

# ILCSC Report



ALCPG Workshop, Eugene

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ILCSC Chair

19 March 2011

# State of the ILC



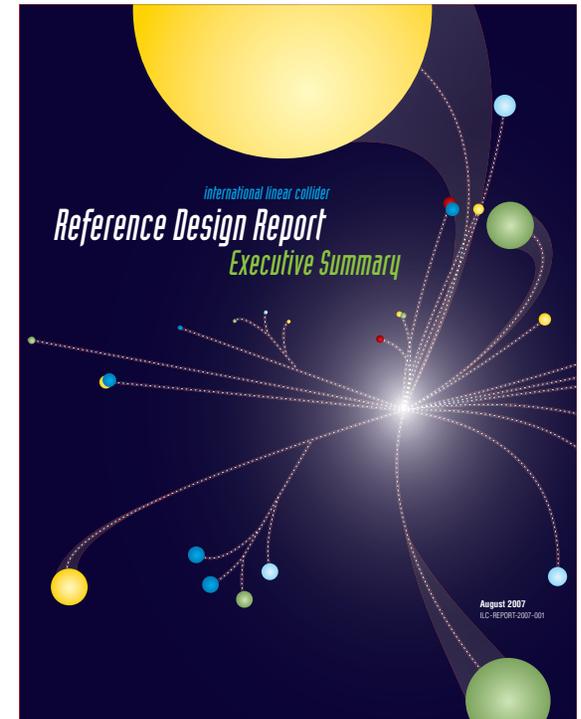
- Because of you, “the state of the ILC is strong”



# GDE and RD



- The GDE and RD are making great strides towards producing the TDR and DBD
  - ◆ Magnificent progress! On track for end of 2012...
- The ILCSC is discussing how to join them to maximum effect with the PIP and CPDG
  - ◆ Thank you for your thoughtful comments on the CPDG!



