



Economic Competitiveness

TA workshops
February 22, 2022



Agenda

Topic focus: Economic Competitiveness

Goals for Our Time Together:

- *situate yourself within a baseline of the macro factors shaping competitiveness*
- *understand the various types of anchors and market baselines you are working within*
- *understand how firms can be mobilized to meet equity and competitiveness goals*

Agenda:

- ▶ Introductory & Framing Remarks from Avanti Krovi (5 min)
- ▶ Presentations from Bruce Katz, Dan Correa, and Christine Curella (30 min)
- ▶ Audience Q&A-driven panel discussion (40 minutes)



Who you'll hear from today

- ▶ **Bruce Katz, Inaugural Director of the Nowak Metro Finance Lab**

Bruce is the co-author of *The New Localism: How Cities Can Thrive in the Age of Populism* (Brookings Institution Press, 2018) and *The Metropolitan Revolution: How Cities and Metros are Fixing Our Broken Politics and Fragile Economy* (Brookings Institution Press, 2013). He previously was the Centennial Scholar and the Founding Director of the Brookings Institution's Metropolitan Policy Program, before which he was Chief of Staff to the U.S. Department of Housing & Urban Development and Staff Director of the U.S. Senate Subcommittee on Housing and Urban Affairs.

- ▶ **Dan Correa, CEO of the Federation of American Scientists**

In 2019, Dan founded the Day One Project at the Federation of American Scientists. Prior to this, Correa led the Technology and Public Policy Project at Stanford's Freeman Spogli Institute, an initiative to enlist leading technical and policy experts to develop actionable policy proposals across a range of cutting-edge international and domestic science and technology issues. He previously founded the Federal Innovation Council as an initiative of the Partnership for Public Service, and built it into a platform for senior government officials to forge a more innovative, effective, technologically-driven government. He served in the Obama Administration for four years, serving as Assistant Director for Innovation Policy at the White House Office of Science and Technology Policy.

- ▶ **Christine Curella, Consultant, Luminary Labs**

Christine is an entrepreneurial policymaker working at the intersection of economic investment, business innovation, and workforce development. She served as Senior Policy Advisor to New York City's Deputy Mayor for Strategic Policy Initiatives, where she worked with city agencies, business, labor, and community groups on programs to address the racial wealth gap and realize an inclusive economic recovery. She has previously held roles in international financial institutions, federal and local government, and community-based organizations and is a Fellow with the Aspen Institute's Job Quality initiative.



Bruce Katz

The Nowak Metro Finance Lab





Disruptive Dynamics from the Ground-up

- ▶ **The Covid 19 pandemic has reset the context for regional and national competitiveness** by revaluing domestic supply chains and manufacturing, accelerating remote work and digital commerce, tightening labor supply and emphasizing business equity. A run-up in the stock market has increased the volume of private capital seeking investable projects.
- ▶ **Policy changes have opened new possibilities for innovation, regional positioning and supplier diversity.** These changes include the electrification of the auto sector, the greening of the nation's energy supply, the upgrading of the nation's infrastructure and boosting domestic manufacturing capacity around medical material, pharmaceuticals and high tech.
- ▶ **Changes that have been decades-in-the-making are now reaching critical mass.** The emergence of new industries (e.g., blue economy & commercial space), the maturation of next gen technologies (e.g., AI & machine learning) are reshaping metros economies battered by deindustrialization. The accelerated geographical concentration of venture capital limits the ability of places to seize this potential.
- ▶ **U.S. competition policy is unfolding in an uneven international context.** Many countries are taking an “old school” approach to industrial policy, subsidizing whole industries or sectors where economies of scale have benefits. To remain competitive we must develop a uniquely American industrial policy that spurs our decentralized and entrepreneurial spirit.

The Federal Competitiveness Agenda

“I will use the term ‘modern supply side economics’ to describe the Biden Administration’s economic growth strategy, and I’ll contrast it with Keynesian and traditional supply-side approaches. [...]

Modern supply side economics, in contrast, prioritizes labor supply, human capital, public infrastructure, R&D, and investments in a sustainable environment. These focus areas are all aimed at increasing economic growth and addressing longer-term structural problems, particularly inequality.”

