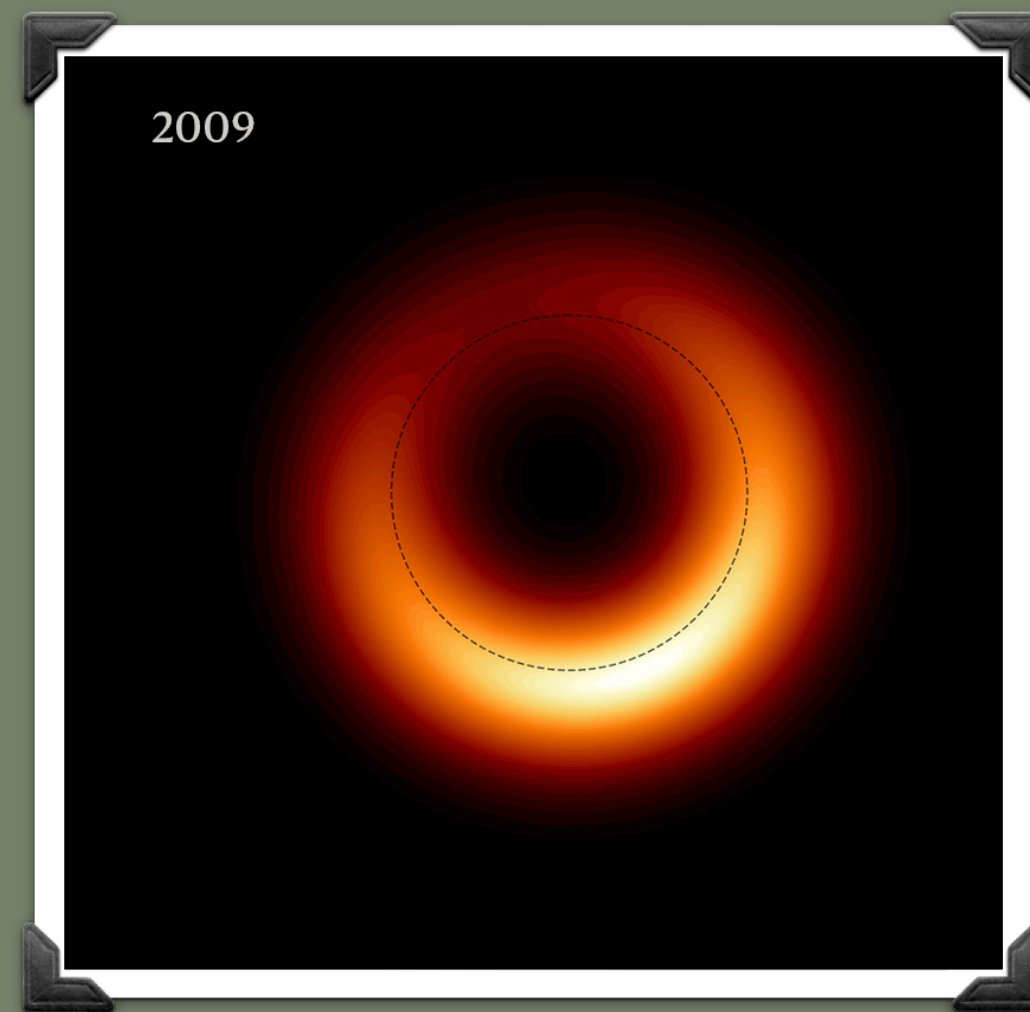


Snowmass Early Career Core Initiatives

Lessons from the Longest Snowmass



Tiffany Lewis
NASA Postdoctoral Fellow at Goddard Space Flight Center

Summarizing the SEC Key Initiatives White Paper co-authored by
Joshua Barrow, Kristi Engel,
Sara Simon, Jorge Torres

For captions...

M87 Core Image credit: Event Horizon Telescope Collaboration; gif
compiled by Nature