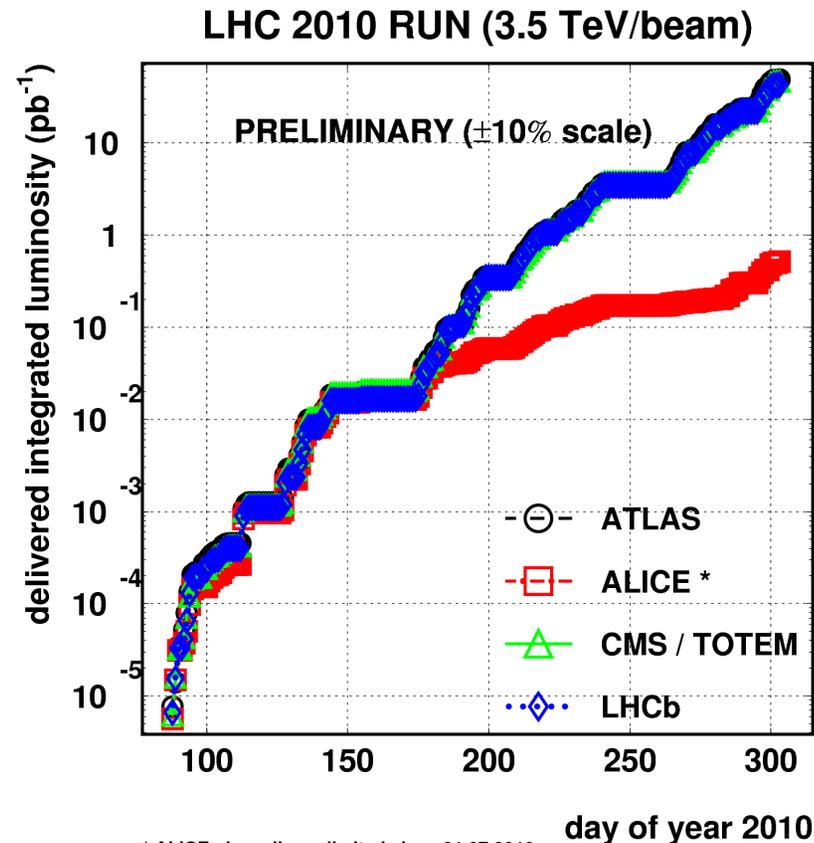
# LHC Performance



- In the background, the LHC continues to perform beautifully

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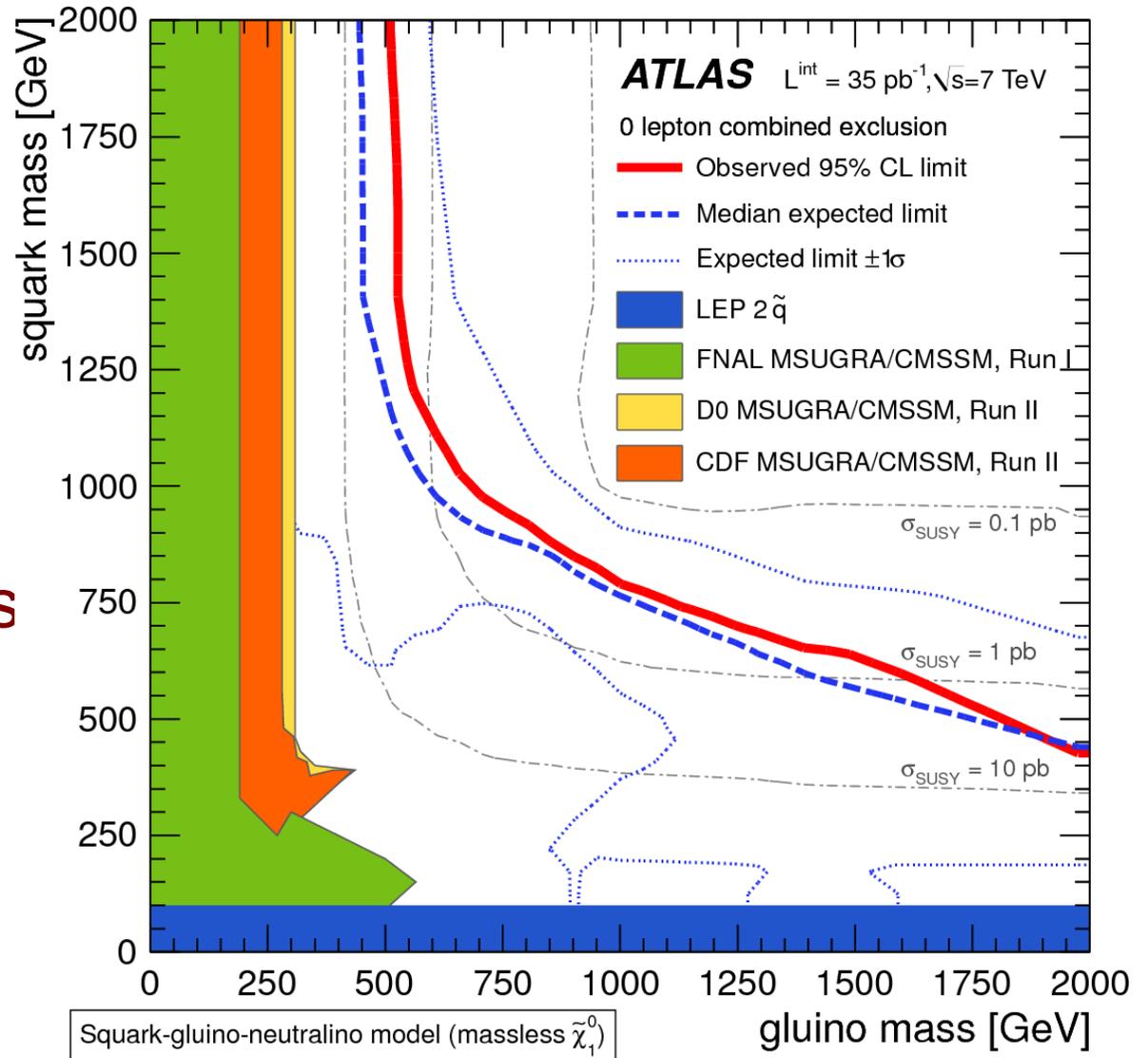
- ◆ Luminosity is accumulating rapidly...
- ◆ Extended run: 7 TeV through end of 2012 with  $\sim 5 \text{ fb}^{-1}$  per experiment



# LHC Reach



- Even at 7 TeV, the LHC has tremendous reach!
- The day of reckoning draws near...



