

Principals of Practice for Higher Education's Engagement in **Inclusive Economic Engagement Strategies**

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Association of Public and Land-grant Universities

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LAND-GRANT
UNIVERSITIES



UEDA

UNIVERSITY ECONOMIC DEVELOPMENT ASSOCIATION

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Letter of Transmittal

Dear Members of the Commission on Economic and Community Engagement,

The 2022 APLU Annual Meeting was a great success! The research and learning shared at the meeting was inspiring and demonstrates the great value of our economic and community engagement efforts. We celebrated Iowa State University, North Carolina State University, and the University of Cincinnati for their exemplary work in economic engagement and recognized the University of Georgia as the winner of the C. Peter Magrath Community Engagement Award. These examples represent only a few of the many ways APLU member campuses are committed to advancing regional economies by developing talent, advancing groundbreaking innovations, and improving the quality of life in communities.

Though there are many successes to herald, it is also valuable for the leaders on public and land-grant university campuses to pause occasionally and reflect on strategies that improve our impact. In that spirit, over the last year we undertook a review of the framework that undergirds the Innovation and Economic Prosperity program.

This framework was first shared in the *Foundations for Strategy and Practice* in 2015. Since then, IEP university campuses have anchored efforts alongside partners in industry, public agencies, and nongovernmental organizations to drive resilience and growth. We commend the work of 71 existing and nine new members of the Innovation and Economic Prosperity (IEP) Universities program. While the accomplishments are impressive, enhancing the intersections between talent, innovation, and place also requires incorporating principles leading to inclusive growth and social mobility.

Thus, this document is a reframing of the *Foundations* to inspire the kinds of activities that improve community vitality. It is the culmination of a conversation CECE members engaged in to create a vision for future higher education

economic engagement strategies. It articulates the values public and land-grant campuses can bring to this work, illustrates a theory of change showing that inclusive growth and social mobility are possible, and offers principles of practice for campuses to consider.

This document represents the beginning of a journey. Broad adoption of these principles through the IEP program, APLU awards and recognition, and shared learning in communities of practice will increase the likelihood that university campuses have pathways to highlight their accomplishments in this arena.

We thank the *Foundations* Working Group who led this work. It represents over a year of reading, reflection, and debate about what we have accomplished and how we can improve. We also appreciate the contributions of members of the University Economic Development Association, our collaborators in the IEP program.

We hope you will find the *Principles of Practice for Higher Education's Engagement in Inclusive Economic Engagement Strategies* a useful tool for your campus and the communities they serve.

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1. Introduction

1.1 Purpose of Revision

This document offers a revision of the *Foundations for Strategy and Practice (Foundations)*, initially published in 2015 by the Association of Public and Land-grant University's (APLU's) Commission on Innovation, Competitiveness and Economic Prosperity (CICEP, the predecessor to APLU's CECE) in partnership with the University Economic Development Association (UEDA). The purposes of *Foundations* were to

- Define university-based economic development, using a framework that encompasses the primary mechanisms by which universities affect their regional economies.
- Provide a common set of principles for economic development and engagement to universities in planning and assessing their work.
- Offer a taxonomy of programs to illustrate how specific university efforts connect to the larger vision and purposes of university based economic development.

The original *Foundations* document adopted a definition of economic development that describes these activities as the "...expansion of capacities that contribute to the advancement of society through the realization of individuals', firms', and communities' potential. Economic development is the means to achieve sustained increases in prosperity and

quality of life realized through innovation, lowered transaction costs, and the utilization of capabilities towards the responsible production and diffusion of goods and services" (Feldman et al 2016, p. 8).

This definition is illustrated in the Talent, Innovation, and Place (TIP) framework that lies at the heart of *Foundations*. This framework is widely accepted among universities as a model for describing their involvement in, and impact on, local economies. It undergirds the APLU Innovation and Economic Prosperity (IEP) Universities program and provides structure for UEDA networks.

While it served as an important reference for higher education leaders in economic and community engagement for nearly 10 years, the framework was incomplete. In its current state, the framework fails to incorporate the important responsibility higher education institutions (HEIs) have to ensure that social and economic mobility and inclusive economic growth goals are integrated into regional economic development strategies.

Higher education, particularly public higher education, has played a fundamental role in advancing the prosperity of the nation. Through education, research, innovation, and entrepreneurship, colleges and universities have

- driven economic and social mobility for millions of people,

- generated research and technological change that has improved the quality of life worldwide and spawned entirely new industries, and
- improved economic, social, and civic vitality for many communities.

Unfortunately, not all people and places have benefited equally from the economic and educational advancement generated by higher education institutions. When HEIs actively pursue inclusive economic development, individuals and communities can experience greater social mobility and, in turn, economic prosperity.

This document provides the definitions, principles, and theory of change to support HEIs that work to prioritize inclusive growth and social mobility in economic engagement efforts.

1.2 Current Conditions Calling for this Revision

The 2015 edition of *Foundations* was important for laying out a framework and principles to guide HEIs in designing and describing their economic and community engagement initiatives and partnerships. While *Foundations* was critical for establishing baseline understandings, shared language, and promising practices, it was only a beginning.

Universities are place-based anchor institutions and work within the context of their communities. In those communities, many variables contribute to how community members access campus-based assets. Some communities face challenges related to disparities in wealth, education, health, and more. The theory of change model presented here identifies approaches to promoting access and equity and co-creating new assets that address the needs of university stakeholder groups with the goal of driving

inclusive economic growth and upward social mobility for students and community members currently excluded from the pathways toward economic and social success.

McKinsey and Company recently published a report that lays out arguments supporting a movement toward greater economic inclusion (Dua et al 2021). Those arguments include the following:

- Rising inequality and its impacts on human wellbeing and prosperity are unmistakable and unsustainable.
- Economic growth overall does not ensure that growth benefits all members of society.
- Economic inequality undermines long-term economic growth by causing underinvestment in human capabilities, which reduces overall innovation and productivity.

Higher education, particularly public higher education, has played an important role in the rising prosperity of many people. Through education, research, innovation, and entrepreneurship, colleges and universities have

- driven economic and social mobility for millions of people,
- generated technological change that has improved the quality of life worldwide and spawned entirely new industries, and
- improved economic vitality for many communities.

Evidence-based practices for promoting inclusive growth and social mobility in talent, innovation, and place are critical for continued economic and social mobility. This document outlines values, principles, and practices that can lead us toward that outcome.

1.3 Process

APLU's Commission on Economic and Community Engagement (CECE) commissioned a working group to initiate the revision of this document. The working group sought to answer one broad question: *How might universities maximize contributions to economic and social mobility and promote inclusive economic growth?*

The working group reviewed relevant literature, reflected on conversations with experts across the higher education landscape, and applied what was learned to a theory of change that can guide the intentional design of engagement efforts to incorporate inclusive growth and economic mobility. Attendees of a workshop at the CECE summer meeting in Detroit in August 2022 vetted an early draft of the revision. The workshop was designed to gather valuable ideas and examples of the kinds of programs that intentionally advance inclusive economic growth and social mobility. The committee also held a feedback session at the 2022 UEDA Annual Summit in San Antonio, Texas. The working group used workshop results to revise the draft and collected additional feedback from the broader higher education engagement community.

1.4 Next Steps and Call to Action

APLU's CECE encourages all higher education institutions to consider the foundational principles in this document and the practices that illustrate them. These foundations represent significant input and a consensus for how universities might act upon their responsibilities to build inclusive economies and promote social and economic mobility.

These foundations will form the basis for evaluating our institutions' progress toward

furthering a society that offers economic and social justice to all. They will, over time, become an integral part of APLU's IEP Universities program and will guide the IEP awards.

The HEIs represented by APLU and UEDA are incredibly diverse. They differ in size, resources, and the nature of the communities they serve. This diversity will influence how these principles are applied. Some HEIs have a robust program of economic engagement within dense urban economic ecosystems in which they leverage other community economic resources. Others are anchors in rural communities that rely on the HEI as a the primary economic, scientific, and cultural hubs. This institutional and environmental diversity will manifest in the different ways these principles are applied. Nevertheless, we are confident that they are broadly relevant to HEIs.

