

# FROM POTENTIAL TO PROSPERITY:

## A STRATEGIC AGENDA FOR GROWTH AND OPPORTUNITY IN SOUTHEASTERN PENNSYLVANIA

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*Mobilizing regional action with the  
Greater Philadelphia Growth Partnership*

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**B** | Brookings Metro

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# Executive summary

Leaders across Southeastern Pennsylvania are transforming how the region competes in the global economy and creates opportunity for its residents.

The region's assets in talent, innovation, infrastructure, and entrepreneurship are exceptional. Yet over the past decade, its economic performance has not matched its strengths. This was especially true for traded sector industries that sell goods and services outside the region and concentrate "opportunity jobs," which provide family-sustaining wages and benefits or a pathway to achieving them.

Regional leaders identified two ambitions as essential to reversing that trend and unlocking their economy's full potential:

- **Boosting economic competitiveness.** The region missed out on about 70,000 opportunity jobs in traded sectors between 2012 and 2023—gaining about half the anticipated total and falling 13 percentage points short of expected growth against national benchmarks.
- **Increasing economic mobility for families.** The region [ranked last](#) among the nation's 50 most populous commuting zones in upward mobility for low-income residents. Economic mobility also declined across the region for most racial groups and other income levels.

More opportunity requires growth. Removing individual barriers is not enough without erasing the deficit in opportunity jobs that enable workers—especially those without a four-year college degree—to get ahead. Without bolder and collective action to make structural changes, the region's competitive position will erode, impacting talent retention, employer growth, and shared long-term prosperity.

The strategy outlined in this report, as well as the formation of the Greater Philadelphia

Growth Partnership, are direct responses to those challenges. They result from two years of collaboration among economic and workforce leaders representing business, government, and civic sectors across Bucks, Chester, Delaware, Montgomery, and Philadelphia counties, in recognition that the economic success of one county depends on the success of all. (While 87% of the five-county region's residents live and work within one of the five counties, up to 38% cross a county border to their job.)

While economic mobility depends on sustained regional growth, growth alone does not ensure broad access to opportunity. This strategy therefore prioritizes three "opportunity industries" in which the region holds competitive advantages and strong potential to generate jobs accessible to workers across a range of skill and education levels. It identifies specific tactics for each industry that will help drive success.

Effective economic strategies depend entirely on the capacity and commitment to implement them together. Rather than compete for limited resources, this strategy aligns partners around common principles, objectives, and actions that cross institutional and jurisdictional boundaries to strengthen the region as a whole.

The industries, tactics, and implementation approach are the product of deep engagement with stakeholders across economic and workforce development, workforce training and education, industry, research centers, public agencies, and philanthropy. They were informed by lessons from best-in-class regional economic development efforts around the country, but tailored to what is distinct about Southeastern Pennsylvania.

Regional partners are now committed to executing this strategy together. Yet for a region with the ambitions and scale of Southeastern Pennsylvania, realizing its full potential will require even broader adoption of this agenda and additional commitments to take action.

## ORGANIZING FOR ACTION

Regional leaders are changing how they work collectively to achieve this vision. They are establishing new structures and operating agreements that align individual efforts and resources for greater impact, strengthen joint decisionmaking, and promote mutual accountability. These commitments build the confidence of business, philanthropy, and government partners to make additional investments. Elements of this approach include:

- **Formation of the Greater Philadelphia Growth Partnership.** This new collaborative fills the gap in regional economic development functions relative to peers and serves as the vehicle for coordinated strategy execution. Early commitments from business and philanthropy will boost capabilities in business attraction and expansion, research, international engagement, identity-building and visibility, and industry-led workforce development.
- **Distributed implementation structure for opportunity industry strategies.** Delivering the full range of proposed tactics depends on the contributions of many partners. The recommended actions fall across public and

private sectors, the workforce training system, academia and higher education, philanthropy, and corporate leadership. This distributed implementation of a shared strategy leverages individual strengths toward collective results by working off the same playbook. Identified through stakeholder consensus and supported by the Greater Philadelphia Growth Partnership, sector coordinators will facilitate and aid the programmatic execution among those partners to minimize overlaps, jointly identify and help pursue resources, and track progress toward common goals.

- **Business leadership and governance.** Implementation of both the Greater Philadelphia Growth Partnership and individual opportunity industry initiatives relies on the business community taking a leadership role similar to that of their peers in other regions—guiding, overseeing, and investing in a long-term regional economic agenda. For the Greater Philadelphia Growth Partnership, a business-led governance board will provide strategic direction and accountability, informed by regional and county-level partners. For each opportunity industry, the form of business engagement will vary based on activation decisions that consider relationships to industry intermediaries.



## ACHIEVING GROWTH IN SOUTHEASTERN PENNSYLVANIA'S OPPORTUNITY INDUSTRIES

A regional growth strategy must be broad enough for impact yet narrow enough to be actionable, and a plan is only “strategic” if it makes choices. Through an in-depth market assessment published in July 2025 as well as joint problem-solving with regional stakeholders, Brookings helped identify three consensus “opportunity industries” in which Southeastern Pennsylvania has both a strong competitive position and the potential to generate significant growth in opportunity jobs.

In subsequent months, leaders from across the five counties vetted options to translate that potential into reality. Economic development, workforce, and industry experts identified needs within the three opportunity industries, and specific tactics were developed to address them. Those tactics were further prioritized by identifying which could be advanced within 12 to 18 months for early results and momentum, and codifying them in activation workplans with tasks and assignments as shared project management tools for implementation. The three opportunity industries are:

- **Enterprise digital solutions (EDS).** A segment of “enterprise tech” in the information technology sector, EDS firms provide the business-to-business (B2B) software, platforms, and implementation services that companies use to manage their core operations and increase productivity. The region’s EDS position is undergirded by firms serving or spinning out of the other dominant sectors such as financial services and health care. Distinct advantages include talent availability, customer proximity, applied artificial intelligence (AI) capabilities, regulated industry expertise, and quality-to-cost ratios that support startups and attract firm expansions. However, the EDS sector needs the visibility and mainstream economic development attention to match its scale and potential.
- **Precision manufacturing in industrial technologies.** Despite national industry trends that have constrained manufacturing, the region is competitively positioned for high-quality, accessible job growth in making a subset of industrial technology products. These segments include machined components, industrial electronics, interconnects, and structural fabrication—all of which demand exact specifications with high tolerances and accuracy. Manufacturers contribute to supply chains ranging from defense and life sciences to industrial automation and energy. While the region houses headquarters or major front offices for some global companies, the sector is mainly comprised of small and medium-sized manufacturers, creating distinct talent and operations needs to sustain growth in the cluster.
- **Biomedical engineering and production.** Even as a globally recognized center for biomedical research and development, the region holds underrealized potential in retaining startups, scaling-up production in targeted areas, and attracting related anchor investments. Specific opportunities include expanding the current successful life sciences subsector emphasis on emerging platform therapeutic technologies (such as cell and gene therapy) in areas of strength such as medical devices. Reshoring of therapeutics manufacturing supply chains offers possibilities for greater production in traditional and niche categories. Across these verticals, the region can further close ecosystem gaps in access to professional and technical talent and capital that hold back seed-stage firms from growth. Focusing on these categories will convert regional prowess for innovation into more opportunity jobs that are accessible to workers without advanced degrees.

At the bottom of this report’s executive summary is a high-level outline of the tactics designed to advance growth in each opportunity industry.



## A PLATFORM FOR ACTION

Release of this strategy and the formation of the Greater Philadelphia Growth Partnership marks the transition from organizing and planning to multiyear action and implementation, in which sustained effort will be required to realize shared ambitions. Guided by activation workplans, regional partners will formalize roles and responsibilities and initiate implementation of tactics while enlisting other collaborators who can contribute to those efforts. Regional partners will continue to jointly raise resources to implement this vision.

Success ultimately also depends on the support of a broader range of actors beyond regional and local economic and workforce development partners, including:

- **Business champions** to steer and invest in growth strategies and regional capacity with a long-term perspective.
- **Philanthropy** to fund initiatives that grow the economy and create quality jobs, supporting economic mobility in ways that complement programs helping residents overcome barriers.
- **The commonwealth of Pennsylvania** to support regionally led solutions through administrative, programmatic, and policy tools, such as aligning existing staff and funding with regional tactics and rewarding regional collaboration.

Finally, patience is required. Real change in economy-building goals takes years of steady commitment to execution. Early progress can be seen in specific areas such as training, but regions that fundamentally changed their trajectory stay with strategies for a decade or more. Unlike annual funding metrics or election cycles, economic performance is measured over years, and economic mobility is measured over a generation. If the long view is taken, this regional growth strategy can unlock Southeastern Pennsylvania's ability to deliver economic growth and opportunity that match its full potential.

# OPPORTUNITY INDUSTRIES: STRATEGIC GOALS AND TACTICS

## ENTERPRISE DIGITAL SOLUTIONS

### 1. Cluster organizing

- 1.1 Establish a consensus sector coordinator to organize and boost EDS cluster-building activity across relevant groups.
- 1.2 Foster greater connectivity among and responsiveness to large, established firms, including those with intramural EDS capabilities.
- 1.3 Evaluate building a more comprehensive, scaled industry-led tech alliance to match other leading regions.

### 2. Business attraction, retention, and expansion

- 2.1 Focus mainstream economic development efforts on EDS attraction and expansion, including proactive lead generation and international engagement strategy.
- 2.2 Execute a unified communications campaign that defines and articulates the region's value proposition both internally and externally.
- 2.3 Maintain an EDS asset inventory for application to ecosystem navigation as well as development and marketing.
- 2.4 Cultivate relationships with specialized EDS investors.

### 3. Talent pipelines

- 3.1 Conduct a deep regional assessment of priority EDS occupational demand and regional training pipelines.
- 3.2 Establish a regional talent leadership group among large EDS employers.
- 3.3 Create a "cooperative marketplace" to ease connections between workers and employers.
- 3.4 Target regional talent attraction and retention initiatives toward the EDS sector.
- 3.5 Evaluate expansion of apprenticeship and on-the-job training pathways, integrating the offer across talent developers.

### 4. Innovation and entrepreneurship

- 4.1 Expand anchor firm engagement in regional startup and scale-up growth.
- 4.2 Facilitate "sector sandboxes" linking EDS firms with enterprise customers.
- 4.3 Launch a "Global EDS Accelerator" problem-solving competition.
- 4.4 Form an EDS-relevant applied research and innovation consortium among regional universities as a resource for companies and entrepreneurs.
- 4.5 Strengthen connections with investors and capital sources focused on EDS and enterprise technologies, building on existing capacity.

Note: Activities prioritized for immediate (i.e., within 18 months) implementation are highlighted.

## OPPORTUNITY INDUSTRIES: STRATEGIC GOALS AND TACTICS

### PRECISION MANUFACTURING IN INDUSTRIAL TECHNOLOGIES

#### 1. Regional organizing

- 1.1. Create a consolidated and enhanced regionwide manufacturing alliance, replacing existing small, fragmented groups.

#### 2. Talent pipelines

- 2.1. Undertake a comprehensive regional manufacturing talent study.
- 2.2. Close equipment gaps and facility constraints for workforce training providers.
- 2.3. Improve instructor availability via new dedicated funding sources, institutional reforms to pay scales and formal certifications, and mechanisms to jointly recruit instructors on loan from industry.
- 2.4. Focus mainstream workforce development resources to support the sector, including more incumbent worker training.
- 2.5. Launch dedicated “industry navigator” functions to reach more employers.
- 2.6. Initiate new technical assistance programs to enhance internal human resources capacity to engage in talent demand planning and access.
- 2.7. Undertake a regional youth engagement campaign to elevate awareness and interest in manufacturing careers.

#### 3. Supports for small and medium-sized manufacturer (SMM) capacity-building

- 3.1. Launch a succession planning technical assistance program for SMMs, including employee ownership options for greater local retention.
- 3.2. Scale and enhance technical assistance offerings to help firms navigate product and process improvements that facilitate ongoing competitiveness amid growing market penetration of emerging technologies.
- 3.3. Establish a testing and demonstration platform to vet and raise visibility of new technologies to improve SMM productivity, especially AI applications.
- 3.4. Create a physical center of gravity for regional SMMs to access acceleration, capital, and technical assistance, and enable shared facilities.
- 3.5. Convene private equity actors to identify solutions for retaining local SMM firms.
- 3.6. Facilitate greater intra-regional supply chain matchmaking to bolster market opportunities and sector cohesion.

#### 4. Site selection and land use

- 4.1. Assess local land use policies—especially those that constrain the growth of existing manufacturing firms—to inform engagement with subregional jurisdictions.
- 4.2. Develop a comprehensive regional site inventory and readiness assessment to improve response to firms on business attraction and expansion inquiries and identify opportunities to bring sites closer to delivery.

Note: Activities prioritized for immediate (i.e., within 18 months) implementation are highlighted.



# OPPORTUNITY INDUSTRIES: STRATEGIC GOALS AND TACTICS

## BIOMEDICAL ENGINEERING AND PRODUCTION

### 1. Regional organizing

- 1.1. Institutionalize a permanent regional life sciences cluster initiative.
- 1.2. Reinforce mainstream economic development activities targeted at the sector and priority specializations.
- 1.3. Expand regional commercialization and tech transfer functions.

### 2. Sector diversification

- 2.1. Organize and engage medical device firms to understand and serve ongoing competitiveness needs.
- 2.2. Establish a common front door for firms to access regional health care systems for device clinical trials.
- 2.3. Support enhanced navigation and matchmaking between medical device innovators and regional contract manufacturers to capture more local production.