- *Sec. Janet Yellen at Davos, 01/21/22*



Photo: Harnik/ Associated Press



Modern Supply-Side Economics Meets Local Realities

What We Saw From Phase I Applications

► Labor Supply & Human Capital

- ▶ Customized Workforce Development
- ▶ Supplier Diversity

► Public Infrastructure

- ▶ Facility renovation and readiness
- ▶ Site readiness and remediation (for manufacturing)
- ▶ Logistics infrastructure

► R&D Investments

- ▶ Research Commercialization
- ▶ Start up and scale up capital
- ▶ Applied Technological Innovation

► In a Sustainable Environment

- ▶ Responding to climate change / clean energy/ electrification policy
- ▶ Collaborative governance

What this means for Federal Gov & Private Sector

- ▶ Need harmonized rules (across disparate agencies) to unlock the whole of government
- ▶ Need quality, fit-to-purpose capital to unlock market-making effects
- ▶ Need less rigid government anchors (federal military and research labs), research anchors (R1s, etc.), and healthcare anchors to have outsized impact
- ▶ Need a dedicated focus on addressing precise barriers to economies of scale and solving specific market failures

Bottom Line: The federal government can declare a national competitiveness agenda but it will only be successful if it reflects local needs and priorities.



You Are Remaking American Competitiveness

YOU are the vanguard of American competitiveness policy.

- ▶ This is not “smokestack chasing” – you are leveraging distinctive local assets to **build real economies and markets**. This is “modern supply side economics” from the ground-up.
- ▶ EDA money is a **seed investment** to help you catalyze the next level of market impact across sectors.

Why is EDA funding unique?

- ▶ It is not siloed and is multi-faceted, allowing you to wrap multiple elements of economic development together.
- ▶ It is best used to drive bigger picture market action (developing economies of scale, unlocking assets, building coalitions).

FINALISTS



AMERICAN
RESUCE PLAN



Key

- ADVANCED MANUFACTURING
- AEROSPACE and DEFENSE
- AGRICULTURE and NATURAL RESOURCES
- BIOTECHNOLOGY and BIOMANUFACTURING
- ENERGY and RESILIENCE
- HEALTH CARE and DIGITAL HEALTH
- INFORMATION TECHNOLOGY
- TRANSPORTATION, CONSTRUCTION, and LOGISTICS
- WATER and BLUE ECONOMY

Dots mark the lead institution of finalists

Your Starting Point Matters For Your Strategy

- ▶ What's the maturity of your industry & market?
- ▶ Are you fully utilizing the distinct character of your assets? Or referring to them generally?
- ▶ How strong is your governance coalition?
- ▶ How big is your cluster geography?
- ▶ What type of research anchors are you leveraging?
- ▶ How can addressing discrete disparities support equity & competitiveness?





An Emerging Typology of Market Positions

What we've learned so far from your BBBRC Phase I Applications. Each presents unique risks & opportunities.

01

Traditional Clusters

A mature sector maintaining its competitive edge through discrete strategies

02

Convergent Clusters

Multiple industries applying cut-across technologies and skills to realize full potential

03

Next-Generation Clusters

Unlocking distinctive advantages to secure first mover position

An Emerging Typology of Market Positions

Traditional Cluster

A mature sector maintaining its competitive edge through discrete strategies—e.g. aviation, med tech, healthcare, automotive manufacturing.

Opportunities:

- ▶ Building from proven strengths and specialties. Industry expertise, technological know-how, customized skills and entrepreneurial ecosystem undergird the cluster.

Risks:

- ▶ How have new forces, pandemic or otherwise, disrupted the momentum?
- ▶ How will you ensure that ingrained practices or structures are adaptable?
- ▶ How vulnerable is sector to competition?



An Emerging Typology of Market Positions

Convergent Clusters

Multiple industries applying cut-across technologies and skills to realize full potential (e.g. AI, cleantech). Similar to the innovation district approach but on a wider scale.

Opportunities:

- ▶ Modernizing legacy industries with a diversified approach. Ability to upgrade worker skills, introduce new technologies and leverage new energy and resources to transform existing ecosystems.
- ▶ Realize synergies across multiple industries.



