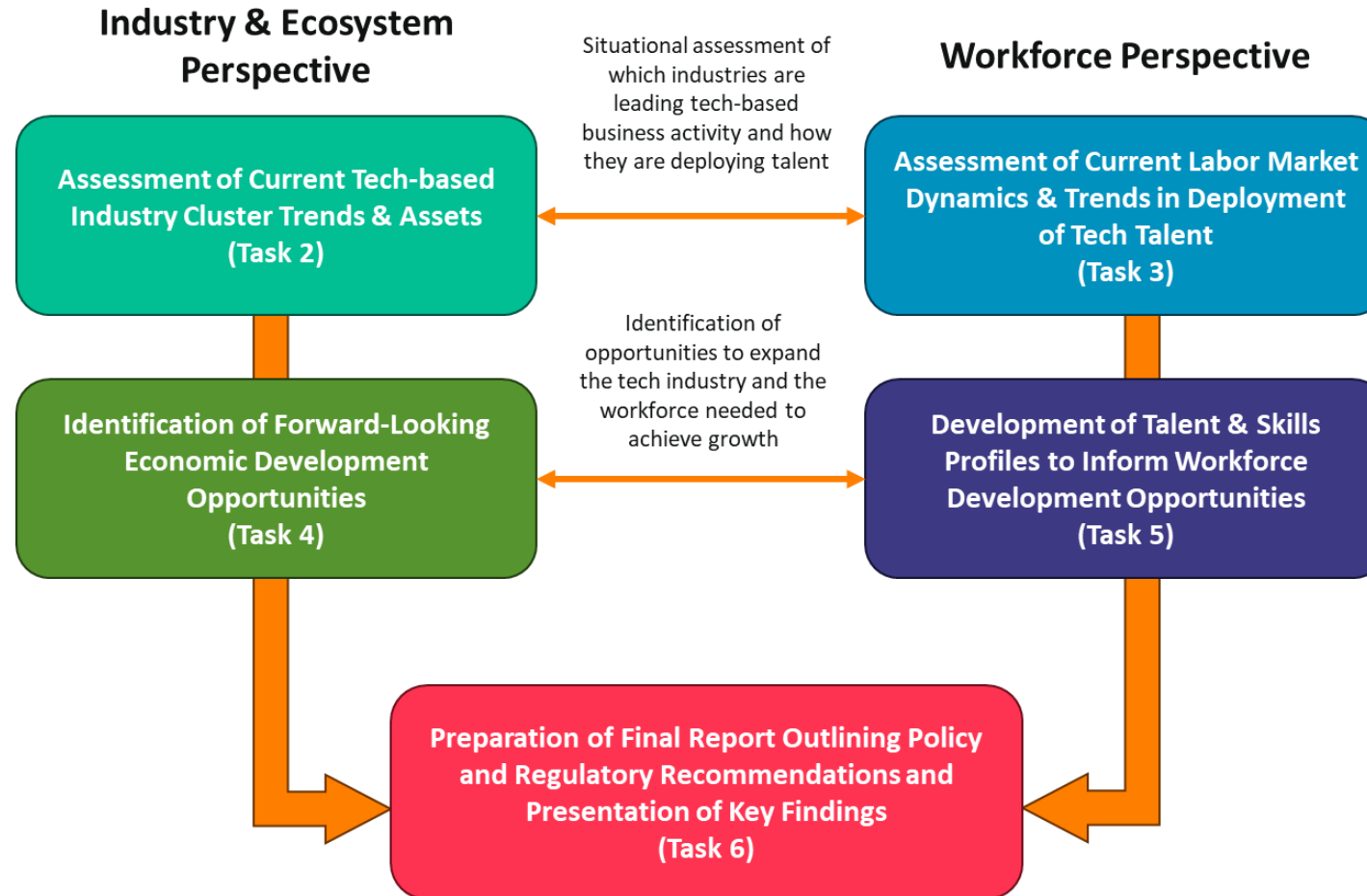# Tech-Driven Workforce and Economic Development Opportunities for Lexington-Fayette Urban County Government

