

This report was produced for King County through a grant from the Department of Ecology's Recycling Development Center by Full Circle Environmental, Kamal Patel, and Resource Recycling Systems.







Project Background

King County's Solid Waste Division and the Washington Department of Ecology's Recycling Development Center aim to advance equitable zero-waste and circular economy objectives. This includes increasing regional manufacturing capacity and supply chains for utilizing recycled (or secondary) material.

Delivering a zero-waste, circular approach for material management in Washington could unlock significant opportunity for people, businesses, and communities throughout the state. Understanding how to best support businesses within the secondary material marketplace is a central ingredient to success.

Economic development opportunities, however, often favor those that already benefit most from existing systems and structures, further solidifying and perpetuating inequities. Economic development policies, practices, and resource allocations—including those to support manufacturing businesses using secondary materials as feedstock and other businesses that focus on circular economy objectives—are influenced by this dynamic.

Communities that face negative environmental impacts from manufacturing industries have also lacked standing and voice in development of facilities in their communities, leading to disproportionate impacts and burdens from this type of industrial activity.

Solely focusing on material diversion or the needs of existing businesses could lead to failing to understand and develop strategies that mitigate these inequities in policy, and programmatic decisions could continue to marginalize certain "overburdened communities1".

To develop actionable recommendations for advancing an equitable circular economy in Washington, the consultant team conducted research in the following areas:

- 1. Best practices in secondary material end market development in the U.S.
- 2. Considerations for supporting equity in business assistance programs
- 3. Historical landscape and inventory of resources within Washington for recycling end market business support

¹ We use the term "overburdened communities" throughout this document in alignment with the Washington Healthy Environment for All (HEAL) Act (SB 5141). "Overburdened community" means a geographic area where 16 vulnerable populations face combined, multiple environmental harms and health impacts, and includes, but is not limited to, highly impacted communities as defined in RCW 19.405.020.

Secondary Material End Market Development Best Practices

The research led to the development of the best practices shown in Figure 1 that have been successfully used to support businesses and develop secondary material end markets in other parts of the country. These range from traditional economic development tools to coordination and facilitation of partnerships to strategy development and material expertise.

While no single entity needs to perform all of these functions, collectively all elements should be represented within the state or region of focus and should be connected and strategically coordinated to complement one another. When considering the approach and strategy to advance secondary materials markets and manufacturing, each supporting entity should identify and prioritize carefully selected elements to focus on and seek other partners to complete the ecosystem.

Figure 1. Market Development Best Practices

Economy		People		Materials
Economic Development	Business Support	Fostering Partnership	Thought Leadership	System Expertise
RC Recruitment	Ts Technical Support	NT Networking	RP Research / Planning	ME Materials Expertise
lv Investment / Grants	N Incubator / Accelerator	PF Process Facilitation	PR Policy Recommendations	Sc Supply Chain
Incentives / De- risking	Bs Business Plan Assistance	CE Community Engagement	CM Communications	Tc Technologies and Processes

Equity Considerations and the HEAL Act

Each of these elements has its own respective set of equity considerations to ensure that opportunities and resources are equitably distributed, and that overburdened communities do not continue to experience negative environmental impacts from the development of industry in



their communities. The full report outlines contextual equity considerations for each of the recycling end market development best practices elements, and further lists considerations for employing an equity lens. The following are some examples. More can be found in the larger report.

Economic Development

- Establish relationships with business communities in overburdened communities to extend reach, build trust, and provide information about available opportunities.
- Include criteria for investment and grants that consider economic opportunity/growth in economically distressed/underrepresented geographies (overburdened communities). Leverage the Washington Environmental Health Disparities Map.
- Evaluate environmental justice considerations for siting or expanding facilities (the HEAL Act may require this).
- Consider not only number of jobs but type of job, wages, worker safety, community health, and opportunity for job training and mobility in any economic development initiative.

Business Support

- Offer low-cost or free support services for priority community organizations and companies.
- Partner with organizations who provide early-stage business plan assistance in Washington, such as Ramp-Up, Ventures, Black Dot and the Small Business Administration (SBA), who can provide basic business skill development and ongoing support to entrepreneurs from overburdened communities.

Fostering Partnership

- Include overburdened communities as early as possible in any project or process that may affect them.
- Connect with and leverage already established diverse businesses in circularity and renewable energy.
- Use decentralized models of community engagement. Involve community-based organizations who can best translate for and involve their communities.
- Offer grants or scholarships to conferences and events.
- Establish feedback loops from communities and stakeholders.
- Include voices of overburdened communities early in the process of developing new industrial facilities.
- Engage with networks already leveraging the Just Transition framework, which includes circular materials and renewable energy (recognizing overburdened communities are very early in material development and language).

Thought Leadership

- Bridge language divides and translate meaning between synonymous concepts. Use words being used by overburdened communities. "Zero waste" and "circular economy" aren't necessarily used by communities yet, though "reuse," "sharing," repair," and "recycling" are being used.
- Let the community communicate for you, but compensate them for this work.
- Many overburdened communities have been advocating for policies around Just Transition, environmental justice, and material economies; find out if these communities are already leading policy efforts and amplify their voices.

System Expertise

- Material expertise in overburdened communities is at an early stage, out of necessity, or remains a way of life that they never abandoned. Meet people where they are at and provide education opportunities as needed to elevate dialogue.
- Ensure overburdened communities are part of the supply chain design process to facilitate equitable outcomes.

Inventory of Washington Resources

Figure 2 summarizes Washington-based agencies and organizations researched for this project and their respective offerings relevant to secondary material business support. Though it does not represent an exhaustive list, it does reflect some of the most visible and active organizations within the state, and highlights a number of gaps. Several important elements of the market development best practices described above are only lightly covered by agencies operating in Washington, including a number that are critical for bolstering equity and diversity goals, such as recruitment (economic development), incubator/accelerator (business support), community engagement (fostering partnership), and communications (thought leadership).

This points toward a statewide gap in resources aimed at identifying and supporting diverse businesses in need of support. While technical and business support exist in Washington if you know how to find it, the current uncoordinated market development system risks missing overburdened/underserved populations less familiar with existing resources as well as less familiar with the mechanisms required to identify and access those resources.