Risks:

- ▶ How will you reach across geography and industries? Success will rely especially on purposeful and consistent coordination.

An Emerging Typology of Market Positions

Next-Generation Clusters

Unlocking distinctive advantages to secure first mover position, as in the case of an emerging national/ global market (e.g. blue economy, commercial space, future of mobility) or in response to a challenge of national/global importance (e.g. climate change, cybersecurity, automation).

Opportunities:

- ▶ A chance to truly innovate and build new foundations for competitiveness, especially long-term.

Risks:

- ▶ Why will this work? What are the proof points to trust the fidelity of doing something so new?





Poll

Which cluster typology most represents your application?

1. Traditional cluster
2. Convergent cluster
3. Next gen cluster
4. Other cluster, not mentioned here



Dan Correa

The Federation of American Scientists

Research Anchors

Why do inventors tend to locate near other inventors in the same field, despite the higher costs? (Moretti, 2021).

Research universities ... provide the most fecund ground for high-quality local entrepreneurship (Tartari & Stern, 2021).

As centers of basic and applied technology R&D, the labs are ... unique focal points for technology exchange among regional firms, universities, and economic development intermediaries. (Andes, et. al, 2014)

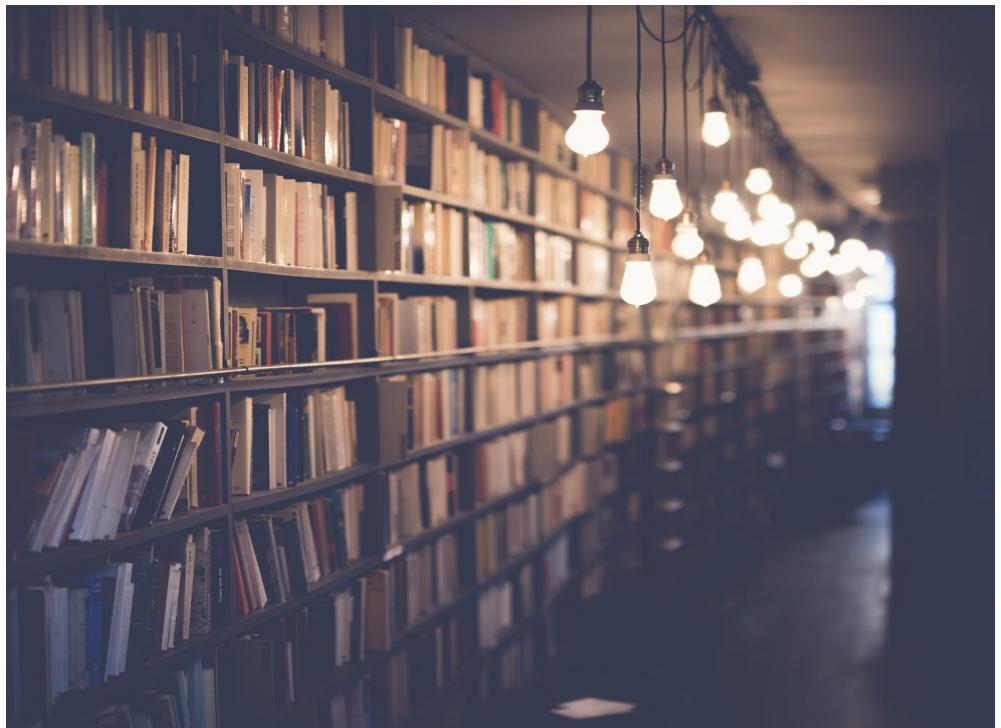


Photo: Unsplash.



