



Greater Portland

Comprehensive Economic
Development Strategy (CEDS)

Prepared by:



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The Greater Portland Economic Development District (GPEDD) updates the Comprehensive Economic Development Strategy (CEDS) for the region every five years, but this update was different. A cohesive economic strategy is more important now than ever. The CEDS planning process began in January 2020, under the joint leadership of GPEDD and Metro, the metropolitan planning organization (MPO) for the region. Early in the process, the nation faced shut-downs and significant economic and social impacts as a result of the COVID-19 pandemic. To best respond, the GPEDD Board of Directors paused work on the CEDS and focused energies on economic recovery. That body of work, The Greater Portland Economic Recovery Plan, helped inform and is embedded in the CEDS.

The GPEDD Board of Directors is committed to fostering upward economic mobility for individuals and prosperity for businesses in the bi-state region. We have engaged in this comprehensive strategic planning effort to focus the collective efforts of all economic development partners in the area to establish regional goals, objectives, and to guide partner efforts. Over 250 regional partners representing more than 100 organizations, jurisdictions and businesses were engaged during this 15-month process to collaborate, create and refine the direction of this work. Together with our fellow board members, advisors and stakeholders, we are proud to present the Greater Portland CEDS.

The Greater Portland CEDS seeks to unify the region around three core pillars: strong economic growth, equity, and resilience. These pillars informed the CEDS framework and subsequent recommendations.

The GPEDD Board is grateful for the Strategy Committee, which comprised leaders from the public and private sectors, non-profit organizations, educational institutions and community organizations, and for the dozens of advisors and focus group participants who contributed to this tremendous body of work.

This strategy charts a bold new vision for the Greater Portland region, one with an equitable, innovative, resilient, and forward-thinking economy that fosters upward economic mobility for individuals and prosperity for businesses. The GPEDD board is committed to ensuring successful implementation of the recommendations spanning from 2022 through 2027.

Effective implementation is dependent upon our collective momentum and coordinated efforts.

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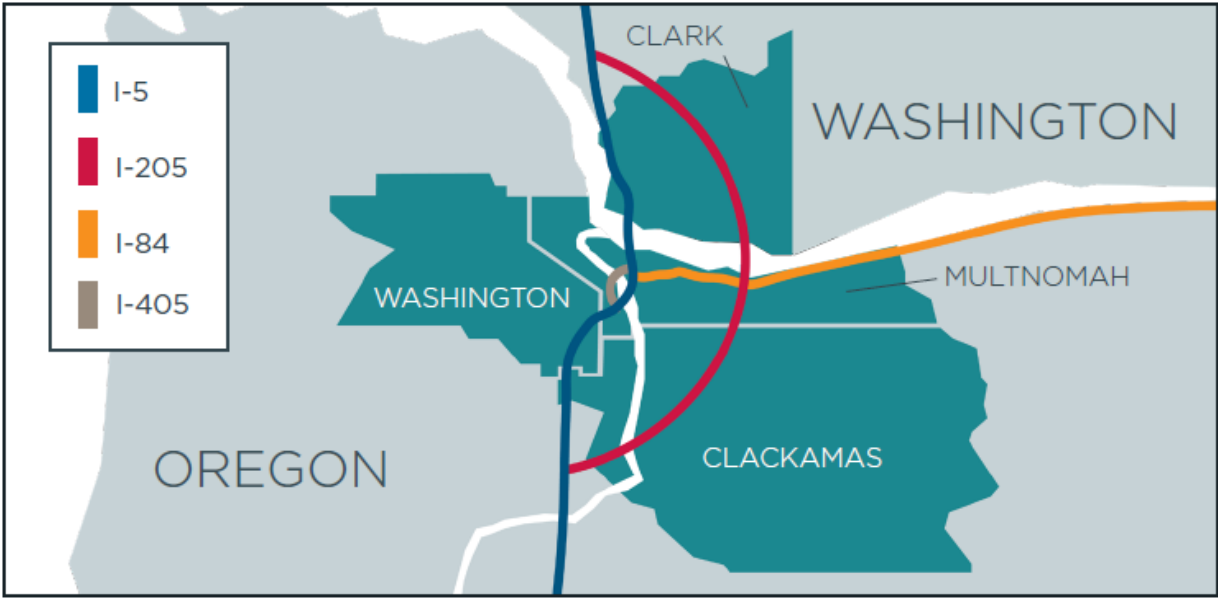
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INTRODUCTION

The Greater Portland Comprehensive Economic Development Strategy (CEDS) was developed under the guidelines of the U.S. Economic Development Administration (EDA) to engage community leaders, leverage the involvement of private sector partners, and establish a blueprint for regional collaboration. The Greater Portland region is defined as Clackamas, Multnomah and Washington Counties in Oregon and Clark County in Washington¹ and represents the area of focus for the Greater Portland Economic Development District (GPEDD).