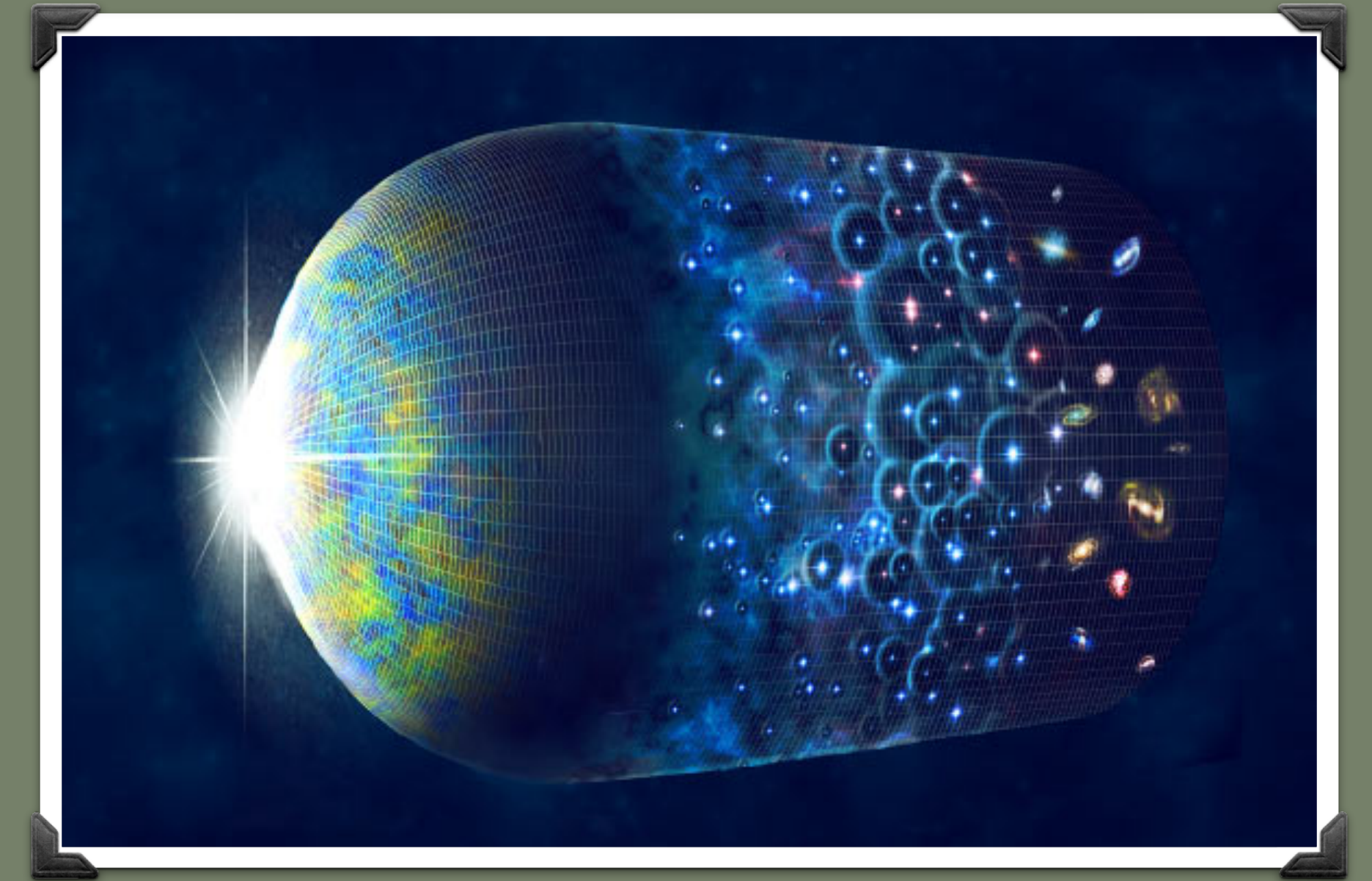
Formation

A bit of chaos and a lot of ethics

- 200 nominees from broadest community base
- Nominees tasked to self-organize while Conveners asked for input
- Emerging leaders focused on building inclusive systems
- Staggered point of contact rotation with short terms and shared leadership

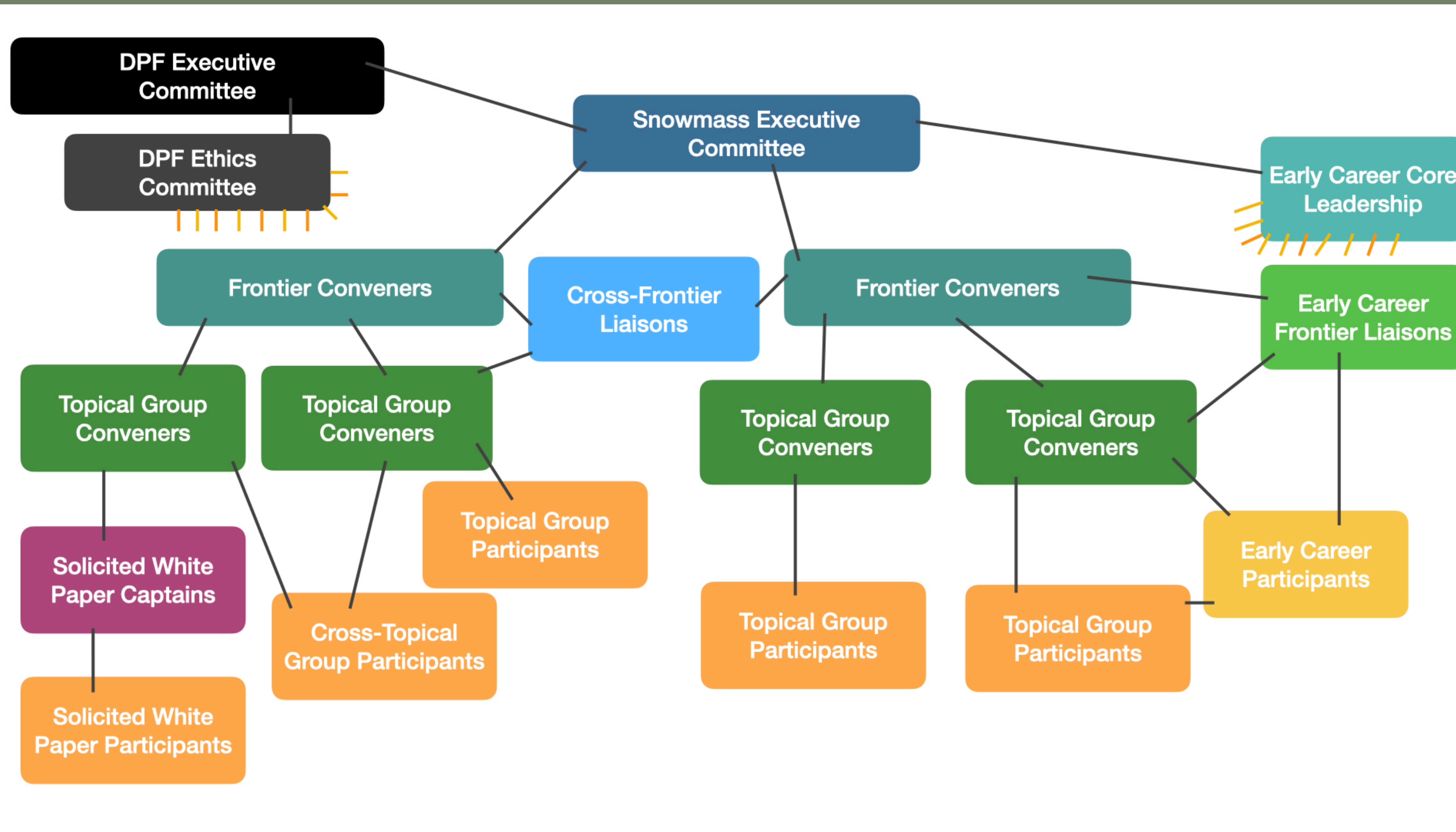
Recommendations:

