

MEMORANDUM

DATE: Thursday January 19, 2023
TO: Faculty Council
FROM: Innovations & Visioning Task Force (Dr. Rob Mitchell, Chair; Dr. Joseph DiVerdi; Dr. Jennifer Martin; Dr. James Graham; Dr. Timothy Amidon)
SUBJECT: Report from the Innovations & Visioning Task Force, Fall 2022

In the fall of 2022, Chair Doe charged the Innovations & Visioning Task Force with envisioning possible futures of CSU and identifying opportunities for centrally involving faculty within all levels of University work. Our task force met seven times over the course of the semester and developed a structure for determining current challenges, conducted a brief survey to capture initial opportunities and challenges that exist, and sketched next steps for the Faculty Council to consider toward the aim of enabling continued faculty engagement.

Following our initial meetings, we established a question that provided a boundary/scope for our work: *How can CSU respond more quickly to opportunities to co-create value with and for stakeholders?* In asking this question, we outlined variables influencing value creation, including internal/external-constraints, temporal-constraints, rank/role/positional constraints, and mission-constraints connected to research, teaching, administration, and service (especially in terms of community-engaged research and/or extension). Globally, our goal in exploring this framework was to work toward identifying more granular detail regarding an array of barriers that may impact faculty abilities to meaningfully pursue and engage with stakeholders. Appendix A contains a heuristic for uncovering these barriers. To further illuminate these issues, we next envisioned pathways for addressing constraints in these areas, including opportunities for follow on effort that could be taken up by the Committee for Strategic and Financial Planning.

A number of these potential next steps require time and resources for data collection and analysis that would go beyond the scope of this task force. For this reason, we settled on a scoping exercise that was more targeted in nature. Specifically, we conducted a survey that sought to capture more detailed insight from a range of administrative and faculty respondents regarding their perceptions of the following areas:

- CSU's ability to quickly and effectively respond to external stakeholders' requests for collaboration;
- CSU's ability to find and engage appropriate stakeholders for new opportunities;
- How important it is for you to collaborate with external partners in your current job duties;
- Things that CSU does well related to co-creating value with stakeholders;
- Notable barriers related to co-creating value with stakeholders; and
- Any potential opportunities you see for co-creating value with stakeholders.

We reached out to 91 individuals in various roles across the university and within the community. We asked members of the faculty council executive committee, chairs of standing committees, CSU administration (president, provost, VPs, AVPs, and directors in relevant areas), deans, faculty members, staff at CSU Strata, and stakeholders in the community (Innosphere, Larimer County, City of Fort Collins), among others. We received responses from more than 50% of those invited to respond.

While the survey results are not representative, we found it telling that the respondents rate CSU's ability to quickly and effectively respond to external stakeholders' requests for collaboration as 2.8 out of 5; CSU's ability to find and engage appropriate stakeholders for new opportunities as 2.7 out of 5; and how important it is for you to collaborate with external partners in your current job duties as 4.5 out of 5. These initial responses suggest that there is an opportunity to improve at CSU. Appendix B has the responses to the survey.

In terms of recommendations, we see an opportunity to build on the scoping exercise we engaged in to produce more reliable results and capture more depth in responses by employing a more extensive survey and/or interview methods to systematically identify barriers, opportunities, and potential solutions. A second possibility we recommend is to involve the faculty governance structure of the Committee on Strategic and Financial Planning in discussions with the administration related to strategy and budgeting—especially with a mind to continue to enable CSU to remain relevant to the external stakeholders we rely on for support. We also see this committee as having a role in enabling the work of other standing committees to more be strategic in nature.

Appendix B

Ability to quickly and effectively respond to external stakeholders

CSU serves as a repository of deep and broad knowledge in areas relevant to state-wide stakeholders.

CSU provides fundamental (basic) research at bargain-basement prices.

CSU compliments stakeholder competencies with high-quality personnel available for collaboration.

Outreach and engagement; partnering with companies on workforce development and research needs; serving on volunteer organizations

1. A formal presence in all 64 counties in Colorado with formal partnerships with county government that requires stakeholder engagement on advisory boards/councils
2. Ram Tour--a university-sponsored experience for new faculty, newly tenured faculty, and new administrators that tours a region of the state exploring engaged teaching, research, and Extension programs and opportunities and supports the co-creation process
3. The current efforts at CSU Spur include the land-grant mission areas and engaging communities and stakeholders from across the state.