The CEDS planning process began in January 2020, under the joint leadership of Greater Portland Inc (GPI), the regional non-profit economic development organization, and Metro, the federally mandated metropolitan planning organization (MPO) for the region.

Early in the planning process, as the nation faced shut-downs and was beginning to reckon with the impacts of the COVID-19 pandemic, the GPEDD board decided to pause the CEDS work and focus on a more immediate short-term [Economic Recovery Plan](#). The Economic Recovery Plan was approved by the GPEDD board in October 2020. The analyses and recommendations in the Economic Recovery Plan align with this long-term CEDS and the actions are integrated with the recommended actions for CEDS. GPI Staff will manage the implementation of both the Economic Recovery Plan and CEDS for accountability and transparent reporting of outcomes.

The strategy is based on data analyses coupled with numerous interviews and discussions with business leaders and organizations providing economic development services. The Conditions Assessment, a summary of the benchmarking and industry cluster assessment and stakeholder

¹ The Greater Portland CEDS focuses on the four identified counties. The Portland Metropolitan Statistical Area (MSA) is comprised of seven counties, which includes the four CEDS counties and Columbia and Yamhill counties in Oregon and Skamania county in Washington.

engagement, is the foundation for the CEDS strategy (Appendix D). A detailed summary of all participating stakeholders is provided in Appendix C.

How to use the CEDS

This document is aimed at regional, city and county economic development practitioners, business leaders, elected officials and stakeholders implementing programs that support the growth of businesses and enhance opportunities for individuals to access economic mobility in the Greater Portland region. However, the goal of CEDS is to advance equitable job and wealth creation across the region. This requires alignment and implementation of actions across government agencies and organizations. It provides strategic direction to guide actions that will evolve over the next five years to meet dynamic economic and business conditions. The strategy is constant; the actions and organizations involved in implementation will change over time.

Educate

The Greater Portland CEDS is founded on the vision that the future Greater Portland economy will be forward-thinking and equitable. The vision needs broad support and this document should be used to engage (1) elected officials and (2) business leaders, to secure their help in amplifying the vision and providing support through their actions.

Invest

The strategy should also be used to leverage greater investment in the region by providing data and rationale that can be used to (1) obtain grants to fund implementation; and (2) align federal and states' legislative agendas to collaboratively solicit funding to support strategic projects.

Collaborate

Many organizations are actively working to create equitable economic growth across the region. It is important to collaborate to maximize collective efforts by:

- Coordinating with GPI to let them know about each organization's work so it can be leveraged across the region.
- Engaging other organizations or departments within a jurisdiction to break down silos and leverage resources to the greatest extent possible and elevate one another's work.

Implementation

To guide implementation, GPI and Metro staff will convene lead and partner organizations identified in the action matrix to advance the strategy. To ensure equitable implementation, the GPEDD board will invite leaders from BIPOC communities to convene to track, evaluate, and recommend modifications as the work progresses to ensure the values stated below are deliberately reflected in all of our work. The GPEDD board will provide direction and oversight in the CEDS implementation.

THE GREATER PORTLAND STORY

Greater Portland is home to companies that operate on a global scale such as Nike, Intel and Boeing. The region excels at creating, making and exporting innovation, ideas and products that generated an increased value of export growth of 22 percent between 2013-2018. International companies such as Adidas and Daimler have located their North American headquarters in Greater Portland, advancing the region's global position. Operating on a worldwide scale, companies such as HP and SEH must vie with foreign company locations in Japan and South Korea for talent and efficiencies. Developing a skilled workforce and building efficient infrastructure, both physical and digital, are critical elements to retain the regional competitive advantage on a global stage.

Companies in this region are purpose-driven. The philosophy of the region is to advance equitable economic growth and manage growth challenges: housing affordability, income inequality, traffic congestion and others. The region wants to create jobs and grow enterprises that help to advance its goal of ensuring a more resilient and equitable economy.

The regional community and retail markets embrace new and local products. Such products are a vital ingredient to a fast-growing food and beverage industry that is a defining element of the regional brand. The industry values commitments with rural growers that develop personal relationships and encourage innovation. Mutual support and collaboration foster the success of numerous regional brands, such as Bob's Red Mill, Dave's Killer Bread, and Aviation Gin.