Figure 2. Washington Resources Summary

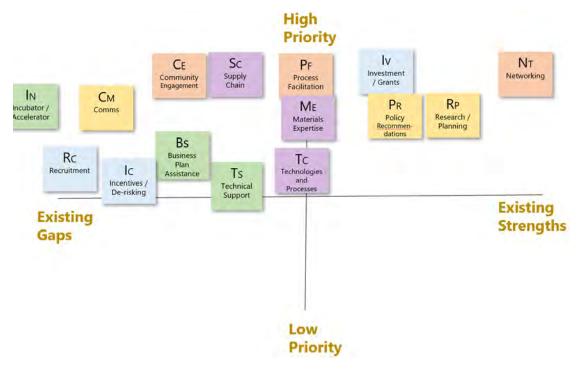
	Econom	ic Develo	pment	Business Support			Fostering Partnership			Thou	ght Lead	ership	System Expertise		
*Not an exhaustive list	RC RECRUITMENT	IV INVESTMENTS / GRANTS	IC INCENTIVES/ DE-RISKING	TS TECHNICAL SUPPORT	INCUBATOR/ ACCELERA- TOR	BS BUSINESS PLAY ASSISTANCE	NT INSTRUCTIONS	PF PROCESS EACUTATION	CE COMMUNITY ENGAGMENT	RP RESEARCH / PLANNING	PR POLICY RECOMMEN- DATIONS	CM	ME MATERIALS EXPERTISE	SC SUPPLY CHAIN	TC TECHNOLOGY AND PROCESSES
King County		1					1			1	1				
SPU							1			1	1				4.0
RDC							1	1		1	V		1		
Commerce	1		1				1				1				
Impact WA				1			1		- 1					1	1
PNNL		1			1						1		1	1	1
WSU				1			1	1					1	1	1
WEDFA		V	1												
SBDC (no interview)						1									
Front & Centered		1		1			1	1	1	1	1	1			
Blue Daisi				1		1		/	1	1		1	1		1
Seattle OED	1	1		V		1	1		1				T at	1.0	

Strengths and Weaknesses

Figure 3 organizes the inventory of Washington-based resources to further illustrate strengths and weaknesses based on the results of those included in this research. This is overlaid with priorities that emerged through feedback from those engaged in the research process in addition to the project team's own recommendations.



Figure 3. Washington Strengths and Gaps



Elements in the upper right quadrant are core capacities from which to build. Other elements across the top are focal points to incorporate into platform design (see below). Elements in the upper left quadrant are areas where capacity needs to be developed. The following is a consolidated list of strengths and weaknesses.

Strengths

- Thought leadership and supportive policy development is advancing in Washington (e.g., extended producer responsibility, recycled content minimum requirements, industrial symbiosis, single-use plastics restrictions, recycling labeling policies, etc.).
- Growing collaboration between Depts. Of Ecology and Commerce around the Recycling Development Center.
- Strong support and political will from local governments in western Washington, including City of Seattle and King County.
- Strengthening statewide climate policy which can support circular economy goals given the demonstrated lifecycle climate benefits of manufacturing with secondary materials.
- Robust network of clean energy/clean tech accelerators could add a circular economy focus, or share best practices to support development of a circular economy accelerator.
- Strong presence of organizations that have supportive technical or material expertise (e.g., Center for Sustainable Infrastructure; Composite Recycling Technology Center; WSU, UW, Pacific Northwest National Laboratory, Impact Washington, etc.).



Strong community college system which could be leveraged to support education, training, and green jobs in infrastructure and the circular economy.

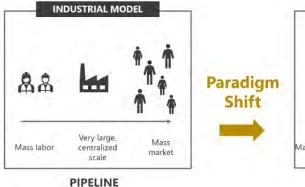
Weaknesses

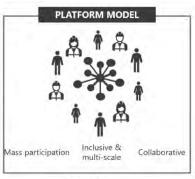
- Many of these elements are not currently working in concert with one another. Developing partnerships and connections between organizations with complementary resources is essential.
- Available resources are geared toward large businesses and capital projects, leaving small businesses without support to start up and scale.
- An explicit equity lens and meaningful community engagement is absent from most existing support programs.
- Efforts are siloed between climate, equity, and circular economy.
- Efforts are siloed between general economic & technical support and secondary materials & supply chain expertise.
- No entity is tasked with a strategic coordination role to align across silos and help identify, navigate, and access existing resources.

Conclusions and Recommendations

The primary recommendation is to develop a "platform" to strategically coordinate efforts around equitable business and secondary material end market support. A just transition to a circular economy requires a paradigm shift from an industrial framework—characterized by unilateral and hierarchical decision-making that often results in a model where success drives success, leaving little room for innovation and new market entrants—to a platform framework. Platforms are characterized by inclusion, collaboration, and innovation with a focus on equitable distribution of resources for priority communities and small businesses, shared learning, development of partnerships, and process facilitation to help advance innovative ideas into investable, shovel-ready projects. NextCycle Michigan is a good example of a platform model.

Figure 4. Industrial vs. Platform Models





ECOSYSTEM



Recommendations for Platform Design

- Start with strengths and gaps in Washington. This means building off existing strengths and priorities, including networks, research/planning, and current policy landscape. The approach should emphasize developing strategic collaboration around priorities that have some existing capacity, including: investments/grants, process facilitation, supply chain connectivity, and community engagement. It will be critical to develop capacity around key gaps, including communications and circular economy incubator/accelerator programs.
- **Center materials and equity in the waste hierarchy**. There is a gap around communication, supply chain, process facilitation, and community engagement with regard to the material streams of focus. The focus should not be solely on recycling, but move up the waste hierarchy to include refurbishment, reuse, repair, and re-design to reduce upstream impacts in addition to downstream impacts. Upstream impacts have the potential for far greater environmental and climate benefits and can lead to better jobs, yet are often not included in conversastions about recyling and the circular economy. Additionally, organic material should be considered alongside inorganic materials. The gaps, challenges, and opportunities around organics often parallel those with other materials and should be considered.
- Provide tools to support small businesses and innovative projects, including a circular economy accelerator program tied to funding sources. There should be a core set of resources that define the actionable value the platform brings. Two of the most noticeable gaps and priorities in the analysis are incubators/accelerators and business plan assistance. Developing the platform around these resources alongside grants and other investments would provide the necessary focus to attract and engage other potential partner organizations and respective elements. This is also an opportunity to integrate process facilitation to line up high potential organizations with tools, resources, and partnerships that can allow them to scale and grow once they complete the accelerator program.
- **Align climate, circularity, and justice.** These three movements have many similar goals and can align and leverage one another to support a collective transition to a just economy. Centering the platform in a way that focuses on the overlap between these approaches is a key opportunity. This can be in the form of creating open dialogue between organizations and individuals operating in these spheres; aligning strategies and messaging; broadening coalitions around policy and public campaigns; sharing resources; and co-developing projects, such as a circular economy accelerator and grant program, which are priorities. This addresses a gap around communication and the problem of siloed *networks* and *community engagement* efforts, as all three areas can benefit from elevating each other's shared interests.
- **Engage in co-designed development of the platform.** It is important to work with overburdened communities from the start. Interviewees often referenced the concept of



"nothing about me, without me" when talking about developing projects focused on overburdened communities. It is important to include these communities as early as possible when developing a platform, and may be required by the HEAL Act moving forward.

Leverage Just Transition frameworks. There are existing equity and communitycentered frameworks around Just Transition—such as Movement Generation and Doughnut Economics—that could be used to help guide platform development. Movement Generation is being leveraged by communities of color in the U.S., while Doughnut Economics is being seen as a more accessible, utilitarian approach to Just Transition and leveraged with governments, businesses, and communities. These frameworks and the groups that use them often include ideas around circular economy, though their capacity around this topic is often limited. Using these frameworks and engaging with other groups that do so, such as Front and Centered, The People's Economy Lab, City of Seattle's Equitable Development Initiative, Got Green, Puget Sound Sage, Rainier Beach Action Coalition, and others can be a way to gain access to an existing group of practitioners. Those leading the platform development can highlight available tools, resources, community leadership, and knowledge around the topic of circular economy, while simultaneously learning about the needs and perspectives of overburdened communities. At a high level, this approach provides the opportunity to fill many gaps and priorities including, community engagement, communications, networking, policy recommendations, process facilitation, and research/planning.