Recommended next steps are to:

- Revise the other tools in APLU's [Economic Engagement Framework](#): *Assessment tools*, *New Metrics Field Guide*, and *Economic Impact Guidelines*, to reflect these new definitions, principles and tools.
- Amend the IEP Designation Application to align with the principles articulated in this report. Phase in application of the new guidelines to all newly formed IEP cohorts.
- Develop a new [IEP award](#) that recognizes commitment to catalyzing inclusive growth and social mobility through economic engagement.
- Develop a new section within the IEP case study library that includes winners of the new IEP inclusive growth and social mobility award.

We call on all institutions of higher education to consider how they might:

- Use these tools to improve inclusive economic growth and social mobility outcomes resulting from the economic engagement.
- Hold themselves and each other accountable for applying these

foundations and making measurable progress toward inclusive growth and social mobility goals.

- Add case studies to the library by applying for the IEP inclusive growth and social mobility award.

2. Definitions For Higher Education Engagement in Economic Development

We offer these definitions as a tool for clarifying the discussion that follows.

TABLE 1. DEFINITIONS FOR HIGHER EDUCATION ENGAGEMENT IN ECONOMIC DEVELOPMENT

<p>Economic engagement</p>	<p>Economic engagement in higher education describes the how HEIs intentionally interact with people, places, and businesses to improve the economies of their neighborhoods, regions, and the world. In pursuing economic engagement, universities also affect the economic futures of their students, faculty, and staff, and the residents of the places they impact.</p> <p>Engagement implies that there is active participation or involvement, intentionality, and investment by universities as they plan and execute activities that affect the economic structure and outcomes of their communities.</p> <p>Engagement involves building reciprocal and mutually beneficial partnerships with the private, public, and nonprofit sectors and with other HEIs to amplify and multiply the impact of their work.</p>
<p>Inclusive economic development</p>	<p>Inclusive economic development builds systems and structures that enable people and places to belong and participate fully in the systems that produce economic benefit.</p>
<p>Social mobility</p>	<p>Social mobility is the movement of people, families, or groups through a system of social stratification. We focus here on the economic systems that cause social stratification and exclude people from opportunities to build the economic security necessary to meet basic needs and to find fulfillment</p>
<p>Inclusive economic engagement and social mobility in higher education</p>	<p>Applying the definitions above to the activities of higher education means infusing the <i>Talent, Innovation, and Place</i> framework with the specific objectives of inclusive economic growth for regions and social mobility for individuals.</p>
<p>Talent</p>	<p>Talent development in higher education refers to inclusive human capital and educational programming that closes achievement and income gaps while meeting regional human capital and workforce needs. It includes cradle-to-grave knowledge development activities by which people work with higher education institutions to participate fully in civic and economic life.</p>
<p>Innovation</p>	<p>Innovation begins with basic research but builds on that research to apply knowledge in ways that are useful and relevant to society. Innovation consists of intellectual, creative, and business processes—from ideation to implementation—that lead to application of new knowledge to solve problems of identifiable markets or user groups, or to otherwise enhance society. Innovation requires a collaborative, transdisciplinary, problem-solving oriented, and risk-tolerant orientation. Innovation and creativity are not limited to technology development and business formation. They lead to societal, economic, technological, policy, artistic, or cultural outcomes.</p>

Inclusive Innovation	Inclusive innovation elevates the lived experience and expertise of a broad range of people to ensure new products, processes, and business models address technological, societal and economic problems with solutions consistent with the experiences of cultures of diverse groups of people.
Inclusive entrepreneurship	<p>Inclusive entrepreneurship means that all entrepreneurs, regardless of background, “have equitable knowledge of, support, encouragement, opportunity and access to appropriate resources to start and grow their business venture” (Gines and Sampson, 2019, page 11).</p> <p>Differences in an entrepreneur’s approach to creating and growing their business may follow from differences in experiences and attitudes toward risk (MacBride, 2021), differences in motivations for building a business, or different experiences with work or financial institutions.</p> <p>Entrepreneurship also includes social ventures that apply business principles to address social issues.</p>
Place	Our definition of place transcends physical spaces and geography influenced by HEIs to include activities that promote resilient, vibrant, and healthy people and places and ensure equitable access to prosperity. Physical landscape and infrastructure are complemented by human geography, interconnection, and experiences that give members of a community a sense of place.
The Relevant Higher Education Institution	<p>When an institution applies the tools of talent, innovation, and place toward the purpose of stimulating inclusive growth and social mobility, and when it embeds this purpose in most or all of its internal planning and priority-setting, it is achieving a definition of itself as a relevant college or university in the 21st century. Such an institution applies its many assets and capabilities, in partnership with others, toward realization of individual firm, community, regional, and global economic and social potential.</p> <p>All the above notwithstanding, the 21st century relevant college or university will find the pathways to greater engagement with private sector and community while still preserving all the most important traditional values of the university—the foremost of which is academic and scholarly integrity.</p>

3. A Vision and Theory of Change for Engaged Universities Supporting Inclusive Growth and Social Mobility

3.1 Vision: Harnessing Talent, Innovation, and Place to achieve inclusive growth and social mobility

The *Talent, Innovation, and Place* model shown in Figure 1 represents the existing model of economic engagement that has been used since 2015. However, it does not specifically describe the objectives of HEIs nor the impact they might have on inclusive growth and social mobility.

Figure 2 specifically shows how HEIs can adapt the *Talent, Innovation, and Place* framework to accomplish inclusive economic and social mobility. It shows how universities can harness the *Talent, Innovation, and Place* model to achieve this vision by closing achievement gaps, pursuing inclusive innovation and entrepreneurship, and building community-connected place-based assets that invite communities to participate in the vibrancy of university-influenced neighborhoods.