# LHC Physics



- The riddle of electroweak symmetry breaking will be solved at the Terascale...

## Search for the Higgs Particle

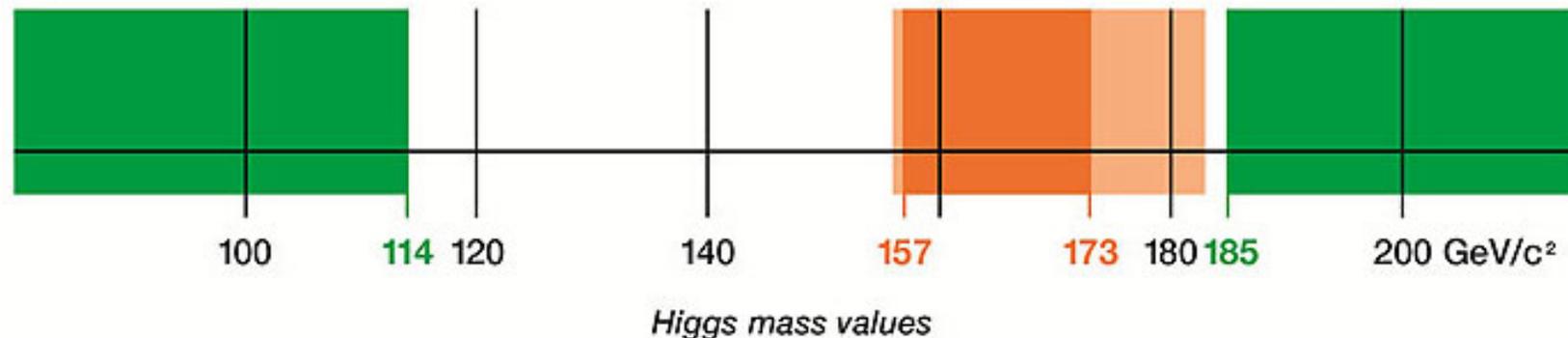
Status as of March 2011

90% confidence level  
95% confidence level

Excluded by  
LEP Experiments  
95% confidence level

Excluded by  
Tevatron  
Experiments

Excluded by  
Indirect Measurements  
95% confidence level

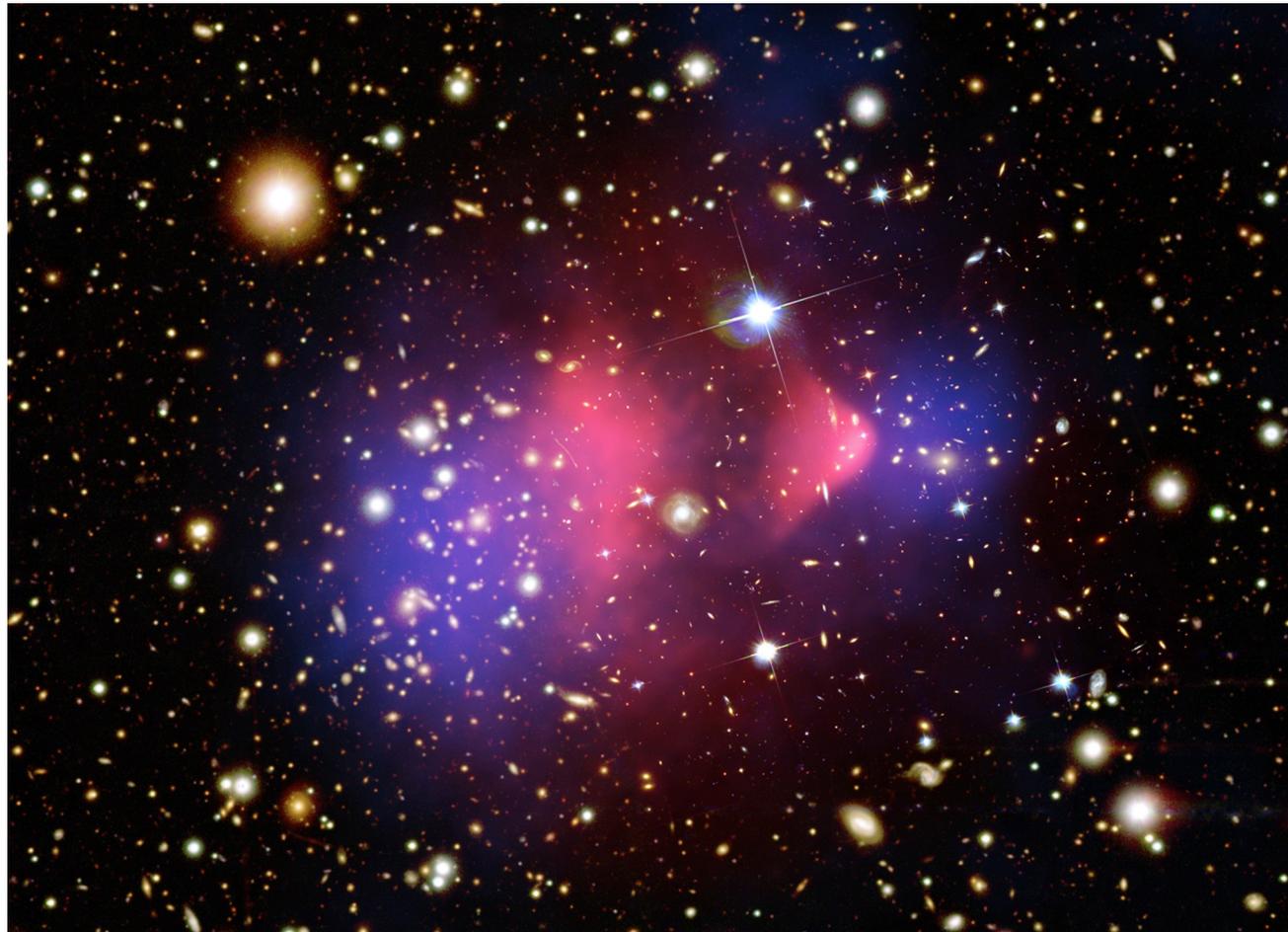


# LHC Physics

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- Perhaps even the mystery of the dark matter...



# Terascale



- There is no doubt that the LHC will light the Terascale...
- We must prepare now to be ready for what awaits us...
  - ◆ By 2012 if we are lucky – or later if we are not...



# ILC Governance

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- The year 2012 also looms large for the question of ILC governance...
  - ◆ That is the year the ILCSC, GDE and RD will all disappear, having successfully completed their mandates
  - ◆ So the question I bring before you today is:

What should take their place?

# ILC Governance

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- We need a new governance system, one that is
  - ◆ *Distributed* enough to be robust against localized disruptions in funding
  - ◆ *Organized* enough to keep ILC R&D moving coherently
  - ◆ *Nimble* enough to be able to respond quickly if one country is willing to propose hosting
  - ◆ *Stable* enough to keep the ILC progressing until we have LHC results
  - ◆ *Flexible* enough to build towards one LC community, integrating CLIC when the time is right

# ILC Governance

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- The new system needs to preserve the best features of the GDE/RD...
  - ◆ Strong people with superb leadership driving a coherent program backed by global consensus
    - With the ability to make difficult decisions and have them stick
- While at the same time take the project to a whole new level...
  - ◆ In a very difficult political environment...

# ILC Governance

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- The new organization cannot be the GDE/RD
  - ◆ The GDE and RD will have achieved their goals
- So what might work?