Next Steps

The following are recommended next steps toward developing and implementing such an approach:

- 1. Identify roles of local and state government: King County, the Washington State Recycling Development Center, and the Department of Commerce are at the center of this effort and other local governments are instrumental early stakeholders as well. The first step requires this group to further define their role within this process. Who is committed to providing staffing and resources to help lead this process and who wants to be engaged in a supporting role?
- 2. **Define funding needs and sources:** Funding is a key resource needed to support the development and implementation of an equitable circular economy platform. This report does not identify specific amounts or where funding should come from. Options may include federal, state and local funding in addition to private sector investment. An early effort should be made to frame long-term funding goals, begin to outline where those resources can come from, and understand feasibility around aggregating that type of funding.



- 3. Further develop an initial list of climate, circularity, and justice stakeholders to engage. This report provides a good starting point in the rolodex of institutions and organizations focused on recycling market development and equitable business support, however there are more stakeholders needed to engage in meaningful co-design of this platform. The recycling industry has a role to play in addition to packaging brands, other manufacturers, and other community organizations and environmental organizations. A stakeholder analysis should be performed to chart out those that should be at the table in the co-design of this platform.
- **4.** Map out platform co-design process. While the platform should be co-designed, the process should be mapped out so that program leads and stakeholders have a clear idea of what the development process looks like. How long will this process take? What are the appropriate tactics to engage the broad list of stakeholders identified in step 3? Who has final decision-making authority? What is the vision for the final outcome?

Washington Material Concierge

Recommendations for Equitable Business Assistance and Support for Secondary Material End Markets
June 30, 2021



Purpose

King County's Solid Waste Division and the Washington Department of Ecology's Recycling Development Center aim to advance equitable zero-waste and circular economy objectives. This includes increasing regional manufacturing capacity and supply chains for utilizing recycled (or secondary) material.

Delivering a zero-waste, circular approach for material management in Washington could unlock significant opportunity for people, businesses, and communities throughout the state and understanding how to best support businesses within the secondary material marketplace is a central ingredient to success.

> Economic development opportunities, however, often favor those that already benefit most from existing systems and structures, further solidifying and perpetuating inequities. Economic development policies, practices, and resource allocations—including those to support manufacturing businesses using secondary materials as feedstock and other businesses that focus on circular economy objectives—are influenced by this dynamic. Communities that face negative environmental impacts from manufacturing industries have also lacked standing and voice in development of facilities in their communities, leading to disproportionate impacts and burdens from this type of industrial activity.

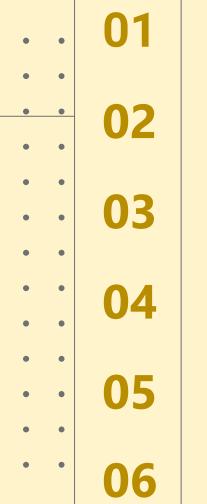
Solely focusing on material diversion or the needs of existing businesses could lead to failing to understand and develop strategies that mitigate these inequities in policy and programmatic decisions could continue to marginalize certain "overburdened communities".

This report aims to provide a framework for developing an equitable circular economy development program in Washington that focuses on secondary material business support, while considering the opportunities, needs, and impacts of overburdened communities.





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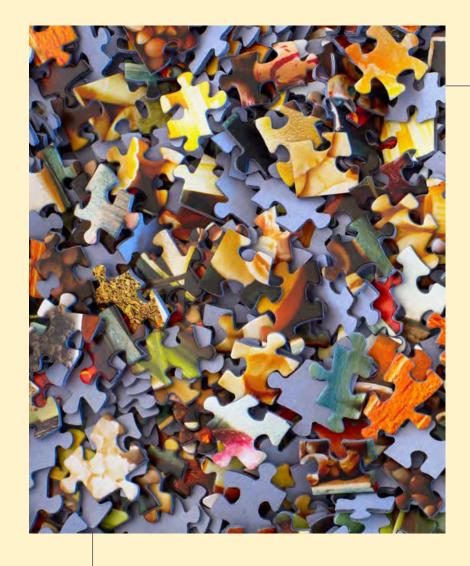
Recommendations

Rolodex & Support

Appendix







01 Research Scope





RESEARCH SCOPE

RESEARCH SCOPE



Elements of Business Support for Successful **Recycling Market** Development



Employing an Equity Lens



Existing Recycling Business Support in WA



Conclusions and Recommendations



PRIMARY RESEARCH CATEGORIES

Recycling Market Development Best Practices

Stakeholders with expertise in recycling end market development

Washington-Based Resources

Potentially aligned stakeholders in Washington State

Employing an Equity Lens

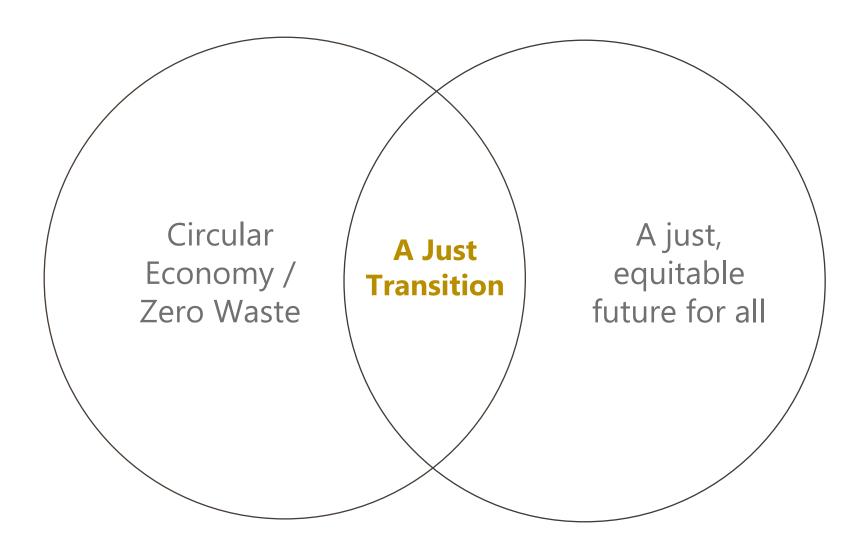
Stakeholders practicing equity, with potential intersection with circular material management



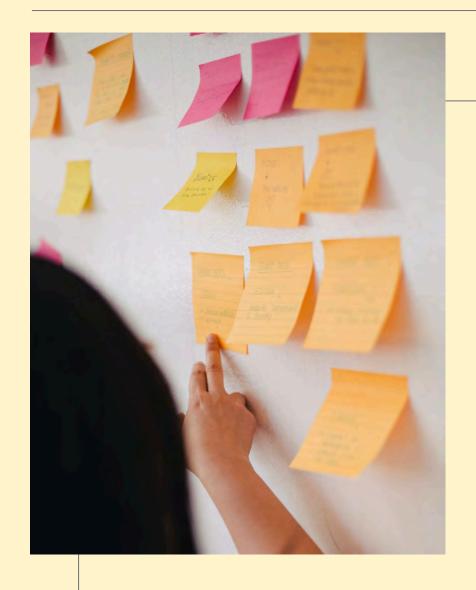




INITIAL RESEARCH LENS







O2 Best Practices

BEST PRACTICES

MARKET DEVELOPMENT BEST PRACTICES

Elements to include

The research led to the development of the following series of best practices that have successfully been used to support business assistance and development of secondary material end markets. These range from traditional economic development tools to coordination and facilitation of partnerships to strategy and material expertise. The following slides will define these elements and list considerations for employing an equity lens. It important to note that funding is a key resources needed to support all of the elements. This report does not identify where specific funding should come from. Options may include federal, state and local funding in addition to private sector investment.

