State of the Deep Tech Ecosystem Report

A Snapshot of the Dynamic Robotics & AI Cluster Located in Southwestern PA

Pittsburgh Robotics Network

Sources and Context

The 2026 survey findings reflect responses from 84 companies that participated in Pittsburgh Robotics Network (PRN) outreach interviews and may not be representative of the broader ecosystem of more than 260 deep tech companies. Where available, public data was used to supplement survey responses — expanding quantitative coverage to 204 companies for funding stage, 195 companies for employee count, and 188 companies for year founded. Employment data was further refined using LinkedIn Pittsburgh headcount data and direct staff reported input. Qualitative context was further enriched by the 2024 outreach survey, which captured in-depth responses from 65 companies on topics including funding interests, talent, business needs, and perspectives on the regional ecosystem.

To build the underlying dataset, PRN used an iterative AI-assisted methodology. Source data from public sources, PRN surveys, LinkedIn, and staff records were compiled into a unified context document and analyzed in parallel using both ChatGPT and Claude. Each model independently produced counts, classifications, and chart-ready figures; PRN staff reviewed outputs from both, adjudicated discrepancies, and validated final figures against source data before publication. This cross-model approach reduced reliance on any single AI interpretation and improved confidence in the figures presented throughout the report.

Sources and Context

Deep Tech Defined

For the purposes of the 2026 Pittsburgh Robotics Network Ecosystem Report, deep tech refers to companies whose core products and services are built on substantial advances in science and engineering across three sectors: Robotics & Autonomous Systems, Artificial Intelligence & Computing, and IoT & Smart Systems.

This definition excludes software companies without a foundational AI or hardware component, professional services and systems integration firms, consumer applications built on existing platforms, and general manufacturers without an embedded robotics or AI function. Ecosystem support organizations including accelerators, investors, and research institutions are tracked separately and are not counted among the 268 active deep tech companies in the primary dataset.

Report Highlights

Employment 246 Companies reporting **11,354 Southwestern Pennsylvania (SWPA) deep tech employees**. Over 60% of companies have 10 or fewer SWPA employees. Robotics accounts for 65.7% of SWPA deep tech jobs.

Job Growth 47 Ecosystem Companies Report Job Growth Over the Past 3 Years — **650+ Jobs Added 48 Ecosystem Companies** Added Jobs in Southwestern PA Over the Past 1 Year — 165+ Jobs Added

Funding **123 Active Deep Tech Companies** Report **$9.76B Funding** Received Over the Past 7 Years. 19 Active Deep Tech Companies Report $44M Funding Received Over the Past 1 Year

Revenue 20 Ecosystem Companies Report Revenue Growth Over the Past 3 Years — $70M

Formation & Sector Composition Among **188 companies founded since 2018**, AI accounts for 60% of new entrants vs. 32% for Robotics

Talent **63%** of open roles require **senior experience**.

The Pittsburgh Robotics Network (PRN) documented the delivery of **695 unique instances** of supportive services delivered by the PRN to 150+ ecosystem organizations.

Ecosystem

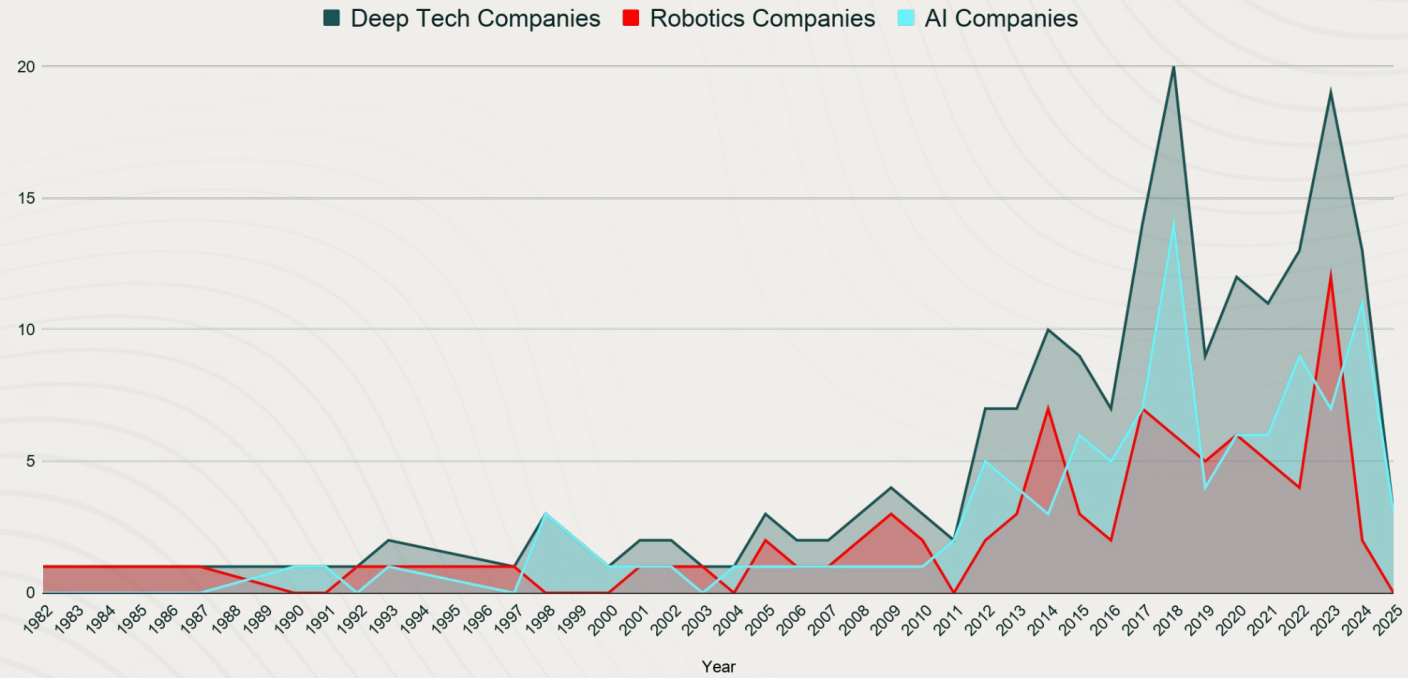
320+ Deep Tech Ecosystem Organizations

- **120+ AI Companies**
- **120+ Robotics Companies**
- **15+ IOT & Smart Systems Companies**
- **55+ Academic Labs & Support Organizations**

Among companies founded since 2018, **AI companies account for 60% of new entrants** compared to 32% for Robotics companies, suggesting AI is the faster-growing formation sector within the regional deep tech ecosystem.
View the full list of ecosystem companies.