### 3. Executive and enterprise talent

- 3.1. Launch a campaign to steward, retain, and attract C-suite life sciences talent.
- 3.2. Organize industry executives as a collective to welcome and build a stronger community of high-level regional C-suite industry talent.
- 3.3. Engage universities to target entry-level and Master of Business Administration (MBA) business talent for recruitment into the sector.

### 4. Skilled technical workforce

- 4.1. Undertake a comprehensive regional life sciences talent study.
- 4.2. Advance alignment among existing workforce development programs and shared uptake of proven models for designing high-demand occupational training.
- 4.3. Deploy a regional youth engagement campaign to elevate awareness and interest in life sciences manufacturing careers.
- 4.4. Galvanize more employer champions to invest in and partner with workforce and educational institutions.

### 5. Capital access

- 5.1. Identify and size existing resident capital sources in a comprehensive map to more clearly define resources and gaps.
- 5.2. Engage philanthropy, high-net-worth individuals, and other “nontraditional” investors on opportunities to invest in early-stage startups.

Note: Activities prioritized for immediate (i.e., within 18 months) implementation are highlighted.

# INTRODUCTION



# Introduction

After two years of intensive collaboration, leaders from across Southeastern Pennsylvania’s five counties have committed to the joint pursuit of high-growth, high-opportunity economic development.

This strategy signals a new era for Southeastern Pennsylvania. It involves collectively mobilizing across business, government, and civic leadership to apply the region’s considerable assets toward the emerging opportunities of a national economy being reshaped by a multiyear surge of industrial investment and the adoption of artificial intelligence (AI) and other breakthrough technologies.

As the United States marks its 250th birthday, the Philadelphia region takes center stage in the national celebration through its pivotal role in the nation’s founding. This strategy and the civic partnership it represents position the region to strengthen its reputation as a hub for innovation and industry—and deliver broad-based opportunity that tangibly improves the livelihoods of the over 4 million people who live and work there.

This strategy was developed in concert with leaders from Bucks, Chester, Delaware, Montgomery, and Philadelphia counties, plus the Chamber of Commerce for Greater Philadelphia, the Delaware Valley Regional Planning Commission, and Visit Philadelphia, organized as the Southeastern Pennsylvania Economic Collaborative. It aims to deliver improved economic competitiveness and mobility at the regional scale.

To enable focus that is broad enough to be meaningful but narrow enough to be actionable, the strategy centers on three “opportunity industry” sectors with high potential for growth and the creation of “good” and “promising” jobs offering family-sustaining wages (or a pathway to such a job), selected through an intensive market assessment. It outlines tactics that regional leaders—together with others across industry,

business, and civic institutions—will undertake to accelerate economic growth and job access. And to address the region’s opportunity for stronger aligned execution and investment, the strategy outlines new operational capacities needed to implement the work.

## WHY SOUTHEASTERN PENNSYLVANIA NEEDS THIS STRATEGY

The five counties of Southeastern Pennsylvania are home to roughly 4.2 million people and over \$355 billion in annual economic output—standing as one of the most dynamic, asset-rich locations in the world.<sup>1</sup> Stretching across the region are globally leading innovators in finance, professional services, and technology, such as Vanguard, Comcast, Avantor, Cencora, Teleflex, and EPAM. Machining shops and other small and medium-sized manufacturers (SMMs) across the five counties continue to make sizeable contributions to the nation’s industrial base, and are poised to benefit from supply chain diversification that reshores production. The region’s universities—which accounted for over \$27 billion in R&D spending between 2012 and 2023—drive an ecosystem that generates cutting-edge research and commercial applications ranging from mRNA technology to bespoke therapies harnessing individuals’ genetic makeup to treat debilitating diseases.<sup>2</sup>

Given these assets, Southeastern Pennsylvania’s residents should be thriving in a rapidly growing economy. Instead, the region has not kept up in catalyzing good jobs and economic mobility: Between 2012 and 2023, Southeastern Pennsylvania generated 188,000 fewer jobs than would have been expected given national growth trends.<sup>3</sup> The “traded sector”—meaning industries that primarily sell goods and services to consumers outside the region, thus bringing in new revenue, enhancing productivity, and creating higher-paying jobs—accounted for most of this underperformance. If the region had performed to par, it would have an additional 104,000 traded sector jobs,<sup>4</sup> 70% of which would qualify as “opportunity jobs,” defined as jobs offering family-

sustaining wages and benefits or a pathway to such a job within 10 years.<sup>5</sup>

Along with this stagnation in higher-paying jobs, economic mobility has declined. Recent analysis by Opportunity Insights ranked the Philadelphia commuting zone, inclusive of Southeastern Pennsylvania, at the bottom of the nation's 50 largest regions in enabling low-income young adults to achieve higher incomes than the previous generation at the same age.<sup>6</sup>

Despite this recent history, the region is well positioned to compete. Global economic and geopolitical trends—such as rising protectionist trade policies, the surge of capital investment to reshore manufacturing and pharmaceutical activity, and the continued adoption of digital technologies such as AI—are contributing to generational shifts in economic geography. Southeastern Pennsylvania has the assets—and, with this strategy, the blueprint—to position for this “jump ball” moment for the U.S. industrial base.

## **ORGANIZING FOR SUCCESS**

To seize this moment, the region is fundamentally shifting its economic development approach. Over the past two years, through the Southeastern Pennsylvania Economic Collaborative, regional leaders set shared priorities, informed tactical interventions, and committed to executing an economic agenda at a scale commensurate with other large U.S. regions—adding new resources, staff, and energy. This involved overcoming historical fragmentation across jurisdictional boundaries, underinvestment in basic economic development functions such as business and sector development, and lagging business leadership.

Practice and evidence reinforce the importance of these shifts. Aligned civic leadership, including engaged business stewards and cross-sector collaboration driving intentional strategies, has been credited with enabling successful regional economies with the right kind of support and execution.<sup>7</sup> Cluster initiatives—a core subset of

regional economic strategies aimed at elevating distinct industry specializations by investing in innovation ecosystems, talent, and other shared assets—rest on strong collaboration among regional partners around a shared, long-term purpose.<sup>8</sup> Early assessments of regions pursuing federally supported “place-based industrial policies” highlight purpose-built civic capacity as the essential foundation for designing and executing these transformational public investments.<sup>9</sup>

Over the coming years, the region must maintain and build on the momentum underway—supporting the new ethos of collaboration started through joint creation of this strategy. Southeastern Pennsylvania can apply its innate strengths to meet the moment of an economy at the frontier of AI adoption, a nation increasingly considering supply chain resilience and reshoring, and a global population demanding new biomedical solutions. In each of these categories, Southeastern Pennsylvania can build a future in which the region is at the vanguard of innovation, and translate that into more good jobs and improved opportunities for residents to expand on the economic fortunes of their parents. By drawing from and building on its proud assets, legacy, and history, Southeastern Pennsylvania can achieve a new era of bold leadership and action.

# From the Southeastern Pennsylvania Economic Collaborative to the Greater Philadelphia Growth Partnership

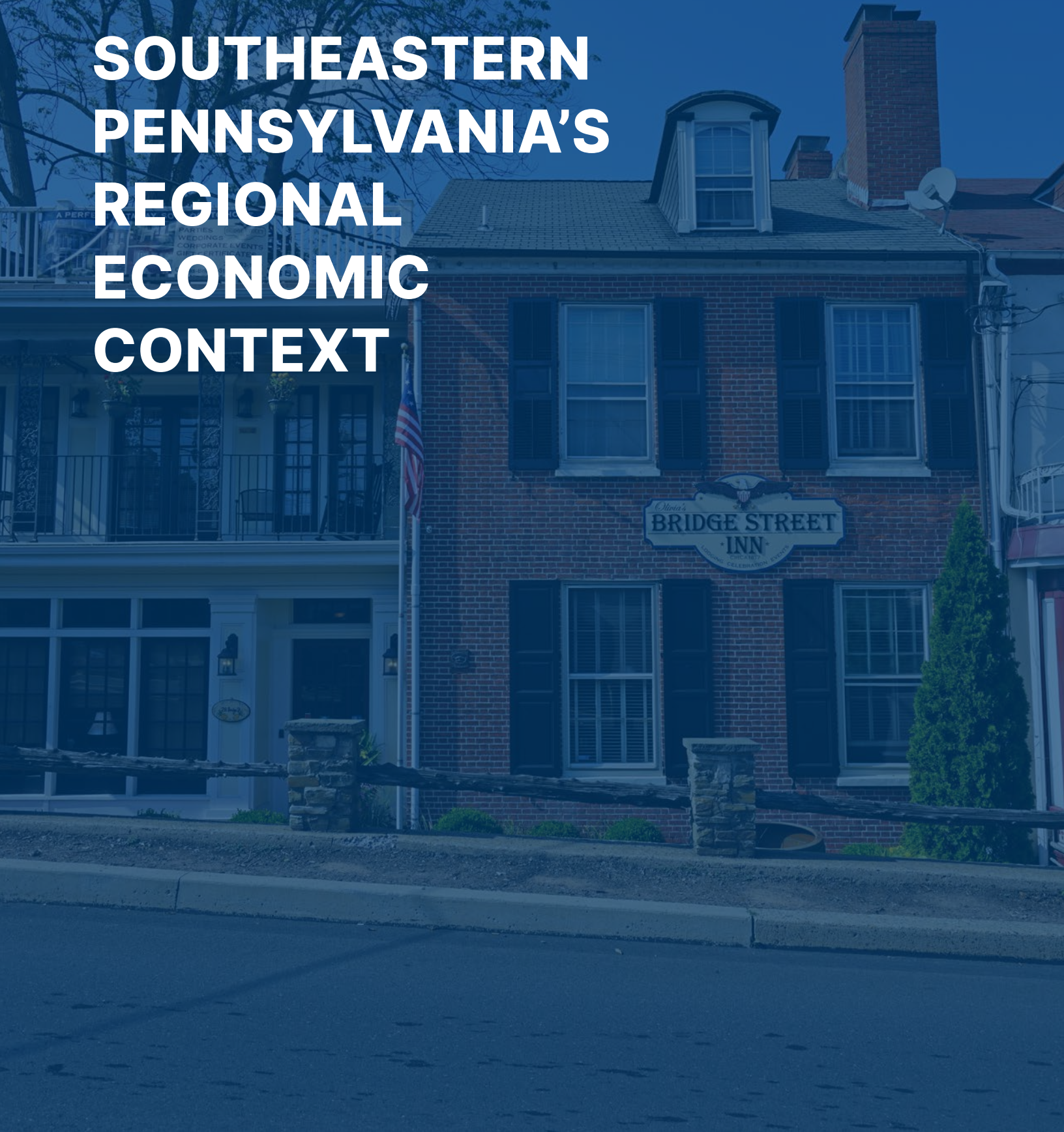
Starting in late 2023, economic and workforce development organization leads for Bucks, Chester, Delaware, Montgomery, and Philadelphia counties—along with representatives from the Chamber of Commerce for Greater Philadelphia, the Delaware Valley Regional Planning Commission, and Visit Philadelphia—came together via a series of ongoing meetings to explore improved pathways to economic growth and mobility through regional collaboration. With facilitation from the Brookings Institution and The Pew Charitable Trusts, this group became known as the Southeastern Pennsylvania Economic Collaborative.<sup>10</sup>

Over the past two years, the Collaborative considered Brookings analyses, advised on the identification of opportunity industries, helped develop strategies and tactics to advance those industries, launched a regional research hub, and considered governance and operational structures for long-term collaboration.

The Collaborative is now being solidified and relaunched as the Greater Philadelphia Growth Partnership. Governed by a business-led board, the Partnership will focus on business development, research and data, international engagement, identity-building, and talent alignment. The Partnership will also serve as a hub for coordinating execution of this strategy across the numerous regional and local intermediaries implicated.



# SOUTHEASTERN PENNSYLVANIA'S REGIONAL ECONOMIC CONTEXT





## **Southeastern Pennsylvania's regional economic context**

A 2025 Brookings Institution analysis of Southeastern Pennsylvania's economic performance, competitive assets, and labor market outcomes made the case for regional action. Several of those findings, discussed below, guided development of this strategy.

### **THE REGION'S ECONOMIC PERFORMANCE HAS LAGGED SINCE BEFORE THE COVID-19 PANDEMIC**

While Southeastern Pennsylvania has continued to see overall job growth, driven by its status as one of the nation's largest economies and a major population center, the region is struggling to generate high-value job creation on par with the national economy.

Between 2012 and 2023, lagging growth cost the region approximately 188,200 new jobs that would otherwise have been created, translating to a 16% increase in the region's employment base over the period rather than an expected 24%.<sup>11</sup> At the same time, growth was concentrated in industries less positioned to sustain competitiveness, create opportunity jobs, and power wage growth. Southeastern Pennsylvania lost traction in critical "traded sector" industries such as financial services and manufacturing, with momentum instead shifting to "local-serving" industries largely consisting of intraregional consumption. In all, of the region's 188,200 "missing jobs," 104,000 belong to the traded sector—posing significant challenges to regional prosperity.