Economy		People		Materials
Economic Development	Business Support	Fostering Partnership	Thought Leadership	System Expertise
RC Recruitment	TS Technical Support	NT Networking	RP Research/ Planning	ME Materials Expertise
lnvestment/ Grants	N Incubator/ Accelerator	Process Facilitation	PR Policy Recommendations	Sc Supply Chain
Incentives/De- risking	Bs Business Plan Assistance	CE Community Engagement	C M Communications	Tc Technologies and Processes





DEFINITIONS

- We are using the words "**overburdened communities**" throughout this document to keep to consistent language found in the Healthy Environment for All (HEAL) Act (SB <u>5141</u>).
 - "Overburdened community" means a geographic area where 16 vulnerable populations face combined, multiple environmental harms and health impacts, and includes, but is not limited to, highly impacted communities as defined in RCW 19.405.020. See more details and definitions on the HEAL Act here.
 - Also see the EPA's definition of overburdened communities here.
- "BIPOC" communities: Black, Indigenous, and People of Color



ECONOMIC DEVELOPMENT

Description

Equity Considerations

RC Recruitment

- Identify and recruit recycling end markets from out of state to site a facility in the state and recruit existing markets in the state to expand to other regions.
- Identify existing in-state manufacturers that can incorporate additional recycled content into their products.
- Identify promising recycling end markets that are interested in scaling operations.

lnvestment/ Grants

- Low- or no-interest loans for recycling equipment and infrastructure
- Recycling infrastructure or market development grants
- Bond financing for large scale recycling infrastructure projects

Incentives/ De-risking

- Tax incentives for recycling processors end markets
- Collateral support
- Loan guarantees

- Build skills and capacity of staff and leaders around historical and systemic causes and effects of lack of representation and power.
- Establish relationships with business communities in overburdened communities to extend reach, trust, and provide information of available opportunities.
- Make language accessible to communities.
- Fund "ambassadors" from target communities to support recruitment.
- Break down barriers to entry like complicated applications and contracts and grant matching requirements.
- Invest at the start, middle, and end of the contract so low-income orgs can afford the contract. Avoid reimbursement models if possible.
- Include criteria for investment and grants that consider economic opportunity/growth in overburdened communities and remote areas.
- Leverage a Just Transition framework for investor action.
- Evaluate environmental justice considerations for siting or expanding facilities (HEAL Act may require this).
- Target incentives on remote and overburdened communities.
- Consider not only number of jobs but type of job, wages, worker safety, and opportunity for job training and mobility.
- Offer low-cost or free support services for overburdened community organizations and companies. For example, SPU has partnered with <u>Blue</u> <u>Daisi</u> consulting to offer free zero waste services to business in Southeast Seattle, an area with a higher proportion of BIPOC and low-income businesses and communities.



BUSINESS SUPPORT

Equity Considerations Description • Manufacturing process engineering, optimization and design • Technical support available to overburdened communities is absent with • Site design and build out regard to product manufacturing, facility identification, and navigating Navigating regulatory and permitting issues contracts, regulations, and laws. **Technical** • Partner with organizations who do this work in Washington, such as Supply chain analysis Seattle Good Business Network and area maker spaces. Support • Multi-faceted, intensive support for business start-up and/or scaling • Mentorship and interfacing with industry experts, peers and potential supply • This is a large gap in communities of color specifically around materials. chain-partners Washington has many clean energy incubators; these could be adjusted to • Commercialization, pitch development and investment support through circular material support similar to Michigan's approach. See Next Cycle Incubator/ workshops and one-on-one advisory services Michigan and Recommendations section for more. • Clear pathway to funding for participants Accelerator Strategic planning • Partner with organizations who do this work in Washington, such as Ramp-• Business canvass and sales approach up, Ventures, and Black Dot, SBA, who can help overburdened • Revenue model development and validation **Business Plan** communities with basic business skills as well as continued support. • Business licensing support Assistance

Examples of Business Support: Impact Washington, Pacific Northwest National Lab (PNNL), Washington State University Composite Materials & Engineering Center, Clean Washington Center, PA Recycling Markets Center, NextCycle Michigan, CalRecycle, Rural Action, Share Reuse Repair Initiative, Cero Coop, Front and Centered, Portland Bureau of Planning and Sustainable Development, Blue Daisi Consulting, Seattle Office of Economic Development, CiviCorps, Circle Economy, Seattle University Ramp-Up Program, Refugee Artisan Initiative



FOSTERING PARTNERSHIPS

Description

Equity Considerations

Networking

- Conferences and other events
- Direct referrals and introductions
- Maintain and continuously update searchable rolodex of organizations engaged in this work as well as manufacturing and supply chain businesses that either generate, process, or utilize secondary materials to assist in making connections for mentorship, partnerships and/or matchmaking along the supply chain.

Use decentralized models of community engagement. Involve community-

- based organizations who can best translate for and involve their communities.
- Use a platform model, instead of centralized, linear, industrial ways of thinking.
- Outreach to engage and include overburdened communities.
- Offer grants or scholarships to conferences and events.

Process **Facilitation**

- Assistance in converting referrals to formal partnerships or arrangements
- Project development and/or management
- Drafting or providing contract / agreement templates

- Enable feedback loops from communities and stakeholders.
- Include overburdened communities early in the process (again, the HEAL Act may require this).

Community Engagement

- Interfacing between industry and community organizations
- Public stakeholder involvement
- Staffing and hiring

- Engage with networks already leveraging the Just Transition framework, which includes circular materials and renewable energy (recognize priority communities are very early in material development and language).
- · Leverage already established diverse businesses in circularity and renewable energy.

Examples of Fostering Partnership: Impact Washington, Washington State University Composite Materials & Engineering Center, Clean Washington Center, PA Recycling Markets Center, NextCycle Michigan, CalRecycle, Rural Action, Share Reuse Repair Initiative, Cero Coop, Front and Centered, Portland Bureau of Planning and Sustainable Development, Blue Daisi Consulting, Seattle Office of Economic Development, CiviCorps, Circle Economy, Seattle University Ramp-Up Program, Refugee Artisan Initiative Minnesota Pollution Control Agency, South Carolina Department of Commerce, SERDC, NERC, IZWTAG, LA Compost, West Michigan Sustainable Business Forum



THOUGHT LEADERSHIP

Description

Equity Considerations

RP Research/ Planning

- Gap analyses identify materials and/or aspects of the supply chain that are lacking through data collection and analysis
- Annual planning map out strategies and tactics to address the gaps
- Feasibility and due diligence of specific business or project proposals
- Decision support analytical tools
- Develop new reporting requirements for waste generators and manufacturers
- Interviewees often referenced the concept of "nothing about me, without me" when talking about collecting data, and developing projects for overburdened communities. Include these communities as early as possible (may be required by the HEAL Act).