Ecosystem

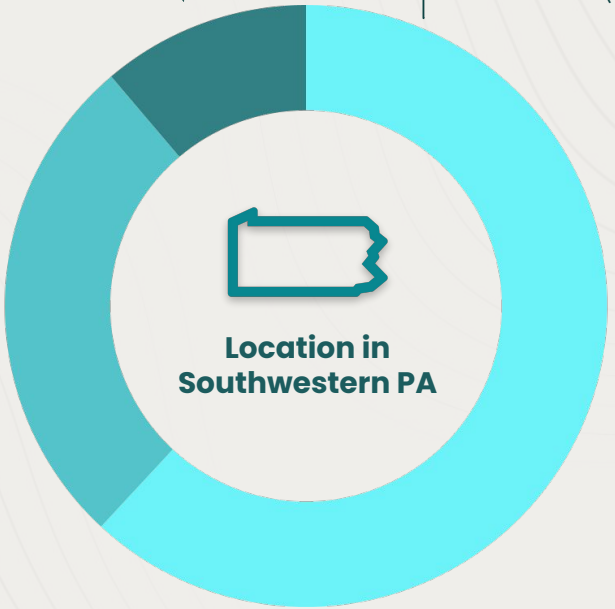
Deep Tech Company Formation by Year within 150 miles of Pittsburgh



Company formation in SWPA has accelerated sharply since 2010, with the **pace of new entrants roughly doubling every five years.**

188 Companies Reporting

Ecosystem

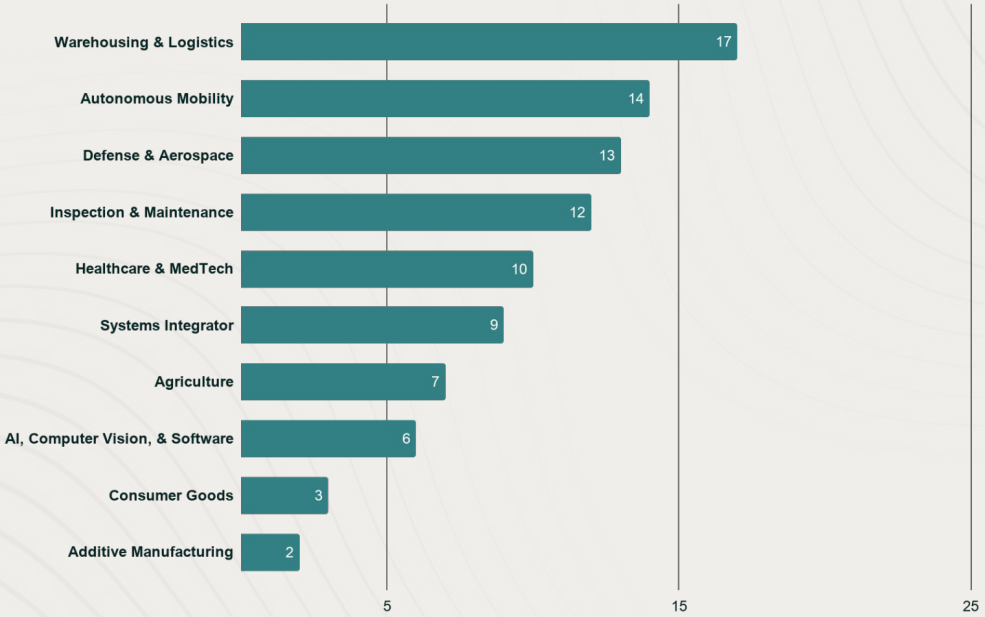


Companies often cite **talent attraction and retention** as a primary reason to **stay within the urban core**.

255+ Companies Reporting

Ecosystem

Southwestern PA AI by Industry Sector

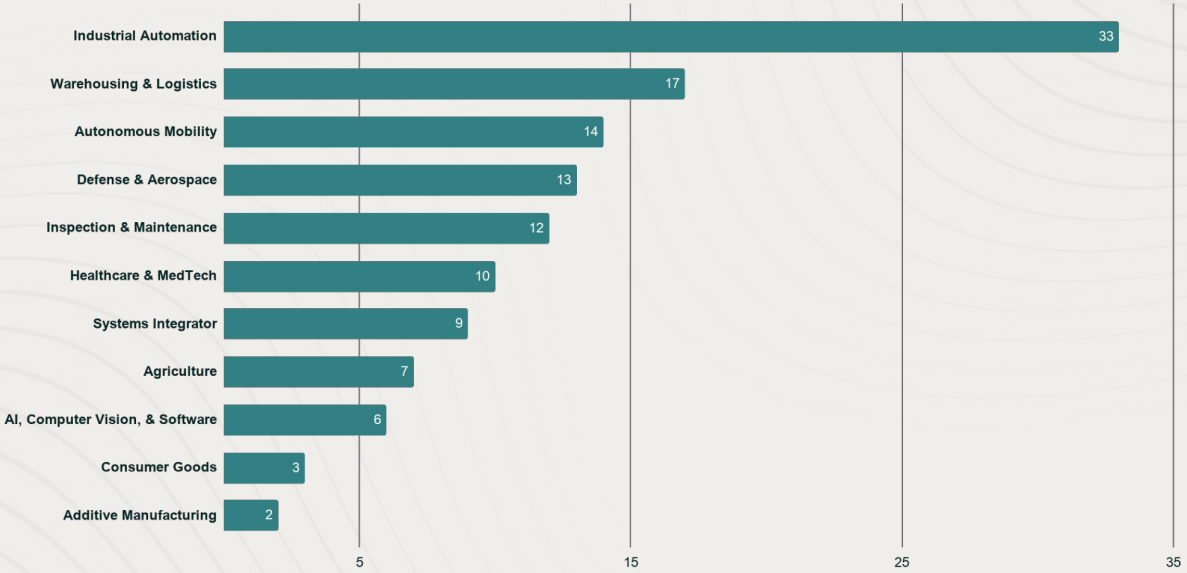


The ecosystem's strength in **Physical AI drives growth** across industry sector focused on **hardware and components**.

121 Companies Reporting

Ecosystem

Southwestern PA Robotics by Industry Sector

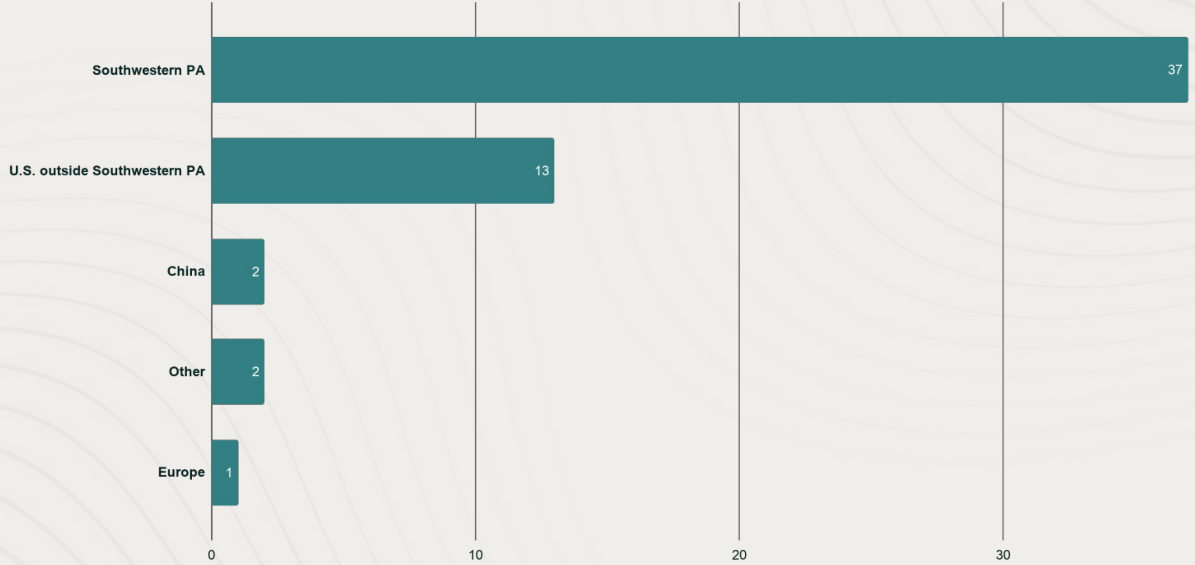


Pittsburgh's robotics ecosystem is **powerful because of its range**, with companies building and delivering everything from specialized components to full-stack solutions across diverse sectors.