- The SEC leadership should be recruited at the same time as the conveners (not months later) so that they have similar time to acclimate to the new organization and come up to speed on their purpose together.
- The DPF Early Career Representatives should workshop or borrow from Snowmass 2021 documentation, a draft organizational structure and purpose for each group prior to recruiting.



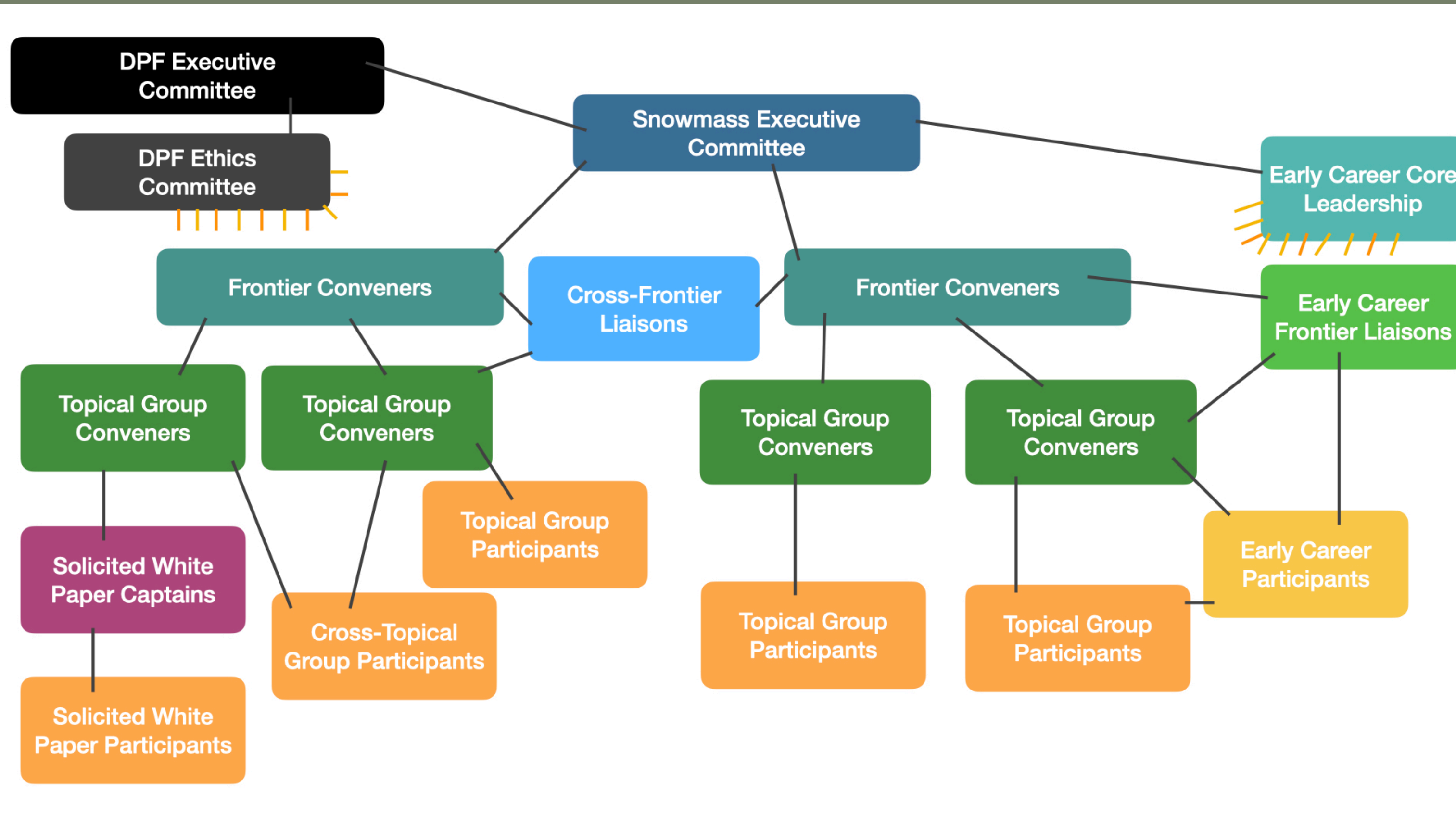
Big Bang-Inflation-Coalescence Image credit: M. Weiss / Harvard-Smithsonian Center for Astrophysics.