Colorado Energy Research Collaboratory

NSF ERCs

Some elements of Strata

1. Increasing utilizing and elevating county Extension as community-based partners
2. Finding appropriate collaboration touch points with government partners (city, county state agencies)
3. Competing well for grants that value community engagement as scope of work

Many areas to engage/lots of variety

Good faculty with levels of experience

Excellent resources/labs/expertise

*I've been part of CSU for <1 year and I'm focused on the Spur campus

- 1) Earnestly engaging with stakeholders at an individual level (reflected at all levels including CSU staff, faculty, leadership)
- 2) CSU Spur campus! This space is designed for stakeholder engagement and the programing there includes centers and employees specifically positioned for stakeholder engagement. Notable examples include the Food Innovation Center, Ag Innovation Center, Water Solutions ecosystem, and (potentially) the Biotech/Bioengineering ecosystem (a work in progress).
- 3) Statewide investment: Ag Experiment Station, Extension, Collaboration Campuses, etc.

CSU can bring knowledge and resources backed by research

CSU has a statewide presence in most counties in Colorado through CSU Extension. This team co-creates value in their communities for stakeholders.

CSU can bring a trusted, recognized brand which is helpful in co-creating with community college partners/stakeholders.

Career management collaboration

Few long-standing initiatives

General openness to help

Innosphere has had a good experience with the CSU VPR and Strata offices on co-creating programs and pursuing larger projects.

Athletics/Alumni/COB seem to really engage stakeholders and try to create opportunities

New voices/ideas are coming up so I believe/hope the tide is changing

We do have amazing employees and students that create welcoming atmospheres and cultures

1. Conveying aspects of the land grant mission in that much of the research done at CSU translates to solutions that directly impact regional and global challenges. 2. External stakeholders that partner with CSU has access to both world class researchers and a talent pipeline through engagement with students. 3. Higher education can act as a convener like no other sector in that a university can bring together industry, researchers, government, and the non-profit sector; and this convening also brings with it the future talent for all of the stakeholder groups through our students.

I can only speak to corporate and industry stakeholders...

- 1) aligning research interests
- 2) distinguishing between passive sponsorship and active collaboration
- 3) recognizing value of individual contribution to innovation

CSU connects to communities across the state through Extension and Engagement.

CSU's new health clinic and long-standing veterinary hospital are key touch points with community stakeholders.

In the College of Liberal Arts, the CSU Communications Dept hosts the international poster competition and the international film series while the University Center for the Arts hosts DAILY (365 days a year) programs in art, music, theater and dance--open to the public.

- 1) Certain areas of the university, such as entrepreneurship, have sometimes found ways to streamline getting things implemented
- 2) Involving the business community within some of the course content and/or with students
- 3) Some of the areas of strength of the university related to research receives national attention and it affects a lot of the stakeholders

Solid historical relationships with certain partners

Dedicated employees

Collaboration within colleges/units

CSU genuinely communicates a desire to meet stakeholders needs. There is a culture of community/industry collaboration that runs deep. I believe this culture helps to recruit new faculty who have the interest to conduct research and engagement activities that are stakeholder driven. The culture of collaboration is highly important to the success of stakeholder collaborations.

1. Affordability
2. Integrating education standards into our programming
3. Accessibility

Enthusiasm and eagerness

More recently, we have enterprising faculty

General interest and support from OVPR

[The Institute for Entrepreneurship] is highly effective at outreach to stakeholders who may have an interest or alignment with an innovation or e-ship program or offering.

CSU STRATA (Lab to Life) is actively engaging with the local, regional and broader community for investor and partner collaboration.

Pushes for interdisciplinary collaborations

Intellectual property and technology transfer.

Responsive to donors.

The University is not structured for this in any meaningful way and has policies and practices in place to actually discourage such opportunities for co-creating value with stakeholders.

- 1) Research and data informed approach
- 2) Access to faculty and other academic resources
- 3) General willingness to explore ideas

we leverage our person capital well--not necessarily a good thing, but something we do well provide training experiences and exposure for our undergraduate and graduate students

Immediate/short term need (but not too immediate, because turn-around time can be slower than anticipated), willingness to roll-up sleeves and work extra hours (potentially a side effect of time management issues/over-extending oneself), when need become emergency - good at pulling in people who can get the work done immediately (example - finishing, reworking grant applications/budget needs to meet requested changes).