Presentation of Final Recommendations

June 2025

TECONOMY PARTNERS LLC

Outline of TEConomy's Project Approach

Industry & Ecosystem Perspective

Workforce Perspective

Assessment of Current Tech-based Industry Cluster Trends & Assets (Task 2)

Situational assessment of which industries are leading tech-based business activity and how they are deploying talent

Assessment of Current Labor Market Dynamics & Trends in Deployment of Tech Talent (Task 3)

Identification of Forward-Looking Economic Development Opportunities (Task 4)

Identification of opportunities to expand the tech industry and the workforce needed to achieve growth

Development of Talent & Skills Profiles to Inform Workforce Development Opportunities (Task 5)

Preparation of Final Report Outlining Policy and Regulatory Recommendations and Presentation of Key Findings (Task 6)

Key Findings From TEConomy's Analyses

- While traditional core tech industries such as IT and computing have experienced flat growth, several other leading clusters in Fayette County have emerged as major areas of deployment of tech talent.

- Despite a growing tech workforce, demand is outpacing supply across both tech- and tech-enabled roles.

- While the need for software developers and other core tech roles remains important, Fayette County's high-demand, high-priority occupations are driven by significant demand for "embedded" roles.

- Lexington is well-positioned to pursue technology-enabled growth across five key opportunity areas: AgTech, "Hard Tech" (advanced manufacturing and materials), Health Tech, Biotech, and Digital Business Services and SaaS.

- Demand from industry persists despite significant talent pipeline, suggesting need for retention strategies and skills alignment.

- Forward-looking demand indicates need for hybrid skillsets that combine domain knowledge with deep competencies in data and software tools.

Lexington-Fayette County's workforce development activities should target several sets of key roles and skills to align with forward-looking market trends.

Tech Area	Ag Tech	"Hard Tech"	Health Tech	Biotech	Business Services and SaaS
Key Roles	Precision agriculture technologists, ag data analysts, remote sensing specialists	Materials scientists, process engineers, automation specialists, systems integrators	Health data analysts, clinical informatics, digital health product managers	Computational biologists, genomic data analysts, bioprocess engineers, QA/QC techs	Full-stack devs, cloud engineers, DevOps, product managers
Skills	GIS, Python, agronomy, UAV operation, agricultural informatics	CAD/CAM, PLC, digital twin, mechatronics, IoT	SQL, EHR systems, HIPAA/FHIR, clinical informatics tools	Bioinformatics software, GMP, lab automation, regulatory compliance	JavaScript, Python, Go, AWS/Azure, agile, microservices, cybersecurity
Education	Associate/bachelor's in ag engineering or biosystems	Engineering degrees, certifications	Health informatics, biomedical engineering, public health degrees; CPHIMS/RHIA certifications	Biotech, chemical and molecular bio degrees; QA/QC/regulatory certifications	CS/MIS degrees, bootcamps, certificates
Trends	AI-driven yield, livestock monitoring, climate-resilient tech	Lightweight materials, battery systems, AI-optimized production	Predictive analytics, remote monitoring, hybrid clinical-tech talent	Continuous manufacturing, personalized therapeutics	Secure, customizable platforms, SaaS-driven economy

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TEConomy recommends a strategic framework that focuses on aggregating activities across the economic and workforce development ecosystem.

Dedicate pooled resources to
develop core functions that
address gaps through improved coordination.

Connections and Coordination

Education and Workforce	Innovation and Entrepreneurship	Storytelling and Marketing

Engage with talent and research initiatives and link with collaborators at scale.

Coordinate services and entrepreneurial support providers through single access points.

Serve as key coordination and networking "umbrella" for initiatives and groups focused on specific tech applications verticals.

Business-Tech Ag-Tech Bio-Tech Health-Tech Hard-Tech

TEConomy recommends four strategies for growing Lexington-Fayette County's tech and tech-enabled workforce to support economic development.

