



Business Advancement Team

Green Cities Action Plan

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Background

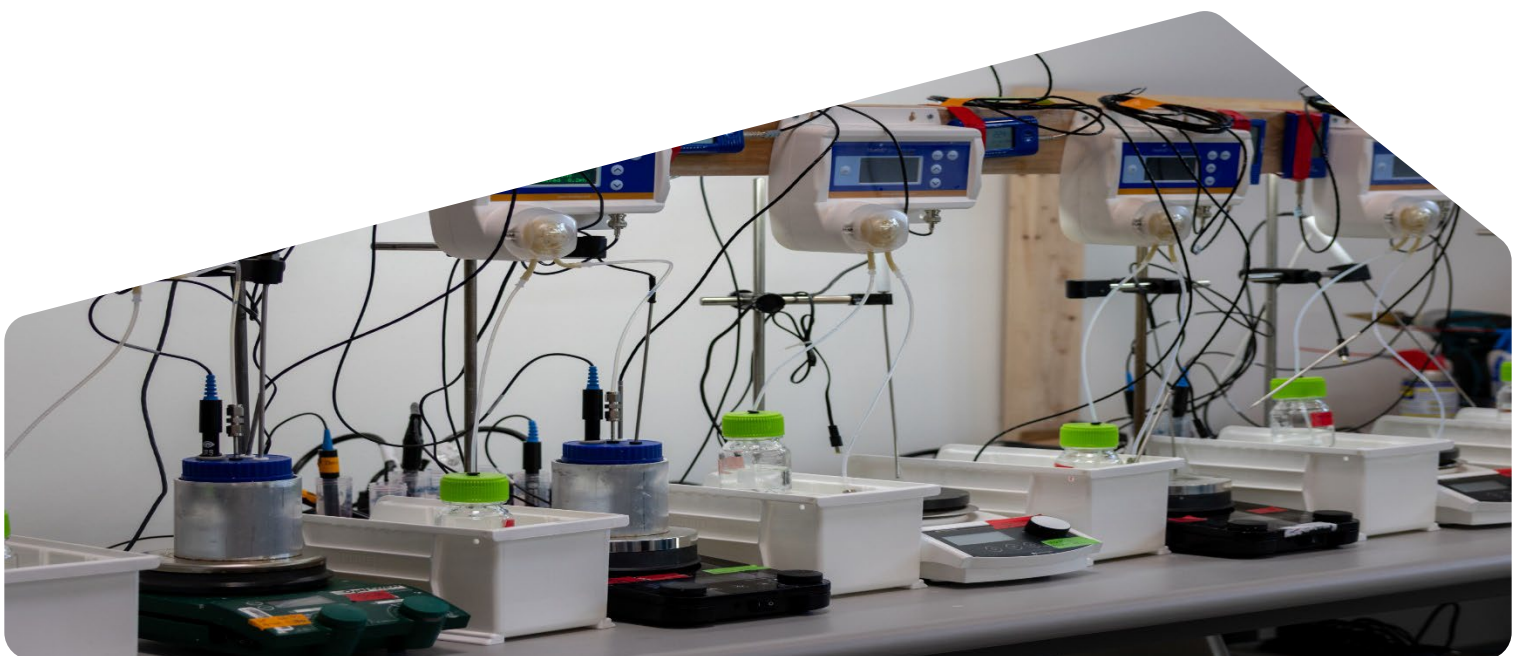
In April of 2023, The City of Portland and Prosper Portland adopted a five-year economic strategy.

The plan was titled Advance Portland: A Call to Action for Inclusive Economic Growth. Advance Portland is a collaborative strategy built through deep community engagement and is a roadmap to transform Portland into a thriving, inclusive, and sustainable 21st century city through robust partnerships with city bureau partners and community organizations.

Advance Portland identifies the Green Cities cluster as a pivotal component in positioning Portland as a national leader in the invention, commercialization, and broad use of green products. Investment in climate technology, an industry category within Green Cities, has drastically increased over the past decade.

Learn more about Advance Portland's goals, strategy, progress, and join the movement.