FIGURE 1. THE TALENT, INNOVATION AND PLACE MODEL, 2015

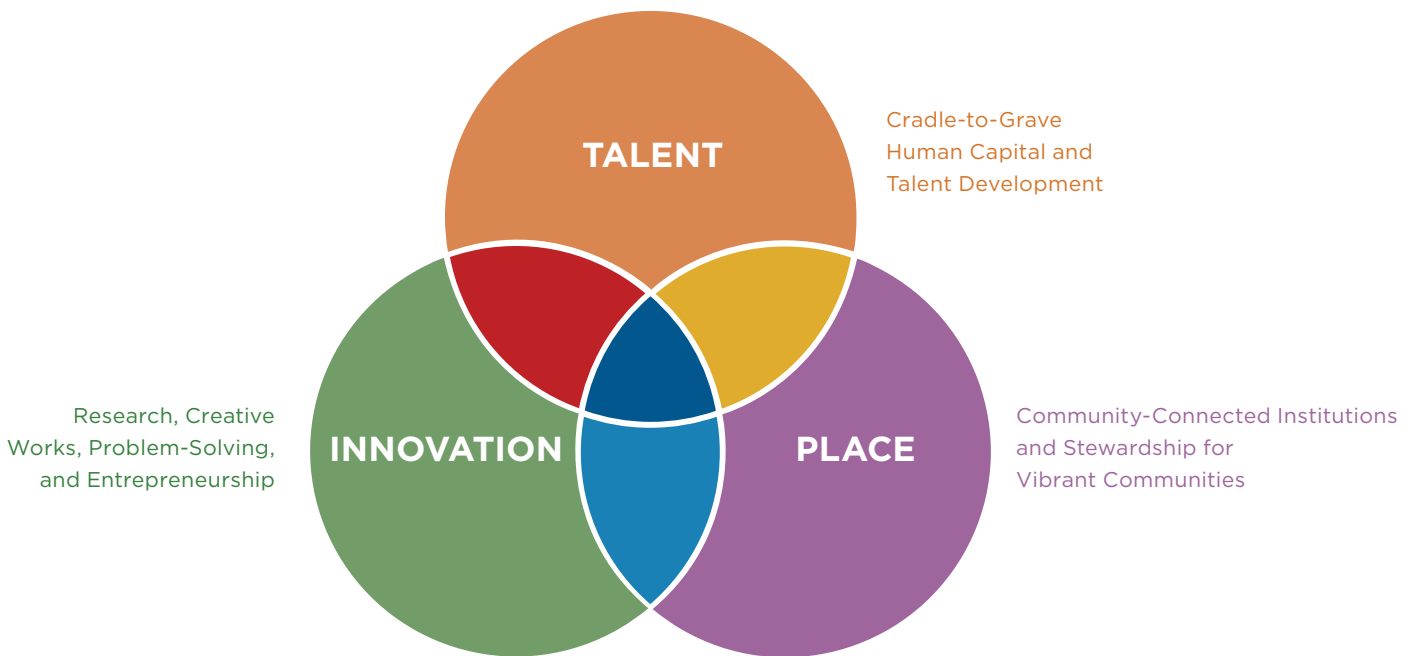
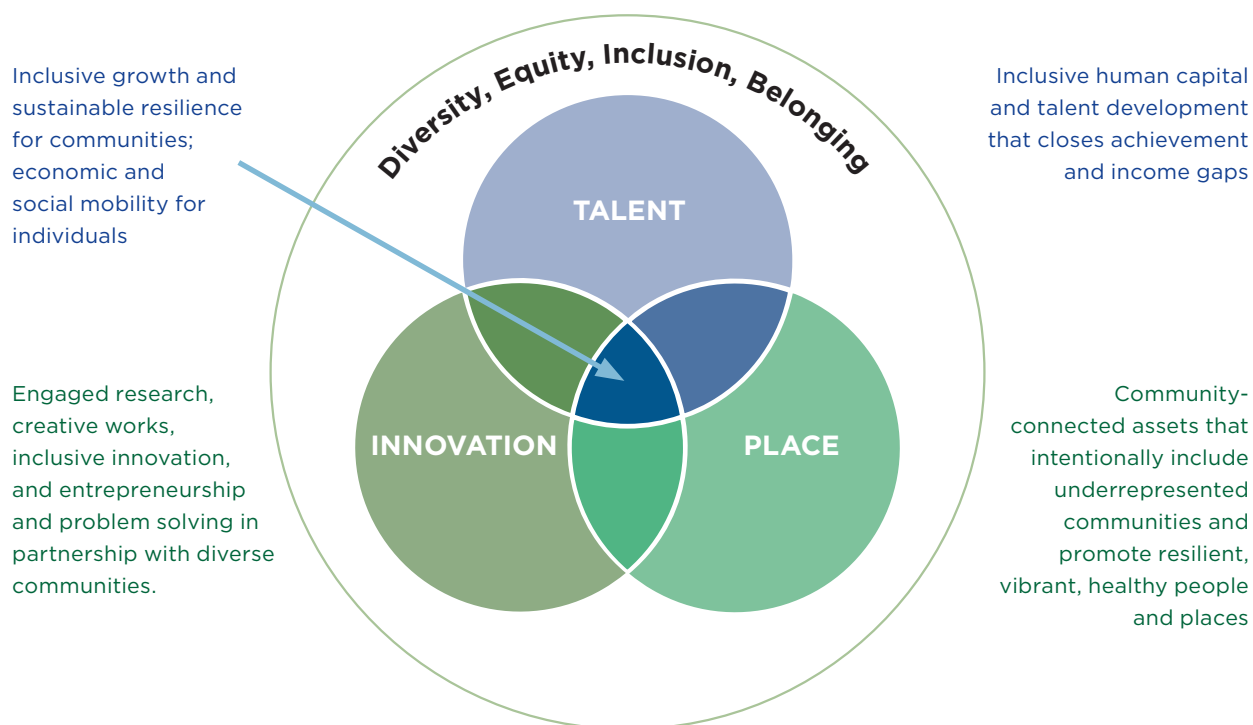


FIGURE 2. A NEW VISION FOR ECONOMIC ENGAGEMENT

The Vision: HEIs as Change Agents for Inclusive Growth and Economic and Social Mobility



3.2 Values: Diversity, Equity, Inclusion and Belonging in Economic Engagement

Achieving this vision requires a specific articulation of the values that HEI engagement professionals bring to this work and a statement of the principles that follow from those values.

Participants in an August 2022 workshop with the Commission on Economic and Community Engagement articulated a set of values that built on the basic values of diversity, equity, inclusion, and belonging. The participants extended those values to

activities of higher education economic engagement and applied them to the goals of inclusive growth and social mobility. The resulting statements included both *outcomes that we value* and *values that guide our work*.

These values apply broadly to economic engagement activities that advance inclusive economic development and social mobility using the *Talent, Innovation, and Place* model. In the theory of change below, you will find these values represented in activities and in the outcomes. You will also find them reflected in the principles of practice in Section 4.

FIGURE 3. VALUES DRIVING INCLUSIVE GROWTH AND SOCIAL MOBILITY IN HIGHER EDUCATION ECONOMIC ENGAGEMENT

Outcomes We Value

- **Sustainable jobs and wealth:** Talent, innovation, and place engagement efforts result in valuable skills, family-wage careers, and ownership of assets.
- **Inclusive Innovation and Entrepreneurship:** Research and innovation assets are used to develop new goods and services for and/or by those who have been excluded from the development mainstream—particularly those at the lowest income level.
- **Equal access and opportunity:** Talent, innovation, and place engagement efforts lead to equal access to opportunity to build skills, jobs, wealth building opportunities, and community enrichment.
- **Community asset building:** Talent, Innovation, and place engagement efforts advance collaborations with communities to build economic assets and determine communities' economic futures.
- **Community reinvestment:** Talent, innovation, and place engagement efforts lead to reinvestment in communities—both people and places—that have previously been left behind.
- **Mutual benefit and reciprocity:** Economic engagement efforts advance the mission of HEIs while achieving important outcomes for the community.

Values that Guide Our Work

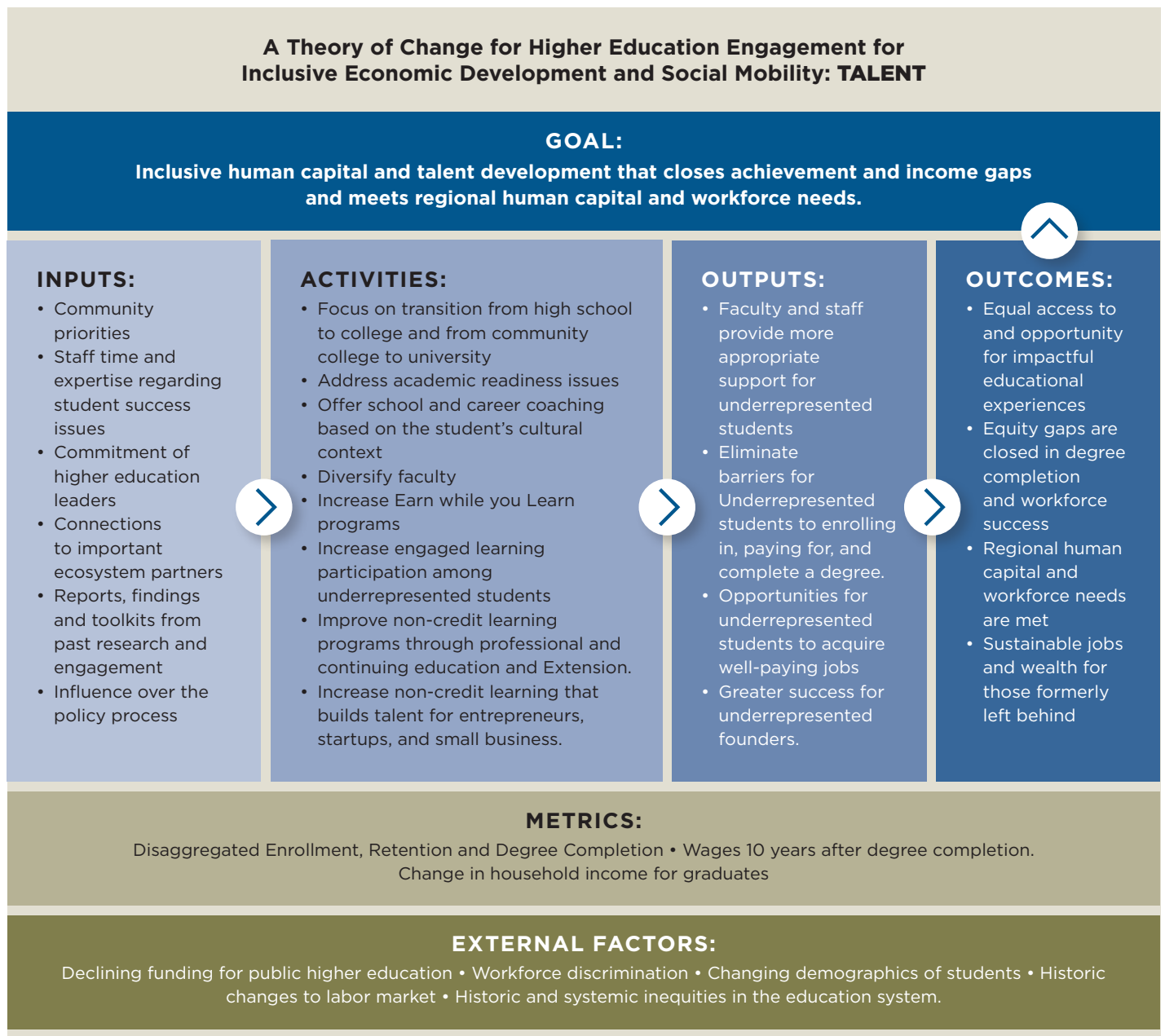
- **Authentic engagement:** Commit time and resources to understand the needs of people, communities, and companies; build long-term trusted relationships based on mutual benefit and respect. Act as a trusted and neutral convener where that HEI capability is essential to addressing key community issues.
- **Inclusivity:** Purposefully co-design meetings and engagements that make room for cultural and social differences and actively invite participants who have been left out of past opportunities.
- **Active Listening:** Honor the opinions, experiences, and contributions of others by giving them full attention, consideration, and recognition without immediately trying to respond or act.
- **Trust:** Give and earn trust by meeting commitments, holding information in confidence, and sharing responsibility.
- **Accountability and transparency:** Be clear about objectives for and resources available for projects.
- **Responsiveness, openness, and sharing:** Practice active listening and work toward solutions.
- **Humility and respect:** Show up willing to listen to and embrace unfamiliar forms of knowledge and governance.
- **Collaboration and co-creation:** Build solutions in partnership, without positioning for specific outcomes.
- **Sharing power:** Step back and follow others when sharing power can build capacity for community institutions and improve outcomes for underserved communities.