126 Companies Reporting

Ecosystem

Primary Manufacturing Location of Ecosystem Companies

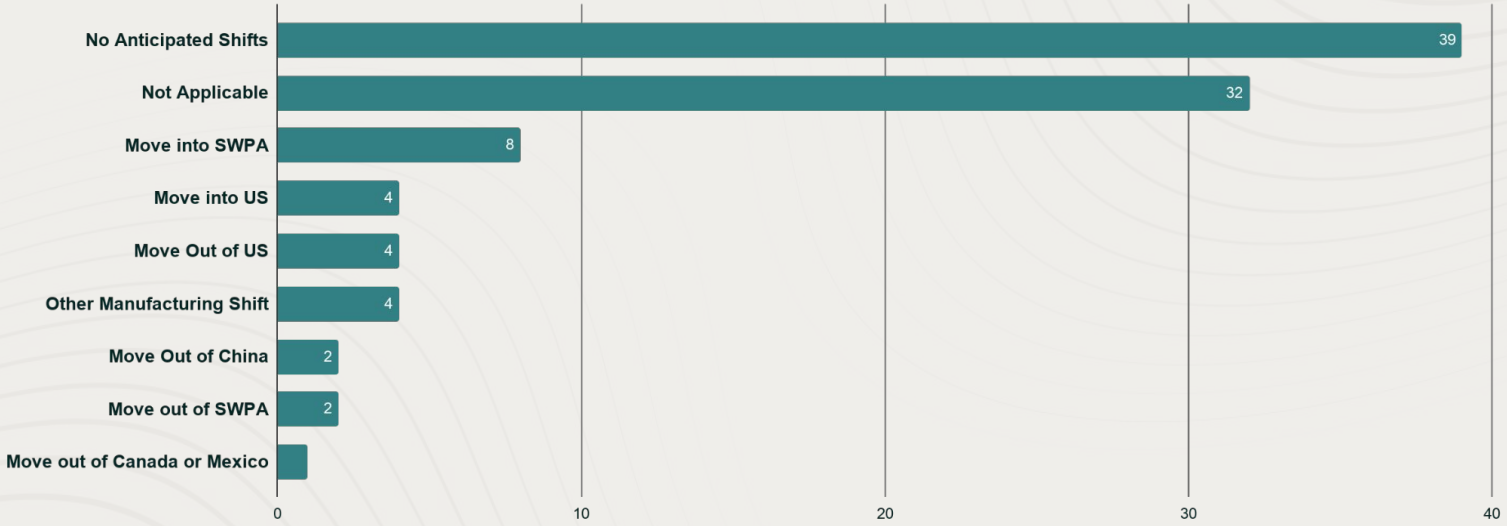


Results reflect self-reported responses from the 2025 PRN Economic Survey. Counts include only companies with active manufacturing; "Not Applicable" responses were excluded. **Pre-commercialization companies** represent the ecosystem's largest cohort and **do not yet manufacture at scale**.

55 Companies Reporting

Changes in Manufacturing

Anticipated Manufacturing Shifts Among Ecosystem Companies

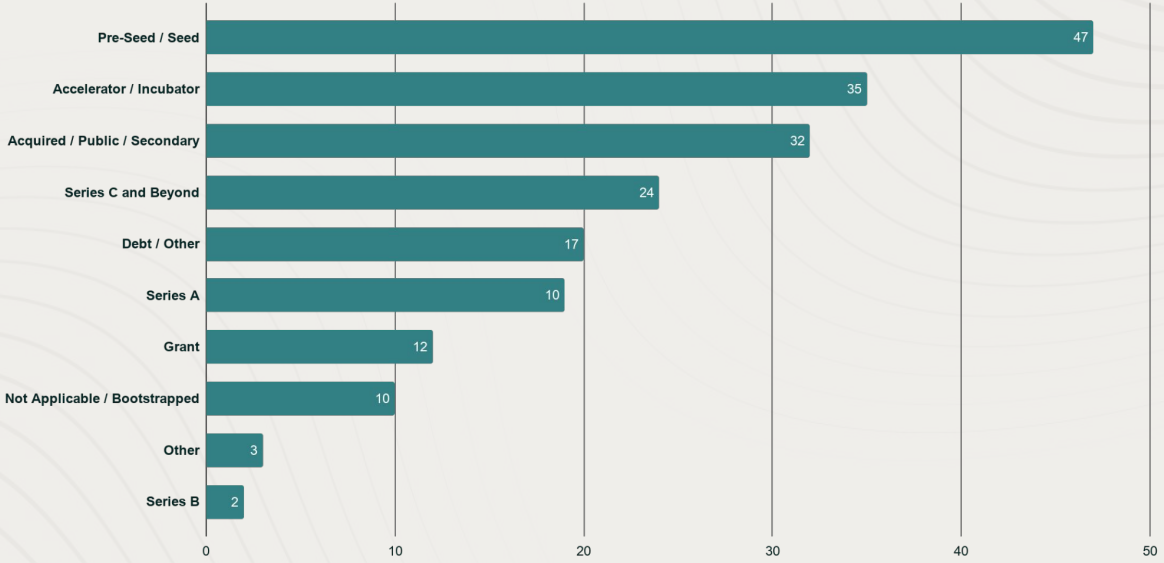


The lack of widespread planned manufacturing shifts indicates that **regional growth will depend more on supporting existing operations and attracting new entrants** than on large-scale relocation trends. Results are based on self-reported survey responses from the 2025 PRN Economic Survey, where respondents could select multiple options describing anticipated changes to their manufacturing operations.