1 Create and elevate a Lexington Tech Council as the centralized convener of Lexington's tech-based ecosystem.

2 Grow tech employment by prioritizing connections among educational institutions, students, workers, and employers.

3 Support Lexington's innovation and entrepreneurial capacity by building on high-growth opportunities.

4 Accelerate the marketing, branding, and storytelling of Lexington's tech ecosystem by focusing on tech-enabled industries.

Each recommended strategy is accompanied with a series of actions for growing Lexington-Fayette County's tech and tech-enabled workforce.

1
Create and elevate a Lexington Tech Council as the centralized convener of Lexington's tech-based ecosystem.

- Action 1.1: Provide resources to build out a fully-fledged tech council similarly to models seen in other successful metro areas.
- Action 1.2: Empower industry-led working groups aligned with Lexington's key technology clusters to guide the council's strategic approach.
- Action 1.3: Support UK's efforts to develop an Innovation District to help attract and retain tech talent.

2
Grow tech employment by prioritizing connections among educational institutions, students, workers, and employers.

- Action 2.1: Boost linkages between employers and college students in technology-oriented fields to help retain talent.
- Action 2.2: Scale Lexington's tech talent retention initiatives.
- Action 2.3: Identify opportunities to encourage experiential learning programs for high school students to learn about tech- and tech-enabled career opportunities.
- Action 2.4: Develop pathways for incumbent workers to "upskill" into tech careers.
- Action 2.5: Design new approaches for mid-career professionals in tech-related industries to develop leadership and entrepreneurial skills.
- Action 2.6: Catalyze the alignment of workforce initiatives with long-term industrial talent demand.

3
Support Lexington's innovation and entrepreneurial capacity by building on high-growth opportunities.

- Action 3.1: Elevate role of tech council from convening organization into full-scale entrepreneurial support organization.
- Action 3.2: Provide funding to scale entrepreneurial programs from locally serving events to those with national credibility and focus.
- Action 3.3: Leverage existing LFUCG programs to support companies who are outgrowing local incubators and accelerators.
- Action 3.4: Develop a First Customer program that helps support local entrepreneurs by linking them with established companies.

4
Accelerate the marketing, branding, and storytelling of Lexington's tech ecosystem by focusing on tech-enabled industries.

- Action 4.1: Provide funding to support economic development across priority tech-related verticals.
- Action 4.2: Plant a flag in AgTech by continuing to support the Bluegrass AgTech Development Corp.
- Action 4.3: Develop a marketing and branding campaign that communicates Lexington's tech-enabled value proposition in a single voice.

Estimated Costing of Recommended Actions

Strategy	Estimated Costing per Year for Various Actions
Strategy 1: Create and elevate a Lexington Tech Council as a centralized convener of Lexington's tech-based ecosystem.	**$300,000** in first year to support alongside a schedule for the organization to achieve financial sustainability over 5 years, with public funding decreasing each year in a transparent manner.
Strategy 2: Grow tech employment by prioritizing connections among educational institutions, students, workers, and employers.	**$90,000** to support career awareness and experiential learning.
Strategy 3: Support Lexington's innovation and entrepreneurial capacity by building on high-growth opportunities.	**$100,000** to scale existing entrepreneurial programs, support startups, and connect companies to first customers through direct assistance.
Strategy 4: Accelerate the marketing, branding, and storytelling of Lexington's tech ecosystem by focusing on tech-enabled applications industries.	**$140,000** to continue supporting tech applications vertical BRE efforts such as Bluegrass AgTech and develop new marketing/branding around tech-enabled verticals.
Total, 4 Strategies and 16 Actions	**$630,000** in total new funding to encourage tech-based economic and workforce development.

Innovating Tomorrow's Economic Landscape

TEConomy Partners is a global leader in research, analysis and strategy for innovation-based economic development. Today we're helping nations, states, regions, universities, and industries blueprint their future and translate knowledge into prosperity.

Strategy 1: Create and elevate a Lexington Tech Council as a centralized convener of Lexington's tech-based ecosystem.