Initial Structure



- SEC Key Initiatives
 - SEC Core Initiatives
 - Inreach
 - Diversity, Equity & Inclusions
 - Survey
 - Long Term Organization
 - SEC Coordination Groups
 - SEC Energy Liaison
 - SEC Neutrino Liaison
 - SEC Cosmic Liaison
 - SEC Rare Processes Liaison
 - SEC Computation Liaison
 - SEC Theory Liaison
 - SEC Community Engagement Liaison
 - SEC Accelerator Liaison
 - SEC Instrumentation Liaison
 - SEC Underground Liaison

Final Structure



- SEC Key Initiatives
 - SEC Core Initiatives
 - Survey
- SEC Coordination Groups
 - SEC Energy Liaison
 - SEC Neutrino Liaison
 - SEC Representatives to Cosmic

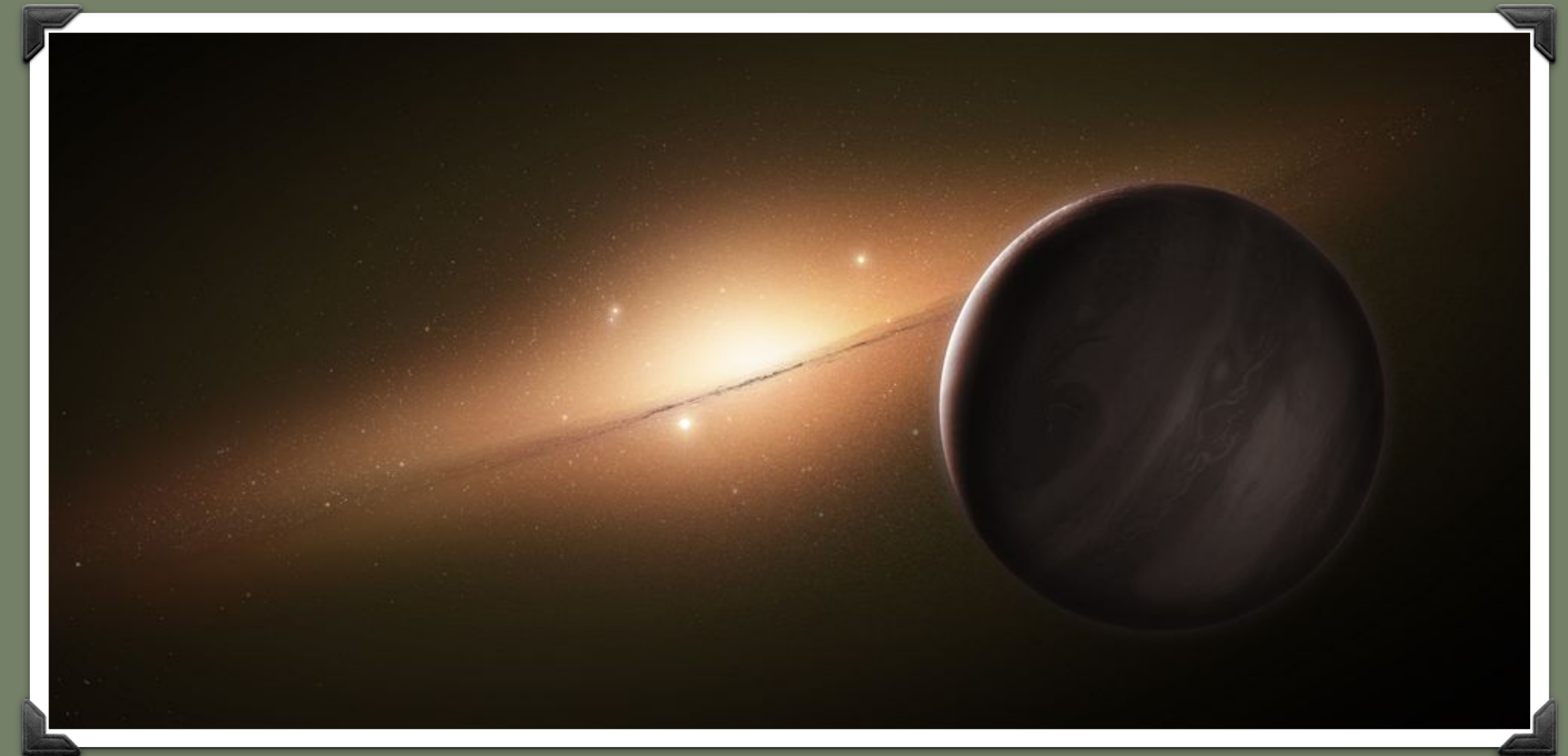
Coordination & Liaisons

Very uneven inclusion

- Some SEC coordination groups were embraced by their frontiers
- Some SEC coordination groups were rejected by their frontiers
- Some SEC coordination groups operated on the fringes
- The success of SEC Coordination, which drove early career participation in science topics, depends heavily on the culture of inclusion in each Frontier.

Recommendations:

- There should be uniform rules for inclusion and clearly stated roles for SEC coordination groups and liaisons, which are made clear to all involved and enforced by the Ethics Committee.
- Funding should be set aside or pursued by DPF in the year leading up to Snowmass in order to provide a professional administrative assistant to each Frontier.



Rogue Planet Image credit: Mark Garlick/Science Photo Library Getty Images

While most planets orbit a star system, rogue planets are kicked out due to competing forces during solar system formation - truly wanderers.

