

**Information**

# Meeting with NSF MPS

- Harriet Kung urged MPS directorate to meet with Karsten and HM, especially concerning the south pole issue.
- Thursday, Aug 24, one-hour meeting. Sean Jones, Tie Luo, Saul Gonzalez, Denise Caldwell, and one more. We asked four main questions, and here are their response.
  1. MREFC and Mid-scale are both within our purview. Yet they want us to evaluate projects on absolute scientific merit, rather than relative.
  2. They were not informed of the timeline of south pole master plan process. They will find out and let us know. In case new information may be expected in the next few months, they may prefer delay of P5 release.
  3. For workforce recommendation to be “administration-neutral,” they suggested to emphasize geographic diversity.
  4. Sean Jones practically asked for “Plan B” for CMB-S4, and I told them we want to stick to the gun because of science. They said it would be OK as long as we make the science case and uniqueness of south pole clear in our report.
- on a smaller point, they want “particle physics” for the field instead of HEP, EPP, PA.

# Plan for HEPAP and roll-out

- Briefing to DOE/HEP and NSF/PHY on September 21, 1:30 pm EDT@NSF
- We have been aiming for finalizing the report with full layout and graphics by the end of October.
- DOE seems very busy in November, and has started to talk about HEPAP in December.
- I'd rather have the HEPAP meeting in November, and we are still discussing options. One reason is ICFA Seminar in the week of Nov 27.
- DPF leadership is heavily engaged in the roll-out planning.

# Today's goal

- be on the same page about context, intension, content for all chapters
- careful reading for a week with detailed comments on Google Docs
- discuss only critical items next week
- agree on some structural issues

# Structure of the report

- Jim advised us to keep everything together without need to look for information in other sections. (ASTRO 2010 is very bad in this respect)
- It calls for repeating top-level recommendations in each chapter, with more details filled in
- Neutrino section is written along this line.
- A common structure?
  - Recommendations
  - Science Overview
  - Ongoing Projects
  - New agile or major Initiatives
  - 20-Year Vision

$$3 + 1 + 1$$

- 3 “Science Themes”
  - 3 Frontiers for DOE/HEP as “approaches” than “themes”?
  - meant to be “definition” of “particle physics” for decades to come?
- $3 \times 2 = 6$  “Science Drivers”
  - expands a bit on previous 5 science drivers
  - meant to be focus areas for this decade?

# Top-level Recommendations

- Last P5: 13 pages with 29 recommendations
  - pros: context and justifications are given right next to recommendations
  - cons: not many in the targeted audience read through them
- This P5: I tried to keep it concise, similar to European Strategy Update
  - pros: many can read through them to get the whole picture
  - cons: brief narratives may cause misunderstandings, confusions

# Chapter 8

- 8. Budgets and Outlook
  - discussed difficult choices made for both Scenario B and (more so) A
  - long-term vision of the field
- does not match exactly to top-level Recommendation 8 now



# some wording issues

- “model”
  - standard model, hidden sector models, modeling, etc
  - I prefer “theory”: standard theory, hidden sector theories, etc
- glossaries, acronyms
  - most readers don’t have patience to look up glossaries
  - better to avoid jargons, with “inverse-glossary” to explain “plain English” terminology in technical terms

# tagline

- *Idea: We are explorers*
  - **Exploring the Quantum Universe**
  - **Illuminating the Invisible Universe**
  - **Decode the Quantum Universe**
  - **Unlock the Quantum Universe**
  - **Connecting the Smallest and Largest Scales**
  - **Traversing the Unknown**
  - **Reaching into the Unknown**
  - **Revealing the unknown?**
- *Idea: We are innovators*
  - ***Innovation and Discovery***
  - ***Partnership, Innovation, and Discovery***
  - ***Innovation, Workforce, and Discovery***
  - ***Innovating for the future***
- *Idea: We deliver on investments*
  - **Leveraging Investments (Projects), Framing Future Facilities**
  - **Delivering Discovery**
  - **Delivering Discovery, Framing Future Facilities**
- *Idea: We are in the national interest*
  - **Illuminating the quantum universe with US technology and workforce**
  - **Enabling US to Traverse the Unknown**
- *Idea: We are future looking*
  - **Leading into the future of Particle Physics**
- *Idea: We are stewards*
  - **Empowering the Next Generation**
- *Verb list:*
  - **Connecting**
  - **Decoding**
  - **Discovering**
  - **Exploring**
  - **Innovating**
  - **Investing**
  - **Investigating**
  - **Leveraging**
  - **Illuminating**
  - **Probing**
  - **Revealing**
  - **Transforming**
  - **Unlocking**
  - **Understanding**
  - **Venturing**
- *Noun list:*
  - **Invisible Universe**
  - **Quantum Universe**
  - **Quantum Odyssey**
  - **Transforming Paradigms**
- *Already Taken:*
  - **Paradigms not Parameters**
  - **Delve deep, search wide, aim high** (snowmass tagline)