3.3 A Theory of Change for Talent, Innovation, and Place

As higher education economic leaders work toward the outcomes that they value, they need ideas about how to produce those outcomes. The theories of change presented in Figures 4, 5, and 6 reflect findings and provide examples from a literature scan

conducted by the *Foundations* workgroup. They are by no means exhaustive: the inputs, activities, outputs, and outcomes will vary by HEI and by the community they are serving. They offer an example of how HEIs might harness their assets in partnership with community to achieve shared objectives. They also reflect the values articulated in Figure 3.

FIGURE 4. THEORY OF CHANGE: TALENT



The theory of change for *Talent* reflects the valued outcomes of equal access and opportunities and sustainable jobs and wealth for all community members. The activities described offer support for underrepresented students, eliminating barriers they may face and opening the opportunities that can close equity gaps in degree completion and workforce success.

The theory of change for *Innovation* shows how creating more inclusive programs and spaces for innovation and entrepreneurship can diversify students, faculty, and community members who become interested in and successful in STEM careers, innovation, and entrepreneurship. It also shows how a more diverse research faculty and staff can lead to public impact research that addresses the needs of more people.

FIGURE 5. THEORY OF CHANGE: INNOVATION

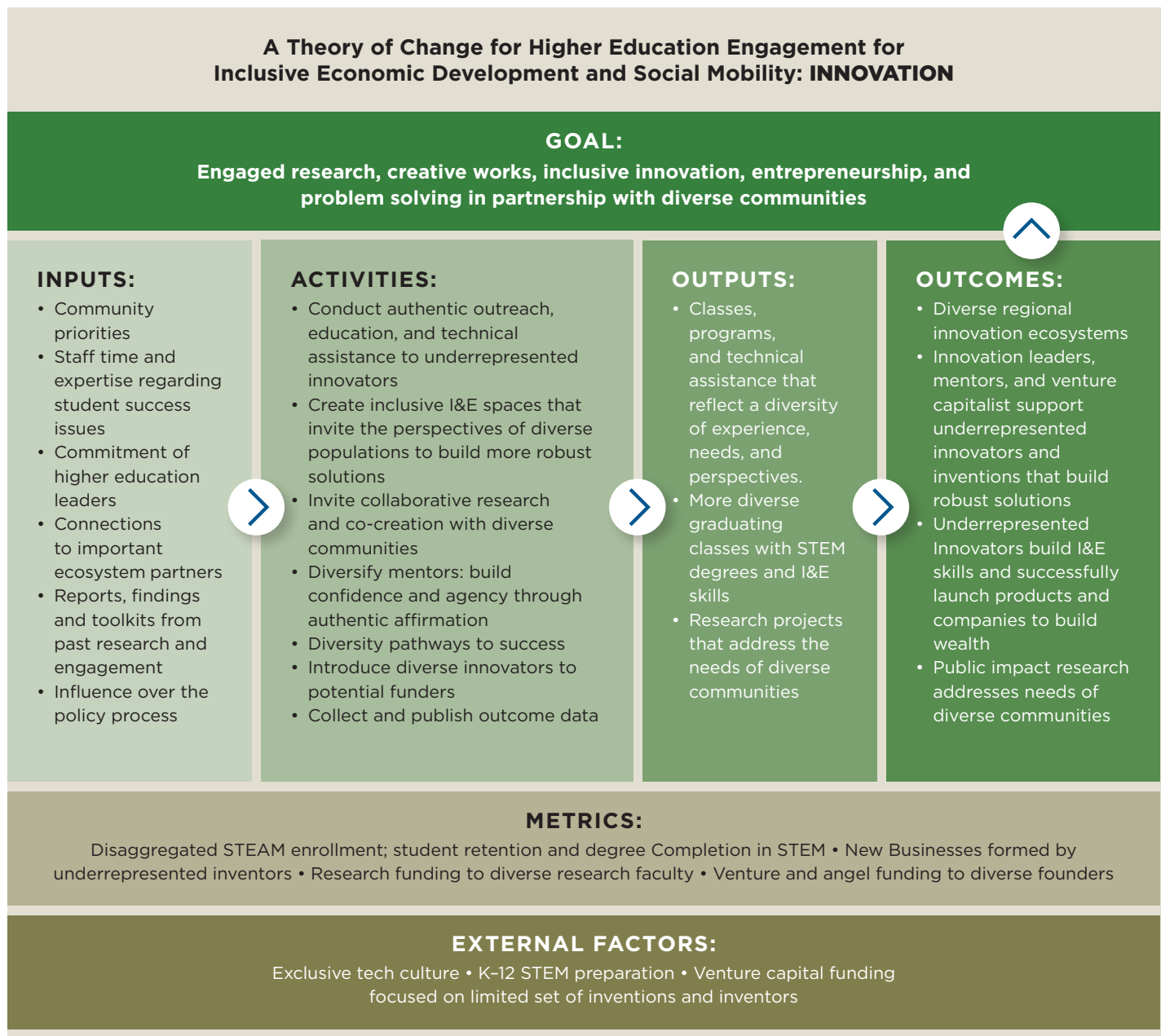
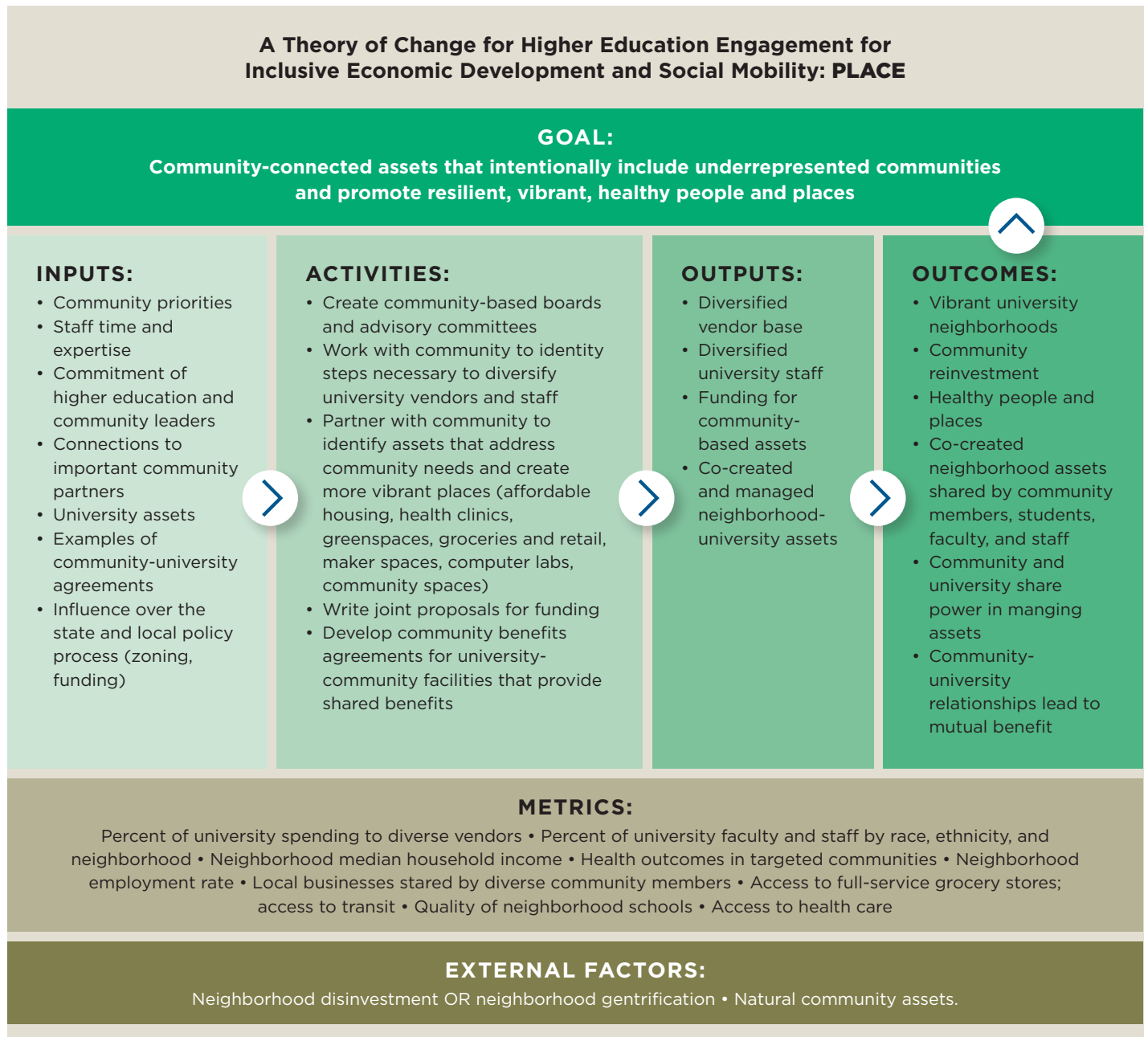