[Visit Advance Portland](#) →





About the Industry

About the Industry

Green Cities is a broad category of innovative products and services that apply technology or operational innovations to reduce or eliminate negative impacts to the environment (carbon emissions, waste, pollution, etc.) or facilitate adaptation to the effects of climate change. Although there isn't a standard definition of "green cities", the cluster is primarily comprised of the following four sub-segments in which Portland has notable strengths:

- Environment (services, air, water, waste),
- Mobility (connected, autonomous, zero-emission),
- Energy (renewable, storage, efficiency, grid modernization), and
- Built Environment (green building services, products, infrastructure).

In addition to these categories, solutions enabling circular production and waste processes apply across all sub sectors.

The Green Cities cluster has a Location Quotient (LQ) of 1.2 for the Portland Metro Area, meaning that our region has a concentration of Green Cities jobs that is 1.2 times greater than the national average. The ten-year growth rate for this cluster is second only to software, at 35%. Wages for Green Cities are the second highest, following the technology sector. The industry includes a diverse mix of jobs, ranging from engineering and design to construction and manufacturing, with 67% of jobs not requiring a bachelor's degree.

Green Cities anchor businesses in Portland include PAE Engineers, ZGF, Gridstor, Daimler Truck North America, Avangrid, and Vestas North America.

For more information, view the [Appendix](#).

35%

10-year Industry
Growth

16.2k

Jobs

\$94k

Wages

25%

BIPOC Employees

1,150

Firms



Portland's Priority Industries

The five priority industry clusters - Athletic & Outdoor, Green Cities, Food & Beverage Manufacturing, Metals & Machinery, Software & Media - demonstrate economic strength and competitiveness in Portland, as well as future growth potential and opportunities to leverage inclusion and climate action goals.

| | Economic Growth Opportunity | | Inclusion Impact | | |
|-------------------------------|-----------------------------|------------------------------|------------------|----------------|------------------|
| | LQ, MSA 10 year growth | LQ, County 10 year growth | LQ, County | % BIPOC | % < Bachelor's |
| Green tag equals: | strong growth | | \$67K MSA avg. | >27%K MSA avg. | >60% Low barrier |
| Athletic & Outdoor | 1.3 (-35%) | 1.6 (10%) | \$82.7k | 30% | 71% |
| Metals & Machinery | 0.9 (11%) | 0.8 (-5%) | \$74.7k | 27% | 76% |
| Green Cities | 1.2 (35%) | 1.0 (35%) | \$93.8k | 25% | 67% |
| Food & Beverage Manufacturing | 1.1 (28%) | 1.0 (23%) | \$58k | 32% | 77% |
| Software & Media | 1.1 (69%) | 1.3 (117%) | \$129.1k | 23% | 51% |

Industry Strengths



01 Globally Competitive Subsectors

Mass Timber and Energy Storage are two growing subsectors with high growth potential in the global market, and with local diverse stakeholder coalitions.

04 National Sustainability Reputation

Portland has a national reputation for taking bold action in climate and sustainability, helping drive local customer adoption and supportive policy.

02 Green Building Expertise

The region's deep bench of expertise in green building with firms like PAE, ZGF, and Sera Architects are driving adoption of new technologies that can result in traded sector growth.

05 Technical Talent

Portland has a high concentration of Green Cities engineering occupations such as mechanical, electrical, and industrial engineers.

03 Affordable West Coast Advantage

Portland is an attractive and affordable option for establishing a clean tech business, especially for companies that have a large share of their customers in California.

06 Industry Co-Location Benefits

The Green Cities cluster benefits from co-location with several key sectors, including the semiconductor industry, investor-owned utilities, marine sector, tech and media cluster, and metals and machinery cluster. This synergy builds expertise in the engineering, advanced manufacturing, software development, artificial intelligence, and energy markets.

Industry Challenges



01 Federal Priorities

There are significant uncertainties in how the federal administration could impact the sector by increasing supply chain costs and reducing research funding for early-stage clean technology companies.

02 Permitting

Portland permitting is challenging, especially for green builders with innovative approaches.

03 Diversity, Equity and Inclusion

Green Cities has the second lowest share of BIPOC workforce among Portland's priority industries while paying the second highest wages of all five industries.

04 Commercial Real Estate Slowdown

Portland is facing a lack of investment in commercial real estate; this market slowdown impacts the green building sector.

