Support of convergence in a university environment

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Hard to measure convergence outcomes – especially since we are explicitly aiming to create ideas and impacts that are brand new

Depends on culture, but has a lot to do with:

- Administrative structures
- Policies
- Incentives

Those can be measured and evaluated.

Administrative structures

- Structural support for diversity equity, and inclusion in research
- Institutes/Centers that combine people from across disciplinary units
- Events that combine researchers of different fields
- Core facilities run centrally rather than in specific units
- An accounting system that can easily manage funds that are controlled by multiple units
- Interdisciplinary degree programs
- Structural support within fundraising arm of the university

Policies

- Promotion and tenure process that recognizes cross-cutting efforts hard because of external letters
- Graduate students from one program can easily work for advisors from another or have joint advisors from different disciplines
- Appointments allowed that are joint across administrative boundaries (postdocs, research scientists)
- Internal funding models that are not set up as zero sum games share in the success and do not discourage participation in convergent efforts

Incentives

- Internal funds that support convergence-type research generous and stable funding of institutes and initiatives that support diversity in research
- Faculty have access to discretionary funds to try wild things
- Space dedicated for convergence activities, does not happen only with the generosity of the disciplinary leaders
- Dedicated staff support for writing big proposals and managing big grants
- PR activities of the institution that support convergence activities, not tied to disciplinary structures

Caveats

- Not clear that all of these ideas are effective. Should be studied over time.
- Culture is critical, need leaders at all level to support and be supportive of diverse research approaches that include convergence
- Ideas are geared toward large institutions, might be harder at smaller institutions or where some important area is not well-represented
- Question of what is a good measure for interinstitutional convergence
- Not all research should be convergent. Convergence research relies on a foundation of advances within disciplines, so need to keep that in mind when placing emphasis on these measures.