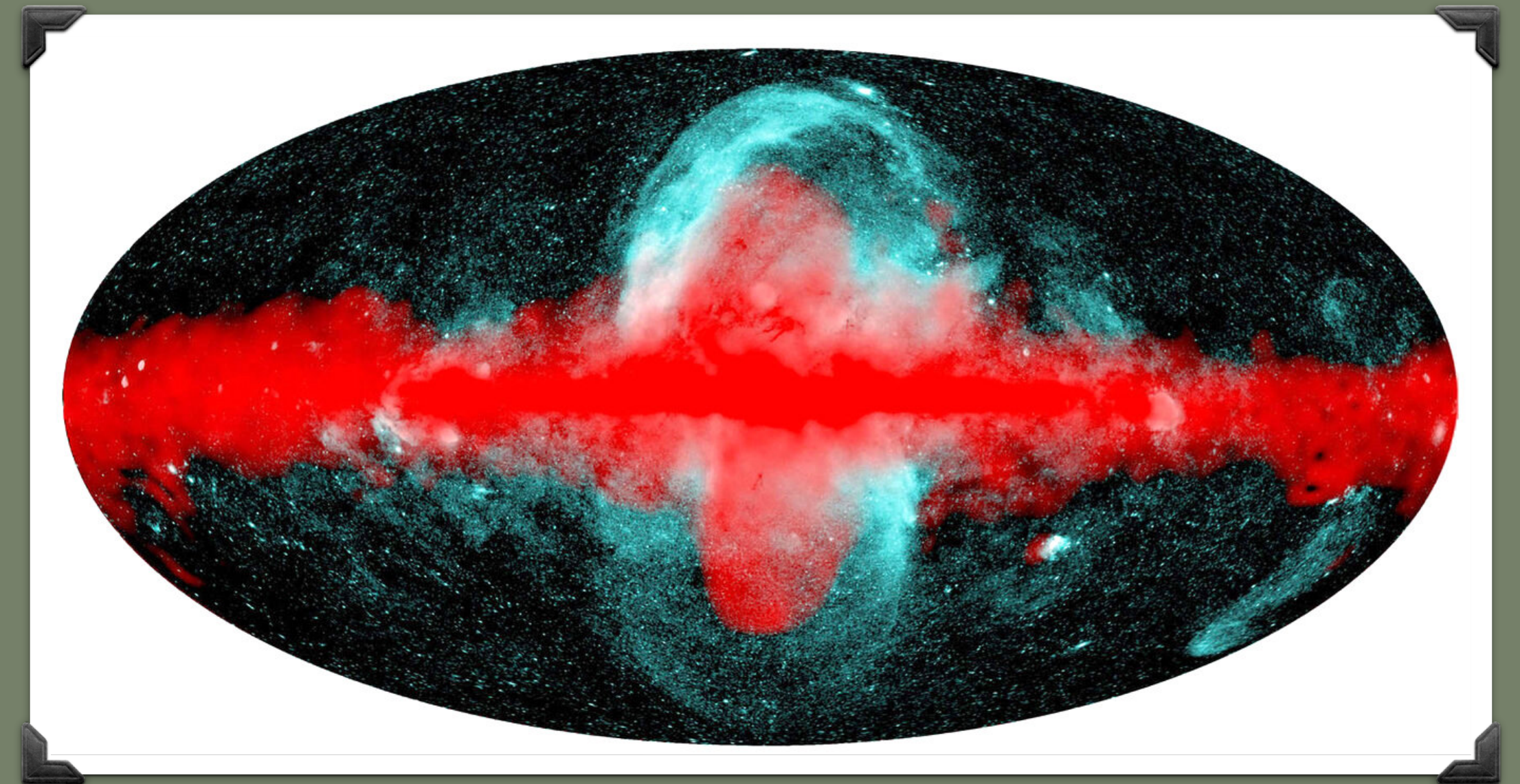
Survey

Already covered....

- Not all surveys within Snowmass were SEC-Survey
- Not all SEC targeted surveys were SEC-Survey
- SEC-Survey was a group tasked with one specific survey required by DPF

Recommendations:

- The Executive Committee should take responsibility for decisions made by those in power during the previous term(s) for the benefit of continuity in the process.
- The scope of SEC Survey should be communicated to the community at reasonable intervals to avoid misconceptions about who should be responsible for various tasks within Snowmass.