Recently CSU has created positions that are responsible for responding to community request. These individuals are very helpful at making connection within CSU, however, they're positions are not well promoted and they can be hard to find.

1. Supporting faculty through freedom and encouragement to collaborate with stakeholders from leadership
2. World class facilities for research and convening
3. Talent pipelines

Engages with the community, invites SMEs in support of certain topics, encourages internships VPR funding

Encourages relationships with outside stakeholders

1. Support technology transfer and licensing of technology to industry and startup companies.
2. Relatively open access by industry to core laboratory facilities at CSU.
3. Support of regional and community innovation hubs like Innosphere.

CSU maintains long-term relationships; rewards loyalty and repeat business.

CSU builds effective coalitions of partners (other universities, federal, state, and local government agencies, non-profits, etc) that join in the co-creating of value with stakeholders.

CSU has an pragmatic problem-solving culture well suited to co-creating value with stakeholders.

CSU appears to seek out collaboration with stakeholders 1. that ethically align 2. that are interesting in investing in CSU and Fort Collins as a whole 3. that have similar goals

Once you find the right connection, highly dedicated to thoughtful partnership and service to the customer.

multiple offerings for various audiences, trying to connect stakeholder to the right resource or person

Good partnerships on the SPUR campus.

Individual units (colleges/centers) do well (e.g. Nutrien partnership w/ Ag)

-Extension program brings CSU into every CO county

-It seems like we have a good relationship with the business community

-Services at CSU that are available to the community: public events, library, sports

The knowledge and expertise that we have is tremendous. We have capabilities in a wide variety of spaces that can enable us to offer value to a wide variety of stakeholders.

CSU's ability to find and engage appropriate stakeholders for new opportunities

CSU's internal reward systems, while strong in traditional areas, are somewhat and variously weaker in the target situations.

CSU's administrative functions are less knowledgeable than individual faculty in seeking and executing target situations.

CSU's administrative functions are less motivated than individual faculty in seeking and executing target situations.

Negotiating legal and IP with external partners; rewarding faculty and staff for engaging external stakeholders

1. Time

2. Funding

3. So many opportunities and challenges that stakeholders need and not enough capacity to respond-- the focus themes of CSU Spur have helped provide focus and intention to begin to resolve this barrier

Difficulty knowing who to talk to

Faculty time constraints

Disengaged leadership

1. Still lacking greatly in the diversity of audiences we engage (more comfort in traditional/legacy programs)

2. very hard to bring in and manage financial resources with current staffing/processes for business and financial services

3. Too few faculty on campus with formal Extension/Engagement roles in their positions

Lack of external expertise - faculty assume there's a problem to fix when they don't seek outside guidance

Literature is primary mode of understanding technical merit, but lack of understanding around market needs

Little notable partnerships that make a difference/named buildings/KOLs on campus

1) Like any big institution, CSU is a difficult place to navigate. Streamlining the "entry" for companies and stakeholders can improve the stakeholder experience. (Not sure what this looks like though.)

2) Geography is a challenge in CO and the "front range v. the rest of the state" mentality is a limitation in some cases. Leaning in on (and supporting) existing statewide investments (Ag Experiment Station, Extension, Collaboration Campuses) is important. Investing in educational access statewide can help too. More than anything, we need to communicate and promote the work we are already doing across the state.

3) Educational access is a perceived (real?) problem that requires us to rethink education and provide more educational entry points that align with the needs of students and industry. This might include education offered in different geographic locations or via different modalities. Degree alternatives (e.g., certificate programs) and professional upskilling are also areas to consider.

Often, we cannot afford to create value with stakeholders because of the cost of bringing education or a program to a community. My community wants to co-create a talent pipeline that serves workforce needs. CSU was asked to deliver a hybrid degree completion program in Accounting as part of this work. The program failed because of the cost to deliver the program, the impatience for growing the program, providing the resources to be successful, etc... Furthermore, for various reasons, there is not incentive for the faculty to co-create value with stakeholders who have interests outside of Fort Collins. Lastly, CSU is slow to deliver on the needs of industry which doesn't have the time to wait on results and lives in an ever-changing environment. They cannot wait on approvals, our systems, or our ways of doing to achieve results.

Lack of systems, e.g., CRM (e.g., contact database, interested ways of connecting)

Lack of repeatable templates/routines for successful external stakeholder engagement (everything feels ad hoc)

Seem to lack central resources and people/infrastructure to make this easy.