# Key terms

<i>Growth</i>	Scale of a regional industry or economy over time (based on employment levels, except where specified otherwise).
<i>Prosperity</i>	Distribution of wealth and income produced in an economy on a per-person or per-worker basis.
<i>Industry clusters</i>	Industries linked together in a regional economy through shared supply chains, common talent pools, and knowledge spillovers. Industry clusters are typically anchored around traded sector industries, though they can be supported by strong local-serving and public sector entities.
<i>Traded sector</i>	Industries that participate in national and global supply chains through the trade of goods and services across regional borders (such as most types of manufacturing, finance, consulting, and wholesaling).
<i>Local-serving industries</i>	Industries that provide goods and services to consumers within the confines of the regional marketplace where they operate (such as real estate, personal services, construction, and health care).
<i>Competitiveness</i>	A measure of strength in a regional industry sector or cluster based on its growth trajectory relative to the nation. Analyses of competitiveness (called “shift-share”) disaggregate the components of regional industry performance to determine whether its trajectory is a product of locally competitive shifts or a byproduct of national tailwinds.
<i>Opportunity jobs</i>	Jobs that create opportunities for worker mobility through family-sustaining wages, employer-sponsored health insurance (a proxy for job stability and other benefits), and pathways for upward economic mobility. Opportunity jobs can be considered either “good” or “promising.”
<i>Good jobs</i>	Jobs that pay family-sustaining wages and offer employer-sponsored health insurance. The family-sustaining wage is \$29.76 per hour across Southeastern Pennsylvania for full-time, year-round workers, with some variability by county to account for differences in cost of living.
<i>Promising jobs</i>	Jobs that do not qualify as “good jobs,” but create strong pathways into good jobs within 10 years. Promising jobs are particularly critical avenues for economic mobility for workers without a four-year degree, who stand to benefit most from targeted workforce development and upskilling strategies.

**SOURCE:** Glencora Haskins, Rachel Barker, and Marek Gootman, “Southeastern Pennsylvania Market Assessment for Growing Opportunity Industries and Economic Mobility,” Brookings, 2025.

# Understanding ‘traded’ and ‘local-serving’ industries

Fostering a dynamic regional economy requires cultivating the industries that concentrate jobs driving prosperity. Traded sector industries—meaning those such as manufacturing or financial services, which primarily sell goods and services to consumers outside the region—are particularly significant. These differ from “local-serving” industries that mainly sell to residents of a region.

Through exports, traded sector industries filter external income through the regional economy, and this “multiplier effect” creates additional jobs in local-serving sectors such as retail, construction, health care, and government. Traded industries also tend to pay higher wages and drive productivity improvements, resulting from firms competing against national and global peers. In Southeastern Pennsylvania, traded industries account for over 50% of regional output and generate 2.5 times the productivity of local-serving industries, despite contributing only a third of overall employment.<sup>12</sup> Because their competitiveness rests on shared assets such as supply chains, labor sheds, and infrastructure that spans jurisdictional boundaries, supporting these industries is the purview of regional economic development.

This does not mean that local-serving industries are unimportant. These industries employ more residents in total than the traded sector. While many local-serving sectors such as retail concentrate small proportions of good jobs, others contain higher shares. The support these local-serving “Main Street” businesses such as shops and restaurants receive from local jurisdictions is well justified by their contributions to wealth-building, commercial corridors, and the livability of cities and neighborhoods.

Southeastern Pennsylvania’s challenge stems from the unequal—and ultimately unsustainable—balance of momentum between its traded and local-serving industries. Of the region’s 188,200 “missing jobs,” 104,000 belong to traded industries. These missing jobs include both fewer local positions supported by “multiplier” income and lost ground in fast-moving global value chains. Over time, these dynamics run the risk of becoming self-perpetuating, with the region becoming less prosperous as its economy shifts further inward.



# What about health care?

Health care delivery is a major source of employment in Southeastern Pennsylvania, accounting for roughly one-quarter of the region's net job growth between 2012 and 2023 (96,400 jobs).<sup>13</sup> The concentration of world-class health care services also reinforces the region's world-class life sciences ecosystem, concentrating hospitals, clinicians, and specialized facilities that support innovation, development, and testing of new therapies. Many of these institutions further serve as critical civic—or “anchor”—institutions.

Notwithstanding the presence of globally relevant health institutions, the overwhelming majority of health care jobs in Southeastern Pennsylvania are local-serving, meaning their growth results from resident needs rather than meeting health care demand from outside the region. Therefore, job creation cannot be boosted by economic development actions, nor does it typically generate the export-driven “multiplier” benefits associated with traded sectors. Furthermore, job quality varies widely within health care services: While clinical care occupations in hospitals offer family-sustaining wages and career pathways, residential care assistant and home health aide positions do not.

For these reasons, health care remains an important focus for workforce development and quality of life, but is not a primary target for regional economic development strategies.



## THE REGION'S UNDERPERFORMANCE HAS LIMITED ITS NUMBER OF OPPORTUNITY JOBS

Industrial performance matters because of the types of jobs that different industries create. Only about a third of regional jobs meet a “good job” standard—defined as providing a family-sustaining wage (\$29.76 per hour) and offering employer-sponsored health insurance. A further 19% of jobs count as “promising jobs,” meaning they offer a pathway to a “good job” within a decade.<sup>14</sup> (Throughout this report, “good jobs” and “promising jobs” are collectively referred to as “opportunity jobs.”) Remaining “other jobs” do not meet the “good job” criteria, nor do they offer a pathway to a “good job” within a decade.

TABLE 1

### Regional share of opportunity jobs in Southeastern Pennsylvania

Category	Share of jobs
Good jobs	32.1%
Promising jobs	19.2%
Other jobs	48.7%

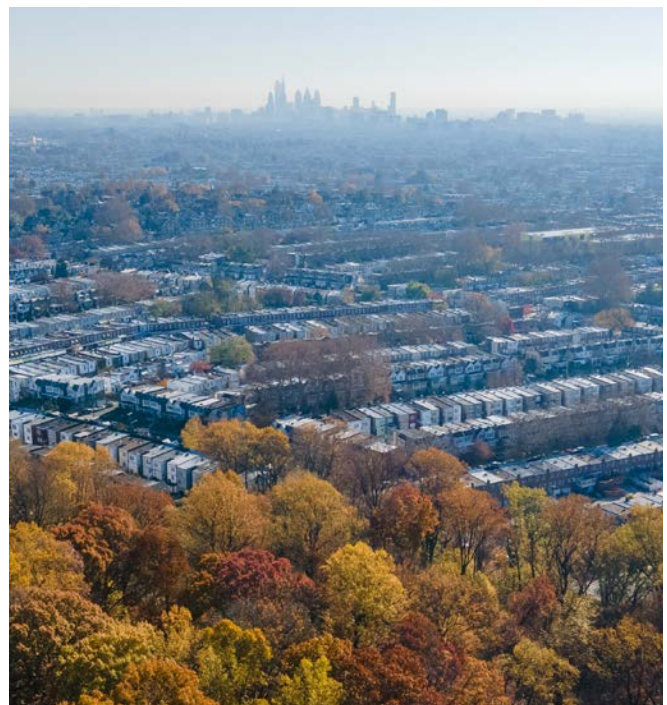
**SOURCE:** Glencora Haskins, Rachel Barker, and Marek Gootman, “Southeastern Pennsylvania Market Assessment for Growing Opportunity Industries and Economic Mobility,” Brookings, 2025.

The region’s economic underperformance has clear consequences for the supply of good and promising jobs available to Southeastern Pennsylvania workers. The traded sector accounts for just a third of employment, but it contributes 44% of all employee wages and produces opportunity jobs at almost double the rate of local-serving industries in the region.<sup>15</sup> Thus, as growth in the region’s traded industries has stalled, expected wage gains have failed to materialize, leaving the average worker bringing home just \$460 more in

inflation-adjusted dollars in 2023 than a decade earlier.<sup>16</sup> Reinvigorating growth in the region’s most innovative traded sectors is thus imperative for narrowing the region’s “good job” gap.

## INVESTING IN THREE PRIORITY OPPORTUNITY INDUSTRIES CAN STRENGTHEN REGIONAL COMPETITIVENESS AND EXPAND ECONOMIC OPPORTUNITY

In consultation with regional leaders, Brookings identified three “opportunity industries” that can reinvigorate the region’s traded sector and deliver more opportunity jobs: enterprise digital solutions; precision manufacturing in industrial technologies; and biomedical engineering and production. These opportunity industries were identified via quantitative analysis assessing factors such as growth, competitiveness, specialization, and scale; opportunity job concentration and alignment with the region’s talent base; and other ecosystem assets, combined with consideration of market intelligence derived from consultation with regional firms and industry service providers.<sup>17</sup> Concentrating focus and resources on these three industries will enable leaders to make headway.



An aerial photograph of a town, likely in the Northeastern United States, showing a mix of residential and commercial buildings, streets, and green spaces. The image is overlaid with a semi-transparent blue filter. The text "BUILDING CAPACITY FOR REGIONAL ECONOMIC DEVELOPMENT" is prominently displayed in white, bold, sans-serif font in the upper left quadrant. The town features a central intersection with crosswalks, several multi-story buildings, and a parking lot filled with cars. A road with a white arrow pointing downwards is visible in the bottom left corner.

# **BUILDING CAPACITY FOR REGIONAL ECONOMIC DEVELOPMENT**

# Building capacity for regional economic development

The region's market assessment and strategic planning produced consensus and early action on a fundamental shift in how Southeastern Pennsylvania organizes and executes economic development. This led to the formation of the Greater Philadelphia Growth Partnership.

Through these processes, business leaders, philanthropic partners, and local economic development organizations—in consultation with workforce development partners—agreed on guiding principles and a new mechanism for collective action capable of delivering sustained regional growth. The Greater Philadelphia Growth Partnership follows successful national models that combine business-led governance and investment, dedicated execution capacity, transparency among economic development partners, and accountability through shared performance indicators.

The new structure directly addresses a long-standing challenge: Southeastern Pennsylvania has historically underinvested in basic regional

economic development capacity relative to higher-performing peers. As one indicator, comparable large and mid-sized metro areas typically have regional economic development organizations with three to four times the staff working on functions related to business development, cluster growth, and other mainstream functions.

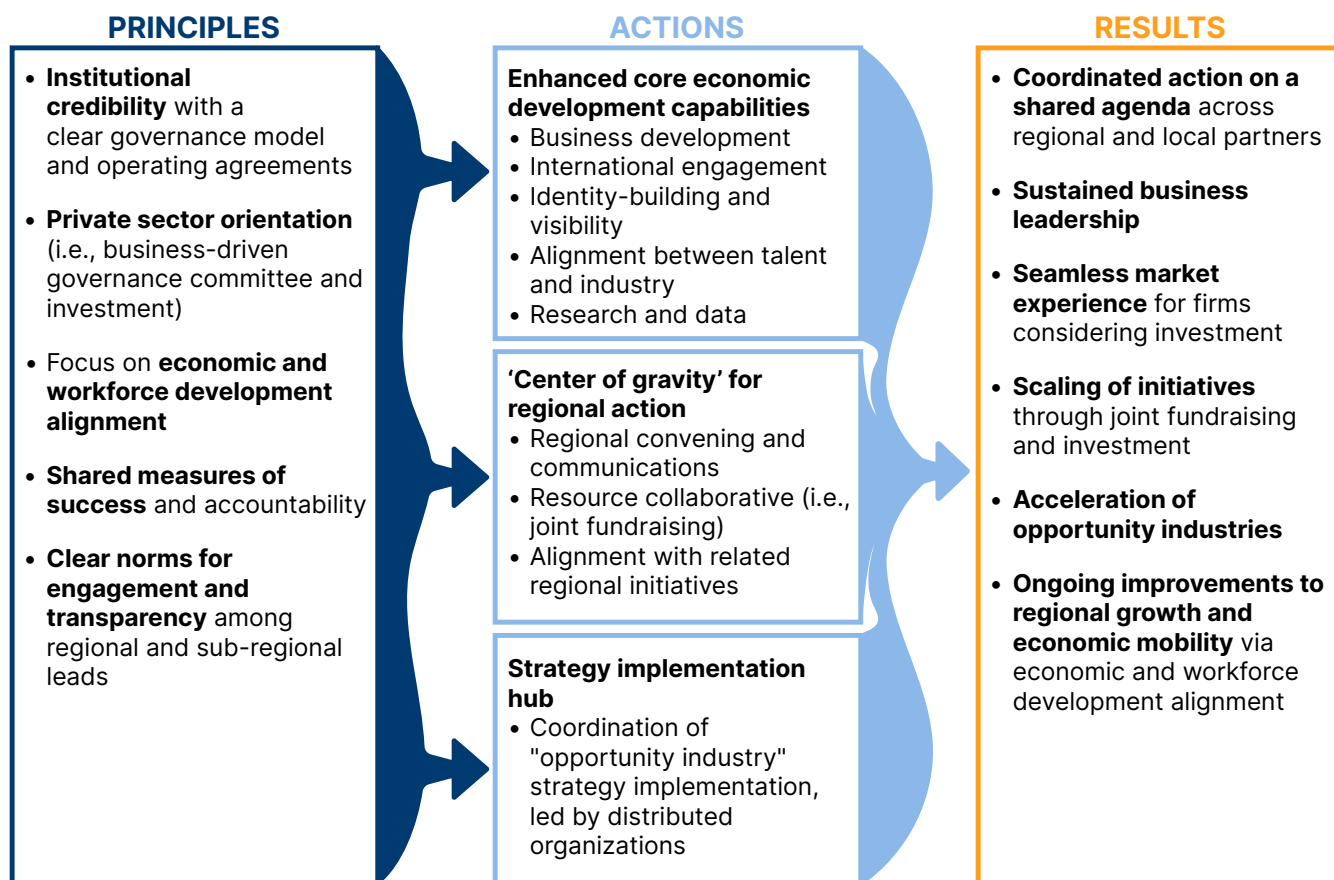
Equally important, the Greater Philadelphia Growth Partnership resets the role of the business community in shaping, stewarding, and investing in Southeastern Pennsylvania's economic agenda. In contrast to peer regions where a majority of operational resources come from the private sector, most economic development activities in four of the five Southeastern Pennsylvania counties are carried out by public sector agencies delivering government programs. Combined with the lower overall capacity, this constrains the region's ability to be agile in program design and resource allocation, or to take a long-term perspective.<sup>18</sup>

Business leaders' confidence to commit time and funding depends on filling two gaps: a shared, tactics-level growth strategy in which to invest, and a credible structure for accountable execution. The Greater Philadelphia Growth Partnership is designed to mobilize and resource the level of effort required to fully capture the benefits of regional collaboration.



