  - Collaboration of several countries with comparable share of the total construction and operation cost
  - Has never been done before

- Very large self-organized projects
  - In the framework of an international organization
  - CERN model
Regional Centers

Distance is a barrier for effective contributions, especially for young physicists!

A possible solution is Regional Centers:

- Laboratory capable of
  - Remote operation of the accelerator and detectors
  - Full data processing/analysis capability
- Make use of current national laboratories
- Don’t have to travel too far: attract students
- Periodic control of main facility operations should be a selling point to the funding agencies
- Host lab doesn’t get completely overwhelmed

Some issues to consider:

- Costs associated with multiple centers
- Viability of widely spread centers (Global Accel Network)
Some Things for You to Think About at Snowmass:

- Can and should the field start a planning process at the international level? How? Etc.
- What should be the structure of a future truly International Laboratory?
- Are the benefits of Regional Centers worth the costs?
- How can we solve the problem of separation for young physicists?