For the Portland region to compete globally for talent and investment, it must be diverse. The region is a predominantly white population (8 in 10 residents, or 81.2 percent are white), but public and private leaders are committed to shifting this trend. Its Black population grew 4.3 percent since 2013 to more than 72,000 residents and is better integrated than 11 of its 13 peer regions such as Seattle, Denver, San Francisco and others. The region is less segregated geographically relative to peer regions though it continues to face significant displacement of communities of color from more centralized, less affordable parts of the region. The Portland region has better income equality compared to 12 of its 13 peers, which sets a solid foundation for increased diversity.

The State of Oregon's strengthening of land use laws and the establishment of an urban growth boundary in the 1970s to protect farmland and natural areas defines the region's genuine and authentic commitment to environmental protection and ensuring the highest and best use for commercial development. The region's investment in light-rail over freeways during that same time kept the region from sprawling like many of its peers. This same land use planning philosophy was adopted by the State of Washington in 1990 through the Growth Management Act. With pride in a thriving quality of place, Greater Portland is one of the most desirable regions for talent to move and stay. With a culture of regional collaboration and organizations that manage transit and the growth boundary, there is a strong foundation to maintain the value of intentional growth that will help the region respond to climate change and other impacts yet to be realized by the COVID-19 pandemic.

STRATEGY FOUNDATION

The CEDS articulates a commonly defined purpose, vision, and strategy to move the region in a unified direction. Recognizing that the COVID-19 pandemic will impact the economy for years to come, this CEDS focuses on long-term strategies for equitable and resilient economic growth. We have defined three core pillars of the strategy as follows:

Strong Economic Growth - A regional economy with increasing Gross Domestic Product (GDP) over time and at higher rates than peers. An economy that is globally connected, driven by emerging technologies, diversified and adaptable, and welcoming to highly skilled entrepreneurial labor, and scalable firms.

Equity – An economic system that ensures under-represented and under-served people have the same level of access to the economy and wealth creation as all other residents.

Resilience – An enduring economic structure that fosters the capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt, and grow, no matter what kinds of chronic stresses and acute shocks they experience.²

This foundation is reflected in the following vision for the region in 20 years.

The Greater Portland region is an equitable, innovative, resilient, and forward-thinking economy that fosters upward economic mobility for individuals and prosperity for businesses.

² 100 Resilient Cities

STRATEGY FRAMEWORK

The CEDS Strategy Committee developed a set of Values and Guiding Principles that shaped goals, objectives and actions that were refined and approved by the GPEDD board. This framework will guide regional efforts for the next 5-10 years. This framework clearly articulates the desired outcomes of the strategy and its development.

Values

The Values guide desired economic development outcomes. The Greater Portland region values:

Equitable Economic Growth that improves economic mobility, builds wealth, and provides enhanced opportunities to BIPOC, under-represented, and under-resourced individuals.

Comprehensive Skills Development that is provided within the region from early childhood through higher-ed, including vocational and post-secondary, to improve upward mobility.

Innovation and Creativity for a competitive, dynamic and healthy entrepreneurial ecosystem that supports new and existing businesses.

A Sustainable Environment that assertively addresses climate change, fosters new technologies, and improves public well-being.

Resilient Regional Investments to build new, and enhance existing social and physical infrastructure to handle economic and natural disasters.

Creating a Favorable Environment for Businesses to Thrive with a supportive public policy and culture that retains and attracts new business.

Expanding Job Opportunities in Both Traded and Local Sectors for all Portland region residents to pursue career opportunities that build wealth.

Guiding Principles

Guiding Principles shape the development of CEDS. The following factors were considered throughout the strategy development process.

A Cultural and Racial Equity Lens will ground all objectives and actions to actively respond to the increasing income inequalities exacerbated by the pandemic.

The Private Sector will be Actively Engaged to effectively implement objectives in collaboration with public and nonprofit sectors.

Clear and Transparent Roles and Lead Organizations are identified to efficiently implement the plan.

Collaborative Bi-state Leadership that recognizes and values different community assets (e.g., urban and rural) and will actively promote and invest in the CEDS and implementation efforts.

