

What do Scientists look for in deciding where to locate a new HEP Facility ?

A really nice city, close to home



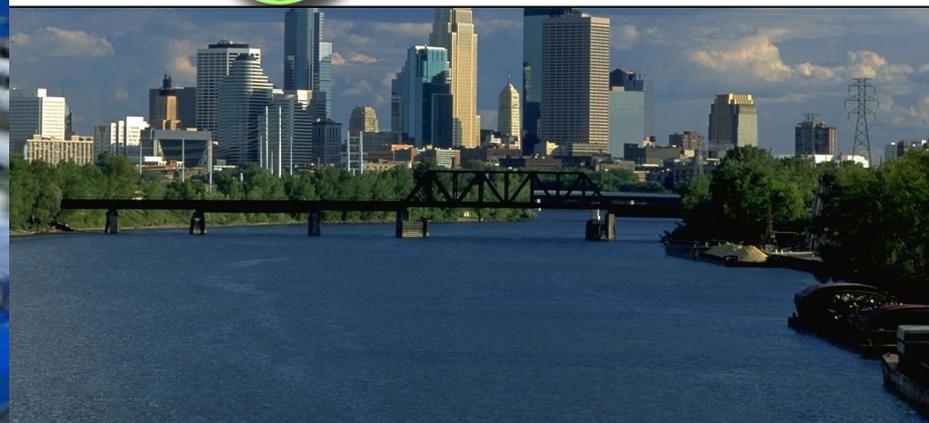
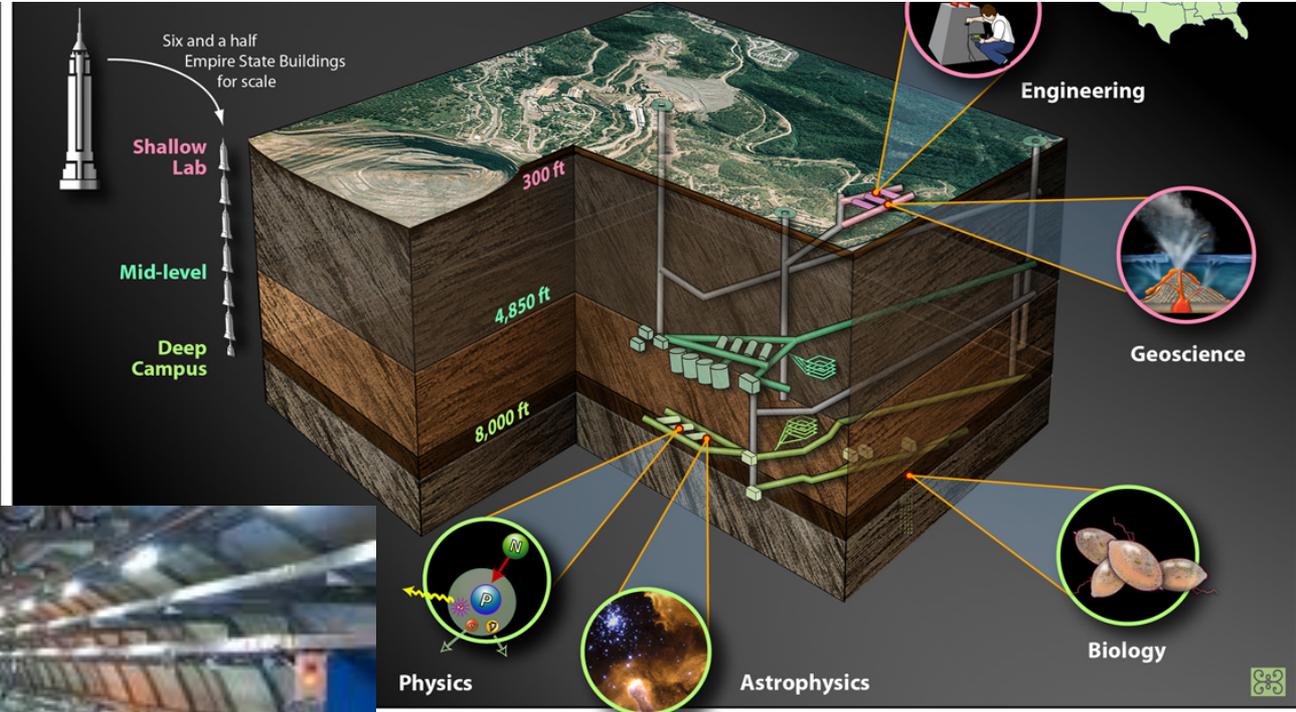