96 companies reporting

Funding

Latest Funding Rounds of All Ecosystem Companies

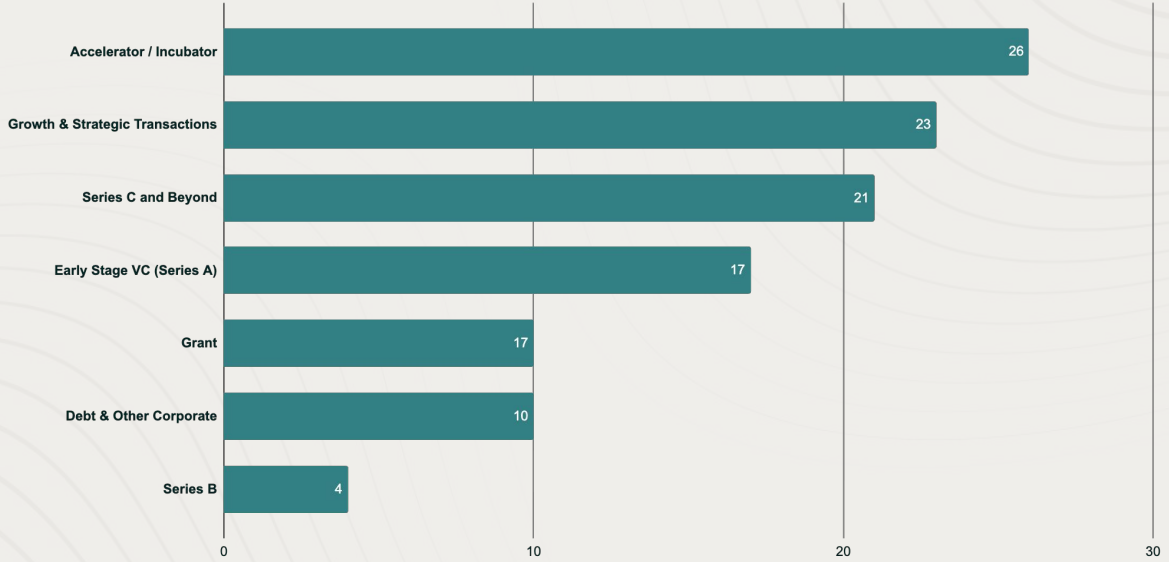


Early stage companies dominate the region's deep tech ecosystem, with very few progressing to larger funding rounds and commercialization.

204 Companies Reporting

Funding

Funding Sources Used Over the Past 5 Years

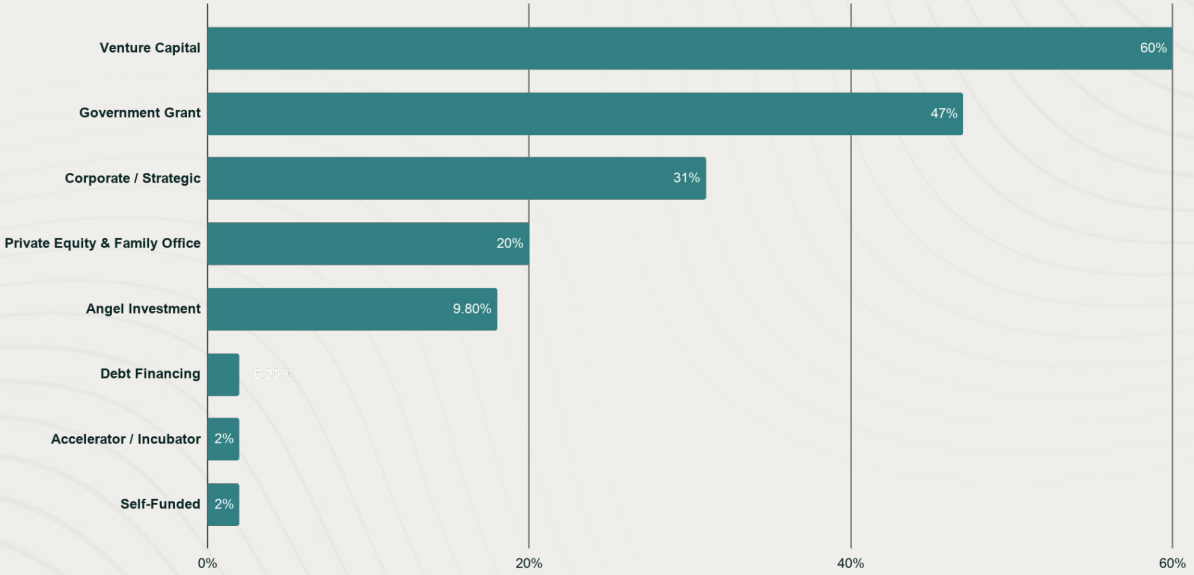


Pittsburgh's deep tech ecosystem has attracted significant venture investment across two waves. The first centered on autonomous vehicles, with **Aurora** and **Motional** both maintaining significant Pittsburgh operations. A current Physical AI and Robotics wave includes **Skild AI** ($1.4B Series C, 2026, pre-money valuation ~$12.6B), **Agility Robotics** ($400M, 2025), **Gecko Robotics** ($123M, 2026, valuation $1.52B), and **Seegrid** ($25M raised in 2025 at a $312M valuation).

140 Companies Reporting

Funding

Where Ecosystem Companies Are Looking for Funding

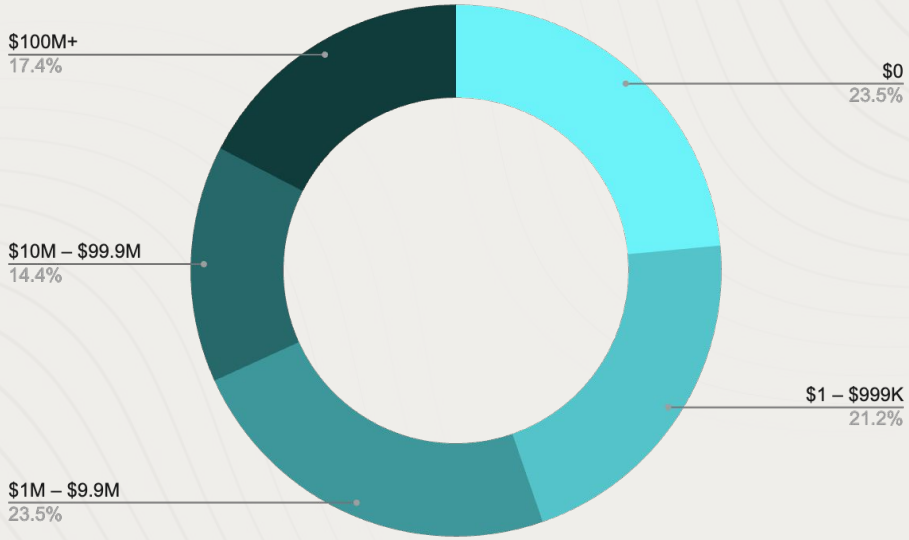


Percentages sum to more than 100% because companies can express interest in multiple funding sources. The high reliance on both venture capital (60%) and government grants (47%) compared to corporate partnerships (31%) indicates that many companies are still in earlier stages of commercialization, where **non-dilutive funding and equity investment play a larger role than market-driven partnerships**.

45 Companies Reporting

Funding

Company Count by Cumulative Funding Category (5+ Years)



The distribution is **concentrated at the earliest funding levels**, while also showing a meaningful cohort of companies with more than $100M in cumulative funding.

132 Companies Reporting

Growth

An Ecosystem that is Still Scaling

Among 123 SWPA-headquartered ecosystem companies with revenue data on record:

103 companies report revenue under $1 million, underscoring the early-stage nature of much of the ecosystem

17 companies have surpassed $10 million, indicating meaningful commercial scale occurring among a subset of regional deep tech firms

Revenue data was drawn from both public data and survey sources. Companies reporting $0 revenue are included in the under $1 million count. National and international firms not headquartered in Southwestern PA are excluded.