Roles of Public Sector and Private Sector

Wealth creation and economic mobility is derived from access to incomes generated by jobs and equity through business creation, home ownership and investments. All of these opportunities to generate wealth are derived from the private market and reinforced by the public sector investing in infrastructure and land availability, maintaining community health and safety, providing sound governance, fostering an education and workforce system to build talent, and by addressing gaps in the private market regarding capital and technical assistance. The public sector has a key role in working with the private sector to ensure businesses can sustainably grow and entrepreneurs can access capital and establish innovations that enable individuals with the opportunity to improve economic mobility. Successful communities provide these fundamental needs while sustaining a proactive culture of public-private collaboration to achieve public good and to cultivate innovation within market realities.

	Public Sector	Private Sector
Role in economic development	<ul style="list-style-type: none"> - Establish clear regulatory framework for markets - Convene stakeholders to identify future visions or plans and find solutions to challenges - Reduce barriers and encourage private development by leveraging investments in infrastructure, development-ready land, talent and skills development, public services, as well as technical and financial assistance to advance business activity and entrepreneurships 	<ul style="list-style-type: none"> - Business creation and expansion - Primary generator of employment - Deployment of capital, expertise, and technology to promote economic growth - Inform and reinforce community investments that advance business expansion opportunities as well as labor and market access by providing expertise, guidance, and capital support.
Example organizations	<ul style="list-style-type: none"> - State, regional, county and city governments, port districts, tribal government and other public agencies. 	<ul style="list-style-type: none"> - Micro and small businesses - Emerging and established locally-serving businesses - Emerging and established traded sector businesses - Scalable entrepreneurs

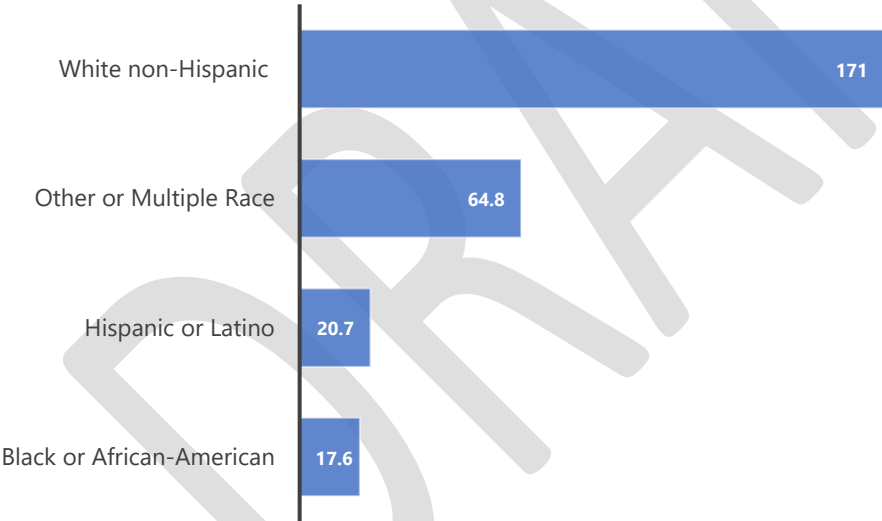
GREATER PORTLAND STRATEGY FOR EQUITABLE GROWTH: 2022-2027

Building off the Greater Portland 2020 plan, the Greater Portland Strategy is premised on three goals focused on people, business, and place. The goals and objectives respond to the key findings identified in the Conditions Assessment as explained below. Specific actions that implement the objectives are detailed in the Action Matrix provided in Appendix A.

1) Foster Upward Economic Mobility

Since 2013, Greater Portland’s median household income has increased 28 percent to approximately \$75,600. However, the net worth of the average white household is nearly ten times greater than that of the average Black household, and eight times greater than a Hispanic household.

Family Median Net Worth, Thousands of 2016 Dollars



Source: Federal Reserve Board, Survey of Consumer Finances

Wealth creation matters for four reasons. First, wealth creation is a safety net that keeps households from being derailed by temporary setbacks and the loss of income. Second, it allows people to take career risks knowing that they have a buffer when success is not immediately achieved. Third, family wealth affords residents to access housing in neighborhoods with good schools, thereby enhancing the upward mobility of their own children. Finally, wealth creation affords people opportunities to be entrepreneurs and inventors; the income from wealth is taxed at much lower rates than income from work, which means that wealth begets more wealth.³

1.1) Provide comprehensive and coordinated skills development starting with child care through higher-ed, including vocational and post-secondary, and life-long learning

Providing early learning child care is a critical community investment, helping to develop the necessary skills that allow a community to realize its human and economic potential.⁴ This is especially true for underrepresented children. Business leaders across all regional industries - metals and machinery, computer software, apparel and outdoor and others - want to start engaging students in middle school to prepare the local future workforce. This was evident in every industry focus group hosted during the CEDS engagement process. Higher-education leaders in Greater Portland intend to build off this engagement and provide necessary skills development through college. Improving the skills of individuals not only improves the employment base, but also creates civic and business leaders that will guide the region in the future economy.