05 Lack of Robust Early-Stage Support

Early-stage support for climate tech and clean tech companies is limited, with no state funding for a Center of Innovation Excellence for a Green Cities-related industry.

06 Long Path to Commercialization

Early-stage startups in clean tech and climate tech tend to have capital intensive needs early on for research and prototype development. Their path to commercialization also makes them a more challenging industry category for private sector investors.

Findings & Recommendations

Findings & Recommendations

To support this competitive industry, Prosper Portland should help “fill in the gaps” of available resources that businesses need, specifically focusing on support areas that are not currently being provided by community partner organizations. Across all businesses, livability issues, and in particular public safety and break-ins, were raised as key concerns for the industry.

This is outside of the scope of the Cluster Action Plan, but worth noting as it creates a key barrier to growth. Findings and recommendations for inclusive growth for Green Cities companies span the categories outlined below.

Business Connections, Growth and Expansion

Local Collaboration in the Green Transition

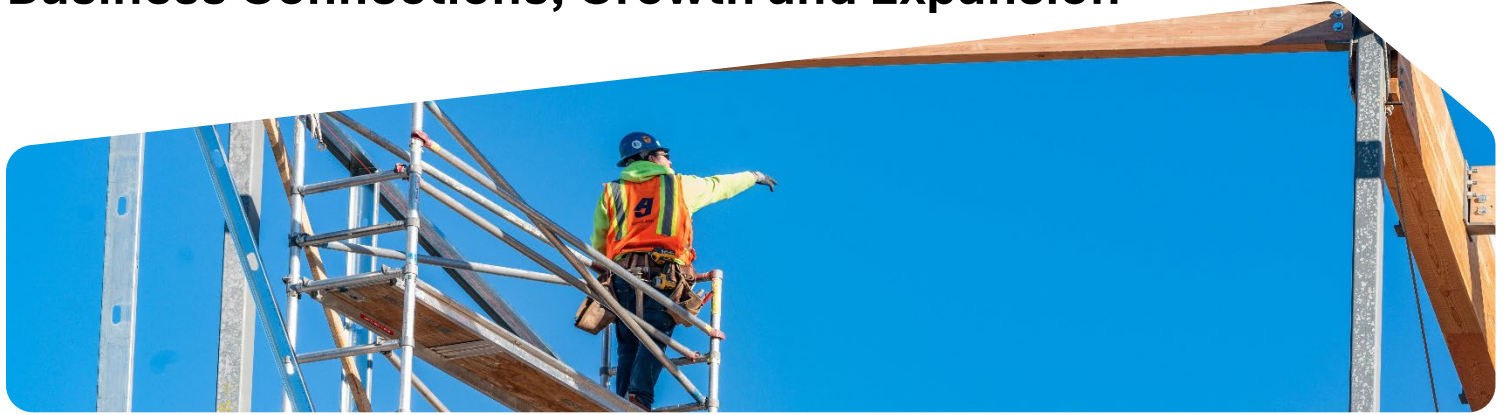
Innovation and Entrepreneurship Support

Promote Portland as a Clean Tech Hub

Cultivate Workforce Connections



Business Connections, Growth and Expansion



Findings

01 Industry Point of Contact

Industry partners and companies indicated a strong need to maintain an industry liaison who can serve as a point of contact for company resource referrals and introductions.

02 Project Permitting & New Facilities

Permitting processes with the City of Portland continue to be cited as challenging for green cities businesses for both projects or facilities. Timelines for permitting, code language, and inconsistencies in code interpretations are often referenced as friction points.

03 Taxes

High taxes were cited as a key barrier in a survey of green cities businesses asking about their business growth challenges.

04 Industrial Site Availability

A lack of large industrial land sites and limited energy availability make expansions and recruitments challenging.

05 Livability

Street-level issues such as homelessness and vandalism continue to be issues that businesses struggle with.

06 Desire for more B2B Interactions

To facilitate collaboration and learning, Green Cities industry businesses want more regular interaction with each other and industries seeking green cities solutions.

Recommendations

01 Continue Funding Industry Liaison

Maintain funding for the Green Cities Industry liaison who can help companies troubleshoot issues and navigate companies to appropriate resources.