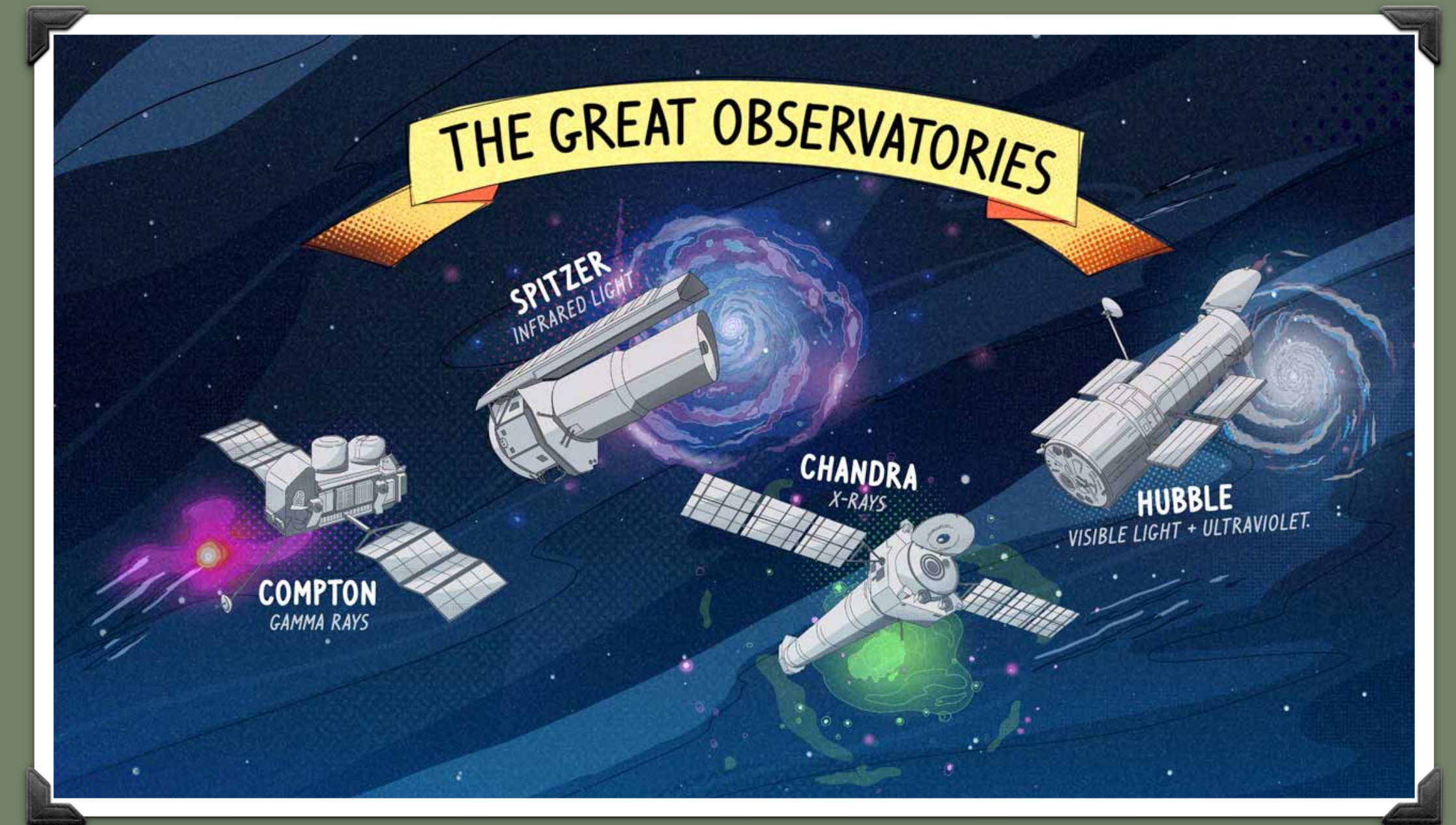


All-Sky Survey Maps eROSITA & Fermi Image credit: MPE/IKI courtesy eROSITA PI Andrea Merloni

Core Initiatives

Things that worked well

- Shared leadership
- Large advertising and recruiting initiatives
- Service to the Snowmass Community
- Snowmass-wide Events
- Workshopping and finding consensus on community guidelines



Great Observatories Image credit: NASA/JPL-Caltech

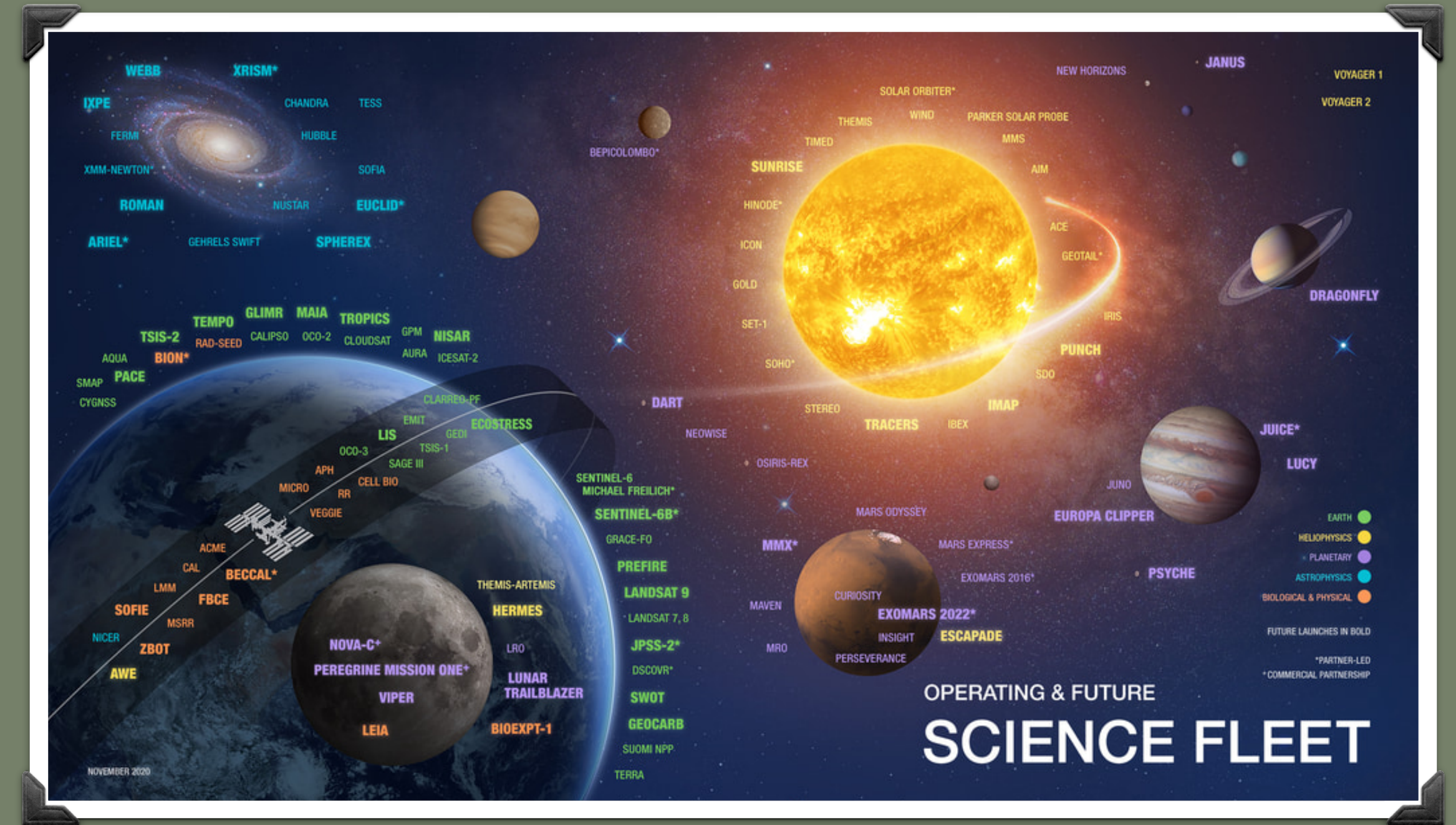
Recommendations:

- Anticipate providing resources, like captioning services, large meeting rooms, and institutional accounts for events that benefit the whole community.
- Leadership should offer to help disseminate information and appear at SEC events to lend credibility and demonstrate inclusion of Early Career people and initiatives within Snowmass.