PR Policy Recommendations

- Develop white papers and reports in support of policy recommendations
- Educate policymakers and other stakeholders on pros and cons of recycling market-related policies, including funding/budget allocations, PCR requirements and other regulatory considerations
- Testify in legislative hearings
- Draft legislative language

- Many overburdened communities have been advocating for policies around Just Transition, environmental justice, and material economies; find out if these communities are already leading policy efforts.
- Engage overburdened communities when considering or drafting new legislation.

CM Communications

- Strategy and tactic planning
- Specific campaigns
- Newsletters, podcasts, social media, webinars and other forms of outreach
- Brand and collateral development
- Amplify other related communications

- Bridge language divide and translate meaning between synonymous concepts. Use words being used by overburdened communities. "Zero waste" and "circular economy" aren't necessarily used by communities yet, though "reuse," "sharing," repair," and "recycling" are being used.
- Let the community communicate for you but compensate them for this work.

Examples of Thought Leadership: Minnesota Pollution Control Agency, South Carolina Department of Commerce, PA Recycling Markets Center, NextCycle Michigan, Rural Action, Share Reuse Repair Initiative, Cero Coop, Front and Centered, Portland Bureau of Planning and Sustainable Development, Blue Daisi Consulting, Seattle Office of Economic Development, CiviCorps, Circle Economy, Seattle University Ramp-Up Program, Refugee Artisan Initiative Minnesota Pollution Control Agency, South Carolina Department of Commerce, SERDC, NERC, IZWTAG, LA Compost, West Michigan Sustainable Business Forum

and Processes



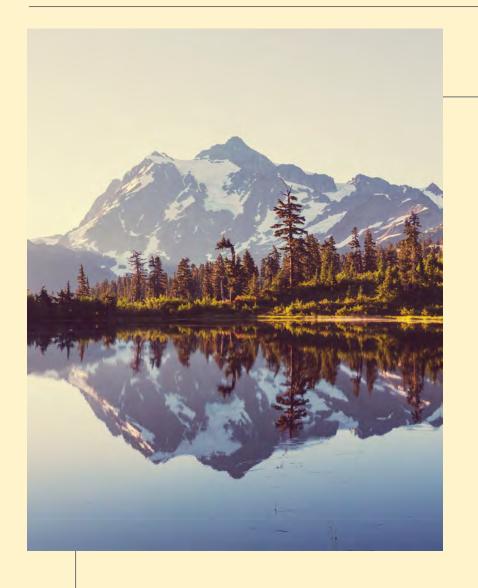
SYSTEM EXPERTISE

processes rather than product manufacturing

Equity Considerations Description • Material expertise in overburdened communities is at an early stage, out of necessity, or a way of life that has never left them. Meet where people are ME • Deep understanding of specific material types, their recyclability and ability to incorporate as recycled content into new products • Focus on education and outreach about the recycling and reuse system in • Knowledge of opportunities and barriers facing different materials **Materials** overburdened communities. • Feeds into research, strategic planning and supply chain connectivity • Proactively reach out to communities to provide materials expertise or **Expertise** respond to specific requests for materials expertise. Deep understanding of material flows and the recycling supply chain • This is a gap and an opportunity. Many overburdened communities and Relationships with actors operating along the supply chain individuals are more experienced in composting, distribution, repair, reuse, • Connections and referrals between material supply, demand, and intermediate and sharing. • Ensure overburdened communities are part of the supply chain design processors. **Supply Chain** • Explore issues of quality, grading, and contamination. process to facilitate equitable outcomes. • Expertise related to specific recycling equipment, including sorting, processing T_{C} and production • Another gap and opportunity. Collaborative production spaces, sharing • Procurement, design engineering and operational consulting tools and resources, and equitable procurement will be very important **Technologies** • Similar to Technical Assistance, but more specific to recycling technologies and strategies.

Examples of System Expertise: Pacific Northwest National Lab, Impact Washington, Washington State University Composite Materials & Engineering Center, Clean Washington Center, PA Recycling Markets Center, NextCycle Michigan, CalRecycle, Rural Action, Share Reuse Repair Initiative, Cero Coop, Front and Centered, Portland Bureau of Planning and Sustainable Development, Blue Daisi Consulting, Seattle Office of Economic Development, CiviCorps, Circle Economy, Seattle University Ramp-Up Program, Refugee Artisan Initiative Minnesota Pollution Control Agency, South Carolina Department of Commerce, SERDC, NERC, IZWTAG, LA Compost, West Michigan Sustainable Business Forum 15





03 Washington Resources



WA RESOURCES (SUMMARY)

WASHINGTON MATERIAL CONCIERGE



	Econom	nic Develo	pment	Business Support			Fostering Partnership			Thou	ght Lead	ership	System Expertise		
*Not an exhaustive list	RC RECRUITMENT	IV INVESTMENTS / GRANTS	IC INCENTIVES / DE-RISKING	TS TECHNICAL SUPPORT	INCUBATOR / ACCELERA- TOR	BS BUSINESS PLAN ASSISTANCE	NT NETWORKING	PF PROCESS FACILITATION	CE COMMUNITY ENGAGMENT	RP RESEARCH / PLANNING	PR POLICY RECOMMENDATIONS	CM comms	ME MATERIALS EXPERTISE	SC SUPPLY CHAIN	TC TECHNOLOGY AND PROCESSES
King County		✓					√			√	✓				
SPU							√			√	✓				
RDC							√	✓		√	✓		✓		
Commerce	√		✓				√				✓				
Impact WA				✓			√							√	√
PNNL		✓			✓								√	√	√
WSU				✓			✓	√					√	√	√
WEDFA		✓	√												
WA SBA (no interview)						√									
Front and Centered		√		√			√	√	√	√	√	√			
Blue Daisi				√		√		√	√	√		√	√		√
Seattle OED	√	✓		√		√	√		√						



GAP IDENTIFICATION

- The WA Resources (Summary) table lists the Washington-based organizations researched for the project and highlights respective agency best practices and offerings relevant to secondary material business support.
- While additional agencies involved in market development were not contacted for this research, the table still reflects existing gaps in supporting secondary materials stakeholders.
- Several of the fifteen Market Development Best Practices elements are only lightly addressed by WA agencies. This includes practices critical to bolstering equity and diversity goals. Examples include: Recruitment (Economic Development), Incubator/Accelerator (Business Support), Community Engagement (Fostering Partnership), and Communications (Thought Leadership).
- This points toward a statewide gap in resources that identify, engage, and support diverse businesses in need of support. While technical and business support exist in Washington if businesses know how to find it, the current uncoordinated market development system risks missing overburdened/underserved populations less familiar with those resources, and less familiar with the mechanisms required to identify and access those resources.
- Among Washington-based interviewees, opinions differ as to whether businesses interested in using secondary materials most need technical support or most need business and financial support. One respondent felt strongly that businesspeople already know the economics and financing of their enterprise, but primarily need technical support. Another respondent noted that government has a critical role to play in helping businesses find a pathway to investors, and those same businesses typically understand the technical aspects of their enterprise.
- Other gaps identified during interviews concerned: policy, regulatory and legislative support; facilitation and partnership; ombuds functions; and market pulls such as procurement policies.