FIGURE 1

## Framework for a regional economic growth partnership



SOURCE: Authors

## CORE INSTITUTIONAL CAPABILITIES

Engagement with partners and comparisons to peer regions identified areas where Southeastern Pennsylvania needs to augment core regional economic development functions as well as its capacity to implement a comprehensive economic agenda. Although several of these functions exist in some form across various organizations, they require greater scale, coordination, and sustained resourcing.

The Greater Philadelphia Growth Partnership will fill this role, complementing and supporting county-level efforts. These capabilities address activities, listed below, that either directly promote growth or facilitate more coordinated action.

- **Business development:** Expand business attraction capacity for more proactive lead generation, transparent lead distribution and response, coordinated regional engagement with site selectors, and concierge-level support for firms considering investment; plus, greater business retention and expansion efforts supporting local economic development organizations, particularly for large regional employers and firms in priority sectors.
- **International engagement:** Execute a coordinated foreign direct investment (FDI) strategy supported by dedicated staff, including joint identification of priorities and partner responsibilities, a central liaison for efficient engagement with state counterparts, support for coordinating trade missions and international delegation visits, and alignment with regional export promotion initiatives.
- **Identity-building and visibility:** Elevate the region's global profile and internal alignment through a refined value proposition and shared promotional campaign, including mobilizing business leaders, university networks, and other nontraditional champions.

- **Talent-industry alignment:** Improve information and coordination among employers, economic developers, workforce providers, and educational institutions to align the regional talent pipeline with business demand, thereby advancing the growth of opportunity industries and connecting residents with high-quality occupations.
- **Research and data:** Provide dedicated analytic capacity to support business development and partner needs, including responding to investment inquiries, tracking economic performance, and producing market intelligence through topical analyses, asset mapping, and "future forces" assessments.
- **Resource collaborative:** Convene and coordinate a structured process among partners to identify, vet, and pursue funding opportunities that serve regional interests.
- **Economic mobility initiative alignment:** Connect regional economic growth efforts and broader economic mobility efforts by providing a clear entry point for philanthropic and civic initiatives to engage with economic development and business leaders on shared growth and opportunity.

The Greater Philadelphia Growth Partnership will facilitate overall regional communication and convenings; promote support for and track progress of sector coordinators and tactical leads on activation workplan execution; facilitate joint fundraising among partners; staff working committees identified and led by partners (e.g., communications, policy, and government relations); and hold and enable operating agreements for regional collaboration on strategy delivery (see below).

## DISTRIBUTED IMPLEMENTATION

No single organization holds the authority, relationships, or delivery capabilities required to implement a comprehensive regional economic agenda. Execution must follow a distributed implementation model in which tactics are led and delivered through the most relevant entities.

In this model, the Greater Philadelphia Growth Partnership serves as the trusted “center of gravity” that advances strategy execution by convening partners and mobilizing resources across the regional ecosystem.

For each opportunity industry, a dedicated sector coordinator can facilitate cluster-building by applying sector-specific expertise to integrate teams of diverse organizations that play complementary roles in programmatic execution. By building consensus among the partners, sector coordinators enable knowledge sharing and resource efficiency against a common strategy and workplan. A sector coordinator also can implement tactics directly, but typically most will ensure that activities reflect the group’s shared priorities as others in the coalition implement them.

## GOVERNANCE AND ACCOUNTABILITY

Underlying the delivery of new and expanded functions are core principles for collaboration, alignment, and transparency. Adherence to such principles is critical to maintaining long-term buy-in and support from the range of regional actors required for this new approach to succeed. Thus, features of the Greater Philadelphia Growth Partnership model include:

- **Economic and workforce alignment:** Operational partners in economic and workforce development participating in agenda-setting and budgeting.
  - **Shared measures of success:** Horizon goals and key performance indicators reporting on progress to one another to align regional economic development activities and local efforts with regional implications.
  - **Clear norms for engagement:** An operating agreement establishing norms for practices among partners, such as lead generation distribution and tracking; inter-county expansion and retention; and advance coordination among regional and county economic development organization partners on contacts or activities overlapping their operating areas.
- Successful implementation capabilities and governance will be evident when:
- The region operates as a coordinated economic development system, with county and regional organizations aligning their efforts around shared growth priorities and transparent collaboration practices.
  - Business leaders play a sustained leadership role in shaping, resourcing, and stewarding the region’s long-term economic growth agenda.
  - Employers considering investment encounter a seamless regional market experience.
  - Opportunity industries grow faster, supported by coordinated sector strategies delivered across economic and workforce partners.
  - Regional partners act collectively to pursue resources—syncing philanthropic, public, and private funding to jointly scale initiatives that strengthen the region’s competitive advantages.
  - Economic growth and mobility reinforce each other as employers, workforce organizations, and educators align the region’s talent pipeline with in-demand occupations in opportunity industries and connect residents to newly created opportunity jobs.

# STRATEGIES TO GROW REGIONAL OPPORTUNITY INDUSTRIES



# Strategies to grow regional opportunity industries

The Greater Philadelphia Growth Partnership will also enable the region to seize the moment in three crucial opportunity industries that drive competitiveness and create opportunity jobs: enterprise digital solutions; precision manufacturing; and biomedical engineering and production.<sup>19</sup>

This is not a comprehensive strategy inclusive of all the region's industries. It does not address local-serving sectors or industries that are significant only in certain parts of the region, such as agriculture. Nor does it focus on broad enablers of economic competitiveness such as K-12 education or transportation infrastructure, beyond their specific application within the opportunity industries. Targeting the opportunity industries creates a bounded scope that usefully focuses key stakeholders, but the multiplier effects in these industries mean that economic impacts reverberate out to a regional scale.

Connecting growth with economic mobility is a central objective. Achieving greater economic mobility ultimately demands a multifaceted approach that includes growing regional markets, connecting workers to opportunities, and improving neighborhood and community conditions. Creating more opportunity jobs does not guarantee improved economic mobility for all residents, but it does make it easier for complementary initiatives to connect people to jobs. Such programs may be designed and delivered at the city, community, or neighborhood scale to best meet the needs of residents.



# What is a cluster strategy?

Industry clusters—concentrations of firms and institutions in similar or adjacent sectors that benefit from proximity and interdependence—are a primary platform for sustained regional competitiveness, especially in high-value and innovation-led sectors.<sup>20</sup>

Investment in such STEM- and R&D-intensive clusters has become a cornerstone of modern economic development, helping regions generate productive growth and increase standards of living amid competition with national and global markets.<sup>21</sup>

Over recent decades, leading regions have refined a playbook for ensuring that these high-value industries are sustained and thrive amid technological, geopolitical, and other disruptions. Brookings categorizes these interventions into five buckets, based on an assessment of strategies across a range of U.S. regions.<sup>22</sup>



**Information and Networks**



**Talent Development**



**Research and Commercialization**



**Infrastructure and Placemaking**



**Capital Access**

Strategies and tactics for Southeastern Pennsylvania’s three opportunity industries draw on this framework while reflecting unique dynamics within the region and different levels of current organizing and industry maturity for each sector. For instance, while all three sectors require new investment in industry organizing (“Information and Networks”), many existing organizations and initiatives address the established biomedical engineering and production sector, while few focus on the newly defined enterprise digital solutions sector.

**SOURCE:** Ryan Donahue, Joseph Parilla, and Brad McDearman, “Rethinking cluster initiatives,” Brookings, 2018

## IDENTIFYING STRATEGIES AND TACTICS

Interventions represent the consensus of regional economic and workforce development leaders. They were informed by a combination of Brookings research on local market conditions and peer practices alongside extensive consultation with firms, economic and workforce development organizations, industry-specific intermediaries and support services, investors, research institutions, education and training providers, local and state agencies and elected officials, and philanthropies.

Members of the Southeastern Pennsylvania Economic Collaborative collectively made decisions at two critical points, providing input on an initial menu of options in fall 2025 and refining strategies and tactics in January 2026.

The tactics fall into two time-defined categories: 1) activities prioritized for the first 18 months, with specific timelines and responsibilities to be defined in sector-specific activation workplans (see “What is an activation workplan?” sidebar); and 2) activities to be addressed in subsequent years.

This prioritization considered factors of “impact” and “effort” (see Figure 2), seeking to identify a balanced and feasible set of near-term priorities to establish proof of concept and momentum. A tactic not identified for the activation workplan does not suggest it is less important to the ultimate success of the strategy; rather, it may be dependent on the success of initial activities or require additional time to rally stakeholders, secure investment, or otherwise prepare for action.

Notwithstanding this prioritization, the regional agenda is ambitious and will require significant focus and investment to deliver. While some tactics leverage existing activities to deliver near-term momentum, others require establishing new programs or capacities and will take time to stand up and show results. Over the course of both the first 18 months and the longer term, regional leaders will need to continually monitor progress and revisit or adjust priorities in response to shifting conditions.

## What is an ‘activation workplan’?

Activation workplans are internal project management tools to help regional partners align tasks, responsibilities, and timelines across organizations—ensuring tactics translate to sustained operational activity rather than statements of intent. They present a consolidated view defining roles, steps to advance implementation, resource needs for collective pursuit, and performance indicators.

Beginning in fall 2025, Brookings worked with members of the Southeastern Pennsylvania Economic Collaborative and additional sector interests to begin creating activation workplans for near-term tactics in each of the three opportunity industries. These workplans are being refined by the Greater Philadelphia Growth Partnership and will serve as the execution framework for the strategy—helping track progress, enlist new contributors, and adjust course.

## Criteria for time-defined prioritization of tactics

Questions for consideration



### IMPACT

- Does the activity support multiple strategies?
- Is executing the tactic foundational to success of other tactics that may be undertaken later?
- To what extent does the tactic address a major barrier to sector competitiveness versus a meaningful but less expansive impediment?
- How quickly can the tactic demonstrate measurable progress, with near-term results to help support momentum?
- At what scale can the tactic yield benefits, considering breadth and depth tradeoffs?



### EFFORT

- Can existing activities be expanded or leveraged to rapidly move tactics?
- What is the scale of new resources required for implementation, and the likely difficulty identifying and securing them?
- To what extent are essential implementation partners already connected with the strategy development process versus needing to be engaged and bought in?
- How much change to current operating structures or capacity is needed, and the complexity of agreeing to it (e.g., is a new organization or collaborative required, or a merger of existing efforts)?

**SOURCE:** Authors and Southeastern Pennsylvania Economic Collaborative

## OPPORTUNITY INDUSTRIES: STRATEGIES AND TACTICS

The following section reviews the context, rationale, and opportunity for each opportunity industry, along with strategic imperatives that must be addressed to seize each sector's potential and the tactical interventions designed to advance those aims.

# Enterprise digital solutions

(software, platforms, and implementation services)

- **\$15.6 billion** in real gross regional product
- **39,300** total employment
- **23.5% growth** in employment, 2012 to 2023
- **79%** of jobs are classified as “good” or “promising”
- **Example firms:** SEI, SAP, iPipeline, dbt Labs, Boomi, Qlik, Guru, EPAM, Vertex

Enterprise digital solutions (EDS) is a segment of “enterprise tech,” which encompasses companies that create, customize, and deploy the business-to-business (B2B) software and platforms that firms use to manage and optimize their core operations. Typically delivered via Software as a Service (SaaS) and integrating AI, these are different from personal productivity or consumer applications. EDS also does not include enabling infrastructure or hardware such as data centers and cloud computing services.

Rather, EDS encompasses the back-office tech tools handling the data and analytics that run both manufacturing and service companies, including:

- Horizontal applications used across many industries, such as enterprise resource planning and operations, business process management, human resource information systems, customer relationship management, and tax determination and reporting.
- Vertical, industry-specific functions such as financial services asset management, health care operations and revenue cycle management, and clinical research regulatory compliance, which are primarily anchored to other dominant sectors in Southeastern Pennsylvania.

Like the internal operations they support, the region’s strengths in EDS have not been publicly

visible enough to inspire action. Yet Southeastern Pennsylvania holds competitive advantages that have enabled growth. At the core are EDS firms that emerged over the past four decades (both local startups and expansions by domestic and foreign companies), which have been less attributable to general “tech” activity than to the serving or spinning out of the region’s other dominant industries. These include horizontal EDS providers serving multiple sectors, such as SAP, dbt Labs, Boomi, Qlik, EPAM, Vertex. More distinctive are the vertical EDS firms in heavily regulated sectors such as financial services (SEI, iPipeline, Citco) and health and life sciences (Clario, InstaMed, Suvoda), complemented by anchor companies that maintain large-scale internal EDS functions (Vanguard).

## ENTERPRISE DIGITAL SOLUTIONS: RATIONALE AND OPPORTUNITY

Enterprise digital solutions is a prominent and distinctive segment within Southeastern Pennsylvania’s tech economy, generating \$15.6 billion real gross regional product and supporting nearly 40,000 jobs.<sup>23</sup> Yet despite its scale and importance, the segment has lacked a clear definition, identity, and sustained focus in regional economic or workforce development efforts.

With its density of related firms and specialized users, EDS operates as a regional industry cluster that benefits from several enabling advantages in knowledge sharing, talent matching, and industry learning:

- Access to skilled talent at competitive salaries
- Proximity to enterprise customers
- Expertise in regulated industries
- Specialized professional services
- Applied AI capabilities
- Affordable commercial real estate

These factors create a compelling quality-to-cost proposition compared to coastal tech hubs such as New York, Washington, D.C., and the San Francisco Bay Area.

While other regions excel at launching larger numbers of tech startups, the above characteristics position Southeastern Pennsylvania as an especially attractive environment for scale-up growth—supporting established firms, attracting domestic expansions, and serving as a prime U.S. market entry point for international companies. Those strengths are reflected in the region's increasing later-stage venture capital activity and ability to attract foreign direct investment from less typical sources, such as India.