General Organization

Recommendations for Future Snowmass Processes

- SEC was in a unique position to observe Snowmass
- The Frontier and Topical Group structure tended to be uneven.
- While much of this process serves to inform DOE, some of the fields represented in Snowmass are more in tune with NSF-Physics.



Science Mission Directorate Fleet Image credit: Jenny Mottar, NASA/GSFC

Recommendations:

- Consult with experts in each subfield as part of the process of defining the topics.
- Wait to recruit the topical group conveners until after LOIs are submitted.
- Provide concrete instructions to the conveners and community for how to address each agency.

Access

Observations & Recommendations for Future Executive Leaders

- Accessibility - make sure the entire Snowmass process is accessible to people with disabilities.
 - Allocate & Secure funding prior to Snowmass
 - Provide a public-facing procedure for requesting accessibility services
- There should be points of contact on the DPF and APS Ethics Committees, as well as one who is an employee of APS.



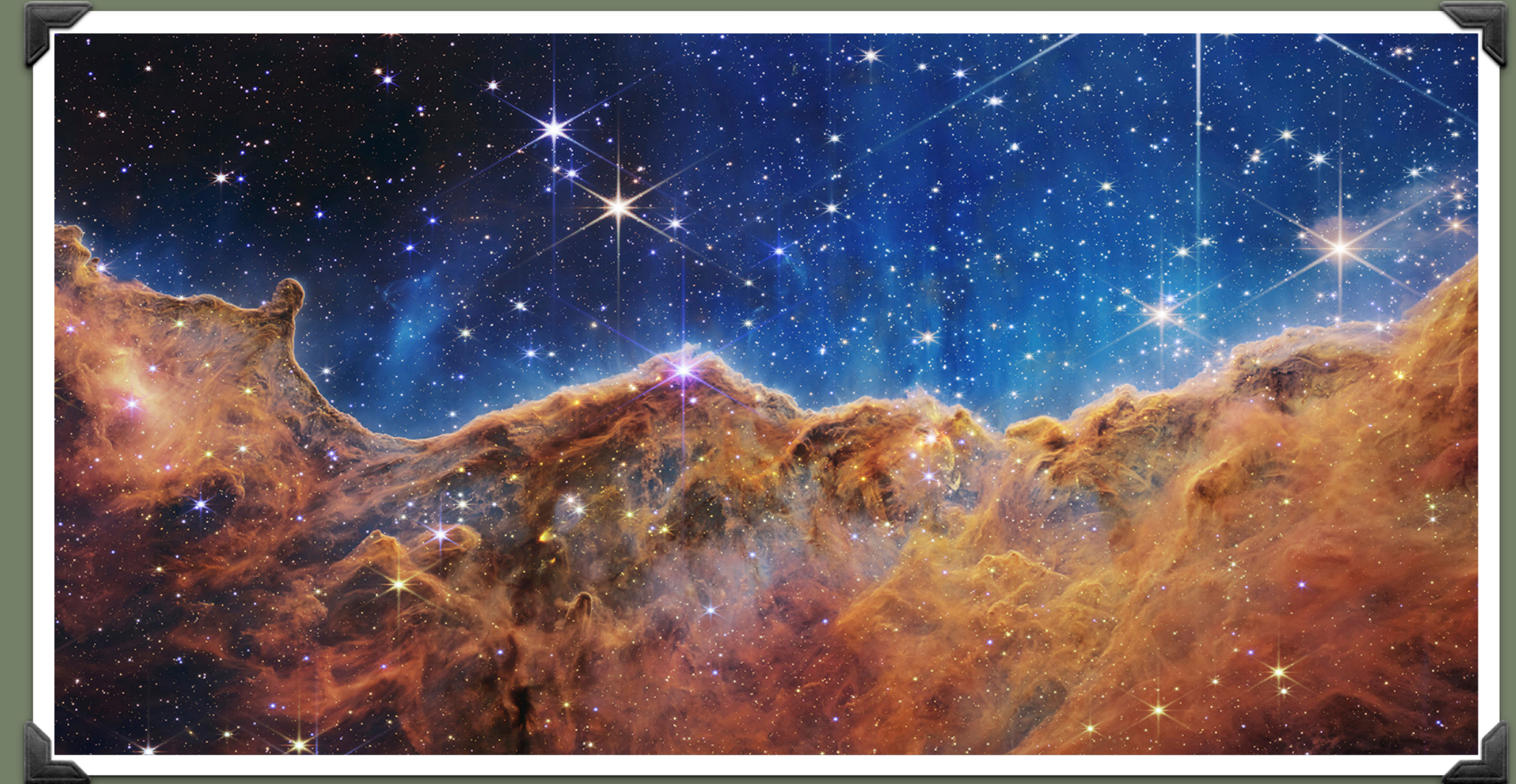
Access across messengers Image credit: MOSSAIC NASA/GSFC

- Layered hierarchical leadership separated the average participant from decision makers
 - Create avenues for requests and criticisms to be brought directly to decision makers
 - ,Where decisionsr affect the community, provide a public-facing explanation

General SEC Organization

Recommendations for Future Snowmass Processes

- SEC was asked to represent: students, postdocs, faculty & scientists <10 years post-PhD, and engineers & technical staff.
- All of these groups deserve representation, but their experiences and goals are vastly different.
- SEC tried not to interfere with individuals' participation in their frontier, but to offer an additional support structure.