Research Anchors

Research anchors can be key drivers of entrepreneurial cluster growth
– if leveraged in the right way ([Tartari & Stern, 2021](#))

		Ideal State	Risks
01	Academic Research Institutions	Deep alignment between researchers and proposed cluster	<ul style="list-style-type: none">• Commercialization incentives misaligned• Lacks proven local activity & integration• Licensing & output migration
02	Independent/Industry Driven Research	Industry research generates positive spillovers in and across clusters	<ul style="list-style-type: none">• Cluster already mature & established• Non-small business & equity focus• “Behind a Fence”• Sustained workforce pipeline
03	Federal Assets	Facilities, experts, and federal research priorities aligned	<ul style="list-style-type: none">• “Behind a Fence”• Contracting nightmares• Low incentives to collaborate• Research not ready for translation

Research Anchors

Academic Research Institutions

Key plays to “level up”:

- ▶ *Create a well-scoped position devoted to finding and reducing barriers to commercialization in advance (see memo)*
- ▶ *Allow economic development indicators to be used as method for tenure track faculty*
- ▶ *Establish IP Free Zones within regions that allow industry, student, and academic researchers to work outside the boundaries of the technology transfer offices.*
- ▶ *Bring together regionwide technology transfer offices to create full-service commercialization concierge services to meet industry needs.*

Key Example: MIT The Engine

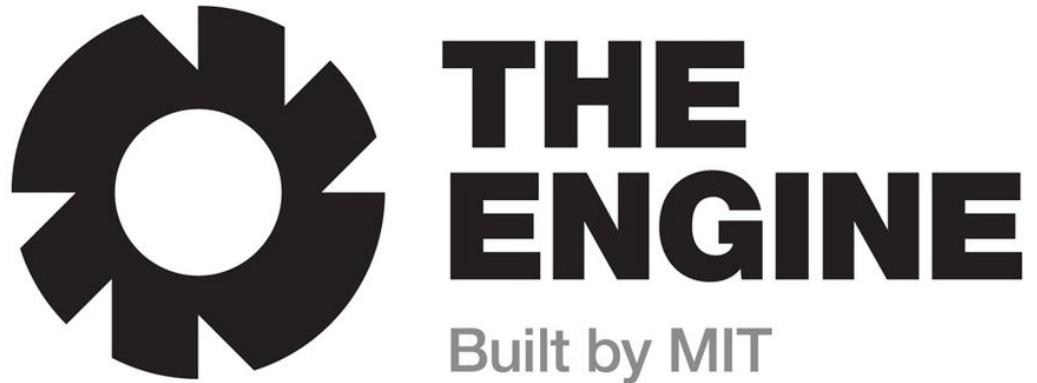


Photo: MIT News.

Research Anchors

Independent / Industry Driven Research Partnerships

Key plays to “level up”:

- ▶ *Applying new approaches to R&D (focused research organizations, embedded autonomy)*
- ▶ *Convene regional symposia around cross-cutting technologies that implicate multiple industries within a region or region, such as imaging, data analytics, or machine learning.*
- ▶ *Hire staff to sit between universities, startups, chambers of commerce, and local government to inform and share economic development priorities.*
- ▶ *Create professional CEO networks to connect technology-and engineering-based startups with professional management talent.*
- ▶ *Set aside a portion of revenue for real estate within research parks and for innovation and entrepreneurship.*

Key Example: Max-Planck-Gesellschaft Institutes



MAX-PLANCK-GESELLSCHAFT

Photo: Wikipedia

Research Anchors

Federal Assets

Key plays to “level up”:

- ▶ **Manufacturing Innovation Institutes**: convene a series of startup manufacturing office hours to connect young tech and engineering firms with local manufacturers.
- ▶ **Manufacturing Innovation Institutes**: create collaborative innovation spaces for small- and medium-sized manufacturers to draw on research expertise and vice versa.
- ▶ **National Labs**: Announce region-wide partnerships around Grand Challenges through CRADAs
- ▶ **National Labs**: Create off-campus microlabs that provide a “front door” to lab resources, researchers, and programs.
- ▶ **National Labs**: Government innovation vouchers valid for “research hours” at labs for consulting and facility use.

Key Example: Mill 19



Photo: Getty Images



Poll

How would you classify your research project within this taxonomy?

1. Academic research institution
2. Independent/ industry driven partnership
3. Federal asset anchors
4. Other, not mentioned here



Christine Curella

Luminary Labs



Competing with Equity: The Firm Level

Competitiveness will unlock economic *activity and investment* at a regional scale.

Firms unlock economic *impact and innovation*.

