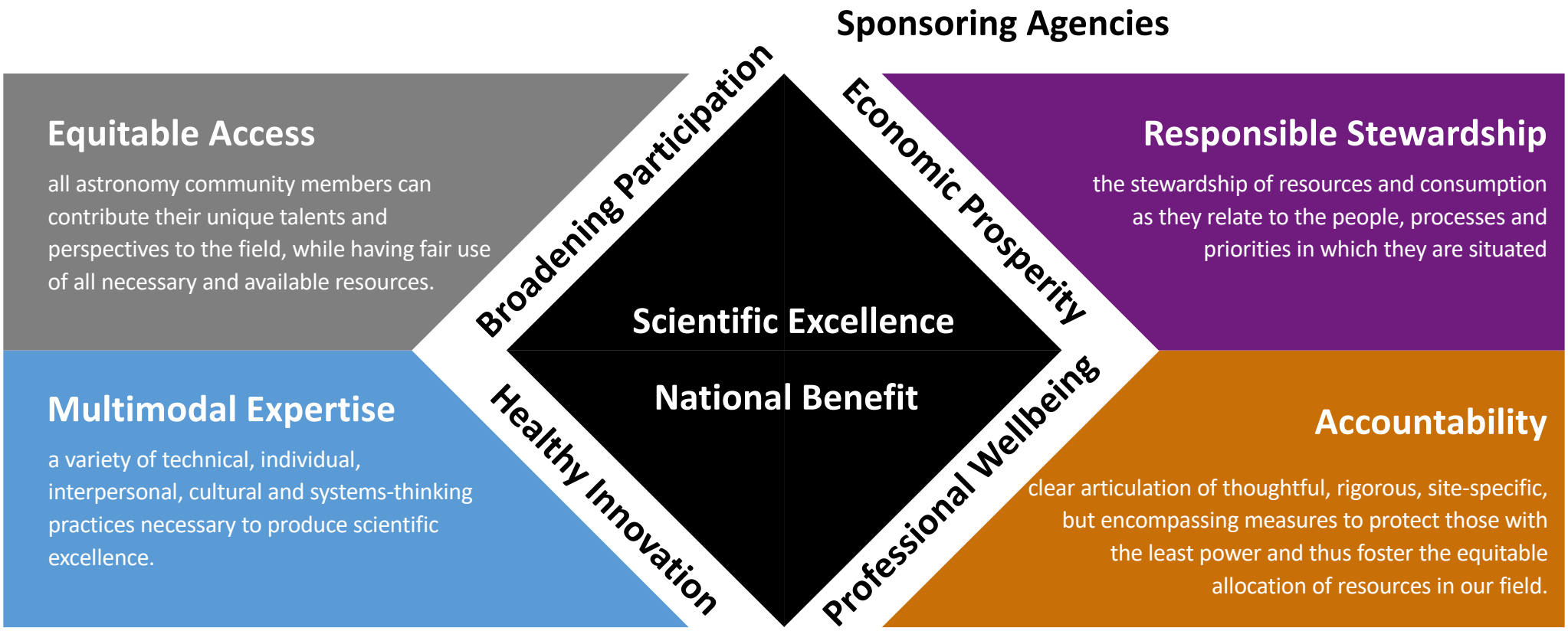
Astronomy & Astrophysics Values Framework



Equitable Access → Broadening Participation

- Funding/Valuing Public understanding of research → providing access to the public to engage with the science products (data, knowledge)
- funding/fellowships for students with less access to resources.
- Access to astronomy at a young age → access for rural areas
- Disability access including physical access like wheelchair accessible facilities and things like assistive technology and other supports
- Access to *paid* research opportunities
- Access to education: Training Pipeline
- Data Access --> Surveys like SDSS5

Equitable Access → Broadening Participation (e.g., DOE Act 2014; Section 7141.b59)

All current and future astronomy community members can contribute their unique talents and perspectives to the field,

An equitable professional structure has to include **an analysis of existing decision-making**, agenda-setting power structures and of how those large-scale decisions impact the members with lowest institutional power.

Equitable access accounts for the extent to which there is equity *within the organizations* that educate the next generation,

E.g. training is a prerequisite to access career opportunities in the Profession.

Multimodal Expertise → Innovation

- Interdisciplinary action → to improve outreach (e.g. in the language we use to communicate).
    - Diversity of committees -> Sociologists
- Engagement with knowledge holders among the community/stakeholders
- Pedagogy! Education research, language
- Management of Teams : Work life balance
- Graduate Director

- How to select leaders
    - Diversity of committees (admissions)
- How do we train leaders

Multimodal Expertise → Innovation
NASA Act 2008; Section 102.d.5

the multiple ways of prioritizing, assessing and evaluating knowledge, including the science and research objectives of the field

This includes skills and leadership abilities : technical, individual, interpersonal, cultural, and systems-thinking practices

such as: active listening, open-mindedness, attention to universal design, cultural humility and literacy, social justice, and growth mindsets

Such expertise will expand the scope of inquiry in unexpected directions.

The Profession's increasing complexity will require broader skill sets than simply technical expertise; valuing these skills will produce innovative outcomes.

At the heart of this – **is broadening our definition of the expertise needed to shape and lead the profession in the modern era.**

Responsible Stewardship → economic prosperity

- Astronomical Facilities on Native Lands
- Energy for HPC facilities, Construction of telescopes, Carbon footprint : Environmental Impact
- Astronomical Facilities in Space and on other Planets → cultural heritage of the moon, space.
- Impact/Engagement with corporations (e.g. starlink)
- IP knowledge – responsibility to stave off misinformation
- Students (constituents of the profession)

Responsible Stewardship → economic prosperity (e.g., NSF Act 2018; Section 1862.a.1)

the reciprocal care for the environment, land, and people in relation to resources consumed by the Profession

supporting the learning and development of its membership and prioritizing environmentally, financially, and socially responsible scientific inquiries.

Responsible Stewardship has direct economic consequences (Maunakea)

Accountability →health and well-being

- Following through -> NSF has a postdoc mentoring plan. Then what?
- Accepting responsibility for mistakes → learn to apologize, work to make things better: (Leadership)
- Science is about making mistakes! That's ok!

- How to build that?
    - Having clearly articulated standards to which you can be held accountable.

Accountability →health and well-being (e.g., DOE Act 2014; Section 7111.2)

Clear articulation of thoughtful, rigorous, site- and context-specific, effective guidelines to protect the members of the Profession with less privilege and power, while providing clear actions to take when infractions are suspected or perpetrated

Discriminatory, inequitable, unethical systems and people must be addressed, including a punitive response for consistent and/or egregious violations of ethical policies.

Demonstrated accountability must be structural and data-driven,

This will reduce attrition in the field and increase the vitality of the Profession

Values, Landscape and Proposed Recommendations

- Equity-advancing values are embedded in the proposed recommendations
- Assuming uniform interest and ability to participate in professional astronomy, a healthy field would represent the population (History)
- Spoiler: it doesn't. (Landscape)
- **Evaluate** existing programming, **dismantle** systems that contribute to inequity, **create** structural interventions that foster equity (Recommendations)