02 Industrial Land Readiness

Continue to work with partners (Port of Portland, City of Portland, Metro, local utilities) to unlock larger tracts of industrial land opportunities.

03 Industry Promotion

Continue to promote partner events on webuildgreencities.com, sponsor local industry events, and work with partners to deliver programming that helps bring together diverse stakeholders in Green Cities to enable cross-sector collaboration.

04 Permitting Support

Partner with the Office of Small Business and Portland Permitting and Development to identify and solve for Green Cities-specific permitting challenges (i.e., solar, energy storage, electric mobility).

Local Collaboration in the Green Transition



Photo credit Everardo Gabriel Flores (@everardo.GF) and Latino Founder (@latino_founder)

Findings

01 Multi-Sector Partnerships

When asked about opportunities, stakeholders and companies frequently point to the potential to increase public, private, academic, and non-profit sector collaboration to advance solutions.

02 Local Funding for Energy Transition

Businesses want to better understand how to leverage local public funding sources to support Green Cities deployment (e.g., Portland Clean Energy Fund, Oregon Climate Protection Program).

03 Sustainability Mindset

Portland's sustainability mindset is often cited as a key strength.

04 Supportive Policy

Portland has a history of adopting policies that help drive industry adoption in areas such as green building, low carbon concrete, alternative transportation, and electric mobility.

Recommendations

01 Collaborate With Policy Partners

Work with public agency partners to ensure policies and programs can also drive forward industry innovation in a way that can support business growth.

02 Funding Navigation

Help companies navigate various funding sources via in-person navigation, the We Build Green Cities website, and the We Build Green Cities newsletter.

03 Industry Awareness

Connect with and bring awareness to the broader Portland community about Green Cities companies to facilitate partnerships and source talent.

04 Coalition Support

Serve as City point of contact partner for existing industry sector coalitions (i.e. Mass Timber Coalition and Powerize NW) and support emerging sector-specific coalitions. Opportunity areas identified include zero emission mobility, circular economy, and low embodied carbon building materials.

Innovation and Entrepreneurship Support



Findings

01 Innovation Support

Stakeholders overwhelmingly mentioned the desire for more support for the innovation ecosystem by pushing for the adoption and commercialization of new technologies and general support for early-stage startups.

02 Demonstration Project Support

Early-stage startups identified the need for support to connect with demonstration partners and run pilots with demonstration partners as a top need for innovation support.

03 Commercialization Resources

Startups also mentioned needing support in navigating resources for achieving product standards/certifications and accessing prototyping and testing facilities.

04 Access to Capital

Green cities startups face greater capital challenges due to lack of hardware investors nationally and a longer, often more capital-intensive path to commercialization than software companies. Startups often start with government research grant funding and then seek corporate strategic partners or climate tech investors outside the region.

05 Shared Incubation Space

Having a physical incubation space for clean tech startups was cited as a top priority for the clean tech community. Co-location would enable the sharing of equipment (testing, 3-D Printers, etc.) and create a center of gravity for the industry region.

Recommendations

01 Demonstration Partner Program

Prioritize working with partners to deliver a Demonstration Partner Program for startups.

02 Explore Physical Incubator Space

Work with partners to identify funding and sites for a clean tech incubator space that could offer physical lab space.

03 Broader Investor Connections

Collaborate with partners to help startups get better access to clean tech investors and corporate strategic partners from outside Oregon.

04 Testing & Prototyping Facilities Network

Explore building a resource and referral network for clean tech testing and prototyping facilities with partners in the Pacific Northwest.

Promote Portland as a Clean Tech Hub



Findings

01 Untapped Potential

Portland has a strong foundation for clean tech growth, but its potential remains largely untapped. While the city offers affordability, a strong value-driven community, and industry support, improvements are needed in talent retention and awareness, visibility, and funding access to become a recognized clean tech hub.

02 Lack of Talent Pool Awareness

In surveys of external national clean tech professionals, access to talent is rated last amongst six factors as Portland's perceived greatest attributes as a clean tech hub. More communication and awareness of Portland's deep talent pool is needed.