FIGURE 6. THEORY OF CHANGE: PLACE



The theory of change for *Place* shows how intentional inclusion of a university’s community can generate co-created assets and spaces in which community members

feel welcome and have agency and where students, faculty, and staff feel part of the community. It also reflects the articulated values of community reinvestment.

4. Principles of Practice for Inclusive Growth and Social Mobility in Talent, Innovation, and Place

Many of the principles articulated in the original Foundations document are still relevant to higher education economic engagement today. Many must be amended with a new focus on the values articulated in Figure 2. In this document, we list principles that transcend talent, innovation, and place first, and then provide others that fall specifically into these realms.

4.1 Overarching Principles

- **EMBED INCLUSIVE ECONOMIC ENGAGEMENT, INNOVATION, AND ENTREPRENEURSHIP ACROSS INSTITUTIONAL MISSIONS WHILE CENTERING INCLUSIVE GROWTH AND SOCIAL MOBILITY.** Apply knowledge, transfer technology, support regional industry clusters, and otherwise create innovation to achieve intellectual, scientific, public policy, social, cultural, and economic outcomes. Use inter-institutional collaboration structures such as engagement councils to align engagement across the institution.
- **ALIGN ENGAGEMENT GOALS WITH INSTITUTIONAL INCENTIVES WHILE RECOGNIZING AND PROMOTING SCHOLARSHIP ACROSS A CONTINUUM OF DISCOVERY AND APPLICATION.** Employ strategic rewards and incentives for faculty and staff who conduct economic engagement, including faculty promotion and tenure standards. Reward engagement and value intellectual endeavors in many forms—from basic research to use-inspired research and from applications to problem-solving. Preserve academe’s core values of academic and intellectual integrity.
- **ALIGN BUSINESS PROCESSES WITH GOALS FOR COLLABORATION, INNOVATION, INCLUSIVENESS, AND EQUITY.** Value productive partnerships and collaborations with diverse communities and ensure that business processes reflect and result in equitable outcomes. While respecting legitimate institutional or governmental constraints, redesign, streamline, and adapt business and decision-making processes to promote equity.
- **IMPROVE ACCESS TO THE INSTITUTION’S ASSETS AND EXPERTS WHILE HELPING TO BUILD THE COMMUNITY’S ASSETS.** Provide both organizational structures and internet “front doors” to facilitate access by various constituents to information about the institution’s resources and expertise. Invite input from the community about assets that the community needs and work with other organizations to make those assets available, maximize services, and eliminate duplication.
- **BE GOOD COMMUNITY PARTNERS BY SHARING LEADERSHIP, PRACTICING TRANSPARENCY, AND BEING ACCOUNTABLE FOR RESULTS.** Engage with communities—in social, physical,

Promotion and Tenure—Innovation and Entrepreneurship (PTIE)

In most universities, faculty find it difficult to capture the value of their efforts in innovation and entrepreneurship as part of the promotion and tenure process. This disincentive is difficult to overcome when faculty must make choices between their I&E efforts and more traditional activities that provide credit toward P&T. The PTIE effort is working to change this by developing and highlighting practices and road maps for universities to augment their P&T guidelines to more inclusively support

I&E among their faculty and students. With a grant from the National Science Foundation, a coalition of universities is committed to working toward finding acceptable solutions that support faculty in building inclusive practices in innovation and entrepreneurship. PTIE implements the recommendations of an [APLU task force](#) that addressed technology transfer activities as a positive consideration in promotion and tenure. For more details on PTIE, see [ptie.org](#).

and virtual forms—and actively work toward co-creation of programming, incorporating and honoring a variety of lived experience, working in collaboration for the common good of all community stakeholders. Develop and share metrics that demonstrate impact on common objectives.

- **IDENTIFY AND STRENGTHEN THE INSTITUTION'S STRATEGIC COMPETITIVENESS AND REGIONAL RELEVANCE.** In areas of talent, innovation, and place, align strategic investments and institutional priorities with regional economic sectors so that talent efforts contribute to regional workforce needs, research and innovation advances the productivity and competitiveness of regional traded sectors, and place investments respond to community priorities for improving the region's quality of life.

4.2 Talent: Inclusive human capital and talent development that closes achievement and income gaps and meets regional workforce needs

- **DEVELOP INCLUSIVE PATHWAYS INTO AND THROUGH HIGHER EDUCATION.** Ensure that there are open doors into higher education by expanding

programs that ease transitions from a variety of backgrounds. For example, develop articulation agreements with community colleges and design inclusive pathways to graduate school.

- **CULTIVATE STRONG PARTNERSHIPS AMONG EDUCATION PROVIDERS TO IDENTIFY ROLES AND ENSURE THAT ALL ARE SERVED.** Don't assume that students you don't serve are being served elsewhere. Instead, partner across the regional educational ecosystem to remove barriers in education pipelines and to define and connect education pathways.
- **DIVERSIFY FACULTY STAFF, AND STUDENTS IN ALL DISCIPLINES.** Partner with the campus DEI office to implement faculty recruitment strategies that have been proven effective in recruiting and retaining diverse faculty, such as those described by Williams and Golden (2013). Once minoritized faculty are recruited, focus on mentorship, culture, and belonging in an intentional retention effort. Participate in efforts such as the [Aspire Alliance](#) to tap into research on effective practices for diversifying and retaining STEM faculty.
- **OFFER THE BENEFITS OF ENGAGED LEARNING TO ALL STUDENTS.** Community-based learning, internships,

and co-ops improve student success in higher education and in the workplace. Identify and remove barriers so more may benefit and ensure that they have the proper training and mentoring to approach this work ethically and to resolve and learn from the challenges they face as they complete workplace and community experiences.

- **ENGAGE WITH EMPLOYERS TO INCORPORATE HIGH DEMAND TECHNICAL AND ESSENTIAL SOFT SKILLS INTO CURRICULUM.** Offer students the opportunity to engage directly with employers so they understand company needs, standards, and expectation.
- **COACH STUDENTS TO ARTICULATE THEIR SKILLS.** Students may need an understanding of both the employer’s perspectives of the technical and soft skills required for the job and the cultural competency to express those skills clearly and confidently.