³ Examining the Black-white wealth gap, Brookings, February 27, 2020

⁴ The anatomy of inequality: Florian Hoffman discusses how income disparities have grown in the U.S. and Europe over the last 40 years, American Economic Association, November 25, 2020

1.2) Expand economic opportunities for all individuals with a focus on BIPOC and underrepresented communities

Expanding access to quality job opportunities increases economic opportunity and allows individuals to build wealth and begin to close the income gap. There are current opportunities within the health care and construction industries that should be leveraged. Industries such as software and design and media, which have minimal automation impacts and strong wages but are challenging to access, should be a focus for improved access especially for underrepresented individuals.

	Share of Employees of Color (2019)	Share of Talent w/ a BA Degree or Less (2019)	Share of Jobs at Risk for Automation (Index > 100) (2019)	Earnings Per Workers (2019)
Apparel and Outdoor	28.4%	74.8%	53.4%	\$93,113
Clean Tech	23.7%	47.8%	40.5%	\$100,700
Computer and Electronics	38.4%	51.6%	39.7%	\$160,840
Design and Media	16.6%	34.6%	8.5%	\$93,204
Food and Beverage	32.2%	97.5%	86.8%	\$61,614
Metals	24.9%	79.2%	68.8%	\$87,275
Software	22.2%	18.7%	1.5%	\$137,883

2) Support a Competitive Economy

The job of economic development professionals is not to pick which idea or technology may succeed, but to create a fertile ground where innovation will thrive locally and become a pipeline to the region's next emerging sector. Greater Portland is well positioned to foster innovation in high-tech, R&D "advanced" industries that can address climate change and support the vital technology underpinning the future economy. Annually, the region, on average, attracts \$365 million in venture capital, according to analysis by the Center for American Entrepreneurship. The Brookings Institution estimates that nearly 5 percent of Greater Portland employees work in innovation industries - a share that is on par with tech hubs Austin, Texas and San Diego California.

In developing tactical actions to support small business growth, it is important to recognize that small businesses are not uniform and those in different size categories face different challenges in accessing financing and technical support, and not all small businesses are positioned to scale. As identified by Teconomy Partners, LLC, while most entrepreneurs start by forming small businesses, not all small businesses are entrepreneurial. Small business owners develop companies to generate wealth and provide employment and income for themselves and others; entrepreneurs are interested in creating innovative products or services that lead to further investment and growth. Understanding the different motivations and needed support services for these two types of businesses is important in developing the strategy and actions.

2.1) Develop an entrepreneurial ecosystem that supports robust local small businesses and scales traded sector industry

New business growth in Oregon has been stagnant since 2017 but is growing in Washington. According to the Kauffman Foundation, a thought leader in how to grow and sustain entrepreneurship across the U.S., less than 1 percent of Portland small businesses scale to “medium-sized” enterprises after 10 years. This ranks last among Portland’s peer communities.

Geography	Kaufman Index Share of Scaleups, 2017
Austin	2.30%
San Jose	2.20%
Nashville	2.10%
Pittsburgh	2.00%
San Francisco	1.90%
Phoenix	1.70%
Minneapolis	1.70%
Las Vegas	1.70%
San Diego	1.70%
Denver	1.50%
Seattle	1.50%
Atlanta	1.30%
Portland	1.10%

The impacts of COVID-19 suggest new businesses will be emerging out of necessity. There is an opportunity to increase the support of scaling businesses tied to innovation with strategic investments. Additionally, focused contracting and buying from local firms, especially BIPOC owned, through procurement policies among major anchor institutions such as healthcare and educational institutions and large traded sector businesses should be utilized more broadly. Less than 1 in 5 startups in Portland are BIPOC owned, ranking near the bottom of peer communities. This statistic alone is a call to action for the region to support increased investments in underrepresented enterprises.