BO NOWEL D	Economic Development			Business Support			Fostering Partnership			Thought Leadership			System Expertise		
	RC securities	lv sweety	IC NOTIFICATION OF THE PROPERTY OF THE PROPERT	TS Tighteou	IN HOURAND PAGELINA TON	Bs	NT	PF	CE	RP IMMENDED PLANTINGS	PR House Manager Manager Manager	CM	ME MATTRIMAS SEPTEMAS	SC SCREEN CHAIN	Tc
King County		1					1			1	1				
SPU							1			1	1				
RDC			-				1	1		1	1		1		
Commerce	1		1				1				1				
Impact WA			1	1			1						11.7	1	1
PNNL		1			~								1	1	1
WSU				1			1	1					1	1	1
WEDFA		1	~												
SBDC (no interview)						1					1 1.7				
Front & Centered		1		1			1	1	~	1	V	V	1.1		
Blue Daisi				1		1		1	1	1		1	1		1
Seattle OED	1	1	1	1		1	1		1				111		





STRENGTHS AND OPPORTUNITIES



Thought leadership and supportive policy development is advancing in WA (e.g., EPR, recycled content, industrial symbiosis, single-use plastics, recycling labeling policies)



Growing collaboration between Depts. Of Ecology and Commerce around the Recycling Development Center



Strong support, subject matter expertise, and political will from local governments in multiple parts of the state



Strengthening statewide climate policy may be leveraged to support circular economy goals given the demonstrated lifecycle climate benefits of manufacturing with secondary materials



Robust network of clean energy/clean tech accelerators could add circular economy focus, or share best practices to support development of a circular economy accelerator



Strong presence of organizations that have supportive technical or material expertise (e.g., Center for Sustainable Infrastructure, Composite Recycling Technology Center, WSU, UW, Pacific Northwest National Lab, Impact Washington)



Strong community college system, technical colleges, and trade schools could be leveraged to support education, training, and green jobs in the service of the circular economy, green infrastructure, and a just transition





GAPS



Available resources are geared toward large businesses and capital projects, leaving small businesses without support to start up and scale.



Efforts are siloed between general economic & technical support and secondary materials & supply chain expertise.



An explicit equity lens and community engagement is absent for most existing support programs.



No entity is explicitly tasked with a strategic coordination role to align across silos and help stakeholders to identify, navigate, and access existing resources.



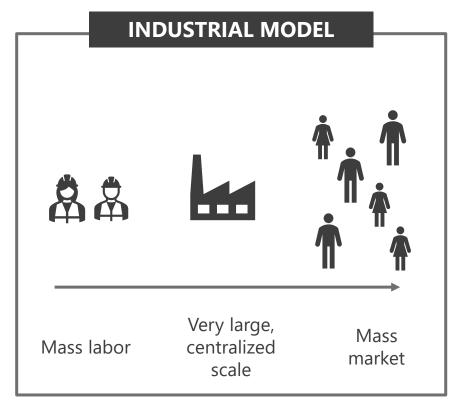
Efforts are siloed between climate, equity, and circular economy.



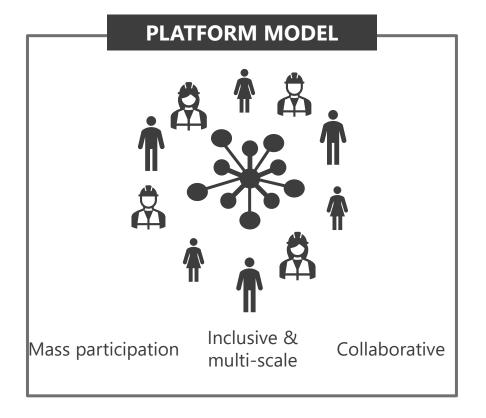


Recommendations

EMPLOY A PLATFORM APPROACH







PIPELINE

ECOSYSTEM

Shifting the paradigm: The core recommendation is to develop a platform to strategically coordinate the efforts around equitable business assistance and support for secondary material end markets. A just transition to a circular economy requires a paradigm shift from an industrial framework—characterized by unilateral and hierarchical decision-making and often results in a model where success drives success, leaving little room for innovation and new market entrants—to a platform framework. Platforms are characterized by inclusion, collaboration, and innovation with a focus on equitable distribution of resources for priority communities and small businesses, shared learning, development of partnerships, and process facilitation to help advance innovative ideas into investable, shovel-ready projects. NextCycle Michigan is a good example of a platform model. The following series of slides outlines recommendations around the design of this platform.





RECOMMENDATIONS ON PLATFORM DESIGN



Start with **strengths** and **gaps** in washington



Center materials and equity in the waste hierarchy



Provide tools to support small businesses and innovative projects



Align climate, circularity, and justice



Leverage Just Transition frameworks



Engage in co-designed development of the platform

WA RESOURCES

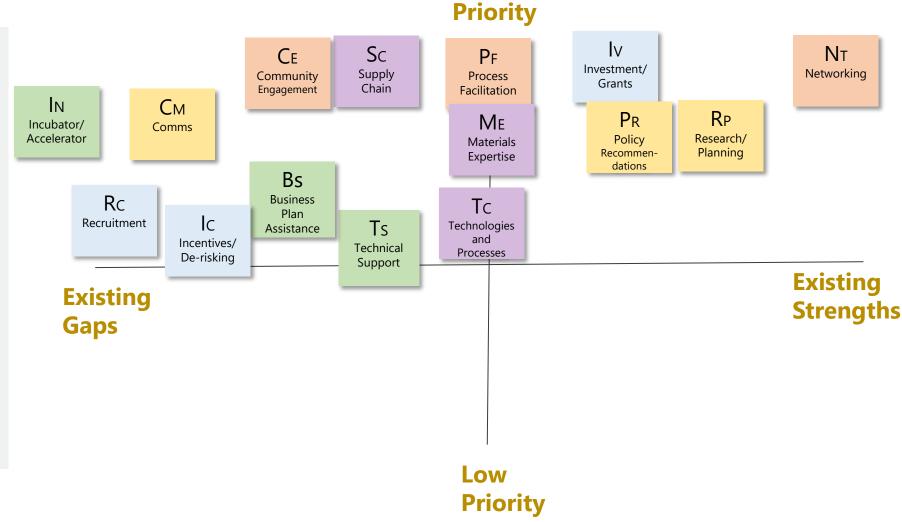
START WITH STRENGTHS AND GAPS IN WASHINGTON

Elements to build around

This chart organizes the inventory of <u>Washington-based resources</u> and demonstrates strengths and weaknesses based on the results. This is overlaid with priorities that emerged through feedback from those engaged in the research process in addition to the project team's own recommendations. The elements in the upper right quadrant can be seen as core capacity from which to build. The other elements across the top become focal points for incorporating into platform design. Elements in the upper left quadrant are areas where capacity needs to be developed.

In addition, research revealed that many of these elements are not working in concert with one another. Developing partnerships and connections between organizations with complimentary resources is essential.