Our collaboration level in CO, in my view, is higher than in other locations, but multi-institutional collaboration is not straightforward. More of a reflection that there are not great legal/policy frameworks in place for multi-institutional collaboration.

State/University policies (bureaucracy is strong and there are info silos)

Lack of infrastructure (mainly people)

Funding

I have met significant barriers with collaborating with colleagues ... some of the work is supposed to occur in my lab with support from [a colleague's grant], but CSU will not allow the transfer of funds necessary for this collaboration to continue.

1. Confusion over intellectual property distribution. 2. perception that higher education is slow 3. Lack of coordinated efforts due to the siloed nature of higher education.

1) timely communication

2) creating a realistic understanding of the cadence of our research enterprise and a realistic expectation on the part of the stakeholder

3) trust

Resources, including the resourcing of human capital, are needed to meaningfully sustain relationships with stakeholders whose loyalty needs to be nurtured over time.

CSU seems to maintain a somewhat conservative approach to creating affiliation with stakeholders. We need to foster our agricultural roots but not limit ourselves to it nor its most marketable applications.

We need clear vision so that investment in areas such as renewable energy are seen as part of our mission and vision. We have had connections to energy for years but we are not VISIBLE in the renewable business and we could be.

1) We are sometimes bound by processes which tend to be slow and rigid

2) Tied to 1) this rigidness can cause potential missed opportunities and frustrated stakeholders that don't understand these constraints

3) Mindset of individuals not being open to finding quick and innovative solutions to solve a problem or implement things can be time consuming and frustrating

Silos

Lack of central leadership in this space to have comprehensive strategy

Incentives not aligned with goals

1. Issues with creating contracts for funded projects

2. Ability to deliver products quickly (students cannot work full time and deliver products quickly)

1. Financial

2. Multi-step processes/multiple forms required by external partners

3. Resources

No real performance incentives

Turf battles

No leadership/administrative champions

General university bureaucracy, but nothing truly of note.

Administrative structures that limit or gatekeep

Territorial issues

Please see below...

Lack of internal coordination among departments and administrative functions. They work at cross or conflicting purposes.

Lack of faculty interest or engagement in such relationships.

Animosity toward for profit efforts. The University is not structured in a way to favor or foster entrepreneurial activities and actually discourages and puts up barriers for it.

Poor fundraising

1) No coherent public facing strategy for engaging with entities outside of the university.

2) Siloed organization lacking clear points of contact for economic and workforce development

3) Lack of presence in community (Fort Collins/Larimer County) outside of university footprint and programs

lack of creativity as it relates to cost-sharing

we don't reach into the institution to identify experts or expertise areas for collaborative opportunities (siloes disciplines)

recognize the varying strengths of our community--some faculty may be well-suited for co-creation with stakeholders, but their other commitments keep them from doing so.

Lack of long-term vision - challenging to take the time and effort to stay engaged with stakeholders who might become important in 3, 5, or 10 years. I feel like we work really hard to create and maximize "convenient" relationships - one in which we have an immediate/short term need/opportunity, but then we drop/forget to nurture the relationship building component once the project is done. I am not certain that we are good at asking what the collaborator's need is, and then constructively figuring out how we can best support each other - we are often the pull focus in the relationship (what do we get out of it, how does it help us achieve what we need), and then our collaborator's need is seen/treated as a requirement/duty instead of mutually supported relationship. In my experience, we have a lack of true customer service skills/orientation/balance of seeing the benefit for our partners.

Finding/identifying best point person within CSU system to connect with

Understanding the areas of expertise that are available within the CSU system

Depending on the ask, CSU can be slow to respond.

Much of this value is contingent on faculty relationships, typically long-standing. Therefore, supporting faculty and enabling their nimble engagement with faculty is critical. CSU has had a long-lasting challenge around infrastructure (OSP) for both contracting and alliance management that is not driven by rigorous philanthropic goals. We really need to break down the barriers that prolong and belabor collaboration with industry and other external stakeholders.

Openness to consider alternative perspectives, willingness to adapt class curriculum, invite guest lecturers to relate application of subject matters

clunky process to arrange collaboration, especially with co-funding

1. Focus outside engagement with industry on seeking donations.

2. CSU has few hubs of innovation (e.g., Parts of IDRC, Engines Lab) that have track record of industry collaboration, patent applications, and startup company formation.