Growth

Revenue & Growth

2024 Total Revenue: **$11.2B** (n=47) Median Revenue: **$2.6M** (n=47)

2024–2025 Total Revenue Growth: **$18.8M** (n=16) Median Revenue Growth: **$230K** (n=16)

Past 3 Years Total Revenue Growth: **$41.7M** (n=18) Median Revenue Growth: **$476K** (n=18)

43% of surveyed ecosystem companies (28 of 65 with classifiable responses) reported **currently doing business outside the United States**. European markets lead international expansion among surveyed ecosystem companies, with 19 of 28 internationally active companies reporting business activity, followed by Asia Pacific (10) and Canada (7).

Revenue data drawn from public data and company survey responses. Totals and medians reflect positive reported values only, with $0 and placeholder entries excluded. National and international firms not headquartered in Southwestern PA are excluded. The n reflects the number of companies with reported data in each category. Growth figures are self-reported and reflect a small subset of the broader ecosystem, as the majority of ecosystem companies declined to share revenue growth data, limiting the representativeness of these figures.

Employees & Employment

Ecosystem Employees in Southwestern PA

11,354 **Deep Tech Ecosystem Employees in Southwestern Pennsylvania**

Among the 48 companies that reported job change figures, respondents **added a net 165 SWPA employees in the past year** and **618 over three years**, with zero companies reporting net losses over either period. That near absence of reported decline almost certainly reflects response bias: companies that are contracting are less likely to participate in outreach, and those that do participate may be reporting their situation favorably.

249 Companies Reporting

Employees & Employment

Ecosystem Employees in Southwestern PA

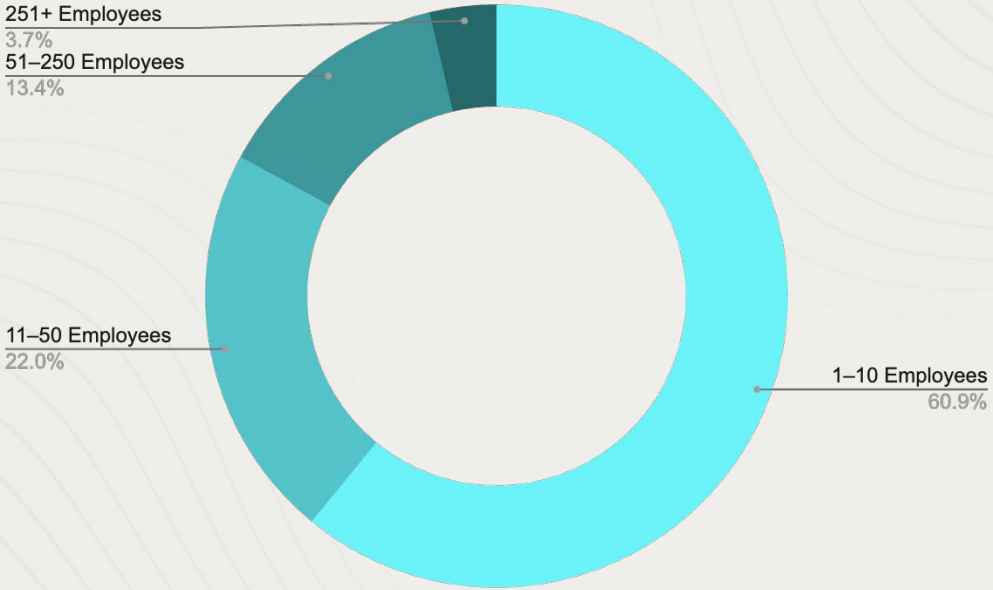
Sector	Companies	Jobs	% of Total	Avg Employees/Co
Robotics & Autonomous Systems	119	7,858	69.2%	66.0
IoT & Smart Systems	18	386	3.4%	21.4
Robotics + IoT (combined)	**137**	**8,244**	**72.6%**	**60.2**
Artificial Intelligence & Computing	**112**	**3,110**	**27.4%**	**27.8**
Total Deep Tech	249	11,354	100%	45.6

Robotics and IoT companies employ substantially more workers than AI and Computing firms, reflecting the larger and more varied talent base needed to develop and operate hardware-based systems.

249 Companies Reporting

Employees & Employment

SWPA Employees by Company Size Band



Top 10 employers **account for ~43.5%** of all 11,354 SWPA deep tech employees. Over **60% of companies have 10 or fewer SWPA employees**.

246 Companies Reporting

Employees & Employment

Talent Acquisition Sources Utilized

Sources of Talent Acquisition	Number of Companies Affirming
Networking	36
Job Boards / Online Platforms	28
Universities	23
Events / Organizations / Communities	18
Not Hiring / NA	18
Internal	9
External Recruiters / Search Firms	4

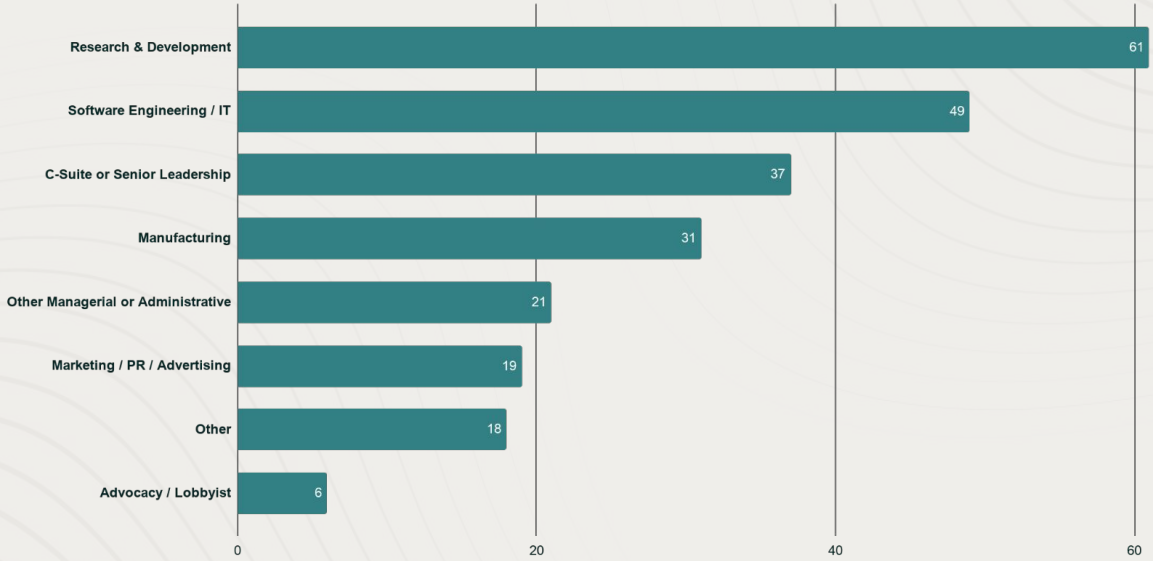
Talent acquisition remains **highly relationship-driven**, with limited reliance on intermediaries, suggesting that regional workforce systems are under-leveraged and not yet operating at scale.

Results are based on self-reported open-ended survey responses from the 2025 PRN Economic Survey, manually coded into categories where responses naming job types or aspirational intent rather than active channels were classified as Not Hiring/NA. Percentages do not sum to 100% as organizations could affirm multiple sources.