03 Recruitment Successes

The most successful recruitment and retention efforts have resulted in expansions of companies with robust engineering, design, or research operations or the first manufacturing plant for early-stage companies with a manufactured product.

Recommendations

01 Amplify Local Businesses

Increase the frequency of social media and newsletters for webuildgreencities.com to tell more stories about local talent and innovation.

02 Targeted Recruitment

Focus business recruitment marketing efforts on early-stage companies from late seed to Series B stage and on regional offices for engineering functions.

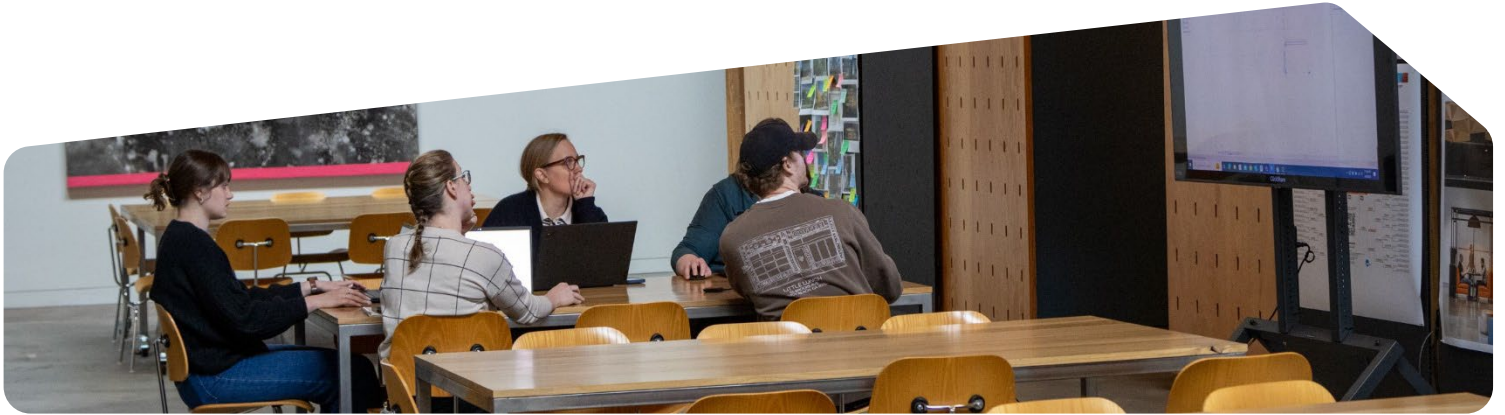
03 Talent Pool Awareness

Find creative ways to highlight and tell stories about the technical talent pool in Portland.

04 National Marketing Strategy

Implement recommendations from the clean tech marketing study for messaging, channels, and strategy to influence national perception of Portland as a clean tech hub.

Cultivate Workforce Connections



Findings

01 Skilled Trades

Recruiting and retaining skilled tradespeople was cited as the number one challenge from the industry.

02 Engineers and Scientists

Recruiting and retaining engineers and other advanced degree positions was cited as the second most important challenge.

03 Higher Education Connections

Stakeholders see opportunity for more connectivity between educational institutions and workforce programs with industry.

04 Upskilling in the Clean Industry

Upskilling and promoting existing staff are also identified as a need in an industry with rapid technology advancements.

Recommendations

01 Workforce Partner Navigation

Facilitate connections between companies and workforce partners.

02 Support Resources for Upskilling

Support Incumbent Worker Training and On-the-Job Training resources to upskill existing workers.

03 Talent Recruitment

Leverage clean tech marketing efforts to help recruit talent to Portland.

04 Growing Diverse Workforce

Find opportunities to connect affinity groups in engineering to industry (i.e., women engineers, Black engineers, Latinx engineers) to help bring more talent and diversity to the industry.