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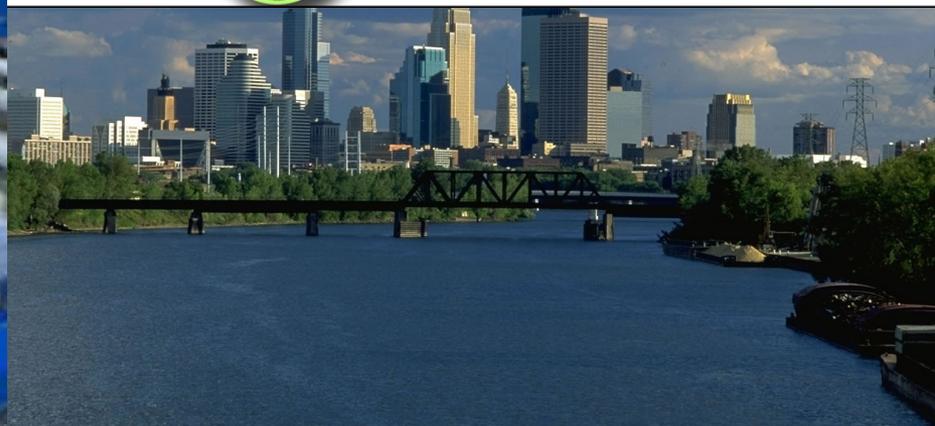
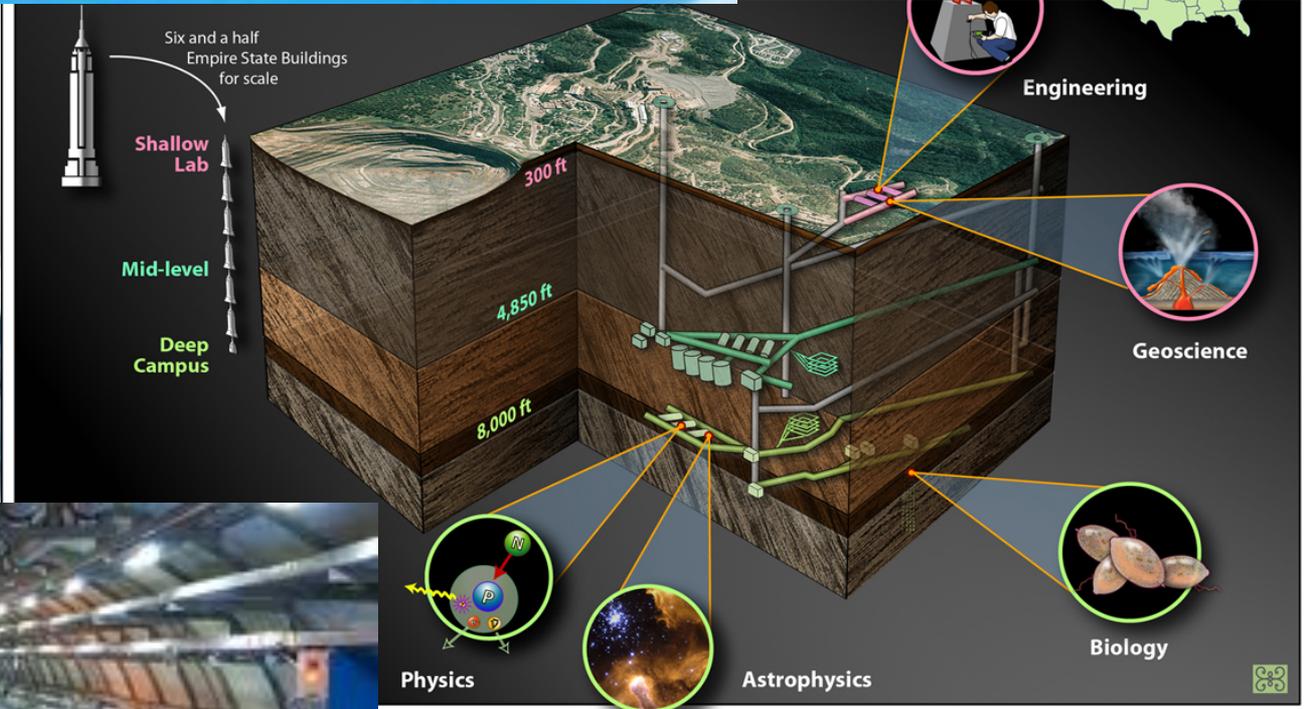
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What do S