3. General lack of what "innovation" is, e.g. all faculty should read "Superabundance" to understand the role of innovation in allowing our planet to accommodate 8 billion people, with ample capacity to accommodate many more through continuous market (free) driven innovations that are impossible to have predicted (or have been mandated through government initiative or other top-down directives).

CSU leadership can be slow to take on risks or new initiatives.

CSU staffing and program support is lean in many areas, often hampering execution or increasing cost in getting things done internally to the university.

CSU emphasizes investment in facilities and real estate development above creative programming and research initiatives.

1. ownership of stakeholder by other CSU entity 2. competitiveness among CSU colleges/departments for untapped stakeholders 3. resources/time that goes into relationship building

No single entry point.

No list of options.

Hard to make connections - email, phone, in person

this is true for all universities... it is hard to know all the resources out there that are available to stakeholders so often we co-create something that already exists or we can't help because we aren't sure where to send them.

Misaligned incentives

Jumbled leadership groups (VPR/Strata/UA/OEE/unit collabs) not always on same page.

-Bureaucracies around funding: receiving and spending money. These processes are completely opaque, and when I try to learn about it, I usually just end up more confused

-Uneven support from leadership in possible partnerships

-There is some community mistrust in Fort Collins, with the perception that CSU "throws its weight around (see the resistance to Hughes stadiums land being developed).

Slow response time

Aversion to risk

Unwillingness to offer a value proposition, only interested in what is in it for CSU

confusion

too many offices trying to do the same thing

confusion

Too slow; too many curriculum processes; we don't collaborate with others across campus

Non-market thinking at the operating level, from individual faculty all the way up to faculty council. Bureaucracy, structures and systems that are in place that purport to be deliberative, but really end up impeding ability to respond quickly to external opportunities.

Incentives in the university are not for departments to work together, where the nature of knowledge and opportunities in the external environment will often require cross-disciplinary collaboration.

Describe How important it is for you to collaborate with external partners in your current job duties?

Broadly speaking, any of Colorado's dominant statewide industries.

Create incentives for faculty and staff to engage external stakeholders; improve process for managing legal and IP for external partnerships

1. Our presence in all 64 counties opens the door for intentionally co-creating lifelong learning opportunities for individuals, families, communities, and business and industry
2. Partnerships from across campus, including with Alumni, Athletics, Engagement and Extension, and Colleges, and accelerate our responsiveness through the creation of a unified and agreed-upon plan
3. I can identify many other ideas and am more than happy to support the next steps!

Transdisciplinary Institute for Collaborative Innovation in Provost or VPR Office

Again, more grant opportunities and govt cooperative agreement opportunities than ever to fund community-based research and education programs

Far greater interest and expertise among young faculty to do such work

Colleges/department leadership could benefit by having external advisory boards, training for faculty on how to engage with industry/external partners.

Spur offers a lot of opportunity here. Strong engagement between Fort Collins and Spur can be leveraged by CSU faculty and staff. This requires conversations and creativity and isn't a "one size fits all" approach. But Spur is a huge asset in this arena. The Extension network and the Ag Experiment Stations are other assets. The CSU System with our regional (Pueblo) institution and our online (Global) institution are strong compliments to the land grant approach (Fort Collins). Thinking of the CSU System collective (including Spur and our statewide networks) as part of an evolution of how higher ed works, who gets access to education, how research problems are tackled, how industry partners with CSU will resonate with people cross our state, industry leaders, and government leaders. Honestly, I think we have the pieces, we just need to package, promote, communicate what we are already doing as a first next step.

There is a ton of opportunity to co-create value through our Collaboration Campus efforts. Feel free to reach out to me if you are interested in unpacking the discussion.

Broader/deeper advisory panels/boards and sharing.

Longer-time horizons for planning (e.g., instead of this semester, we want to accomplish ___ in next few years).

Cross-pollination between career management and course/project engagement, community needs, research

I think we are just in the starting stages of co-creation of content to rapidly advance lifesciences and climate tech startups. Real opportunity to innovate.

Community events on Campus...we have to get people onto this wonderful campus to attract future students and opportunities

Showcase student talent/projects to partner with community businesses and organizations

Unveil more research projects to the entire campus and community as I think there are great projects going on that we don't know about...hidden synergies

I have long advocated for a more centralized office/mechanism for engaging with and stewarding relationships with external stakeholder groups (particularly industry). Colorado State University has at least seven vice-president offices/divisions that have personnel dedicated to engaging with industry without an infrastructure for coordination.