Webb's Iconic Stellar Nursery Image credit: NASA, ESA, CSA, and STScI via AP

Recommendations:

- Create and facilitate a representative body for engineers & technicians
- Make sure there is a season for the community to sort through questions of leadership (there are now guidelines) and purpose before other tasks.

Core Initiatives

Recommendations for Future Early Career Leaders

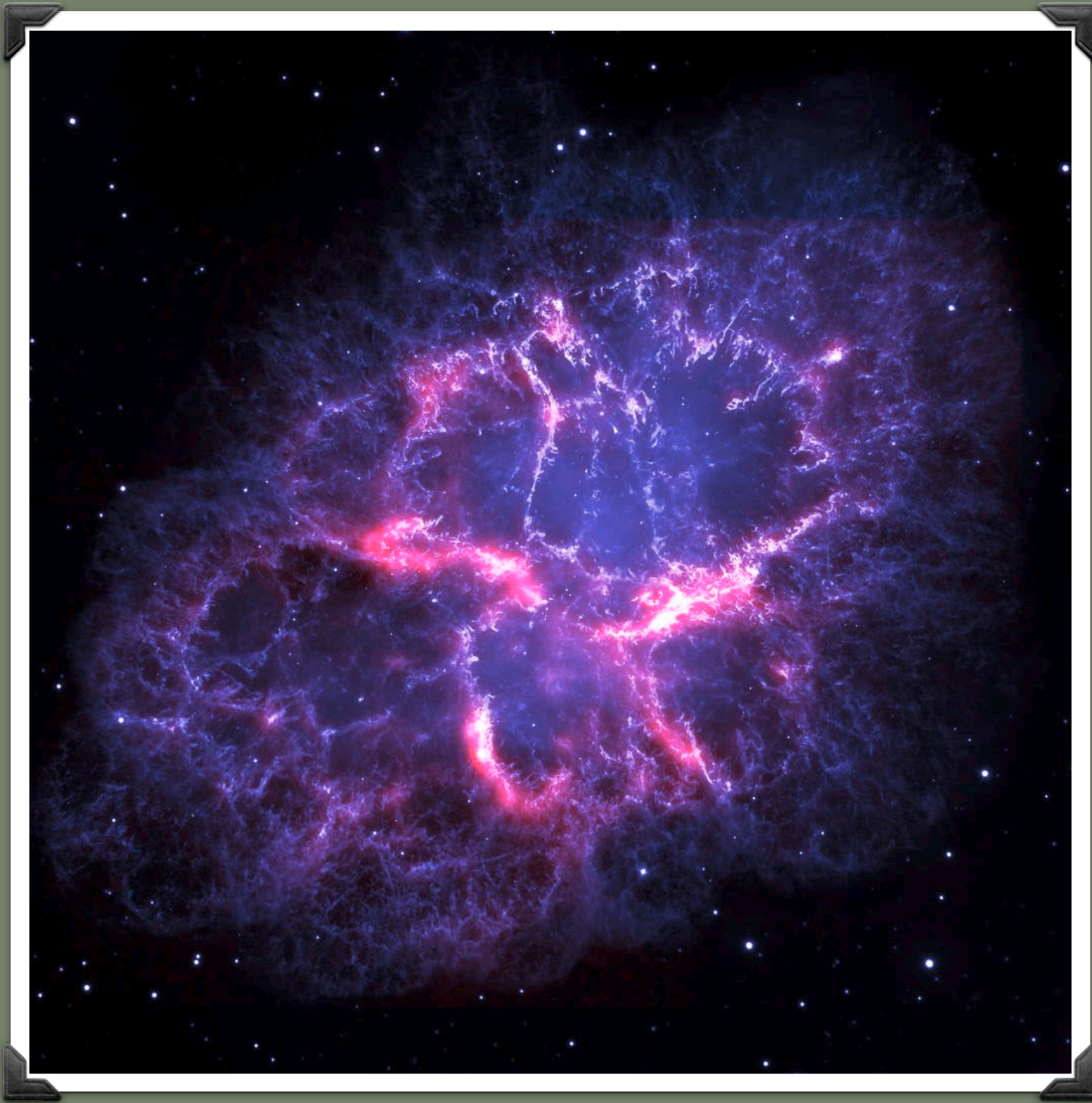
- Be mindful of the potential for burnout and undersubscribe personnel resources.
- SEC is an all-Snowmass organization
- Core Initiatives - check in with Coordination Groups
- Diverse representation starts with recruiting
- Much of the work undertaken by the SEC Core served the entire Snowmass Community across all frontiers. It has been an amazing opportunity to learn about topics beyond those in our individual work, to meet great people, and to be part of the driving force behind our community's future success.



M80 -Globular Cluster, older stars coming together to make something beautiful. Image credit: By NASA, The Hubble Heritage Team, STScI, AURA

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Thanks!

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Crab Nebula - Stellar Death Image credit: ESA/Herschel/PACS/MESS
Key Programme Supernova Remnant Team; NASA, ESA and Allison
Loll/Jeff Hester (Arizona State University)