Recommended Action	Recommended Strategic Approach	Estimated Resources Required
Action 1.1: Provide resources to build out a fully-fledged tech council similarly to models seen in other successful metro areas.	• Identify a pathway to sustainability that would utilize initial public funding to "jump start" efforts, with increased private sector and other funding support over time. • Have a dedicated and professional staff of multiple individuals. • Establish a governance system that positions the organization for success.	$300,000 for first year funding. LFUCG should provide a 'runway' for the organization to achieve financial sustainability, with public funding decreasing each year in a transparent manner (e.g., $200,000 in Y2, $150,000 in Y3, $100,000 in Y4, and any ongoing funding levels to be evaluated in later years).
Action 1.2: Empower industry-led working groups aligned with Lexington's key technology clusters to guide the council's strategic approach.	• Identify industry leaders to help lead and guide the formation of a working group. • Leverage industry-led groups to develop programs or initiatives around shared challenges. • Facilitate collaboration with policymakers and educational institutions. • Continuously adapt initiatives based on ongoing industry feedback.	Included in above.
Action 1.3: Support UK's efforts to develop an Innovation District to help attract and retain tech talent.	• Develop an innovation district that could serve as Lexington's central entry point for tech entrepreneurs and companies. • Empower the tech council to provide ongoing engagement with UK's strategic planning and land use planning process. • Connect the new innovation district development with other technology spaces throughout Lexington. • Explore demand for shared use facilities that could be housed at a physical hub that has the potential to attract more tech-intensive companies and support emerging entrepreneurs.	Included in above – tech council leadership to provide ongoing engagement with UK's strategic planning and land use planning processes.

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Strategy 2: Grow tech employment by prioritizing connections among educational institutions, students, workers, and employers.

Recommended Action	Recommended Strategic Approach	Estimated Resources Required
Action 2.1: Boost linkages between employers and college students in technology-oriented fields to help retain talent.	• Explore development of a new tech-focused internship program. • Scale up and seek to develop worksites for tech jobs through LFUCG's existing Summer Youth Job Training Program (SYJTP) and explore offering options for college students. • Offer various networking/educational activities to link students to Lexington and its offerings for young professional.	Part of role of organization outlined in Strategy 1, developing and expanding partnerships that be part of goals for director and would leverage private funding from industry partners. Up to an additional $40,000 to scale tech-focused SYJTP job site programming and begin targeting college students (not just high schoolers).
Action 2.2: Scale Lexington's tech talent retention initiatives.	• Provide financial, organizational, marketing, and other resources to expand existing tech retention and attraction initiatives. • Create a virtual talent retention event that could reach students at other Kentucky universities. • Develop a mentorship and engagement initiative for early-career tech professionals.	$25,000 to scale the event, including increasing the frequency, offering a virtual option, and improving awareness for both students and employers.
Action 2.3: Identify opportunities to encourage experiential learning programs for high school students to learn about tech- and tech-enabled career opportunities.	• Leverage Lexington's employer network and other stakeholders to serve as corporate partners for experiential learning. • Increase student participation in STEM-focused summer camps at UK and other locations.	$25,000 for organizational support to help increase student participation in STEM-focused summer camps at UK and other locations.
Action 2.4: Develop pathways for incumbent workers to "upskill" into tech careers.	• Assess current workforce skills and identify tech career gaps. • Partner with local educational institutions and tech employers. • Develop structured training aligned with industry demands. • Establish clear articulation and credentialing pathways. • Provide wraparound support services for participants.	While the coordinating organization proposed in Strategy 1 would manage these efforts, the model must actively engage private industry not only as end-users of talent but as financial stakeholders in talent development outcomes.
Action 2.5: Design new approaches for mid-career professionals in tech-related industries to develop leadership and entrepreneurial skills.	• Engage executive sponsors in tech-related industry functions and secure leadership buy-in. • Deliver interactive, experiential learning experiences.	
Action 2.6: Catalyze the alignment of workforce initiatives with long-term industrial talent demand.	• Host quarterly roundtables with regional employers to map emerging skill needs. • Develop modular, employer-driven training modules for in-demand technical and leadership skills. • Establish tech talent pipeline metrics and reporting with real-time workforce and job market analytics.	