1) conceding short term returns in asset ownership (IP) for long term reputational value with a collaborator, i.e. becoming the research partner of choice

2) our interests can align well and our respective contributions can be truly complementary

3) high risk early stage discovery stage research with amazing value for money is our strong suit

1) Firm up our mission and vision. 2) Then provide seed money for people to launch initiatives that are forward-looking, 3) Get out of the way of faculty and let them do what they do best, which is to use their heads and innovate. It sometimes feels like the faculty are in velvet handcuffs rather than liberated to do what they could and should do to help CSU innovate. 4) Think more broadly about innovation and develop understanding that it pertains to the arts and social sciences as much to STEM and Business.

Recently, there has been some nice collaboration with CSU Strata that involves trying to get the most for stakeholders by allowing individuals to focus on strengths

Create central position(s) to manage this area

Nothing is popping into my head on this.

1. Creating visibility

2. Inclusion of new areas across CSU (SMTD)

Change incentive structures to break down silos and turf disagreements and battles

Leverage CSU STRATA capabilities within academic departments

Give permission to fail and take risks

continue to publish stories (in Source or on social media, newsletters) as examples that can help stakeholders see themselves involved and make paths clear for how to connect

Better engagement with business community, economic development officials, site selectors and emerging industries and professions. These are all areas we are working on and interested in further engaging in.

A complete overhaul of the culture at CSU would be required for this to happen. It is not practical or feasible.

- Locally focused economic development program that leverages and connects CSU and Strata

- Engaging in local issues that impact the economic competitiveness of the region

- Showing up; CSU seems to be conspicuously absent from a lot of what is happening in the community

Creative faculty appointments or exploration of innovative opportunities for faculty to develop relationships with external stakeholders

Training/instilling a sense of "we are all in this together/all boats rise when the tide rises", and recognition of those that do that well (the relationship cultivators). Engaging with stakeholders in a long-term needs discussion "what do you need/what would you like to see/what would you like to build together in the next 3-, 5-, 10-years in this relationship", and then figuring out if our needs are in alignment and examining the balance of what it will take for us to deliver. We may do the first 2 items, and I am just unaware/not involved in those discussions. Telling better stories of engagement - successful outcomes for both us and the stakeholder (how did we work together to achieve X for us AND Y for them - the short and long term impacts).

In my work we participate in many business-led organizations that are tackling some of the biggest challenges faced by our community, and there is an opportunity for CSU to play a bigger part in these efforts. Happy to share more as needed.

Intellectual property, post-doc/graduate student support, equipment showcasing, upskilling.

Providing real life examples of how a specific topic is incorporated into the operation of an enterprise. sometimes it takes seed funds to develop relationships with stakeholders

Formulate a statement of collaboration that faculty could sign on that tells potential industry collaborators why they would be desirable innovation partner - willingness to abide by timelines, to respect industry IP (not give up their right to create new IP, whether co-owned or solely-owned), provide a guarantee that study results from industry sponsored research are repeatable/verifiable, that they are committed to patenting discoveries for purposes of commercialization (w/ rare exceptions), etc. This would take some thought (and input from industry) but I believe CSU could stand out as a partner of choice if it could 'advertise' that its faculty are onboard with industry expectations for collaboration.

We are aiming to leverage the Spur campus in Denver as a platform for convening stakeholders in ag and food technology, identifying needs, and then assembling project teams of grad students, faculty, and external advisors to co-create value with those stakeholders.

Opportunity to collaborate on ethical goals, like "Business for a Better World", focusing on student success, creating resources for CSU that benefit students and community

We have tremendous opportunity to bring new business to Fort Collins/Northern Colorado - especially Research and Design that want to collaborate with education. We HAVE to make that easier to do.

Elevation of Corporate & external relations office to be situated in presidents or chancellors office to have someone with a full time purview overseeing this. See Grave O'Sullivan's role at ASU <https://research.asu.edu/about-us/research-leadership/grace-s-osullivan> or business centers at CMU/Umichigan

CSU has incredible depth of research talent but it is very challenging to connect that talent with private sector partners. Industry comes directly to us to perform work and as a research institute we are able to respond quickly and deliver data but this is not typical of CSU as a whole.

partnerships for employees to come to CSU for training; continuing education

Offer much more breadth in the nature of solutions to world problems. Working with our learners to enable lifelong learning and problem solving.