84 Companies Reporting

Employees & Employment

Work Being Done by Ecosystem Companies in SWPA Offices

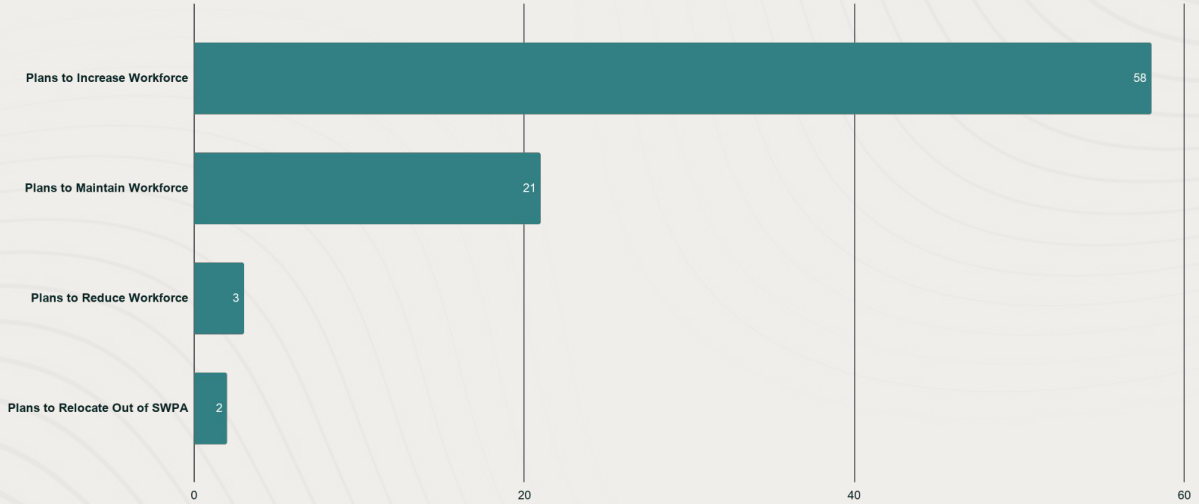


The **ecosystem is heavily weighted toward R&D and engineering functions**, indicating strong innovation capacity but a relative gap in downstream commercialization roles. Companies could select more than one response.

84 Companies Reporting

Employees & Employment

Ecosystem Company Workforce Plans in SWPA



Companies are ready to hire. Demand for talent is not the constraint. Systems to supply and match it are.

84 Companies Reporting

Employees & Employment

Historic Job Growth by Company Stability

Hiring Trend	Companies	Median First Headcount	Median Latest Headcount	Median Change
Mostly stable	64	8	8	0.0%
High growth	60	6	34	300.0%
Moderate growth	30	13	18	46.4%
Decline	18	13	7	-31.4%
Boom then pullback	6	8	17	112.7%

Growth is concentrated. A subset of companies are scaling aggressively, while many remain flat, suggesting **uneven access to capital, customers, or commercialization pathways**.

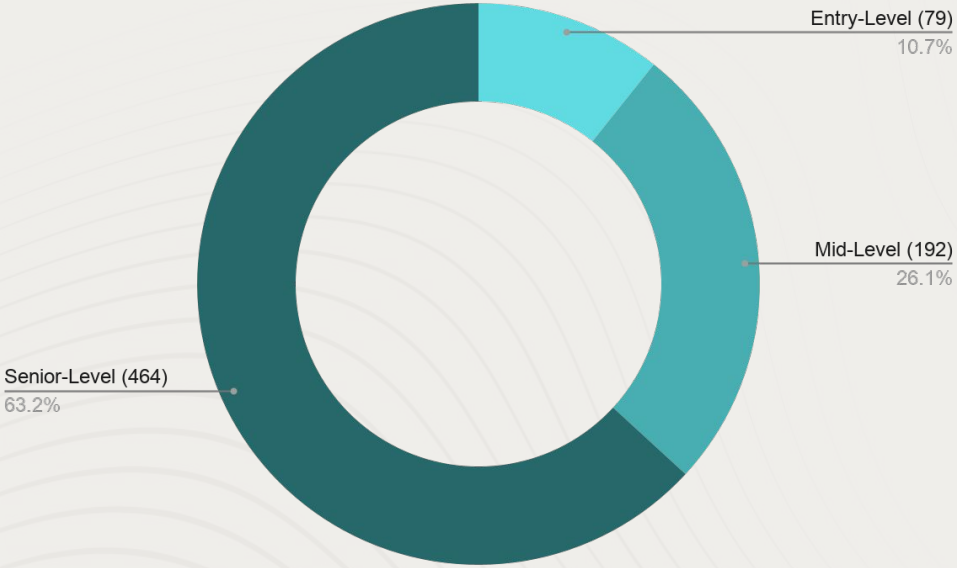
Public employee history for each company was reviewed as a time series and classified by overall hiring pattern. Median change reflects the median of each company's percent change from its first to latest observed headcount, rather than the percent change between the median starting and ending headcounts. Companies with only one headcount observation were classified as Mostly Stable.

178 Companies Reporting

Talent Trends

Senior-level roles dominate ecosystem hiring demand, suggesting the region faces a **talent retention** and mid-career talent **development challenge** despite its strong university pipeline.

Distribution of Job Postings by Level



About Jobs Portal Data

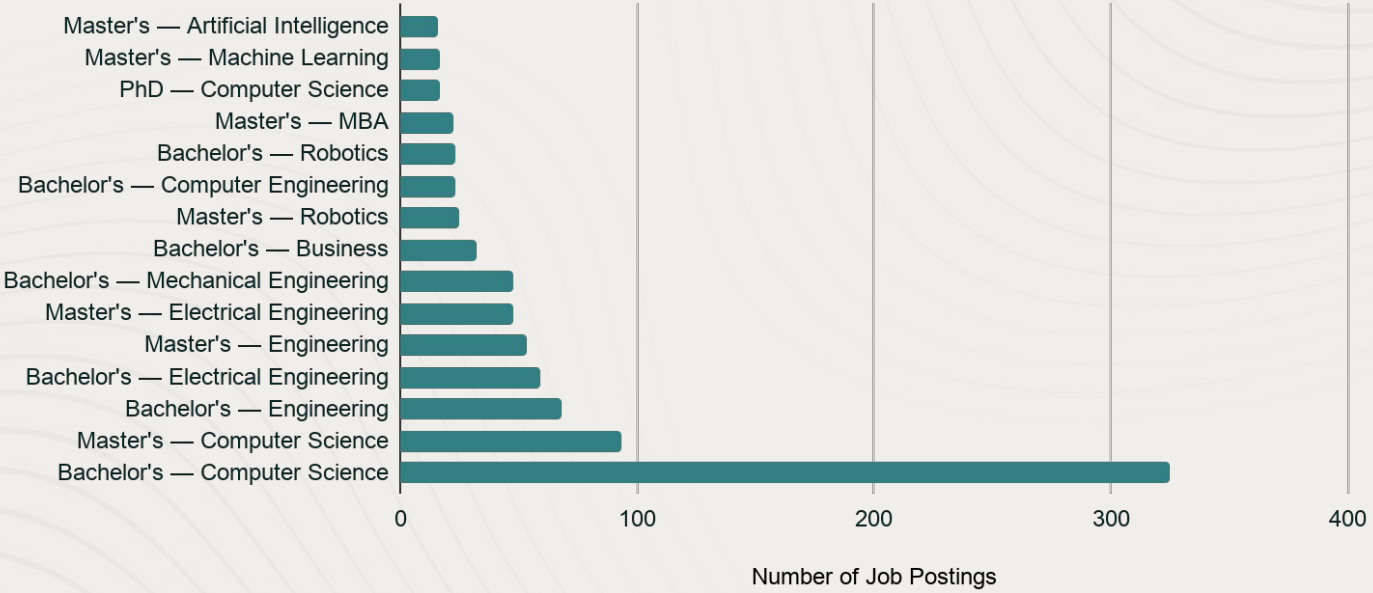
This section analyzes **735 job postings from 59 SWPA deep tech companies**, collected via the PRN Jobs Portal (robopgh.org/jobs) between **October 2024 to October 2025**. Listings are sourced directly from company pages; traffic and trend data are tracked via Google Analytics.