At the same time, some of the historical advantages that supported the region's organic growth are becoming more constrained. For example, as

firms reach a scale that allows them to consider additional employment locations, they increasingly evaluate emphasizing growth in alternative markets where specialized talent may be easier to source or available at lower costs. In this context, Southeastern Pennsylvania now faces growing competition from Midwestern regions and international locations in Canada and the Asia-Pacific.

These dynamics underscore the need for a more focused and intentional regional approach to economic development for the EDS cluster. This requires addressing the different needs of the cluster's two distinct growth pathways in new ventures and established firms, each requiring tailored support to ensure companies continue to locate, stay, and grow in Southeastern Pennsylvania (see "Two growth pathways in the EDS cluster" sidebar).

## Two growth pathways in the EDS cluster

### New ventures

Early-stage EDS firms developing new products or services rely on ecosystem supports common to knowledge-based startups, including access to capital, technical talent, and entrepreneurship programs such as mentorship networks, incubators, and accelerators. In Southeastern Pennsylvania, most existing resources focus on general technology founders and career pathways, with fewer supports tailored specifically to EDS potential. Expanding sector-specific activities that boost frontier and serial EDS entrepreneurs can increase startup density and complement the region's existing strengths in execution and scale-up growth.

### Established firms

Mature EDS companies, whether locally grown or attracted through expansions, gain the flexibility to place jobs and business units in multiple markets. Companies that scaled in the region frequently deal with acquisitions, leadership transitions, and ownership changes that prompt reconsideration of future job location decisions. Headquarter operations also can become relatively mobile, influenced by executive residence, parent company preference, and tax considerations, potentially affecting the location of existing and future jobs. Unlike startups, these firms benefit more from the "tech alliance" models than the entrepreneurship ecosystem, though they still value connections to external innovation partners, change-management expertise, and collaborative problem-solving networks. Proactive engagement with economic development leaders and industry peers is critical to retaining these firms and supporting continued growth.

## ENTERPRISE DIGITAL SOLUTIONS: STRATEGIC IMPERATIVES AND TACTICS

Note: Activities prioritized for immediate (i.e., within 18 months) implementation are highlighted.

### 1. Cluster organizing

While several organizations and informal groups support the tech sector in Southeastern Pennsylvania, the EDS industry needs a more well-resourced, industry-led center of gravity to coordinate business leadership, align regional partners, and elevate the sector as a recognizable competitive strength. Other leading tech metro areas have a more comprehensive, robust “tech alliance” performing this cluster-building role, anchored and funded by major employers.

Current efforts in Southeastern Pennsylvania center on general tech-related entrepreneurship networks, workforce pathways, founder communities, and inclusion. Entities such as the Philadelphia Alliance for Capital and Technologies (PACT) have long featured enterprise tech and B2B SaaS in events, research, and professional programs within a broader life sciences and tech portfolio. However, none of these efforts represent a comparably scaled economic growth platform for the entire EDS sector across new ventures and established firms.

Therefore, Southeastern Pennsylvania should adopt examples in building out organized EDS-specific capacity in collaboration with existing tech intermediaries, enabling coordinated program activity and jointly increasing resources.

**Tactic 1.1** – Establish a consensus sector coordinator to organize and boost EDS cluster-building activity across relevant groups.

This capacity solidifies the region’s commitment to EDS as a distinctive tech industry strength, building on and repositioning existing assets and organizational roles. Additional dedicated staff is needed to advance more cohesive efforts among

industry leaders, mainstream economic and workforce development organizations, specialized intermediary partners, and grassroots initiatives. Emphasis on facilitation and coordination over new institutions maximizes efficient use of and reduces competition for resources.

**Tactic 1.2** – Foster greater connectivity among and responsiveness to large, established firms, including those with intramural EDS capabilities.

Targeting engagement of established EDS firms—including companies with large-scale internal EDS functions—will fill a gap in regional business support for retention and expansion. This focus will uncover needs, foster champions for the industry and early-stage partners, and strengthen the peer networks and collaboration opportunities that companies at this stage seek when deciding where to invest.

**Tactic 1.3** – Evaluate building a more comprehensive, scaled industry-led tech alliance to match other leading regions.

To strengthen cluster-building beyond coordination, regional firms and intermediary partners must determine how to scale a durable, well-resourced entity to sustainably grow the ecosystem. This would enhance or fill gaps in existing efforts in sector promotion; data and insights; networking, mentorship, and business matchmaking; talent access and workforce partnerships; growth capital connections; commercialization and market access supports; and policy engagement. The approach resembles formal cluster entities in other regions, including leading B2B software hubs.



**The BC Tech Association**<sup>24</sup> is one cluster organizing and execution model—an industry-led nonprofit with an emphasis on strengthening enterprise technology firm growth in Vancouver through promotion, talent, and advocacy. Business leads guide strategic direction, provide funding, and champion initiatives that drive both innovation and business attraction. Facilitated growth programs include the Corporate Innovation Program, linking startups and scale-ups with large enterprises to solve business challenges; the #ScaleUpAcademy, accelerating growth through strategic planning and market expansion; and Dragons 1-on-1 founder mentoring. Talent development provides connectivity in partnerships with universities, coding programs, and mentorship initiatives. Research functions provide insights on market trends, sector growth, and ecosystem mapping to inform strategic decisions and support marketing and attraction. Advocacy efforts engage government and policymakers to advance tech-friendly policies and incentives.

## 2. Business attraction, retention, and expansion

Focusing on EDS in standard business development activities is required to capture the full commercial potential of the region's assets, in the same way successful peer regions segment their technology strengths. Current regional business promotion and attraction, soft-landing, and foreign direct investment (FDI) functions do not explicitly address EDS, nor do most retention or expansion efforts. Marketing of the region's technology rarely mentions the enterprise software, platforms, or implementation services backbone that differentiates Southeastern Pennsylvania. As a result, the region has limited presence at industry events where these companies and investors often engage.

At the same time, some annual local-industry-related events, such as the Phorum Technology Conference and Philly Tech Week, have successfully drawn attention from businesses outside the region with deliberate effort, but need help to amplify reach beyond primarily intraregional participation. With greater coordination and resources for outward-facing promotion, the region can better showcase itself to national and international audiences, similar to approaches used in competing hubs such as the Silicon Slopes Summit in Salt Lake City and SaaStock in Austin, Texas.

**Tactic 2.1** – Focus mainstream economic development efforts on EDS attraction and expansion, including proactive lead generation and international engagement strategy.

This activity will target regional and local economic development organization activities directly on EDS as a discrete sector, leveraging existing partners for near-term measurable outcomes. Priority actions include: 1) executing an international engagement and FDI strategy for two markets; 2) expanding signature regional tech events to national reach; 3) targeting conference and trade show presence; and 4) prioritizing contacts with industry leaders to cultivate regional business champions.

**Tactic 2.2** – Execute a unified communications campaign that defines and articulates the region's value proposition both internally and externally.

Consistent, compelling marketing and messaging will increase visibility and understanding of the region's distinctive tech niche. Facilitated by mainstream economic development organizations, this effort must also engage anchor firms, universities, ecosystem partners, and business champions, providing shared themes and marketing collateral.

**Tactic 2.3** – Maintain an EDS asset inventory for application to ecosystem navigation as well as development and marketing.

Developing a comprehensive asset inventory that documents and maps the core elements of the regional ecosystem will support further internal development and external promotion. The inventory includes foundational data for cluster-building, ecosystem navigation, and promotion, as well as EDS-specific information on firms and industry history, customer marketplace, talent supply and pipeline, innovation and research assets, business and entrepreneurship support, and comparative cost advantages.

**Tactic 2.4** – Cultivate relationships with specialized EDS investors.

Connect regional attraction and investor outreach efforts by engaging B2B software and SaaS investors, particularly middle-market investment firms that are founder-friendly and open to supporting companies scaling in place. Building relationships with these investors is a new avenue for business development, with potential to raise the region's profile among firms seeking growth capital while also creating opportunities to support scale-ups, strengthen retention, and attract new firms considering expansion locations.

### 3. Talent pipeline

Access to skilled talent, speed of hiring, and cost competitiveness are primary factors for EDS firm location decisionmaking, and where Southeastern Pennsylvania can better leverage the foundation that enabled organic sector growth. The combination of a large labor market, strong higher education system, and concentration of EDS firms and adjacent companies with occupational overlaps creates the base for action.

However, several constraints limit the region's ability to fully leverage these advantages. Awareness of EDS companies and career opportunities among local workers remains uneven, and individual firms cite their inability to proactively align with universities, community colleges, and training providers. At the same time, educational and workforce programs are not focused

specifically on enterprise technology occupations; employers and talent providers lack consistent mechanisms for exchanging information on hiring needs or coordinating responses to emerging skill demands. Finally, external attraction is impeded by lagging recognition of the region as an EDS employment or tech hub.

Strengthening the EDS talent pipeline therefore requires a more coordinated approach to understanding occupational demand, aligning training resources, improving employer connections to talent providers, and increasing visibility of the sector as a source of high-quality career opportunities.

**Tactic 3.1** – Conduct a deep regional assessment of priority EDS occupational demand and regional training pipelines.

To fill gaps in demand signals and organize economic development and talent providers for response, in-depth analysis will assess priority EDS-related occupations, employer hiring needs, and the regional talent pipeline capable of supplying those roles. This assessment will identify common occupational needs across both EDS firms selling products and services to external customers and companies that develop those solutions internally, as well as the extent of current talent pipelines to those occupations. Particular emphasis will be given to emerging skill requirements related to AI, as well as the potential role of community colleges in expanding accessible training pathways. Findings will provide the foundation for education, workforce, and economic development organizations to align talent with EDS demand.

**Tactic 3.2** – Establish a regional talent leadership group among large EDS employers.

A regular working group of talent leaders from large, EDS-related employers will respond to an expressed gap in formal connectivity for joint problem-solving. This forum will enable human resource professionals to benefit from scale in addressing common talent issues such as

connections and visibility, and spur action on demand analysis findings. The forum will also allow the exchange of real-time information on hiring challenges and emerging skill needs, as well as provide a coordinated access point to the regional workforce system, likely to yield near-term benefit at low cost.

**Tactic 3.3** – Create a “cooperative marketplace” to ease connections between workers and employers.

A designated intermediary will address challenges of awareness and fragmentation by jointly engaging employers and talent providers at greater scale through a “cooperative marketplace.” Functions could include sharing recruitment tools applied in other regions (e.g., talent portals that increase visibility of EDS career opportunities), facilitating industry-led curriculum input across education providers, and providing technical assistance to employers.

**Tactic 3.4** – Target regional talent attraction and retention initiatives toward the EDS sector.

New and established regional initiatives are underway to both draw and hold talent, from a campaign converting tourism interest into potential residents to the long-standing Campus Philly work. These can incorporate EDS employers and occupations explicitly into attraction and marketing activities as a priority, as well as target outreach in established technology labor markets where experienced enterprise software and digital solutions professionals are concentrated.

**Tactic 3.5** – Evaluate expansion of apprenticeships and on-the-job training pathways, integrating the offer across talent developers.

Early examples of certified apprenticeships and structured on-the-job training programs for EDS-related tech and professional services roles are beginning to emerge in the region. Building on those nascent efforts, regional partners should validate employer demand and assess opportunities to scale models, such as those for

software development, sales, project operations, and technical services. Apprenticeship programs in professional services have proven successful in some other markets, including for technology occupations, particularly for residents without a four-year degree; however, those programs’ lack of infrastructure compared to those in the trades requires alignment with the broader regional education and workforce system for sustained success.

#### **4. Innovation and entrepreneurship**

Regional characteristics provide a strong set of assets for EDS innovation and entrepreneurship, including major enterprise customers, corporate technology teams, research universities with relevant technical training and mechanisms to partner with the industry, and organizations that support startups and early-stage firms. The region’s concentration of regulated industries offers valuable environments for developing, testing, and scaling enterprise applications in real-world settings.

However, innovation supports for EDS firms in Southeastern Pennsylvania are less robust than those in competing regions. While startup incubators, venture investors, and university commercialization programs operate across the broader technology themes, few initiatives are tailored specifically to enterprise software and platforms or applications serving regulated industries. Furthermore, those assets are often small and fragmented or embedded within broader innovation programs rather than organized around the distinct strengths of the EDS sector.

Many leading technology ecosystems have strengthened similar tech clusters through targeted innovation initiatives that connect startups with large corporate customers, organize applied research collaboration with universities, and mobilize anchor companies as investors, collaborators with smaller firms, and ecosystem leaders. Expanding and coordinating these types of activities in Southeastern Pennsylvania

would help accelerate product development and commercialization for regional firms while increasing the region's appeal to entrepreneurs and scale-up companies seeking access to enterprise customers.

**Tactic 4.1** – Expand anchor firm engagement in regional startup and scale-up growth.

Regional partners should actively solicit greater sponsorship, mentorship, and investment participation from major EDS anchor firms and investors in startup and scale-up activities. This engagement can occur both through individual corporate initiatives and through collective ecosystem efforts that position anchors as market-makers, pilot customers, and investors in emerging companies. Greater participation by anchor firms can expand access to customers, capital, and industry expertise, and ultimately support the growth of both new ventures and established firms.

**EPAM Systems**<sup>25</sup> was a lead investor in the Global Opportunity Philadelphia (GO Philly) Fund, a \$50 million early-stage venture fund managed by Ben Franklin Technology Partners to support regional tech startups. EPAM's role was not just financial—it also contributed strategic guidance; access to global client, partner, and university networks; and technical expertise to help local startups scale and connect to broader markets.