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Strategy 3: Support Lexington's innovation and entrepreneurial capacity by building on high-growth opportunities.

Recommended Action	Recommended Strategic Approach	Estimated Resources Required
Action 3.1: Elevate role of tech council from convening organization into full-scale entrepreneurial support organization.	• Identify approaches to coordinate services and entrepreneurial support providers through single access point. • Offer direct services to entrepreneurs, including through grant funding and other competitions. • Empower the council's Executive Director to function as a "navigator" for startups.	It is recommended that the funding for Action 3.1 be included as part of Action 1.1's overall funding stream, with the tech council's executive director ideally functioning as a "navigator" for startups.
Action 3.2: Provide funding to scale entrepreneurial programs from locally serving events to those with national credibility and focus.	• Build connections with investors, successful entrepreneurs, and industry experts with national reputations. • Offer pathways to larger platforms, such as state funding or accelerator programs. • Showcase local innovation stories nationally in partnership with media groups. • Create an Ag-Tech focused event around startup weekend.	$30,000 to provide matching grants for each year's 5 Across Winners (6x per year at $5,000). $30,000 to support Lexington's Startup Week, which could include a signature 5 Across Event that helps elevate the tech ecosystem.
Action 3.3: Leverage existing LFUCG programs to support companies who are outgrowing local incubators and accelerators.	• Explore offering enhanced grants (e.g., 20–30 percent higher) for firms conducting R&D, focusing on commercializing patented technologies, or receiving SBIR/STTR awards. • Explore the development of a pilot program for a rent-stipend program covering 15–25 percent of lease costs for startups in certified innovation zones (such as a new innovation district, as noted in Action 1.3). • Explore the development of a matching grant program to help SBIR/STTR companies grow and scale their operations.	Continued support for JOBS fund encourage small businesses to locate in Lexington at various 'graduation spaces' for tech companies, connecting companies with this and other similar programs would be part of role of organization outlined in Strategy 1. Potential to expand specific JOBS funding for tech firms to further support rent stipends for the signing of multi-year leases.
Action 3.4: Develop a First Customer program that helps support local entrepreneurs by linking them with established companies.	• Leverage new and existing cluster networks. • Integrate training and one-on-one support. • Facilitate pilot and procurement opportunities with local institutions.	Up to $40,000 to support a first customer program operated by the tech council that helps connect entrepreneurs with established companies.

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Source: TEConomy Partners, LLC

Strategy 4: Accelerate the marketing, branding, and storytelling of Lexington's tech ecosystem by focusing on tech-enabled industries.

Recommended Action	Recommended Strategic Approach	Estimated Resources Required
Action 4.1: Provide funding to support economic development across priority tech-related verticals.	• TEConomy's analysis identifies **AgTech, BioTech, HealthTech, "HardTech"** (e.g., minerals, materials, manufacturing), and **Business Process/Support Tech** as leading tech-enabled verticals. • Continue to support business retention, expansion, and attraction efforts, with an emphasis on scaling and connecting companies around these areas of tech-enabled development.	$100,000 in increased support for BRE or marketing activities in target tech applications-related verticals.
Action 4.2: Plant a flag in AgTech by continuing to support the Bluegrass AgTech Development Corp.	• Emphasizing the business attraction elements of the grant. • Focusing on subsegments of AgTech where Lexington-Fayette County have competitive advantages. • Targeting international companies for "soft landings." • Expanding industry partnerships to support the program.	Ongoing budget support for the Bluegrass AgTech Development Corp. and its technology challenge to scale the program internationally.
Action 4.3: Develop a marketing and branding campaign that communicates Lexington's tech-enabled value proposition in a single voice.	• Create a branding strategy around tech in market it locally and within the state. • Align the brand with Lexington's strength in tech-enabled industries. • Develop an External Marketing Campaign that showcases Lexington's unique strengths in tech-enabled industries to a national/international audience. • Participate in relevant trade shows focusing on tech-enabled verticals.	Up to $40,000 to support a marketing, branding, and storytelling campaign that emphasizes Lexington's strengths in tech-enabled industries.

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