How can equity drive your regions competitive advantage?

- ▶ *Talent pipelines*
- ▶ *Business growth and scaling*
- ▶ *Diverse business ownership*



"There was a skillset that would have been lost"

Linda, manager who bought the manufacturing plant
where she worked after an ownership transition

Talent beyond on-ramps

	Business Challenges	Innovative Models
Talent Pipelines	<ul style="list-style-type: none">• Small firms have challenges with talent infrastructure• Retention and advancement	<ul style="list-style-type: none">• Small business talent networks• Focus on mid-level management and cross-training



Aggregate employer demand and provides additional HR supports – including resource navigation- at scale across multiple businesses.



Small business talent support in Western Michigan.

Unlocking business growth

Business growth and scaling



Cooperative of 130 independent contractors in the lobster industry that aggregates and resources sole proprietorship at scale.

Business Challenges	Innovative Models
<ul style="list-style-type: none"> • High rates of micro-business, failure rate for start-ups • Missing middle, particularly in supply chain strategies • Competing in new markets 	<ul style="list-style-type: none"> • Networked business models • Supporting strategic ventures and acquisition strategies • Support for market finding



Capital and technical support for Black women owned facilities management firms to build networked venture for supply chain contracts.



Law for building emissions reductions creates \$20 Billion market for retrofits. NYC stakeholders aggregating key industry segments, aligning on technology, and equipping existing Minority owned businesses with tools to gain market share.

Ownership to drive innovation and equity

	Business Challenges	Innovative Models
Diverse business ownership	<ul style="list-style-type: none"> • Lack of diverse ownership in key sectors • Privately-held companies that are often well-poised to scale innovation but lack a succession plan and path for growth 	<ul style="list-style-type: none"> • Supporting diverse strategic buyers • Ownership transfer (in part or full) to existing management / workforce

An estimated 70% of privately-held businesses will undergo ownership transfer in 5 to 20 years.



Technology business with federal defense contract purchased by long-time general manager.



Optics manufacturer for aerospace, defense, and consumer electronics that transferred ownership to employees in 2021.



Adapting to needs and opportunities in your region

- ▶ **Assess current firm ownership and economic impacts**

What is the future ownership of businesses in your region?

Who are market incumbents and how diverse is their workforce and ownership? Where might new business models improve equity and business competitiveness and/or resilience?

- ▶ **Identify areas for targeted intervention**

Where does your coalition has leverage in creating and directing economic value?

How might your coalition strengthen connections between that value and diverse workers and owners?

- ▶ **Integrate equity as competitive strategy in key projects / partnerships**

Who needs to be involved in these firm decisions?

What is their stake in leveraging equity as a competitive advantage for our region?



Guiding Questions For Discussion Today

Questions for you to think about as you open to Q&A with the panelists

- ▶ What from this presentation resonates with you?
- ▶ What risks are you most worried about solving for in your application?
- ▶ Which of these models feels most relevant to you? And which did you want to hear more details about?
- ▶ What would help you refine your starting point and strategy for competitiveness?
- ▶ How are you thinking through deploying equity as a competitiveness strategy?
- ▶ What do you need to operationalize the lessons from this presentation (around cluster risk/opportunity, research anchors, or equity-based competitiveness approaches)?



Discussion



Appendix: Equity as a competitive business strategy

	Business Challenges	Innovative Models
Talent Pipelines	<ul style="list-style-type: none">Small firms have challenges with talent infrastructureRetention and advancement	<ul style="list-style-type: none">Small business talent networksFocus on mid-level management and cross-training
Business growth and scaling	<ul style="list-style-type: none">High failure rate for start-upsMissing middle, particularly in supply chain strategies	<ul style="list-style-type: none">Networked business modelsSupporting strategic ventures and acquisition strategies
Diverse business ownership	<ul style="list-style-type: none">Lack of diverse ownership in key sectorsPrivately-held companies that are often well-poised to scale innovation but lack a succession plan and path for growth	<ul style="list-style-type: none">Supporting diverse strategic buyersOwnership transfer (in part or full) to existing management / workforce

What untapped opportunities exist within your existing landscape of businesses?