**Tactic 4.2** – Facilitate “sector sandboxes” linking EDS firms with enterprise customers.

Sector-based “sandboxes” enable EDS firms to collaborate with companies in key regional industry verticals to test and refine products in real-world operating environments, while also identifying market demands. These structured partnerships allow startups and scale-ups to pilot products with

users and gain insights that support development and commercialization. These sandboxes capitalize on the customer proximity that has supported sector growth to date, and are mutually beneficial in accelerating firm growth through customer validation and commercial relationships while solving user problems.

**B! UP Accelerate**<sup>26</sup>—a Paris-based partnership of BNP Paribas and Plug and Play—is a three- to six-month accelerator program pairing mature financial and insurance technology startups with specific business lines and functions within BNP Paribas. The goal is to co-create pilots or proofs of concept addressing real banking, insurance, payments, compliance, and customer experience challenges. The program offers office space at the Station F startup campus, access to the bank's domain experts and internal stakeholders, mentorship and workshops, and support in scaling, fundraising, and navigating regulatory and market complexities.

**Tactic 4.3** – Launch a “Global EDS Accelerator” problem-solving competition.

A global EDS accelerator will further distinguish Southeastern Pennsylvania as a national and global hub for industry leadership. Such a program would address some large EDS anchor firms' expressed interest in accessing more agile, rapid innovation by leveraging external entrepreneurial partners. Program delivery can be coordinated through a coalition of existing support organizations, inviting entrepreneurs to compete in solving tech challenges regional users and EDS firms have identified. The competition complements the aforementioned “sandbox” by raising the profile of the region's ecosystem, spurring practical product development, and attracting new innovators to engage with local customers and partners with potential to capture and scale locally.

**The Global Insurance Accelerator (GIA),**<sup>27</sup> hosted by the Greater Des Moines Partnership, is a 100-day program that leverages Iowa's insurance industry to drive new business growth. Backed by leading regional carriers and reinsurers (and supported by the Iowa Insurance Division as a regulatory partner), the accelerator runs an international insurance technology problem-solving cohort, through which startups receive seed funding and intensive mentoring from executives and regulators. Its competitive format culminates in participants pitching market-ready solutions to insurers, investors, and policymakers at an annual Global Insurance Symposium.

**Tactic 4.4** – Form an EDS-relevant applied research and innovation consortium among regional universities as a resource for companies and entrepreneurs.

While some of the region's universities offer EDS-related innovation and business support, this capability is fragmented across institutions, embedded within broader research initiatives, and often difficult for companies to find and navigate. To address this gap, regional universities should be brought together to form a coordinated applied research and innovation consortium focused specifically on EDS technologies and applications. The consortium can aggregate dispersed expertise from research centers, faculty specialists, and commercialization programs into a central industry-accessible platform. Similar to collaboratives in other regions, this platform would simplify access for startups and established firms, accelerate product development, motivate internal entrepreneurship, foster research sponsorships, and enhance the region's visibility as a tech innovation hub.

**The Chicago Quantum Exchange**<sup>28</sup>—led by the University of Chicago and national labs with partners such as Northwestern University, University of Illinois Urbana-Champaign, and University of Wisconsin-Madison—runs a multi-campus network that enables faculty and students to collaborate with companies on applied problem-solving in quantum computing, communication, and sensing, ultimately translating breakthroughs into market-ready applications. Through initiatives such as the Duality startup accelerator, the Exchange bridges research and commercialization, ensuring that academic strengths directly fuel business innovation, talent development, and Chicago's competitive advantage in the emerging quantum economy.

**Tactic 4.5** – Strengthen connections with investors and capital sources focused on EDS and enterprise technologies, building on existing capacity.

The region's EDS ecosystem would benefit from expanding current capacity for engagement with national investors specializing in B2B enterprise software, SaaS, and applied AI. Several notable investment groups are based in the region; these investors can be tapped not only to provide growth capital to local firms, but also to support mentorship, commercialization partnerships, and Southeastern Pennsylvania's identity as a market for scale-up and expansion. Existing regional tech intermediary groups hold relationships with many leading national investors and attract outside capital, but also face resource constraints to fully mobilize those connections for regional economic development. Expanding this capacity and leveraging other broad-based economic development partners could scale investor engagement and bolster the pipeline of capital and strategic support.

# Precision manufacturing in industrial technologies

(machined components, industrial electronics, interconnects, and structural fabrication)

- **\$6.6 billion** in real gross regional product
- **25,800** total employment
- **3% growth** in employment, 2012 to 2023
- **58%** of jobs are classified as “good” or “promising”
- **Example firms:** Teledyne Judson, ifm Efector, Nicomatic, Rhoads Industries

As global geopolitical shifts fuel a resurgence in domestic production while rapid adoption of AI and other digital technologies transforms industry, Southeastern Pennsylvania can leverage its legacy industrial base to expand and attract manufacturing enterprises delivering greater numbers of opportunity jobs. However, deliberate action to close ecosystem gaps is necessary to realize this vision given competition with other regions also racing to take advantage of these trends.

## PRECISION MANUFACTURING IN INDUSTRIAL TECHNOLOGIES: RATIONALE AND OPPORTUNITY

Southeastern Pennsylvania has a large, diversified manufacturing base that ranges from chemicals and pharmaceuticals to food and beverages. However, its target opportunity for growth lies in industrial technology products requiring precision manufacturing capabilities, where the region has met or outperformed expectations over the past decade by maintaining job growth and firm-level competitiveness even against broader manufacturing industry trends.

Precision manufacturing opportunities encompass a subset of industrial technology products made to exact specifications with high tolerances and

accuracy. These products are applicable across a range of supply chains, from defense to energy, making “precision manufacturing” as much a strategic, cross-cutting capability as a narrowly defined sector vertical. Specific strengths include:

- Machined components, distinguished by production methods, where highly engineered assembly parts are created using tightly controlled cutting methods (Acero Precision, T&D Materials Manufacturing).
- Industrial electronics, or producing high-reliability devices and systems—such as sensors, power converters, and control panels—that control, automate, and monitor industrial processes or infrastructure, including in harsh environments (AMETEK, Teledyne Judson, ifm Efector).
- Interconnects, or high-performance hardware and cables for electrical and signal connections between electronic and mechanical systems, also operating in demanding environments (TE Connectivity, Nicomatic).
- Structural fabrication, or using specialty engineering and complex forming techniques to produce load-bearing metal structures and assemblies to tight dimensional control, such as pressure vessels, equipment skids, and aerospace and maritime frames (R-V Industries, Rhoads Industries).

These manufacturers contribute across supply chains ranging from defense to life sciences, industrial automation to energy. While the region is a headquarters or hub for a few global firms, the sector is mostly composed of small and medium-sized manufacturers (SMMs), which creates special needs for growth.

Along with the region's legacy clustering of industry operations, fundamentals of cost, location, energy, and even research and development assets (i.e., innovation in materials sciences) are sustaining advantages for Southeastern Pennsylvania. For example, the [\\$5 billion of investment](#) announced in 2025 by South Korean shipmaker Hanwha to revitalize and expand operations at the Hanwha Philly Shipyard demonstrates the region's attractiveness and, when fully realized, will serve as both an employment anchor and source of demand for the broader precision manufacturing supply chain. Pennsylvania's emphasis on advanced manufacturing in its 2025 state economic development strategy provides a further catalyst for growth.

However, specific gaps in economic and workforce development supports and other ecosystem barriers must be addressed for the region's largely SMM-driven sector to reach its full potential—both meeting unmet demand for products and facilitating expansion owing to renewed focus on supply chain resilience and newly instituted protectionist trade measures.<sup>29</sup> This includes filling gaps in regional organizing, talent pipelines, capacity-building supports, business development, and land use policy.

## **PRECISION MANUFACTURING IN INDUSTRIAL TECHNOLOGIES: STRATEGIC IMPERATIVES AND TACTICS**

*Note: Activities prioritized for immediate (i.e., within 18 months) implementation are highlighted.*

### **1. Regional organizing**

The support ecosystem reaching manufacturing firms is both fragmented and not at scale to fill market needs for talent pipelines, SMM capacity-building, and business development. Better serving the industry demands a consolidated effort at the scale of the labor market, which can gather a critical mass of companies and assistance providers to share information, interventions, and resources. It also requires greater prioritization

of manufacturing by other mainstream economic and workforce development actors. Such efforts should merge three entities with overlapping coverage, activities, and members in the region: the Southeastern Pennsylvania Manufacturing Alliance (hosted by Philadelphia Works), the Manufacturing Alliance of Chester and Delaware Counties (housed at the Chester County Economic Development Council), and the Manufacturing Alliance of Bucks and Montgomery Counties (which was supported by the Bucks County Workforce Development Board but went inactive during the pandemic). A single regional body also can better align with technical resources such as the Delaware Valley Industrial Resource Corporation (DVIRC).

**Tactic 1.1** – Create a consolidated and enhanced regionwide manufacturing alliance, replacing existing small, fragmented groups.

A new, united function will elevate the profile of and responsiveness to the region's priority manufacturing capabilities. This function will serve as a sector facilitator, resource aggregator, and implementation organizer, coordinating across the region's community colleges, career technical centers, education programs, and technical service providers.

### **2. Talent pipelines**

Availability of trained technical workers is a primary constraint on sector and job expansion, especially for SMMs—creating urgency to streamline and bolster talent pipelines to serve as “volume engines” for a scaled-up, modern regional precision manufacturing sector. A core issue seems to be a market failure in preparing talent given limitations on equipment, instructors, materials, and facilities, rather than lagging demand among employers or workers. Addressing these bottlenecks and realizing greater efficiency in the region's manufacturing training systems starts with reducing fragmentation and adopting more cohesive regional approaches to pinpointing and then responding at scale to employer demand signals. Stronger intermediary facilitation and regionally scaled approaches can fill these gaps.

**Tactic 2.1** – Undertake a comprehensive regional manufacturing talent study.

With current firm engagement split among local groups and jurisdictions, more accurate company-level information is required as a first step in designing effective talent solutions. While bolstering talent pipelines to fill open or potential roles is indisputably the industry’s highest priority, workforce leaders lack the granular demand signals and relationships to identify and aggregate common needs across the region for training and placement responses. Shared approaches will result in greater transparency and consistency for employers in accessing the full regional talent pool.

**Tactic 2.2** – Close equipment gaps and facility constraints for workforce training providers.

Closing these gaps, including via the creation of a consolidated inventory of needs and solidifying partnerships among nearby programs to share resources, will address primary barriers to expanding existing community college and career and technical education programs that could immediately address employer demand for talent and connect more residents to opportunity jobs.

**The National Center for Aviation Training (NCAT)**<sup>30</sup> at Wichita State University co-locates higher education, technical education, and industry training and testing activity in a central hub with shared facilities, which promotes new connections, efficiencies, and resource access for firms across the region’s aerospace/aviation supply chain. These shared resources—which include cutting-edge technology such as augmented reality machines for welding training—enable students and trainees to access the same equipment that may be on a shop floor while being in a safer, less costly training environment.

**Tactic 2.3** – Improve instructor availability via new dedicated funding sources, institutional reforms to pay scales and formal certifications, and mechanisms to jointly recruit instructors on loan from industry.

Complementing Tactic 2.2, bolstering the number of training instructors will address an immediate chokepoint that inhibits programs from delivering sufficient scale to meet current needs.

**Tactic 2.4** – Focus mainstream workforce development resources to support the sector, including more incumbent worker training.

Targeting existing resources to in-demand precision manufacturing occupations will provide near-term momentum in improving worker connectivity to opportunity jobs, supporting career pathways, and improving employer competitiveness and growth.

**Tactic 2.5** – Launch dedicated “industry navigator” functions to reach more employers.

“Industry navigator” functions reduce transaction costs for capacity-constrained regional SMMs to access talent, providing common points of entry instead of requiring busy employers to navigate disparate program pipelines. Assistance addressing paperwork, insurance, and other requirements associated with training programs will further lower barriers to employers ultimately hiring more workers for opportunity jobs.

**Tactic 2.6** – Initiate new technical assistance programs to enhance internal human resources capacity to engage in talent demand planning and access.

Helping employers better assess and plan for talent needs will improve the reliability and consistency of demand signals used to inform regional training and matching, plus provide a venue for promoting uptake of other employer best practices for talent development and retention.

Cleveland's **SkillUp**<sup>31</sup> program partners with local employers to train new and incumbent workers, offering standard expertise on understanding emerging talent needs and developing training plans, as well as direct financial incentives to partially cover training costs. Within these activities, however, SkillUp embeds a longer-term focus on enhancing firms' internal human resources capabilities, recognizing their critical importance in achieving more sustainable talent pipelines. This includes working with businesses to overcome "irrational," short-term-focused organizational barriers to investment and clearly demonstrating the return on ongoing activity.

**Tactic 2.7** – Undertake a regional youth engagement campaign to elevate awareness and interest in manufacturing careers.

A marketing campaign will elevate manufacturing as a promising career pathway for achieving family-sustaining wages and contributing to innovative industries that advance national security, medicine, and other important societal outcomes. Specific elements can include marketing and career exposure and work-based learning experiences. Leveraging existing efforts and partnering with related activity (e.g., union engagement with schools around the trades) will accelerate impact. This tactic will be delivered in tandem with Tactic 3.3 in the biomedical engineering and production industry section.

### 3. Supports for SMM capacity-building

Much of the region's precision manufacturing strength is based in SMMs—many family-owned and with fundamentally less capacity to monitor and invest in new production approaches and technologies. And, different from aerospace or automobile production hubs, the region has limited large original equipment manufacturers (OEMs) that anchor intra-regional supply chains and typically facilitate uptake of new methods. These factors demand greater attention and more robust service

delivery focused on ensuring that the region's SMM base is equipped to adapt to the rapid deployment of AI, automation, and other digital technologies driving productivity gains in the sector, plus address other issues such as talent recruitment and leadership continuity.