- **IDENTIFY AND WORK TO OVERCOME THE CHALLENGES THAT FACE STUDENTS OF COLOR, LGBTQ+ STUDENTS, DISABLED STUDENTS, AND RURAL STUDENTS IN HIGHER EDUCATION AND IN THE WORKFORCE.** Cultivate empathy to understand these challenges. Examine and reduce higher education barriers and arm students with the tools they need to overcome challenges in the workforce.
- **INNOVATE CONTINUOUSLY IN TEACHING AND LEARNING PRACTICES AND LOOK ACROSS THE GLOBE FOR IDEAS.** Student demographics, experiences, and aspirations are always evolving and so are the needs of employers. Meeting these needs requires continuous innovation in teaching and learning to educate and inspire an inclusive, highly skilled, leadership-ready, and entrepreneurial 21st century workforce.

Michigan State University’s Pre-College Programs

Michigan State University is developing inclusive pathways into and through higher education with its pre-college programs. A variety of pre-college programs help transition students to the college experience through topics in agriculture, art, business, computers, engineering, math, music, science, sports, writing and more. Many of these programs are targeted toward underrepresented and disadvantaged students that may not see

themselves belonging or succeeding on a college campus. Aside from introducing students to academic programs, research, and student communities, many programs also spend time working with students to ensure they understand how to successfully apply for admission and financial aid.

For more details, see [the program link here](#).

ADVANCE Program, George Mason University/Northern Virginia Community College

George Mason’s ADVANCE program builds inclusive pathways into and through higher education by reducing costs, speeding time to degree, and providing support. The program ensures that curriculum is aligned to ensure that all credits transfer and offers students co-enrollment and the opportunity to benefit from

facilities and events on both campuses as well as co-curricular experiences. Most importantly, dedicated coaches work directly with students to provide support and guidance throughout the program.

For more information, see [the program link here](#).

Building a More Diverse Professorate: the SUNY Pipeline to PRODiG – Fellows program

The SUNY Comprehensive College Consortium is diversifying faculty through the PRODiG Fellowship Initiative. It funds late stage pre-doctoral (ABD), post-doctoral, and other terminal degree students interested in exploring academic careers at the 13 teaching-centered

SUNY comprehensive colleges. The PRODiG Fellowship is designed to increase the pace of degree completion and build a more robust and diverse pipeline to the professoriate.

For more information, see [the program link here](#).

IChange Network: Broadening Participation for STEM Faculty from Underrepresented Groups

The APLU-led Eddie Bernice Johnson INCLUDES Aspire Alliance (NSF No.1834518, 1834522, 1834510, 1834513, 1834526, 1834521) IChange Network has developed a variety of resources to support university leaders in focusing on the diversification of their faculty. Vetted with over 50 universities in a guided self-assessment and action planning process, these tools include an audit form to evaluate which research-informed

promising practices and policies are in place at the institution, a data template to review administrative data, and an action planning toolkit to make meaning of findings and plan for change. These tools, as well as information about joining future cohorts of the IChange Network, is available on the Aspire website at <https://www.aspirealliance.org/institutional-change/ichange-network>.

Generating More Equitable Workforce Outcomes: The Illinois Community College Board Workforce Equity Initiative

The purpose of the Workforce Equity Initiative is to create, support, or expand short-term workforce (credit and/or noncredit) training opportunities in high-need communities focused on specific sectors with identified workforce gaps. Over 120 high-demand training programs are offered at the participating schools. Individuals are being guided on

careers in Healthcare, Information Technology, Manufacturing, Construction, Transportation, and Business. 61 percent of students complete the training, and 67 percent of completers are successfully employed, outperforming comparative data.

For more information, see [the program link here](#).

4.3 Innovation: Engaged research, creative works, inclusive innovation, entrepreneurship and problem solving in partnership with diverse communities.

- **INTENTIONALLY INCLUDE DIVERSE VOICES, EXPERIENCES, AND KNOWLEDGE TO CULTIVATE INNOVATION AND CREATIVE PROBLEM SOLVING.** Build solutions with diverse communities to more effectively address the needs of communities with different social,

racial, and economic backgrounds as well as those with different physical and cognitive abilities.

- **AFFIRM THAT, IN INNOVATION AND ENGAGEMENT, HUMANITIES, ARTS, SOCIAL SCIENCES AND STEM DISCIPLINES ARE ALL VITAL.** Recognize that Science, Technology, Engineering, and Mathematics (STEM) disciplines, Humanities, Arts, and Social Sciences play significant roles in creating economic opportunity and effective societies.

Accelerating Women And underRepresented Entrepreneurs (AWARE): University of Illinois at Urbana-Champaign

AWARE offers the benefits of entrepreneurship to a more diverse group of potential founders by offering resources and an enhanced infrastructure that make the current entrepreneurial ecosystem more accessible to all. Resources include a dedicated [entrepreneur-in-residence](#) familiar

with the needs of those from underrepresented groups, small proof-of-concept grants for teams, targeted mentorship, training, and networking and learning opportunities.

For more information, see [the program link here](#).

- **ELIMINATE EXPLICIT AND IMPLICIT BIAS AND MAJORITY CULTURE TEACHING METHODS.** These have contributed to underrepresentation among people of color and women in STEAM and other fields.
- **COMMUNICATE DISCOVERIES IN LANGUAGE THAT HELPS THE AUDIENCE UNDERSTAND ITS IMPACT AND IMAGINE ITS APPLICATIONS.** Methods for communicating scholarship should reflect the culture of the audience and generate trust by incorporating community experiences and how the discovery might improve their lives.
- **ACKNOWLEDGE AND ENCOURAGE ENTREPRENEURSHIP AS A POWERFUL TOOL FOR EQUITY.** Encouraging entrepreneurship offers higher education institutions an opportunity to support businesses that solve the problems of diverse communities and build wealth for those who have been underrepresented in the economy.
- **AFFIRM THAT ENTREPRENEURS ARE EVERYWHERE.** Design programs that embody the principle that business success is possible for people from all backgrounds if given the opportunity and tools to succeed.
- **FACILITATE KNOWLEDGE CREATION AT THE INTERSECTIONS, COLLISIONS, AND NEW FUSIONS OF ACADEMIC DISCIPLINES.** Recognize that generating

knowledge increasingly requires problem-focused and transdisciplinary perspectives, and, to that end, enhance opportunities for faculty, students, and staff to engage with the public, industry, and government beyond their disciplines and institutions.

4.4 Place: Community-connected assets that intentionally include underrepresented communities and promote resilient, vibrant, healthy people and places

- **ENCOURAGE INSTITUTIONAL POLICIES AND ACTIONS THAT BENEFIT HEIS AND THE COMMUNITIES AROUND THEM.** Authentic engagement with local communities requires reciprocity and mutual benefit that leads to trust. Begin by understanding the institution's history with its communities and developing a shared vision for working together in the future.
- **ACKNOWLEDGE THE CODEPENDENCE OF HIGHER EDUCATION INSTITUTIONS AND THEIR NEARBY AND SCHOLARLY COMMUNITIES.** Commit to the success of the physical communities in which HEIs reside and the communities they engage for research, student engaged learning, and service. Participate in creative placemaking, bringing the skills of faculty and students together with the vision and wisdom of the community

Facilitating Indigenous Research, Science, and Technology Network (FIRST): University of Kansas

The FIRST Network is helping to diversify voices, experience, and knowledge that informs research and Innovation. This interdisciplinary group of Native scholars works at the intersection of Indigenous and Western scientific traditions to explore how Indigenous communities are utilizing both traditions to meet their research needs, particularly

regarding their efforts to sustain resilient ecosystems. The overall goal of this Network is to develop strategies for meeting the research needs of Indigenous communities, including the capacity to lead their own research initiatives.

For more information, see [the program link here](#).

to develop community spaces that meet common aspirations.

- **COLLABORATE WITH COMMUNITY PARTNERS IN RECIPROCAL PARTNERSHIPS.** Co design, facilitate, and evaluate place-based efforts to ensure value and relevance to all involved.
- **TAKE RESPONSIBILITY FOR ACTIONS, COMMITMENTS AND RESULTS** that impact the success both of communities and institutions of higher education.
- **SHARE LEADERSHIP, POWER, AND CREDIT WITH COMMUNITY PARTNERS.** Develop local advisory and governing boards that wield accountability for HEI actions, commitments, and results.
- **CONTRIBUTE TO THE HEALTH AND WELL-BEING OF THE COMMUNITY AND PEOPLE THE INSTITUTION SERVES.** Share responsibility and governance with many other organizations in the institution's communities and regions for achieving health, wellness, and social well-being of people and communities.
- **FACILITATE CREATION OF NEW MODELS OF RESEARCH PARKS, INNOVATION DISTRICTS, AND KNOWLEDGE-CENTRIC MIXED-USE COMMUNITIES ON AND AROUND THE INSTITUTION'S CAMPUSES.** Create robust, mixed knowledge communities both virtually and by

physical co-location strategies. Place strategies include bringing non-academic business and community/public uses into campus environments and/or extending the assets of campuses into non-academic environments.