No single entity needs to perform all these functions, but collectively all elements should be connected and strategically coordinated through a platform.



High



CENTER MATERIALS AND EQUITY IN WASTE HIERARCHY

Think in systems

There is a gap around **communication**, **supply chain**, **process facilitation** and **community engagement** with regards to the material streams of focus. Recycling is known as "the loop of last resort" in circular economy circles but is often the term and central focus of many efforts related to zero-waste and circular economy. Equitable recycling end-market development and development of circular supply chains is needed. However, the approach must balance this with circular strategies that include interventions higher up the waste hierarchy such as behavior change and designing out waste to address waste prevention in addition to repair, reuse and refurbishment models. These models have a far greater potential for environmental and climate impacts, they provide more opportunities for diverse, localized business models and may provide jobs that are less hazardous than many within the recycling industry.

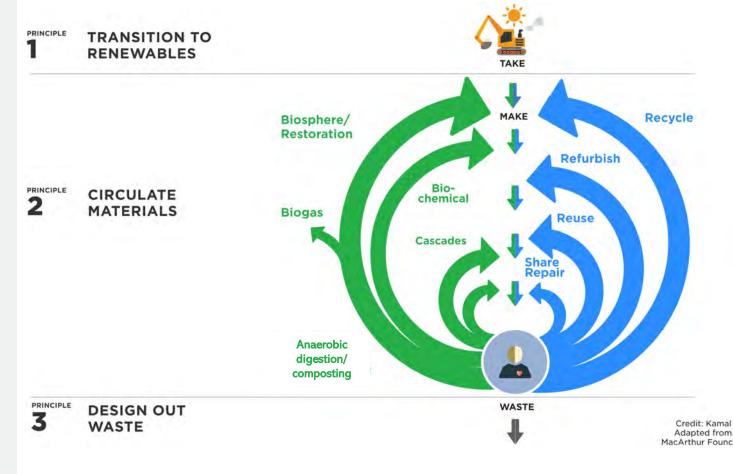
Additionally, organic material should be considered alongside inorganic materials. The gaps, challenges and opportunities around organics are often parallel to those with other materials and should be considered in the same light. There are also growing examples of small business opportunities focused on organics in overburdened communities, such as **Cero Coop** and LA Compost.

Care should be taken to not position overburdened communities into business models focused solely on processing of waste because solutions didn't balance upstream and downstream considerations and priorities.

PF Process **Facilitation** Community Engagement

См Comms

Sc **Supply Chain**





PROVIDE TOOLS TO SUPPORT SMALL **BUSINESSES AND INNOVATIVE PROJECTS**

Business/project accelerator program tied to funding sources

There should be a core set of resources that can define the actionable value the platform brings. In general, the research pointed to a lack of support for small, new or innovative business models. Two of the most noticeable gaps and priorities in the analysis are **incubator/accelerator** and **business plan assistance**. Adding the capacity to provide these types of programs and services within the platform would provide a focus from which other elements and organizations can be engaged. For example, the broader platform network can be engaged to recruit and select teams, provide technical support and funding or even participate in the program.

This also relates to priorities around **investments/grants** and **process facilitation**. Having a defined source of funding involved is important to demonstrate value and commitment. Part of the accelerator program should be prepping businesses or organizations to be able to successfully apply and receive grant funding, loans or other investments, whether directly provided within the platform or through a partnership with other organizations in the network. Successful organizations that complete the accelerator program can be linked into other opportunities provided by platform "partners" and as the business grows will have a clear understanding of the pathway to support that growth. Research and planning can be relied upon to guide focus of the program and provide useful data to improve business models, supply chain relationships, and funding "pitch".

This does not need to be limited to businesses only. It can include non-profits, institutions and even local governments and public private partnerships that have innovative projects that they are seeking to develop and need funding for.

Important equity note: Interviewees mentioned a need for consistent, fair, and substantial "funding at the right time." Funding networks of businesses was named as an important impact strategy for **Cero Coop** and Boston circular organics businesses.



ĺΝ Incubator/ Accelerator

Ts Technical Support

Bs **Business Plan** Assistance

PF Process **Facilitation**







Climate, circularity, and justice

Based on research outcomes a vision for equitable business assistance and support for secondary material end markets has evolved to include climate mitigation and adaptation in addition to Circular economy and Equity. These three movements have many similar goals and can align and leverage one another to support a collective transition to a Just Economy. However, through conversations with stakeholders it became apparent that much of this work is currently happening independently in silos.

Centering the platform in a way to focus on the overlap between these approaches is a key opportunity. This can be in the form of creating open dialogue between organizations and individuals operating in these spheres; aligning strategies and messaging; broadening coalitions around policy and public campaigns; sharing resources and co-developing projects. This addresses a gap around **communication** and the problem of siloed networks and community engagement efforts, as all three areas can benefit from elevating each other's shared interests.

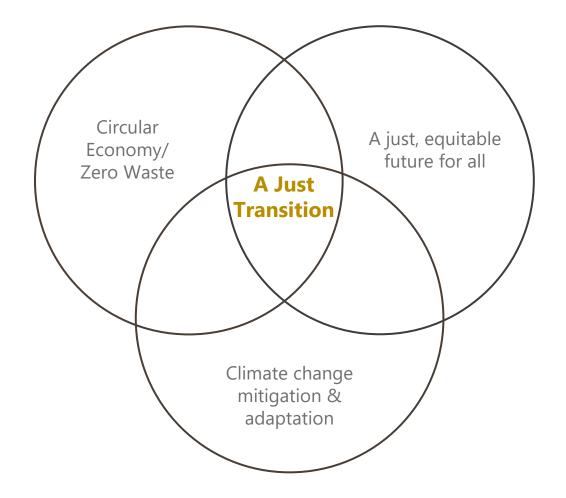
For example, there are several clean energy and clean tech incubators and **accelerators** that were referenced through the research that could expand focus to circular economy and/or provide advice for setting up a new circular economy accelerator. Grants and investments focused on low carbon technologies should also be targeted by circular economy projects, which have clear inherent climate benefits associated with embedded carbon.

ĺΝ Incubator/ Accelerator

Nτ Networking

CF Community Engagement

См Comms





LEVERAGE JUST TRANSITION FRAMEWORKS

Common framework theme

Interviewees often referenced the concept of a "Just Transition." Groups included rural communities transitioning off coal in Appalachia Ohio, to BIPOC communities in LA creating decentralized compost, to the Doughnut Economics model being used in the city of Portland and the EU through Circle Economy.

While there are multiple Just Transition models, the models pictured to the right are two frameworks that are gaining traction:

- Movement Generation is being leveraged by communities of color in the US. See example work in the <u>Appendix</u>.
- Doughnut Economics is being seen as a more accessible, utilitarian approach to Just Transition and leveraged with governments, businesses, and communities. See example work in <u>Appendix</u>.

We recommend utilizing multiple frameworks and identifying the right framework for the right people at the right time to help leverage the multiplying effects of shared frameworks and language. On a high level, this approach provides the opportunity to fill many gaps and priorities including, **community engagement**, **communications**, **networking**, **policy recommendations**, **process facilitation**, and **research/planning**.