2.2) Invest in innovations that strengthen and grow the Portland region traded sector clusters

Oregon’s footwear and apparel cluster has been a key driver of the region’s innovation, per an analysis from Harvard’s Institute of Competitiveness and Strategy’s U.S. Cluster Mapping Project. To ensure a more resilient future, innovation within all regional sectors must be expected. Small fabricators will require automation equipment and an increasingly skilled workforce to remain competitive and stay in the region. Meanwhile, the computer and electronics (C&E) industry supply chain is increasingly solidifying its presence in Asia. Global economic disruptions like these require a

diversity of industry types, sizes, and talent to foster a resilient regional economic base. Ongoing and enhanced commitment from Greater Portland's business leadership to hire diverse talent will improve innovation, resiliency and strengthen the likelihood of improved financial performance for local enterprises.

2.3) Enhance the Portland regional identity and brand for talent, capital and business

Several regional industries, specifically the apparel and outdoor and software sectors, indicated that retaining diverse, especially BIPOC, talent is their most important issue. However, according to the [Partners in Diversity Retention Project](#), professionals of color convey there is an unwelcoming culture for diverse individuals in the Portland region. At the same time, between 2013 - 2019, [venture capital funding in clean tech increased 3,750%](#) and the Portland region can genuinely leverage its brand and policies to access this opportunity for emerging businesses. By some estimates, 25 percent of the U.S. workforce may remain "remote workers" after the pandemic with the freedom to pick and choose their home locations. By addressing barriers and elevating authentic opportunities that enhance a more welcoming regional brand, Greater Portland can compete for that diverse talent pool, while attracting investment to help grow its industry base and BIPOC enterprises.

3) Build a Resilient Region

Resilience and economic growth are both vital for healthy economies in uncertain times. If a local economy is resilient, the recovery period will be much shorter than an economy with little or no resilience. If a local economy is not resilient, it may never return to its former economic growth path. Places that recovered from the 2008-2009 Great Recession included regions with high educational attainment, a diverse and adaptable workforce, attainable housing prices and rents, ongoing capital investment indicating the availability of significant public resources, and those that are not dependent on the cyclical nature of a single industry. Likewise, resilient regions invest equally in addressing chronic stressors associated with economic inequality, which plagues all of our communities: poverty, limited education attainment, unemployment, health disparities, racial biases, and other factors. As the current pandemic is showing, disasters disproportionately impact our most vulnerable populations. Regions will need to address those left behind and hit the hardest before they can jump forward.

3.1) Construct resilient physical infrastructure

Measured by value, 74% of the commodities traveling in the Portland region are moved by truck and trucking will remain the predominant mode of freight transport in the region for the foreseeable future. Recent studies on the advancement of e-commerce indicate that the rise in demand for quick deliveries is adjusting how truck freight interacts with local distribution networks with fulfillment, warehouse, and distribution centers located in ex-urban locations within or adjacent to the Central City. Last-mile carriers have increased their workforces, expanded hours of operation and fleets, and employ not just trucks, but also vans, automobiles, and bicycles to fulfill customer requirements for

rapid, local distribution.⁵ These recent shifts and the necessity of moving between modes to meet consumer demand elevate the importance of a well-connected multi-modal freight system that leverages these localized delivery methods alongside strong intermodal connections between the trucking system and air, rail, and marine shipping methods.

In addition to freight delivery, high-growth industry clusters tend to be located in and rely on investments in multi-modal transportation infrastructure. This includes better traffic management and increased rates of carpooling to reduce unmet capacity when widening is not feasible, involves significant community impact, and transit availability is also a competitive advantage in attracting skilled workers.⁶

Rebuilding the I-5 and Burnside bridges, which cross the two major rivers in the region, and understanding gaps in our fuel supply chain and emergency water provision plans, are vital for a resilient region that can withstand earthquake impacts and support the economic base. Investments in TriMet and C-TRAN support real estate development activity and help concentrate economic activity in addition to the traditional role providing mobility options for workers.

Additionally, targeted investment in other infrastructure such as broadband and climate technology innovation will contribute to our regional vitality. Broadband in underserved communities, both urban and rural, will increase resilience to economic shocks, help with recovery, and support more robust growth. High speed, quality, and affordable broadband is critical for businesses and households. Furthermore, fostering new technologies that address impacts on climate change are of critical importance to the region.

3.2) Strategically invest in public policies that align with economic development priorities

Businesses require available sites for expansion opportunities. The average site size needed is 17 acres, according to recruitment requests managed by GPI over the last five years. Public and private collaboration is required to provide appropriately sized sites that meet the location and infrastructure needs while implementing land use policies that address climate change. Focused alignment with Opportunity Zones, especially as the Biden Administration looks to expand this program, can enhance outcomes of targeted site expansion. Additionally, continued investment in supportive infrastructure such as affordable housing and transit is vital for underserved individuals to access opportunity.