ILCSC is considering proposing that ICFA create a transitional organization to guide the ILC until a construction decision is made



# ILC Governance

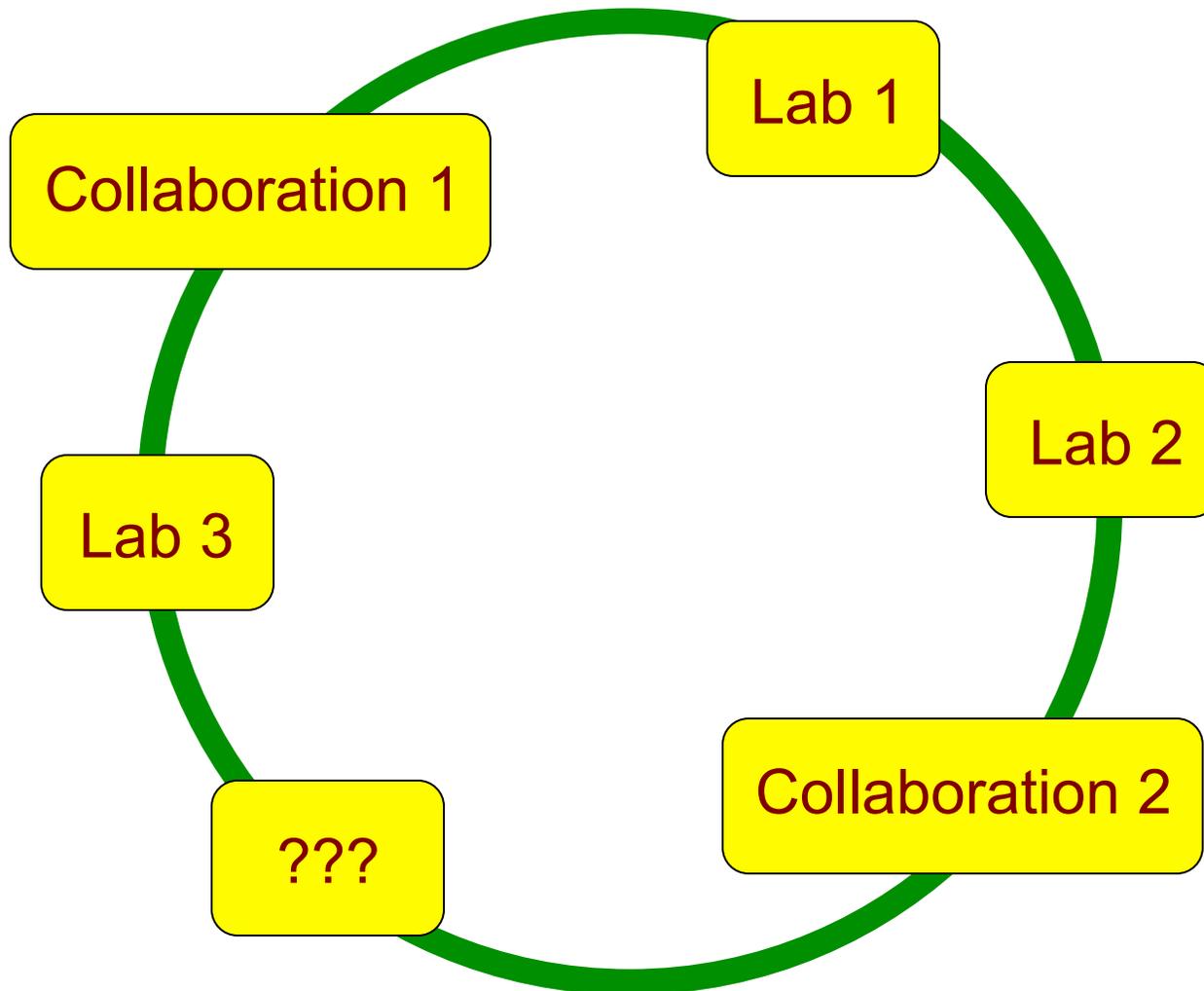
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- This linear collider organization would be modeled on the “Multinational Laboratory” approach discussed in the CPDG
  - ◆ Such an organization would necessarily be transitional
- The members of the organization might be different in each country or region
  - ◆ Each country or region has different funding mechanisms available to it