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y?



South Pole Station



“Well, this sucks” *Madagascar*



South Pole Station

Science is the Driver

Location will be decided on

Unique Environment
Pre-existing Infrastructure
Political Realities



“Well, this sucks” *Madagascar*



Remote locations can work because Technology Enables

Modern communication and data transfer
links collaborators to experiments in remote locations

Technical Improvements still needed

Need better Collaboration Communication Models and Conference technology
Endless Meeting Syndrome
Time zones

PEOPLE: THE OTHER RESOURCE

Create centers in each Country and Region to bring
people face-to-face around the science happening remotely

Do not ignore the Sociology of “owning” science from off-shore sites
by fostering US centers
LHC has been successful at this, might be a model for cosmic frontier

The international network of underground facilities

- Each major country (or region) should support at least one major underground facility capable of hosting the forefront experiments.
 - Each of these facilities will support some of the leading underground experiments.
 - Scientists from many countries will work on the experiments at each facility.
- This is a sustainable model for the international support of underground physics.

MEMORANDUM OF UNDERSTANDING FOR THE ESTABLISHMENT OF THE COORDINATION NETWORK OF EUROPEAN UNDERGROUND LABORATORIES

« **EULABS** » (2011)

Signed by CEA, CNRS, INFN and LSC
for underground laboratories LNGS, LSC and LSM.

The Parties have agreed as follows:

Article 1 - Purpose

The purpose of this Memorandum of Understanding is the establishment of a European network named "European Underground Laboratories – EuLabs", the

purpose of which is to play a coordination role and to exchange information concerning the "*Underground Science and Technology*", hereinafter referred to as the Network Theme.

The topics included in the Network Theme are more specifically identified as follows:

- Low-background technologies
- Scientific and technical data-bases
- Data-base of publications
- Exchange of researchers and personnel
- Quality standards and benchmarking for underground infrastructures
- Exchange of information on the scientific advisory procedures

- Environmental policies
- Safety regulations
- Outreach activities
- Development of a common website for the visibility of the underground science and technology
- Relationships with non-EU underground laboratories

Any other topic may be added on an occasional basis after discussion and unanimous agreement of all members of the Network Committee as described in Article 3 below.