Experience Level Definitions

- **Entry-level:** Fewer than three years of experience, or roles explicitly labeled junior or new graduate
- **Mid-level:** Three to six years of experience
- **Senior-level:** Seven or more years of experience, or roles carrying titles such as senior, lead, manager, or director

Talent Trends

Top Degrees Used in Job Descriptions

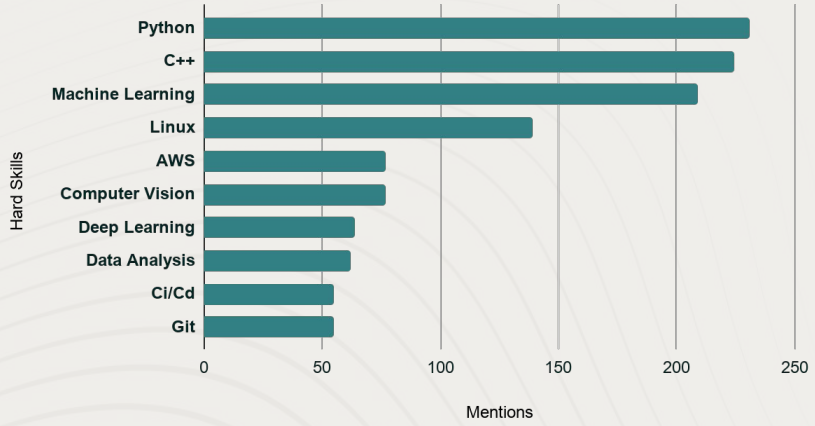


The dominance of computer science and engineering degrees, alongside relatively lower mentions of specialized AI fields, indicates companies **prioritize broad technical foundations over narrow specialization**.

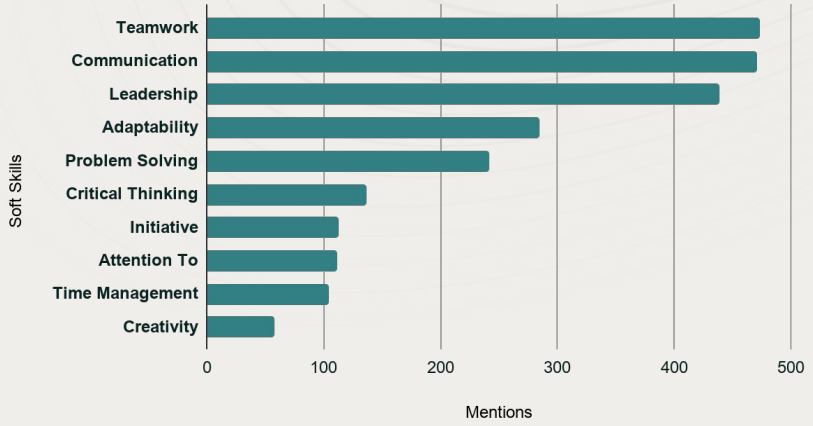
Talent Trends

Top Hard & Soft Skills Used in Job Descriptions

Mentions vs. Hard Skills



Mentions vs. Soft Skills



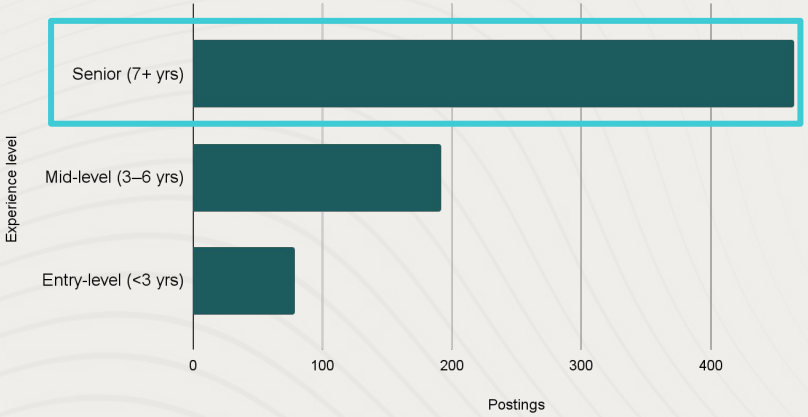
Companies are hiring for **team-based builders**, combining strong foundations in **core engineering skills** with high demand for **communication, leadership, and collaboration**.

Talent Trends

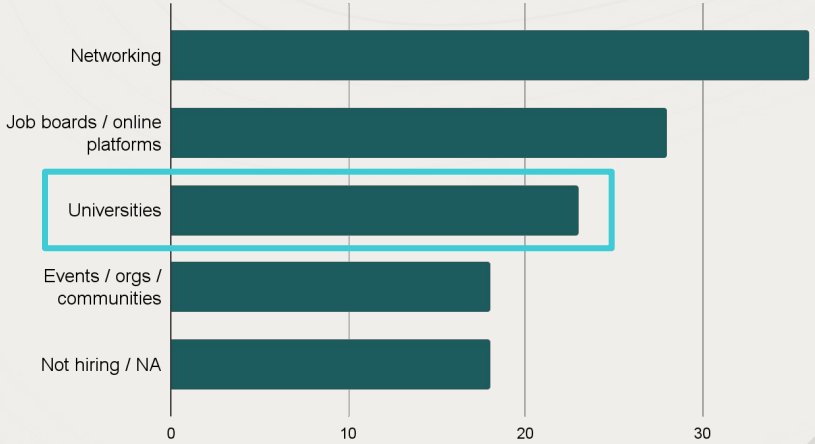
The ecosystem's talent pipeline doesn't match its talent needs

63% of open roles require senior experience of seven or more years, yet universities rank as the third most common talent source and primarily supply entry-level candidates. Only 10.7 percent of postings target entry-level roles. Programmatic solutions for both attraction and upskilling outside the university system are required to close the talent gap.