Considering the limited level of mainstream focus on the sector overall, SMM supports need to be bolstered from the region's existing base of services and made more accessible to risk-averse, time-constrained owners. Specific areas to target include succession planning that retains operations in the region, navigation of investment options for operational upgrades, and enhancements to internal human resources capacity to better connect with talent pipelines.

**Tactic 3.1** – Launch a succession planning technical assistance program for SMMs, including employee ownership options for greater local retention.

Proactive engagement around succession planning will help the region secure the long-term presence of SMMs and promote their expansion beyond current ownership, with the expectation that many current operators of family-owned businesses are retiring in the near term and trend toward private equity acquisitions.

Part of a larger regional initiative to extend metro area Detroit's automotive base into success in advanced mobility technologies, the **Detroit GEM Supply Chain Transformation Center**<sup>32</sup> provides targeted consulting services to prepare SMMs for potential ownership transitions and support the ongoing vitality of critical regional mobility supply chain participants. The program provides SMMs with a clear assessment and valuation of their readiness for transition, leading to development of a plan and connections to additional technical assistance providers for addressing gaps. The center is housed at the University of Michigan's Economic Growth Institute and delivered in partnership with the Michigan Manufacturing Technology Center.

**Tactic 3.2** – Scale and enhance technical assistance offerings to help firms navigate product and process improvements that facilitate ongoing competitiveness amid growing market penetration of emerging technologies.

Expanding access and availability to technical assistance will further enhance SMMs' ability to effectively seize new market opportunities and respond to industry shifts, thus retaining and expanding presence in the region.

One of the nation's first manufacturing extension partnerships (MEPs), **MAGNET Ohio**<sup>33</sup> provides a comprehensive suite of consulting and talent development services to small and mid-sized firms across Ohio's industrial hubs of Akron, Cleveland, Youngstown, and Canton. Advising emphasizes readiness for "Industry 4.0," including assistance navigating digital equipment upgrades and adopting industry- and government-required cybersecurity protocols, alongside standard supports in operations, marketing, sales, and related business areas.

**Tactic 3.3** – Establish a testing and demonstration platform to vet and raise visibility of new technologies to improve SMM productivity, especially AI applications.

A testing and demonstration platform will bolster awareness of and de-risk new productivity-enhancing technologies for SMMs that may otherwise be time-constrained or skeptical of adoption.

**Tactic 3.4** – Create a physical center of gravity for regional SMMs to access acceleration, capital, and technical assistance, and enable shared facilities.

A shared innovation hub would further bolster access to new knowledge, supports, and technologies, plus promote cohesion among the

overall sector of firms distributed across different supply chains.

Chicago-based **mHUB**<sup>34</sup> operates a "hard-tech" accelerator program to help local companies develop new physical products for application to fields ranging from health care to energy. In addition to the accelerator program, mHUB offers both venture funding and access to its prototype lab—a physical hub for product innovation that has equipment for prototyping through limited production runs. As startups graduate from the accelerator, mHUB facilitates introductions and matchmaking with local supply chain manufacturers to scale production and keep it in the region.

**Tactic 3.5** – Convene private equity actors to identify solutions for retaining local SMM firms.

Strategically engaging capital that currently invests in acquiring and modernizing local enterprises will help the region determine how to steer and support this investment toward promoting the long-term vitality of the sector.

**Tactic 3.6** – Facilitate greater intra-regional supply chain matchmaking to bolster market opportunities and sector cohesion.

Promoting peer exchange and business relationships within the sector will help overcome fragmentation stemming from the region's lack of OEMs and vertical supply chains, as well as enable exploration of new, collaborative ventures. This tactic will be implemented in tandem with Tactic 2.3 in the biomedical engineering and production industry, promoting connections between regional medical device innovators and contract manufacturers.

#### 4. Site selection and land use

Greater prioritization of time and resources for manufacturing in mainstream business development and locally controlled land use is needed to effectively promote retention, expansion, and attraction of enterprises. Improvements are possible in the ability to efficiently identify available properties across the region, as well as cut through municipal approval “red tape” that seems to reflect disinterest or aversion to manufacturing activities. Zoning and policy preferences could also set clearer priorities for managing competition with other industrial uses that offer fewer opportunity jobs, such as logistics.

**Tactic 4.1** – Assess local land use policies—especially those that constrain the growth of existing manufacturing firms—to inform engagement with subregional jurisdictions.

Educating and informing leaders and practitioners on manufacturing’s importance to the region’s economic growth and mobility will lay the groundwork for more robust regionwide support for the sector. A competitive and internal SWOT (“strengths, weaknesses, opportunities, and threats”) analysis will ensure that the campaign is targeted to the most exigent and impactful issues.

**Tactic 4.2** – Develop a comprehensive regional site inventory and readiness assessment to improve response to firms on business attraction and expansion inquiries and identify opportunities to bring sites closer to delivery.

A shared site inventory will help regional practitioners better collaborate to meet the needs of firms looking to locate or expand in Southeastern Pennsylvania.



# Biomedical engineering and production

(medical device manufacturing, diagnostics, and novel therapeutics)

- **\$22.1 billion** in real gross regional product
- **50,200** total employment
- **27.5% growth** in employment, 2012 to 2023
- **75%** of jobs are classified as “good” or “promising”
- **Example firms:** Janssen Biotech, Iovance Biotherapeutics, Globus Medical, GlaxoSmithKline, Trice Medical, TELA Bio, Axial Medical, DePuy Synthes

Southeastern Pennsylvania is a globally significant hub of biomedical research, with underrealized potential to incubate and retain new startups, attract anchor investments in production facilities, and realize growth in competitive yet recently underprioritized industry segments. Capturing greater growth and production within the local biomedical engineering industry—where new technologies are invented—can create more opportunity jobs that are accessible to workers without advanced degrees.

Each year, significant R&D investment flows into the region, funding the growth of labs at regional institutions such as the University of Pennsylvania and Children’s Hospital of Philadelphia. The regional industry generated 3,200 patents and around \$5.5 billion in startup and growth capital between 2012 and 2023, and drew notable FDI activity with approximately 144 foreign-owned manufacturers.<sup>35</sup> Global pharmaceutical firms such as GlaxoSmithKline and Merck have long-standing ties with the region, and Eli Lilly recently announced Philadelphia as the location of its newest Gateway Labs innovation hub. Yet industry leaders suggest that Southeastern Pennsylvania loses more than its fair share of startups to peer regions where capital and executive talent are seen as easier to access.

## BIOMEDICAL ENGINEERING AND PRODUCTION: RATIONALE AND OPPORTUNITY

Today, through the confluence of its existing advantages and industry and geopolitical trends, Southeastern Pennsylvania has multiple opportunities to realize additional job creation. Recent major capital investments in production facilities also demonstrate the attractiveness of the market, especially when the state provides support commensurate with competing regions such as those in North Carolina and Virginia.

This strategy emphasizes the need for diversification within the sector, bringing a specific growth focus to verticals including medical devices (e.g., devices for cardiovascular, orthopedic, ophthalmic, diagnostic and imaging, and surgical and critical care) and elements of therapeutics manufacturing (e.g., radiopharma). These verticals—especially those such as medical devices, in which proximity to innovation is often emphasized relative to other site selection factors—present opportunities for the region to leverage its legacy assets to compete.

The region’s large concentration of health care providers is a potential competitive advantage to pilot and scale new medical technologies. One of the biggest hurdles to reaching market with new medical devices is the clinical trial stage. Proximity to a large pool of accessible trial sites can speed up innovation and shorten time to market.

Across all life sciences verticals, the region needs to close gaps in capital access, talent availability, and other ecosystem factors to retain more seed-stage startups through early and growth stages. Improved retention will enhance sector dynamism and ensure more jobs that result from the region’s innovation remain in Southeastern Pennsylvania. The current geographic reshuffling of the life sciences industry globally also reinforces

the importance of ongoing strategic economic development activity serving the sector, including capacity to identify and respond to emerging market opportunities where Southeastern Pennsylvania's unique assets position the region for leadership.

The tactics below can enable the region to realize greater near-term job creation potential in the biomedical industry, complementing longer-term emphasis on novel emerging platform technologies such as cell and gene therapy.

## **BIOMEDICAL ENGINEERING AND PRODUCTION: STRATEGIC IMPERATIVES AND TACTICS**

*Activities prioritized for immediate (i.e., within 18 months) implementation are highlighted.*

### **1. Regional organizing**

Notwithstanding strong contributions by numerous intermediaries, the regional ecosystem has gaps in resourcing and coordination that limit full-service delivery and sector performance (e.g., a central "front door" and other sector-specific marketing). Greater capacity and centralization commensurate with peer regions are needed to organize the industry at the regional level. This will provide greater scale and cohesion in delivering industry support and knitting together the contributions of distinct players leading in different focus areas (e.g., acceleration and other entrepreneurial supports, policy advocacy).

#### **Tactic 1.1 – Institutionalize a permanent regional life sciences cluster initiative.**

Enhanced dedicated capacity serving the sector, resourced and staffed at the scale of peer regions, will facilitate more effective coordination among existing industry leads, spur greater network-building and connectivity (e.g., "collisions") among firms and other industry actors inherent to a well-functioning cluster, and close programmatic gaps (e.g., the lack of a central "front door" for firms interested in the region).

#### **Tactic 1.2 – Reinforce mainstream economic development activities targeted at the sector and priority specializations.**

Increased sector-specific business retention, expansion, and attraction activities will enable the region to better serve the needs of existing life sciences firms, plus identify and respond to emerging market opportunities. Complementing Tactics 4.1 and 4.2 in the precision manufacturing industry, this will include assessment of local policy conditions and development of a comprehensive regional site inventory and readiness assessment.

#### **Tactic 1.3 – Expand regional commercialization and tech transfer functions.**

Bolstered tech transfer and commercialization functions, including full-time staff, will enable the region to better inventory and showcase cutting-edge intellectual property specializations across institutions, as well as connect with and serve firms positioned to take innovation to market.

**BioCrossroads**<sup>36</sup> is an initiative of the Central Indiana Corporate Partnership to provide centralized coordination for the region's life sciences industry and accelerate the development of startups in the sector. In addition to being the front door for firms and investors, the initiative incentivizes industry-university research collaboration through its Indiana Biosciences Research Institute, and has provided seed funding directly to life sciences companies. By working across these three pillars (traditional business development, startup support, and research and development), BioCrossroads is a central coordinator for all parts of the region's life sciences ecosystem.

## 2. Diversification within the life sciences sector

To diversify the sector and capture new growth opportunities, the ecosystem should tailor interventions for industry specializations with high competitive potential. The market assessment identified a clear near-term priority: medical devices, which includes diagnostics, digital health and med-tech products, and imaging technologies. Some growth barriers here mirror other industry verticals, including the need for stronger talent pipelines and improved capital access. But distinct gaps include the need for better access to clinical facilities for demonstration projects and trials, as well as improved visibility and access to intra-regional supply chains for contract manufacturing. Longer term, the region should continue to identify and organize around emergent subsectors. The radiopharmaceuticals subsector, for example, merits attention given its need for localized supply chains, as well as its recent momentum in the region, as evidenced by TerraPower Isotopes' investment to produce essential inputs for cancer drug development.<sup>37</sup>

### **Tactic 2.1** – Organize and engage medical device firms to understand and serve ongoing competitiveness needs.

Targeted engagement will identify and drive business development responses to specific talent, facilities, capital, and other issues that are distinct relative to the broader needs of the life sciences sector overall and have not received specialized attention to date.

The **MedTech 3.0 initiative**,<sup>38</sup> covering Minneapolis-Saint Paul and Rochester, Minn., is designed to accelerate the discovery and production of new medical technologies by aligning the region's R&D assets, health care providers, and manufacturers. The region is home to both a concentration of large medical device manufacturers and nationally recognized hospitals. One key goal of this new initiative is developing a "shared operating protocol for medical data" that would make it easier for medical technology innovators to test and prove their inventions in partnership with the region's world-class clinical providers. Led by Greater MSP, a business-led economic development organization, the initiative received a Regional Technology and Innovation Hubs designation from the Economic Development Administration in 2024.

**Tactic 2.2** – Establish a common front door for firms to access regional health care systems for device clinical trials.

The common "front door" will increase awareness and lower administrative barriers for ventures to access the region's extensive landscape of health care facilities. By creating a standardized, predictable process for product testing and evidencing, this program would reinforce Southeastern Pennsylvania's "clinical capital" as an enabler for commercialization of new innovations.



**Tactic 2.3** – Support enhanced navigation and matchmaking between medical device innovators and regional contract manufacturers to capture more local production.

Fostering greater visibility and connections will promote more ongoing production within the region, rather than firms outsourcing to other medical device hubs. This tactic will be implemented in tandem with Tactic 3.7 in the precision manufacturing industry, which seeks to boost broader intra-regional supply chain matchmaking.



### 3. Executive and enterprise talent

A higher density of C-suite and professional services talent is needed to ensure startups can raise capital and scale within the region, rather than relocating to improve leadership recruitment. A relative lack of senior executive talent was attributed to a less dense industry ecosystem compared to peer markets, making the region less attractive to top-tier talent who want to be co-located with peers and proximate to “next” job opportunities. In the near term, the following tactics can help make existing leaders more visible and organized, while increasing efforts to develop and retain talent in the longer term.

**Tactic 3.1** – Launch a campaign to steward, retain, and attract C-suite life sciences talent to the region.

Emphasizing industry or school alumni with existing connections to the region, the campaign will leverage candidates’ existing relationships and affinity for the region while showcasing the compelling career benefits of locating in Southeastern Pennsylvania.