The COVID-19 pandemic has accelerated the adoption of remote work across the world. Researchers [estimate](#) that 25 percent of workers will remain working remotely after the pandemic (up from 2 percent before pandemic). An additional 20 percent of the workforce will do so part-time on a flexible basis. Greater Portland should support placemaking investments in diverse communities throughout the region to meet the needs of residents. [Placemaking](#) fosters public gathering in open accessible

⁵ <https://www.portlandoregon.gov/transportation/article/751002>

⁶

<http://clustermapping.us/sites/default/files/files/resource/The%20Role%20of%20Transit%20in%20Support%20of%20High%20Growth%20Business%20Clusters%20in%20the%20U.S..pdf>

areas such as public parks or private retail and restaurants. Such environments may encourage remote workers to live and work in suburban or rural communities to reduce commuting and climate impacts.

Greater Portland Industry Clusters

Conventional economic development strategies have focused on clusters that represent a competitive advantage (as measured by location quotients (LQ) – a measure for the level of job or industry presence industries have in an area). The unique three pillar approach for this CEDS required new thinking – highlighting cluster strength along three dimensions instead of one. The table below includes key clusters in the region. For each criterion, they are ranked, with the lowest number being the strongest rank. There is a more detailed understanding of the barriers and opportunities facing each industry – some of which apply to several industries and some of which are specific to vital growth sectors in the region. For example, business leaders from computer and electronics, apparel and outdoor and software sectors identified the critical importance of improving the culture of the Portland region to make it more open and welcoming to diverse people.

	Economic Growth Score (Rank Summary)	Equity Score (Rank Summary)	Resilience Score (Rank Summary)	Overall Score Summary
Computer and Electronics	12	23	48	83
Software	25	34	53	112
Apparel and Outdoor	30	22	67	119
Metals	28	31	61	120
Food and Beverage	30	22	73	125
Clean Tech	38	31	60	129
Design and Media	33	33	66	132

Source: Bridge Economic Development

Therefore, implementation should focus on improving diversity across all industries, not just one. Other examples of cross-sector investments include efforts to scale up small businesses, support entrepreneurs, enhance existing infrastructure and shared assets between industries, and foster new technological innovations.

Key takeaways about the region’s seven target clusters are listed below. Additional analysis for each cluster is available in the Conditions Assessment (Appendix D):

Computer and Electronics

- A sector that is 15 times more competitive than the U.S. average; more than 90 percent of the region's workforce in this cluster is employed in sub sectors that are at least 25 percent more competitive than the U.S. This gives Greater Portland a strong competitive advantage.
- Responsible for 41,00 employees in the region and \$12 billion in economic output
- While competitive, just 2 in 10 workers are women and less than 3 percent are Black. That said 4 in 10 workers are BIPOC because of a strong Asian American presence in this cluster.
- 4 in 10 jobs are at risk for automation, per EMSI's automation index.
- From 2014 to 2019, employment in Greater Portland C&E cluster grew by 9.5 percent

Software

- Greater Portland's software sector is 53 percent larger than the U.S. average, employing approximately 32,000 up nearly 30 percent since 2019
- Accounts for \$8.8 billion in gross domestic product, ranking it second among the area's key clusters
- 3 in 10 software employees are female, indicating a need for a regional effort to increase opportunity
- Just 2 in 10 software employees are BIPOC
- Of all the target sectors, Software faces the lowest threat for automation in the future; just 1.5 percent of jobs are susceptible.

Apparel and Outdoor

- With the likes of Nike, Columbia and a very strong ecosystem, Portland's strength in apparel and outdoor is 4 times the U.S. average
- Employs 8,100 workers - up 18.5 percent since 2019
- Eight in 10 workers are employed in sectors with a location quotient greater than 1.25, representing a very competitive sector for the region
- 4 in 10 workers in apparel and outdoor are female - the greatest share of all target sectors
- 3 in 10 workers are BIPOC, a share that is second to food and beverage processing
- One-half of the jobs represented by this sector are at risk for automation, however, 75 percent of the jobs in this cluster do not require a college degree. This represents a pathway to increasing upward mobility, even with the challenges posed by automation

Metals

- While a legacy sector for the region, the metals sector is 4 times greater than the U.S. average and employs 22,270 employees.
- Since 2019, the sector has shown a slight decrease in employment of less than 1 percent.
- Accounts for \$3.3 billion in gross regional product.
- 18 percent of the sector's workforce is female; 25 percent are BIPOC employees.