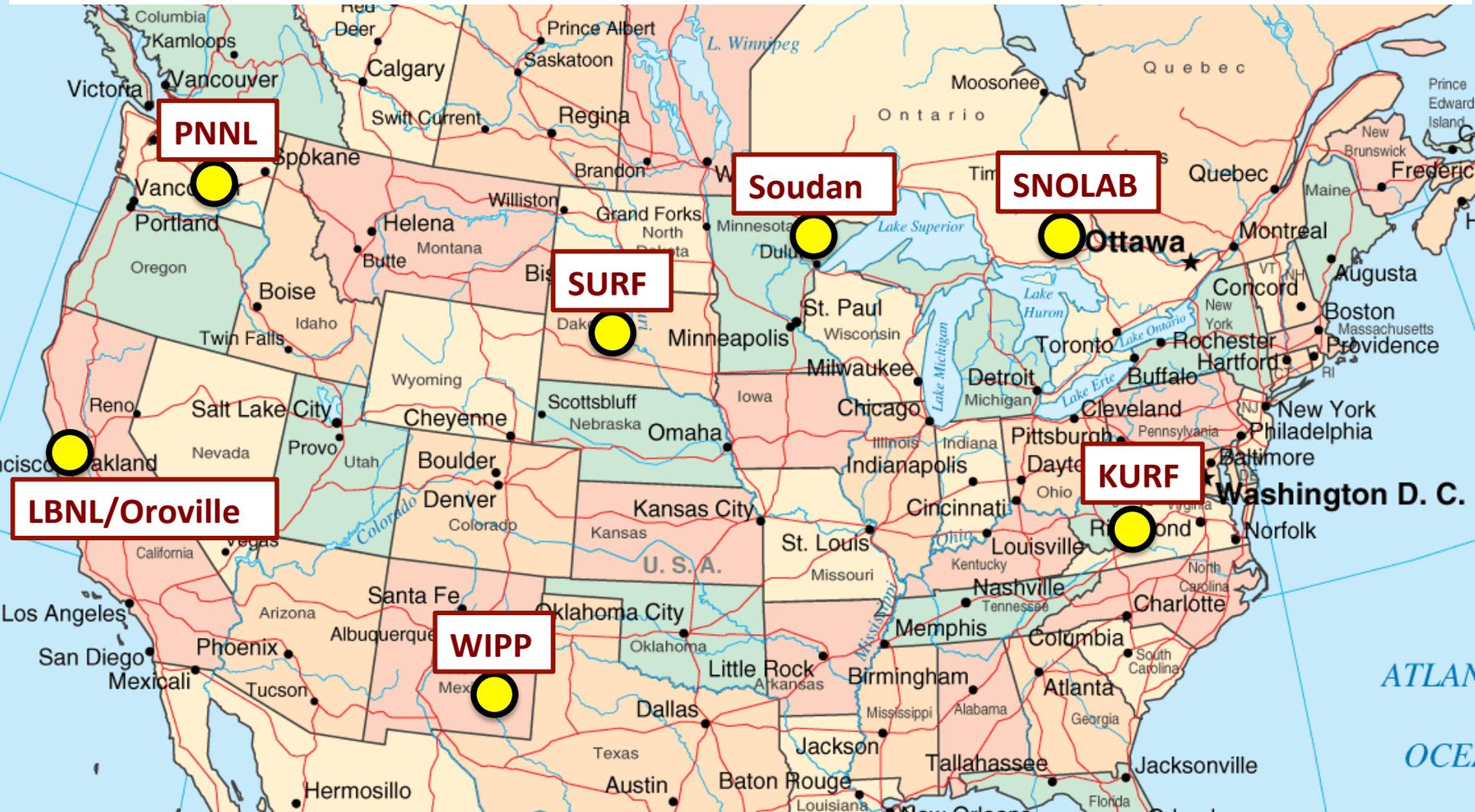
The permanent inclusion of a new topic in the Network Theme shall be unanimously agreed upon by the Parties.

The Network is composed of the Laboratories. The Network composition may change according to the rules set in Articles 5 and 6 below.

Organization would benefit this continent, too

Current initiative is in low background radiopurity assay

Eventually international entities with broad community support need to be established



Scientists have to lead this effort

- Create consensual, international roadmaps for the future of each field
- Enter into the discussion in a fair and practical way, i.e.
 - Make sure all the countries have something they can point to as their contribution
 - Major players (major \$\$\$) need Facilities on their own soil.
- Highlight what makes each facility Unique
 - e.g. A large LBNE/solar n/proton decay experiment underground

We have many examples of unification plans

But they fail in the Execution We need to know why.

Can politicians think globally?

Do we get credit for thinking globally (or do we get screwed?)

Can we plan/illustrate local benefits from overseas facility?

N.B. Lots of consensus on goals – disagreement comes when evaluating political realities and making compromises