**Tactic 3.2** – Organize industry executives as a collective to welcome and build a stronger community of high-level regional C-suite industry talent.

The collective will build a more cohesive network among the region’s life sciences executive talent base, creating personal relationships that contribute to talent “stickiness.” This will address the perception that the industry ecosystem is less dense compared to peer markets.

**Tactic 3.3** – Engage universities to target entry-level and Master of Business Administration (MBA) business talent for recruitment into the sector.

Partnerships will showcase the cutting-edge life sciences work underway in the region and connect students and graduates to specific opportunities for work-based learning and career placement.

### 4. Skilled technical workforce

More consistent, systemic approaches are required at the regional scale to raise awareness of industry opportunities and train workers without college degrees. Even as recent industry trends have reduced immediate demand, employers still cite a need to clearly access talent pipelines. Barriers include limited numbers of current employer champions partnering on such efforts, the intensity of delivering such approaches, and provider capacity (e.g., equipment, instructors). Occupations go beyond manufacturing and include professional services roles in clinical operations, quality systems, regulatory controls, and testing.

**Tactic 4.1** – Undertake a comprehensive regional life sciences talent study.

Analysis will identify and aggregate common needs across the region, enabling workforce and education leaders to develop shared training approaches in response to clear demand signals, while also serving as a business attraction tool demonstrating the region's commitment to addressing talent needs.

**Tactic 4.2** – Advance alignment among existing workforce development programs and shared uptake of proven models for designing high-demand occupational training.

Shared approaches will promote scaling of quality programs and ensure consistency for employers in accessing the full regional talent pool. Such collaboration could lead to shared design of uniform, industry-recognized credentials for entry-level positions.

North Carolina's **BioWork program**<sup>39</sup> is a 136-hour noncredit process technician certificate program that is now available at 15 community colleges throughout the state. Resulting in an industry-recognized credential that is tailored to the needs of companies growing in the state, the program provides low-barrier training that typically prepares graduates for entry-level positions in biomanufacturing.

**Tactic 4.3** – Deploy a regional youth engagement campaign to elevate awareness and interest in life sciences manufacturing careers.

Life sciences manufacturing will serve as a focal point of a larger campaign to elevate manufacturing as a promising career pathway (see Tactic 2.7 in the precision manufacturing industry), which will include marketing, successive career exposure, and work-based learning experiences.

**Tactic 4.4** – Galvanize more employer champions to invest in and partner with workforce and educational institutions.

Business leadership activities will educate firms on the return on investment of an active role in talent development, including highlighting peers' success stories and recognizing the importance of robust employer engagement in designing and executing effective training programs. Such engagement will also seek to unlock additional resources (e.g., equipment, instructors) and placement connections to deepen program scale and impact.

## 5. Capital access

Improved access to greater and more risk-tolerant capital is needed to support and sustain early-stage ventures and improve ecosystem "stickiness." Current gaps in such "resident capital" available in the region (or in the state via public resources) are perceived by many as what prompts promising ventures to leave the market or constrains their growth by requiring significant de-risking ahead of sizeable investment.

**Tactic 5.1** – Identify and size existing resident capital sources in a comprehensive map to more clearly define resources and gaps.

A full analysis of capital availability will put evidence and definition behind the long-standing discussion of gaps (currently attributed to a risk-averse, narrowly focused, and limited local investment community compared to peer markets), and pinpoint next steps for addressing challenges.

**Tactic 5.2** – Engage philanthropy, high-net-worth individuals, and nontraditional angel investors on opportunities to invest in early-stage startups.

Angel investor education and outreach activities will "unlock" capital from untapped local sources connected to the region's prosperity, while de-risking ventures for subsequent rounds sought from traditional industry investors.

An aerial photograph of a city street grid, overlaid with a semi-transparent blue filter. The image shows a dense urban environment with various building styles, including a prominent, large, ornate building with a red-tiled roof and arched windows in the lower right. The text "A LONG-TERM VISION OF REGIONAL ECONOMIC SUCCESS" is centered in the upper half of the image in a bold, white, sans-serif font.

# **A LONG-TERM VISION OF REGIONAL ECONOMIC SUCCESS**

# A long-term vision of regional economic success

Through this effort, Southeastern Pennsylvania joins regions throughout the country that are grappling with how to reorganize and strategize in the midst of uncertainty and a rapidly changing landscape. For places that are earlier in that process, this work can serve as one model for how to define and resource a comprehensive regional growth agenda.

Release of this strategy marks the transition from organizing and planning to multiyear action and implementation, where sustained effort is necessary. Over the coming months, partners will use the activation workplan process to formalize roles and responsibilities while continuing to execute tactics off the current baseline, raise additional resources, and build internal and shared capacity. Ultimately, success depends on the continued leadership and partnership of a range of actors beyond economic and workforce development. These stakeholders must shift practices that enable the broader systems change necessary to deliver both growth and opportunity. This includes:

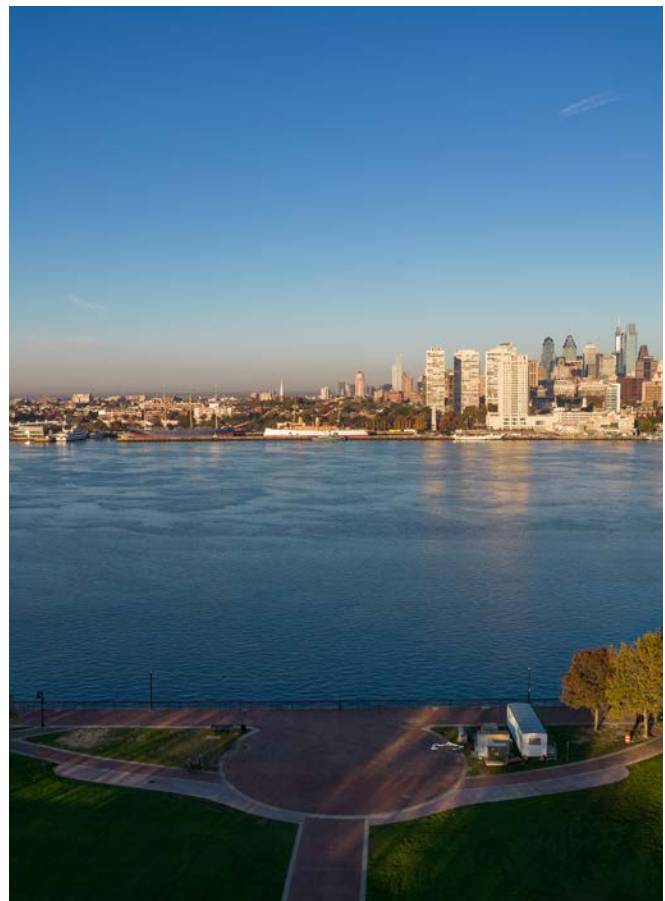
- **Business leadership:** Steering and investing in growth strategies that create a more competitive and opportunity-rich regional economy, as well as supporting the broader “commons” of industries and workers that helps all to thrive.
- **Philanthropy:** Jointly focusing more resources toward the identified tactics for economy-building and opportunity job creation as key enablers of economic mobility that complement barrier removal supports for individual residents.
- **State and local government:** Reinforcing delivery of region-led priorities through administrative, program, and policy channels,

including adjusting existing mainstream policies and programs to support regional priorities, and making new resources available as possible.

Real change in economy-building goals takes years of steady commitment to execution. Unlike annual funding metrics or election cycles, economic performance is measured across multiple years, and economic mobility is measured over a generation.

While some actions recommended here focus on achieving momentum and early wins (and activation workplans center on the first 12 to 18 months of work), regions that fundamentally change their trajectory stay with core strategies for a decade or more.

If that long view is taken and followed, this regional growth strategy can unlock Southeastern Pennsylvania’s ability to deliver economic growth and opportunity that match its full potential.



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This strategy reflects significant thought partnership and leadership from members of the Greater Philadelphia Growth Partnership, encompassing Bucks, Chester, Delaware, Montgomery, and Philadelphia counties. It was also informed by substantial input from over a hundred business, civic, public -sector, and nonprofit leaders across the region.

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# END NOTES

- 1** “Southeastern Pennsylvania market assessment for growing opportunity industries and economic mobility” Databook, Brookings, July 2025, p. 6.
- 2** Ibid, p. 54
- 3** Glencora Haskins, Rachel Barker, and Marek Gootman, “Southeastern Pennsylvania market assessment for growing opportunity industries and economic mobility,” Brookings, July 2025, pp. 12-15.
- 4** Ibid, pp. 15-17.
- 5** Ibid.
- 6** Raj Chetty, Will Dobbie, Benjamin Goldman, Sonya R. Porter, Crystal S. Yang, “Changing Opportunity: Sociological Mechanisms Underlying Growing Class Gaps and Shrinking Race Gaps in Economic Mobility,” July 2024, data as presented in The Opportunity Atlas, <https://opportunityatlas.org/>.
- 7** See, for instance, Michael Storper, et al, *The Rise and Fall of Urban Economies: Lessons from San Francisco and Los Angeles* (Stanford: Stanford University Press, 2015); Mary Walshok and Abraham Shragge, *Invention and Reinvention: The Evolution of San Diego’s Innovation Economy* (Stanford: Stanford University Press, 2015); case study of Indianapolis in Bruce Katz and Jeremy Nowak, *The New Localism: How Cities Can Thrive in an Age of Populism* (Washington: Brookings Institution Press, 2018).
- 8** Ryan Donahue, Brad McDearman, and Joseph Parilla, “Rethinking cluster initiatives,” Brookings, 2018.
- 9** See, for instance, Joseph Parilla and Mayu Takeuchi, “From federal investment to regional economic transformation: A new model for linking industry growth and economic mobility,” Brookings, 2025. AND Gordon Hanson, Dani Rodrik, Rohan Sandhu, “The U.S. Place Based Policy Supply Chain,” NBER Working Paper Series, 2025.
- 10** While the whole metro area economy encompasses the broader Philadelphia-Camden-Wilmington metro area, organizing is currently centered on the five Southeastern Pennsylvania counties. With limited existing regional capacity, leaders committed to building a proof-of-concept by working within one state’s common programmatic, funding, and legal framework before expanding across three states. The commonwealth of Pennsylvania also launched a new economic development strategy—its first in 20 years—that provides a strong framework for this effort. This scale still maximizes the potential for impact, with Southeastern Pennsylvania contributing 69% of jobs and 70% of gross domestic product in the tri-state area.
- 11** Haskins, et al, pp. 12-15.
- 12** Haskins, et al, pp. 15, 18.
- 13** Haskins, et al, p. 12.
- 14** Haskins, et al., p. 18.
- 15** Haskins, et al, pp. 15, 18.
- 16** Haskins, et al, p. 17.
- 17** For additional methodological detail, see Haskins, et al, pp. 22-25.
- 18** Haskins, et al, pp. 38-39.
- 19** Sectors titles evolved from the original terms—enterprise digital solutions; materials machining fabrication and electronic components value chain; and biomedical commercialization—employed in this project’s 2025 market assessment due to additional stakeholder input over the course of the strategy development process. These shifts reflect a prioritization of more accessible terminology rather than substantive changes to sector definitions.
- 20** Ryan Donahue, Brad McDearman, and Joseph Parilla, “Rethinking cluster initiatives,” Brookings, 2018.
- 21** See, for instance, Amy Liu, “Remaking economic development: The markets and civics of continuous growth and prosperity,” Brookings, 2016, pp. 12-14.

- 22** Donahue, et al, pp. 24-29.
- 23** Haskins, et al, pp. 25-29.
- 24** See, for instance, BC Tech Alliance activities at <https://wearebctech.com/>, last accessed January 16, 2026.
- 25** See, for instance, EPAM Leads Investment in \$50 Million Regional GO Philly Fund,” PR Newswire, February 7, 2019, <https://www.prnewswire.com/news-releases/epam-leads-investment-in-50-million-regional-go-philly-fund-867172372.html>
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- 28** See, for instance, Chicago Quantum Exchange at <https://chicagoquantum.org/about/members>, last accessed January 12, 2026.
- 29** Small and mid-sized manufacturers generally encompass enterprises with fewer than 500 employees. See, for instance, Stephen Ezell, “MEP Program Critical for Small Manufacturers Underpinning America’s Manufacturing Revival,” Information Technology and Innovation Foundation, June 2025,
- 30** See National Center for Aviation Training, [https://www.wichita.edu/industry\\_and\\_defense/NIAR/ncat/ncat.php](https://www.wichita.edu/industry_and_defense/NIAR/ncat/ncat.php), last accessed April 21, 2026.
- 31** See David Feinerman, “Many businesses have irrational human resources practices. How Cuyahoga County, Ohio is working to address that,” Brookings, 2019.
- 32** See Global Epicenter for Mobility, <https://gemdetroitregion.com/>, last accessed April 21, 2026.
- 33** See MAGNET, <https://www.manufacturingsuccess.org/>, last accessed April 21, 2026.
- 34** See mHUB, <https://www.mhubchicago.com/>, last accessed April 21, 2026.
- 35** Haskins, et al, pp. 32-36.
- 36** See, for instance, Ryan Donahue, Joseph Parilla, and Brad McDearman, “Rethinking Cluster Initiatives,” Brookings 2018
- 37** Commonwealth of Pennsylvania, Office of the Governor. (2026, March 17). Governor Shapiro secures \$450 million investment from TerraPower Isotopes. <https://www.pa.gov/governor/newsroom/2026-press-releases/governor-shapiro-secures--450-million-investment-from-terrapower>
- 38** See more at [www.mnmedtech.co](http://www.mnmedtech.co)
- 39** For more, see Joseph Parilla and Glencora Haskins, “Accelerating equitable growth in North Carolina’s life sciences cluster.” Brookings, 2024.



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