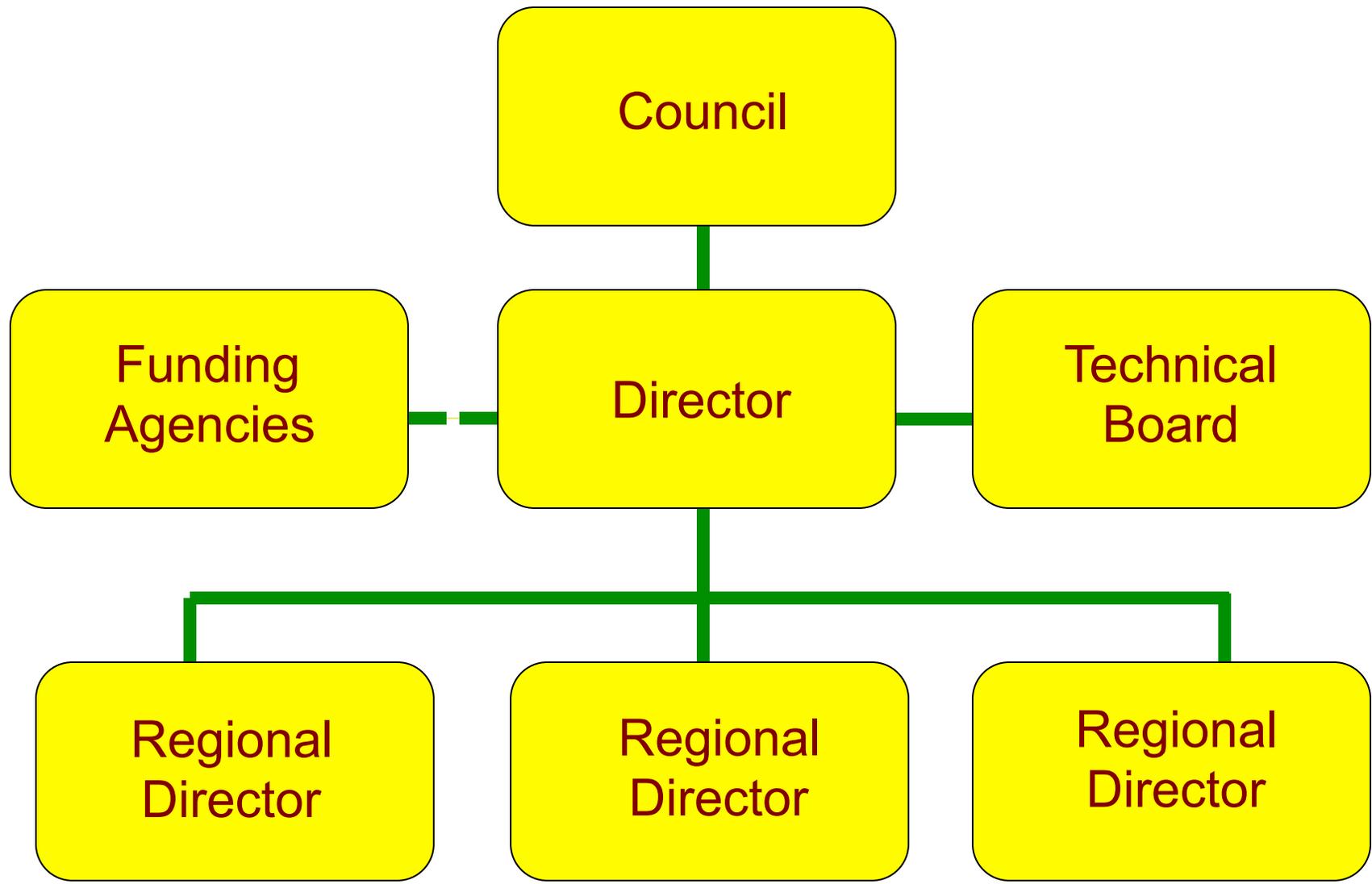
# Linear Collider Consortium

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# Linear Collider Consortium

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# Questions – LCSGA

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- Who can join the consortium?
- Should there be a lead laboratory?
- What is a workable governance structure?
- How can coherence be achieved?
- Should accelerators and detectors be brought together?
- How might CLIC be included?
- ...

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- Suggestions? Comments? Please contact
    - ◆ Jonathan Bagger
    - ◆ Juan Fuster, Tatsuya Nakada
    - ◆ Jie Gao, Sachio Komamiya
    - ◆ Satoshi Ozaki, Harry Weerts
  - The Americas contribution will be developed by the LCSGA, chaired by Paul Grannis