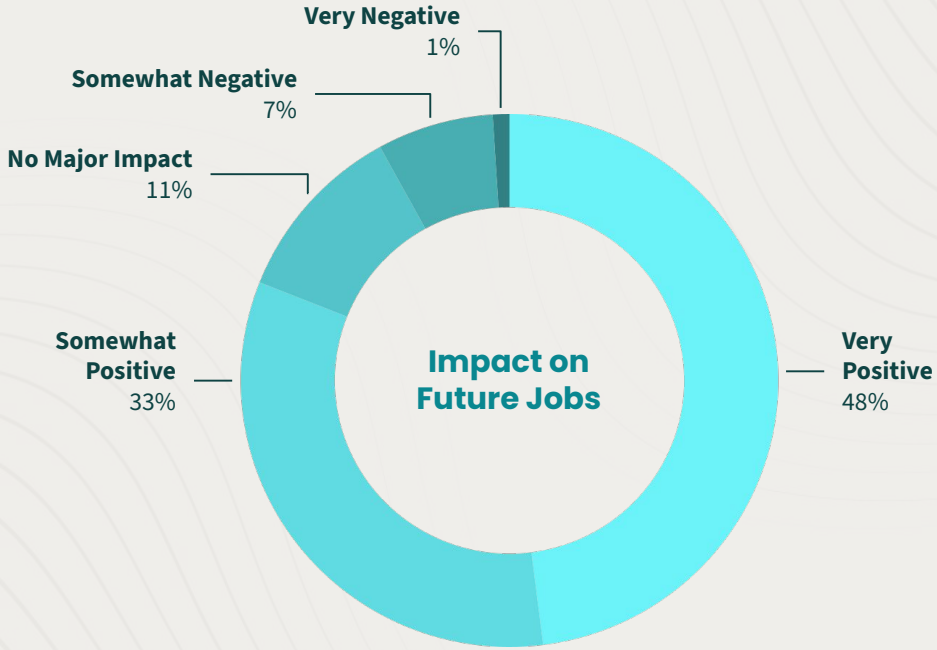
What companies are hiring for



Where companies find talent



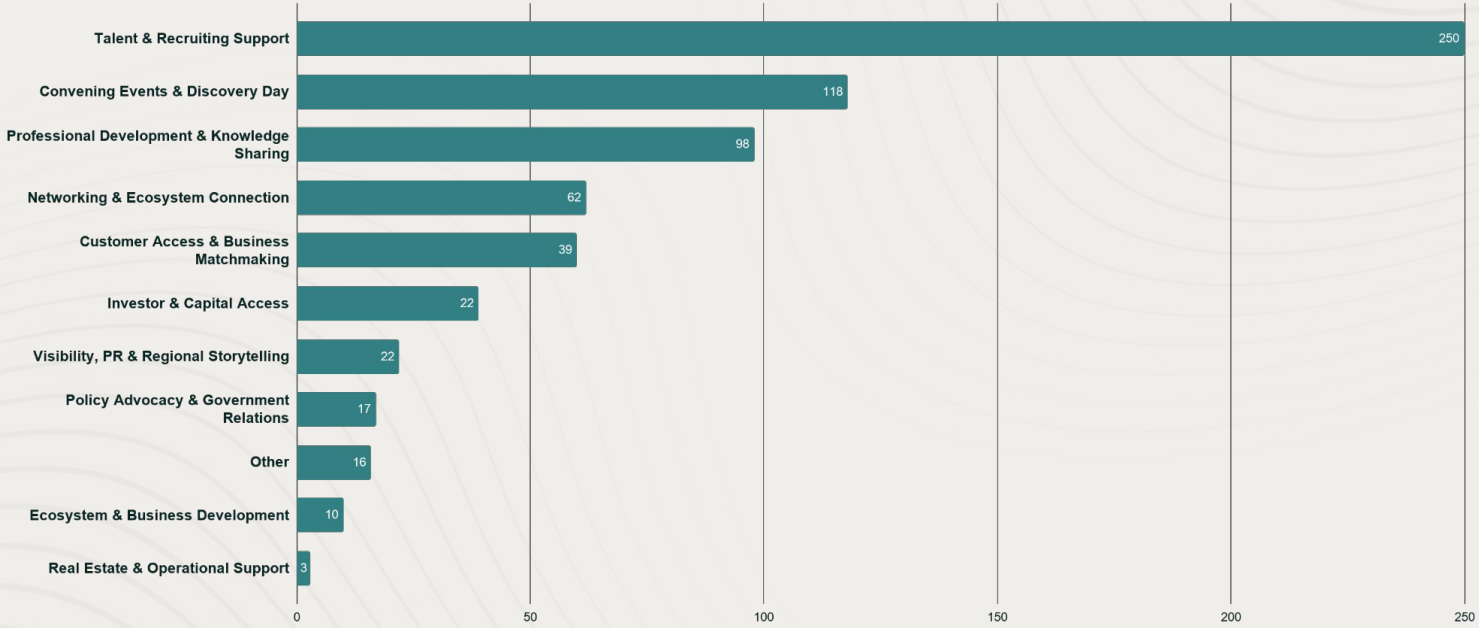
Robotics Impact on Future Jobs



The vast majority of ecosystem **company leaders expect robotics to have a positive impact** on future jobs, in contrast to PRN public survey results showing that **43% of the public holds a negative view of robotics**.

PRN Program Value

Documented Services Delivered To Companies



695 Unique Instances of PRN Support Services Were Delivered to 150+ Organizations creating valuable growth opportunities. Other regional stakeholders do not provide similar services.

Key Public Policy Concerns For Ecosystem Companies

Public Policy Concerns of Ecosystem Companies	Company Count Affirming Concern
None / No Issues	43
Funding / Grants / Economic Incentives	15
Industry-Specific Regulations & Compliance	11
Immigration & Visas	7
Tariffs, Trade & Reshoring	6
Government Instability & Education Policy	5
Healthcare & Insurance Access for Startups	4
Taxation	4
Lack of Understanding of Tech & AI	2

Most companies are not actively constrained by policy, but for those that are, **barriers are concentrated in funding access, regulatory complexity, and talent mobility**. Results are based on open-ended survey responses from the 2025 PRN Economic Survey, coded into thematic categories where a single response could span multiple concerns. Counts reflect responding organizations that raised each issue and should not be summed.

84 Companies Reporting

Sustaining a Strong Ecosystem at an Important Moment

Southwestern Pennsylvania's Robotics and AI ecosystem is growing in strength, visibility, and impact. That progress reflects the hard work of founders, researchers, employers, investors, public leaders, educators, and ecosystem partners across the region.

But growth is not guaranteed. Other regions are moving aggressively to attract talent, capital, and companies. If SWPA does too little, it risks losing ground in a highly competitive, perhaps winner takes all landscape.

Recommendations

1. Attract and retain the right talent
Support programs like the Deep Tech Institute that develop and retain business-side talent in the region, while expanding industry-led upskilling fellowships for engineers and operators.

2. Expand access to capital
Reinvent investment programs to drive down costs and increase the frequency and amount of capital disbursed to founders through those savings.

3. Support commercialization
Build systems outside of academia that deliver commercialization support to ecosystem companies and drive down their go-to-market costs.

4. Align workforce systems to employer demand
Expand workforce interventions directly to companies, building on models piloted under the Build Back Better projects.

5. Make merit the standard for investment and programming
Make merit matter. Challenge legacy systems and assumptions, and require clear, data-driven validation that adopted strategies perform in a rapidly evolving AI economy.

Acknowledgements

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Usage and Citation

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