- **RECOGNIZE THE POTENTIAL FOR DISPLACEMENT EFFECTS OF UNIVERSITY REAL ESTATE ACTIONS.** Work with local community organizations to understand the potential impacts and to design strategies to mitigate potential displacement.
- **DEPLOY THE INSTITUTION'S BUSINESS, PROCUREMENT AND INVESTMENT PRACTICES TO MAXIMIZE INCLUSIVE GROWTH, DIVERSIFY THE BENEFICIARIES OF THE UNIVERSITY'S IMPACT, AND PROMOTE SOCIAL AND ECONOMIC MOBILITY.** Invest in local small businesses, and diversity suppliers by using inclusive procurement policies. Set targets for small, local, and underrepresented business procurement and develop outreach and business development programs to meet the targets. Eliminate policies, statutes, or regulations that prohibit strategic investment of financial assets to encourage local inclusive economic development.

Strengthening Rural Communities through Innovation and Entrepreneurship: Rise29 at East Carolina University

The RISE29 program at East Carolina University works at the intersections of talent, innovation, and place and advancing underrepresented rural founders. In 2020, RISE29 was recognized by the United States Association of Small Business and Entrepreneurship as a national model for co-curricular innovation for the creativity, quality, and sustainability and impact it has on communities served.

RISE29 connects small business ideas with regional community need. Fueled by data analytics and industry research, student teams develop and launch microenterprises, strengthen existing businesses with long-term continuity plans, enhance the profitability of small businesses, and commercialize new technology that enhances economic prospects in rural communities.

Community-input and engagement lies at the heart of RISE29. Advisory councils work alongside university faculty and staff to guide

the program, recruit small business clients, and promote their communities as potential locations for new startups generated through the program. Council members include local economic development and entrepreneurial leaders in each county where RISE29 operates. The engagement between the university and community ensures mutual benefit for partners, students, and business owners. The results have been impressive.

Since its inception in 2019, 461 students have been involved in RISE29 activities including 146 paid student internships that logged more than 51,000 consulting hours working with small business owners. In its first four years, despite the impacts of COVID-19, the program has led to 20 new business starts and creation of 111 direct new jobs in rural communities in eastern North Carolina.

For more information, see [the program link](#).

Inclusive Innovation: Driven to Discover Brings Research Opportunities to Rural Communities Throughout Minnesota

The Driven to Discover (D2D) program at the University of Minnesota works at the intersection of innovation and place to drive more inclusive innovation and engage the population in Minnesota communities.

The D2D Research Facility was launched on the Minnesota State Fairgrounds in 2014 to bring University research and researchers into closer contact with the Minnesota community. Over two million people visit the fair each year from across the state making it a great place to connect with people and engage them in exciting, innovative projects from a wide variety of disciplines.

Starting in 2022, the D2D team has been visiting some county fairs throughout MN. This provides an opportunity for more people to participate in the research projects that are hosted by the D2D team, and it provides an opportunity for D2D researchers to expand outside the Twin Cities metro area, ensuring a more broadly representative group of participants for more inclusive research.

D2D allows fairgoers to participate in research in a fun, innovative, and convenient way. For more information about the D2D facility and programs, see [the program link](#).

Empowering Neighborhood Volunteer Leaders: Center for Neighborhoods at University of Missouri-Kansas City

The University of Missouri-Kansas City is working with its local community to improve quality of life by engaging, equipping, and empowering volunteer leaders. The Center gives these leaders the tools they need to address the challenges and take advantage of the opportunities in

their neighborhoods and community. Center For Neighborhoods utilizes an asset-based community development (ABCD) methodology, which works to build communities from the inside out.

For more information, see [the program link here](#).

Center for Urban Entrepreneurship and Economic Development, Rutgers University

The Center for Urban Entrepreneurship & Economic Development (CUEED) at Rutgers University is using urban entrepreneurship to build a diverse generation of urban entrepreneurs who actively seek socially conscious urban renaissance. CUEED is the first center of its kind in the nation to integrate scholarly works with private capital, government, and non-profit sectors to develop citywide resources and bring renewed economic growth

and vitality through urban entrepreneurship. The program is a research-driven, teaching and practitioner-oriented urban entrepreneurship and economic development program that aims to transform the economy of the City of Newark, New Jersey, and other urban centers; create wealth in urban communities; and be a model for all urban universities.

For more information, [see the program link here](#).

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Appendix: Taxonomy of Programs for Centering Equitable Growth and Social Mobility in Talent, Innovation, and Place

Within the broader contexts of the Definitions and the Principles of Practice, this Taxonomy of Programs is meant to provide a more granular way to define how a great number of specific programs and activities can or do relate to economic engagement for inclusive growth and social mobility. Many of these include core functions of the institution that, under an older definition of economic development, may not have been considered activities of economic engagement.

This Taxonomy provides one organized way of thinking about many types of higher education programs relate to economic engagement with the goals of inclusive growth social mobility. It is not intended to be prescriptive. It certainly does not mean to convey that all institutions must actively provide all programs. Rather, it is offered as one tool— based on this new definition of economic development in higher education—that institutions may use in:

- Understanding what they already do that contributes to inclusive economic growth and social mobility;
- Assessing and planning for existing and new programs; and
- Organizing their communications to stakeholders and funders about their roles and accomplishments.

A.1 Program examples: Talent

Talent: human capital and educational programming that closes achievement and income gaps and meets regional human capital and workforce needs

Talent Programs range from formal, credit-bearing programs to informal teaching and learning modes, including those offered by Cooperative Extension; short-format education and training; service and experiential learning; mentoring; and all other forms of teaching and learning. The learner experience includes theory and practice, and the connections between these. Outcomes in 21st century core skills and competencies are considered in curriculum design. Delivery modes include on-site/face-to-face; off-site/online; and blended instruction formats.

With school, community, and corporate partners, higher education institutions participate in cradle-to-grave talent development. Talent development encompasses the delivery of lifelong learning at multiple levels and to multiple audiences: the effective education of children in the pre-K–12 pipeline; undergraduate education; specialized graduate and post-doctoral

training; executive degree programs (e.g., accelerated MBAs for mid-career professionals); continuing education for adults throughout life; industry training; and beyond.

Talent Program Examples

Building inclusive pathways into higher education

- Credit for prior learning
- Smart start and dual enrollment programs with K–12 and community colleges
- Recognizing the value of professional experience and training through including military service, apprenticeships, and similar workforce activities

Supporting career pathways that offer social and economic mobility

- Collaborations with employers, policy makers, workforce boards, K-12, community colleges and other training providers to map out career pathways and ensure that the skills needed to walk along those pathways can be obtained by a diverse group of learners.
- Embedding certificates into degree programs.
- Creating scholarship and internship programs to decrease financial barriers to higher education

Supporting adult learners and those with wraparound service needs

- Working with social service providers to offer supports necessary to enable all learners to have access to higher education
- Building campus-based student services that support learners from diverse backgrounds and experiences including

a focus on access to virtual tools and communication channels

- Identify adult learners who need and want to enter higher education to build skills (need example programs)
- Working with companies to develop incumbent worker training programs as part of a career pathway that provides economic and social mobility.

Twenty-first century skills / core competencies for careers and civic life

- Critical thinking skills
- Communication skills
- Relationship-building skills (networking)
- Negotiation/persuasion skills/
- Public speaking skills
- Listening skills
- Basics of managing—schedule, time, projects, people
- Leadership, ethics, and protocol
- Building confidence/ coaching students to demonstrate skills
- Mentorship
- Citizenship
- Cultural sensitivities (across generations, gender, social, communities, race, ethnicities)
- Understanding the realities of workplace bias

Supporting more engaged, experiential, and discovery-based learning experiences for a broader set of students.