Metrics

Metrics

To deliver on the outcomes outlined in this cluster action plan and make evidence-based decisions requires ongoing monitoring. These team-level performance metrics are captured across the Business Advancement Team's activities and are inclusive of all cluster activities teamwide. These will be used to evaluate progress on the goals of this plan and the cluster action plans. This cluster action plan and the metrics included below are aligned to the goals of Advance Portland, the city's 5-year economic development strategy.

| Metric | Strategic Target | Notes |
|--|------------------|---|
| Cumulative number of Traded Sector business relocations (within Portland) and expansions | 25 | Cumulative Strategic Target from FY 2023-24 to FY 2028-2029 |
| Number of Portland Traded Sector companies gaining access to new markets as a tool for growth | 10 | Annually |
| Cumulative jobs resulting from traded sector business relocations and expansions within Portland | 1250 | Cumulative Strategic Target from FY 2023-24 to FY 2028-2029 |
| Number of businesses receiving technical assistance related to growth or inclusion | 250 | Annually |
| Number of companies participating in a Public Benefit Agreement or public pledge that aligns with Prosper Portland strategic inclusion goals | 150 | Strategic Target by FY 2028-2029 |
| Number of employees at companies participating in a Public Benefit Agreement or public pledge | 44,000 | Strategic Target by FY 2028-2029 |
| Percent of businesses reporting that achieved growth goals as a result of participating in programming | 70% | Annually |
| Number of businesses reporting gaining skills or knowledge that will improve their inclusive practices | 150 | Strategic Target by FY 2028-2029 |
| Cumulative local investment and spend through Enterprise Zone and business expansion programming FY 2023-24 to FY 2028-29 | \$750,000,000 | Cumulative Strategic Target from FY 2023-2024 to FY 2028-2029 |
| Cumulative spend at local BIPOC-owned businesses by Portland Means Progress businesses since its launch in 2019 | \$700,000,000 | Cumulative Strategic Target since 2019 by FY 2028-2029 |



Industry Outreach

Industry Outreach

The Prosper Portland Green Cities Liaison met with approximately 40 Portland businesses in fiscal year 2024/25. Key challenges and opportunities were identified through these business visits.

In Fall 2024, an online industry survey was broadly disseminated and answered by 58 industry and partner representatives. The survey focused on needs, challenges, and opportunities for the industry. Information gathered from business visits and feedback from the survey helped to inform the drafting of actions under six broad categories. These draft actions and survey results were presented at two industry convenings with approximately 45 total participants. Participants at the two convenings were able to vote on the actions they found most relevant and critical for the industry and provide feedback on the draft actions.

Participants in both the survey and convenings had strong representation in the energy and mobility subsectors as well as significant representation from early-stage startup founders; therefore, voting and prioritization leaned more prominently towards these stakeholder groups.

To complement this outreach, Prosper Portland also contracted with a climate tech marketing agency to do market research on perceptions of Portland as a clean tech hub. A survey about Portland's perception as a clean tech hub was open from December 2024 to January 2025. Of the seventy-two national respondents, eight were from the Portland area and the remainder were from around the country, with many respondents from other US energy hubs in Texas, Colorado, and Massachusetts. Interviews with seven stakeholders familiar with both Portland and the national clean tech ecosystem also informed the findings.



Conclusion

Our history of climate action at both the local and state level has created a home for a talented clean energy, climate tech, and green building community that has been honing its craft for more than four decades.

However, Portland struggles to compete with other metro areas that have better infrastructure and programs to support clean tech startups or other metro areas that have more industrial land availability or cheaper cost of doing business. Our reputation as a hub for innovation in green technology and sustainability relies upon our ability to support both the talent and infrastructure for innovation required that will help us advance next generation technologies in clean tech.

All of the ingredients are here: a strong base in electronics, engineering, renewables, green building, marine, and metals combined with a culture dedicated to sustainability and inclusion give us what few other regions have. The challenge becomes how do we take Portland to its next phase of leadership in the clean economy.

For more than a decade, Prosper Portland has embraced that challenge, helping convene and cultivate leadership in this industry, and continuing to support this cluster through changing investment cycles and federal support. We believe in the potential for Portland to lead on sustainability and climate action in a way that benefits everyone and brings wealth and benefit to communities. Our future story is still being written, and this action plan outlines what's needed to help us get there.

Contact the Business Advancement Team

Prosper Portland's Business Advancement Team is a catalyst for equitable economic growth. We help businesses grow by providing support and identifying opportunities that foster the creation of living wage jobs for all Portlanders.

Katherine Juengel - Green Cities
Industry Liaison
juengelk@prosperportland.us

[Visit us Online](#)