- 7 in 10 jobs are at risk for automation, the highest of any target sector; 80% of those employed in greater Portland's metal sector do not have a college degree

Food and Beverage

- A burgeoning cluster for the region, food and beverage employees 18,500 workers - 2 times the U.S. average for a region Portland's size.
- Employment in the sector has increased by 25 percent, demonstrating a strong opportunity for expansion in the future.
- 33 percent of workers are BIPOC residents and 36 percent of are female.
- While just 3 percent of all jobs in the sector requires a college degree, 9 in 10 jobs are at risk for automation.

Clean Tech

- A sector representative of Greater Portland's sustainability brand, clean tech employs 14,200 in the region - a share than 79 percent greater than the national average
- Clean tech employment has increased 10.5 percent 2019
- Women represent 30 percent of the sectors workforce; BIPOC residents make up 23.7 percent of the employment
- 4 in 10 jobs are at risk for automation; 50 percent of jobs in the sector require a Bachelor's degree or higher

Design and Media

- Employing approximately 26,000 - a sector that is 48 percent larger than the U.S. average
- Represent \$4.2 billion in economic output
- 4 in 10 employees in design and media are female - a share that is second highest among the region's target sectors
- 34 percent of jobs in design and media require a college degree; while just 9 percent of jobs are at risk for automation

The CEDS does not identify specific industry clusters for targeted investment. However, it is recommended that GPI regularly convene focus groups with a significant private sector presence for each sector to determine the opportunities and barriers that each industry is facing. Understanding this information will provide meaningful direction for future program development as well as critical detailed industry data to support recruitment efforts.

A consistent and important theme shared by industry leaders is the need for improving and expanding the regional talent pipeline. Currently, workforce organizations in the region are focused on jobs in health care and construction. These industries have lower barriers to entry and higher than minimum wages and are also projected to continue growing. They are important industries for local economies.

Industry Sector	Current Regional Workforce Training Programs
Computer and Electronics	
Software	x
Apparel and Outdoor	
Metals & Machinery (Manufacturing)	x
Food and Beverage	
Clean Tech	
Design and Media	
Health Care (local sector)	x
Construction (local sector)	x

An expanded focus in science, technology, engineering, art, and math (STEAM) is encouraged for the development of the future workforce. While this is a longer-term and more challenging proposition, it is necessary to propel innovation in the Greater Portland traded sector industries, such as computer and electronics, clean tech, software, design and media.

It is also important to recognize that clusters are not just tied to the regional economy, but also to the regional identity. Industry clusters such as apparel and outdoor (Nike and Columbia), food and beverage (Bob’s Red Mill and Smith Tea), and design and media (stop-motion filming and international architects) help define the Portland region’s brand, ethos, and authentic reputation.

Finally, because this strategy is forward-thinking as declared in the vision statement, the Greater Portland region will be responsive and supportive of emerging or aspirational clusters. Regional partners have the ability to evolve through the implementation of the CEDS to collaborate in support of emerging clusters such as bioscience, biotechnology, and digital health in order to pursue business attraction, retention, expansion, and entrepreneurial activities.

Action Matrix

The Action Matrix (Appendix A) delineates actions to support CEDS priorities. Multiple stakeholders and organizations will contribute to the actions, as one organization alone cannot implement the strategy. Regional ownership is established by identifying Lead Organizations that champion and guide implementation. Potential partners are listed but are *not* exhaustive. More organizations will be engaged as implementation advances. Without the structural organizational support, an action will simply remain a good idea. The Matrix is a flexible tool that allows for the introduction of new actions over the years if they align with the strategy objectives and are represented by a Lead Organization.

Evaluation Framework

Metrics serve three purposes: (1) measure progress towards outcomes, (2) determine if the actions are meeting the plan's defined objectives (impact), and (3) allow for transparent communication on progress and impact to the broader community.

Outcomes: Within the Action Matrix, each objective has an associated outcome to determine if the desired impact is achieved. The outcomes are measurable and where applicable, define metrics for BIPOC individuals to assess if equitable outcomes are achieved.

Benchmarks: At a broader community level, key benchmarks can be tracked and reported annually to communicate both progress and impact. It will take several years to improve the statistics but consistent progress tracking will show that the region is maintaining a vital focus on the long-term goals. Annual reporting of the benchmarks will help maintain stakeholder engagement throughout the implementation process. Benchmarks should be compared with peer regions to provide a stronger context for the region. Metrics and peer regions are provided in Appendix B.