- Internships
- Residencies
- Post-doctoral fellowships
- Cooperative education
- Apprenticeships

- Service learning
- International and cross-cultural programs
- Senior design/capstone projects
- Undergraduate research
- Leadership development

Active alignment of curricula to industry/ employer needs

- Competency maps
- Customized programs—technical training; executive education, etc.
- Certification programs
- Multidisciplinary degree programs, such as Professional Science Masters Programs
- Vocational training/trade studies, such as coding boot camps
- Professional development “short” courses

Active programs in Pre-K–12 education

- Science education/experience programs
- Career information programs
- Programs that focus on the future needs of public-school teachers, such as how to teach science, math, common core
- On-site pre-school or other year- round, on-campus pre-K–12 programs and services
- On-campus summer academies for K–12 students
- STEM or STEAM academies
- Talented and gifted academies
- Entrepreneurship programs/academies

Active programs in adult education

- Extension education and programming
- Literacy programs
- Community-oriented education and training courses/programs

Faculty training/development for engagement

- Inter-disciplinary research and engagement
- Community-engaged research/ scholarship
- University-industry demonstration partnership (<https://www.nationalacademies.org/our-work/university-industry-demonstration-partnership>)
- Communicating Science Workshops

A.2 Innovation: Engaged research, creative works, inclusive innovation, entrepreneurship, and problem solving in partnership with diverse communities

Innovation begins with basic research but builds on knowledge creation to encompass knowledge transfer and application in ways that are useful and relevant to society.

Innovation consists of intellectual, creative, and business processes—from ideation to implementation—that lead to application of new knowledge to solve problems of identifiable markets or user groups, or to otherwise enhance society. Innovation requires a collaborative, transdisciplinary, problem-solving oriented, and risk-tolerant orientation. Innovation and creativity are not limited to technology development and business formation. They lead to societal, economic, technological, policy, artistic, or cultural outcomes.

For the purposes of this taxonomy, innovation includes all institutional efforts that lead to solutions for, or enhancements to, society. Solutions for society might include technologies that can be developed into marketable products; new practices that help businesses, government, or not-for-profit organizations overcome challenges;

or creative works that inform and inspire. While not all basic research leads to such solutions, basic research is included in the Innovation category because it provides a pool of discovery and creative work from which applied and transferable solutions can be drawn; frequently, major advances that change our world arise unexpectedly from curiosity-driven basic research.

Inclusive innovation elevates the lived experience and expertise of a broad range of people to ensure that new products, processes, and business models address technological, societal and economic problems with solutions consistent with the experiences of cultures of diverse groups of people.

Innovation Program Examples

- Basic research
- Use-inspired research/development (applied, translational, problem-oriented, industry-contracted)
- Clinical programs of all types
- Local capacity to support innovation, entrepreneurship, and economic development, including structures, policies, programs, and resources (“innovation systems”)
- Regional industry cluster development
- Cooperative Extension Service (Agriculture, Engineering) and Agricultural Research Services/ Experiment Stations
- Other technical assistance services/ programs, e.g.:
 - Small Business Development Centers (SBDCs)
 - University-based Economic Development Centers
 - Procurement Technical Assistance Centers
 - Manufacturing Extension Partnerships
 - Legal clinics offering free or reduced cost services for entrepreneurs
 - Materials and technology testing labs and prototyping services
 - Faculty technical assistance/ consulting programs
- Proof-of-concept programs/centers, such as:
 - Product Development, Comparison, and Testing
 - Prototyping
 - Experiment Analysis
 - Market and Product Viability Research and Positioning/Strategy
- Mentorship
- Technology/knowledge transfer and commercialization
- Business formation, incubation, and acceleration
- Access to capital, such as
 - Proof of Concept and Gap Funds
 - Angel and Seed Funds
 - State and Federal Seed Funds, e.g., SBIR/STTR
 - Venture Capital Funds
- Business plan competitions
- Inclusive entrepreneurship education and development programs for faculty, students, staff and the community (courses, special topic lectures/seminars, and boot camps)
- Social entrepreneurship programs that bring the principles of business to address societal problems.
- Networking events mixing industry scientists and innovators with faculty and students

- Place strategies to support innovation, such as
 - Collaborative research labs and other co-working spaces
 - Shared major equipment/instruments
 - Incubators and accelerators
 - Research/technology parks

A.3 Place: Community-Connected Assets that intentionally include underrepresented communities and promote resilient, vibrant, healthy people and places.

Competitive, successful communities and regions are attentive to the health, education, environment, housing, safety, and entertainment needs of community members. Leadership cultivates networks and connections that build community and competencies. Citizens practice good government and the community works to assure equity of opportunity and social justice.

Campuses and sites, like research parks, are components of place-making and, thus, relevant to place, but the focus of this definition is broader, on community, or even on regions.

To contribute to quality of place, institutions engage in a very wide variety of programs—some, like Sports and Recreation or Arts, are traditional functions. Others, like community sustainability initiatives, are much newer and often the product of faculty interests and expertise, combined with community needs.

Place Program Examples

- Programs that enhance quality in Pre-K–12 schools
- Health care facilities and wellness programs

- Arts and cultural amenities
- Sports and recreation amenities
- Environmental sustainability efforts
- Community development programs
- Social justice programs
- Real estate and urban development/redevelopment/renewal/
- Anti-displacement efforts
- Rural development
- Employment and career opportunities for the community, often as a major employer
- Local government training/leadership programs
- Public policy analysis
- Infrastructure (directly or indirectly supported by a higher education institution)
 - Broadband
 - Public transportation
 - Alternative energy

A.4 Definitions and Program Examples—Connections Between the Three Framework Elements

Talent + Place: Civic Collaboration and Leadership

Programs and activities that synergistically connect *talent* and *place* in ways that enrich discourse, promote inclusive civic participation, and otherwise enhance quality of place.

- K–12 school improvement partnerships
- Community leadership development
- Service-learning programs
- Student Civic Engagement
- Local government training institutes

- University participation in regional government and economic development organizations
- Internships and training programs in community-based organizations
- Student engagement in community health and wellness programs
- Assessment of community/regional characteristics and strengths to support portrayal of the area as a good place to live and work

Talent + Innovation: Entrepreneurs and Creative Enterprises

Programs and activities that synergistically connect *talent* and *innovation*, to create innovators of many kinds—business entrepreneurs, idea or product makers, and problem-solvers

- Undergraduate research
- Entrepreneurship education programs:
 - Mentoring programs
 - Short-format accelerator programs (boot camps)
 - Entrepreneurs-in-residence
- Professional science master’s degree programs
- Internships, externships, and fellowships in high growth businesses or public and not-for-profit organizations
- Engineering technology capstone classes
- Elements of all education programs that cultivate creativity, problem-solving, and innovation skills

Innovation + Place: Communities of Innovation or Innovation Districts

Programs and activities that synergistically connect *innovation* and *place*, to create physical places that attract and build

concentrations of talent and innovators—knowledge communities.

This can be construed as either or both (1) a specific site or (2) a larger community, area, or region.

- University research and technology parks (sites for business/industry and government innovation)
- Mixed-use campuses or communities (including government and/or industry partners, as well as public/civic functions, schools, housing, retail, amenities, etc.—in addition to university and industry technology and research and development)
- Incubators, accelerators, advanced technology centers
- Arts and cultural innovation programs, events, and venues

Talent + Innovation + Place: High Impact Economic Engagement

Programs and activities that synergistically connect all three elements—*talent*, *innovation*, and *place* and which may be specific, focused initiatives or very broad-based program components.

Program Examples for Talent + Innovation + Place

Following are a few examples of the kinds of programs institutions might consider as aligning with all three elements in this Taxonomy.

- Cooperative extension
- Manufacturing extension
- Advanced integrated manufacturing centers
- Social innovation & entrepreneurship initiatives

- Any programs of large or specific scale that materially involved aspects of *talent*, *innovation*, and *place*

A.5 The Big Picture—The Relevant College or University

In addition to all the above program types, an economically engaged institution needs to connect its outreach, economic development, and engagement activities to its core institutional values and processes.

- Mission, strategy, leadership, and culture
 - Mission purposes and language
 - Goals and aspirations
 - Program strategies and priorities
 - Institutional and regional resource attraction and allocation
 - Regional stewardship
 - Convener role
- Boundary-spanning and entrepreneurial mindset
- Institutional organization, structures, and policy
 - Organization structures for economic engagement activities
 - Partnership development know-how
 - Leadership roles in establishing, aligning, and monitoring regional/constituent metrics
 - Strategic communications
 - Engaged alumni base
 - Portals for access to university talent and assets,
 - One-stop function
 - “Front door” function
 - Web pages and language oriented to interests of industry and community users, etc.

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