The <u>Appendix</u> includes slides that illustrates how these two frameworks have been utilized.

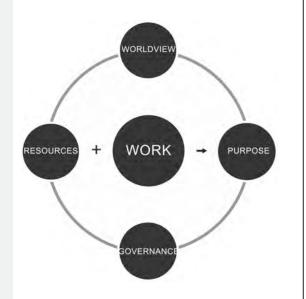
Note: Some use the terms Just Transition and "Positive Transition" synonymously.

Here is another <u>Just Transition framework for investor action</u> that we saw referenced.

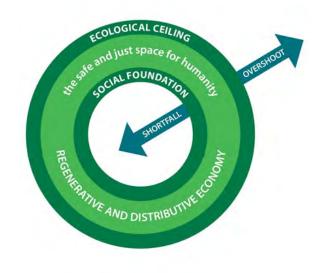
NT PF CE
Networking Process
Facilitation Engagement

PR Policy Recs

RP Research/ Planning C_M Comms







DOUGHNUT ECONOMICS



USE DIGITAL TOOLS

Strategic digital networks

A few tools for equity and circularity include:

- WA Health Disparities Map highlights inequities in health, economics, policies in WA State. It is recommended (and perhaps required) to leverage it as part of the HEAL Act in a co-design approach. More details under <u>Front and Centered</u> in the Equity Lens Rolodex. This map can help identify communities to prioritize for communications, recruitment and community engagement.
- <u>The Washington Materials Marketplace</u> is a tool being built with the <u>Seattle Office of Economic Development</u> & Seattle Good Business network. This tool is a starting point for connecting supply chains
- <u>The Doughnut Economics Action Lab</u> is in partnership with C40, Circle Economy, and Doughnut Economics Action Lab crossing climate, justice, and circularity. This tool supports research/planning and policy recommendations.
- The Circular Jobs Monitor from Circle Economy highlights a <u>NYC Case Study</u> to show how American jobs are being classified into International Circular Economy Codes. More details under Circle Economy Rolodex under equity lens. This tool supports research/planning and policy recommendations.



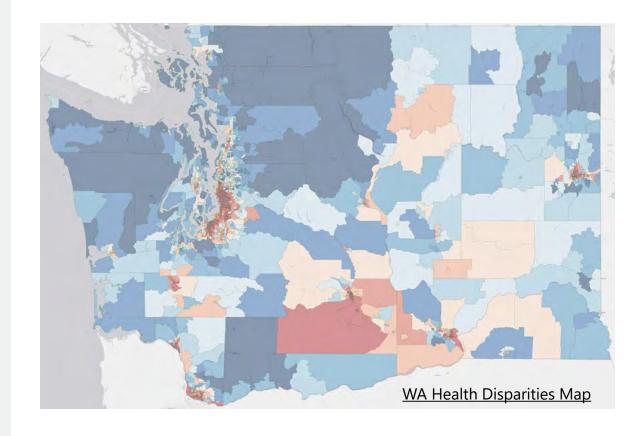
Nτ Networking

CE Community Engagement

 P_{R} Policy

RP Research/ Planning

См Comms





ENGAGE IN CO-DESIGNED DEVELOPMENT

Design with communities

We recommend using a co-design-based development strategy for our recommended platform approach to help fill in gaps around **community engagement, process facilitation, & networking**. This approach allows for participants to come in early and often into the process and uses various design tools to engage multiple perspectives in policy recommendations, research/planning, and communications. This approach will also help comply with WA HEAL Act requirements and suggestions.

Co-design can take many forms like:

- Collaborative research
- Forums, workshops, and conversations
- Visioning and mapping
- Design charettes where communities help build and improve upon a process and/or prototype/pilot

An important equity consideration is to leverage work being done with community. Many times, input from overburdened communities are often shelved and not followed up on. Building trust with these communities takes time, follow-up, and transparency upon recommendations.

See examples of co-design with the City of Portland, Seattle Office of Economic Development, and People's Economy Lab in the <u>Appendix</u>.

Nτ Networking

PF **Process** Facilitation Engagement

 P_R

 R_P Research/ Planning

Comms

См





NEXT STEPS



Identify roles of local and state government: King County, the Washington State Recycling Development Center, and the Department of Commerce are at the center of this effort and other local governments are instrumental early stakeholders as well. The first step requires this group to further define their role within this process. Who is committed to providing staffing and resources to help lead this process and who wants to be engaged in a supporting role?



Define funding needs and sources: Funding is a key resource needed to support the development and implementation of an equitable circular economy platform. This report does not identify specific amounts or where funding should come from. Options may include federal, state and local funding in addition to private sector investment. An early effort should be made to frame long-term funding goals, begin to outline where those resources can come from, and understand feasibility around aggregating that type of funding.



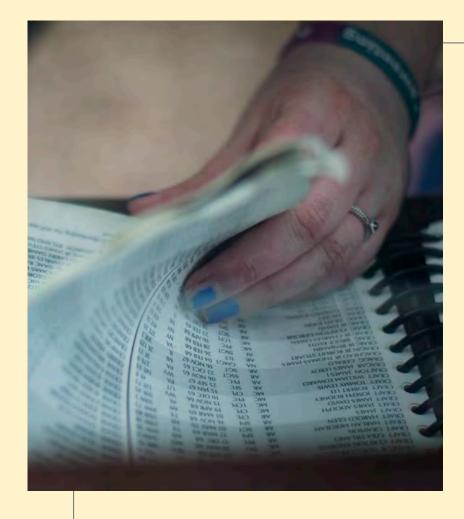
Further develop an initial list of climate, circularity, and justice stakeholders to engage. This report provides a good starting point in the rolodex of institutions and organizations focused on recycling market development and equitable business support, however there are more stakeholders needed to engage in meaningful co-design of this platform. The recycling industry has a role to play in addition to packaging brands, other manufacturers, and other community organizations and environmental organizations. A stakeholder analysis should be performed to chart out those that should be at the table in the co-design of this platform.



Map out platform co-design process. While the platform should be co-designed, the process should be mapped out so that program leads and stakeholders have a clear idea of what the development process looks like. How long will this process take? What are the appropriate tactics to engage the broad list of stakeholders identified in step 3? Who has final decision-making authority? What is the vision for the final outcome?







O5 Rolodex & Support





MARKET DEVELOPMENT BEST PRACTICES

	Economy		People		Materials
D	Economic evelopment	Business Support	Fostering Partnership	Thought Leadership	System Expertise
	RC Recruitment	TS Technical Support	NT Networking	RP Research/ Planning	ME Materials Expertise
	V Investment/ Grants	IN Incubator/ Accelerator	Process Facilitation	PR Policy Recommendations	Sc Supply Chain
	C Incentives/	BS Business Plan	C E Community	C M Communications	T _C



WASHINGTON MATERIAL CONCIERGE

)	

Organization/Program	Key Topic
California Recycling Market Development Zones	Recycling Market Business Support
Minnesota Recycling Market Development Program	Recycling Market Business Support
NextCycle Michigan	Recycling Market Business Support
Northeast Recycling Coalition (NERC)	Recycling Market Business Support
Pennsylvania Recycling Markets Center	Recycling Market Business Support
Southeast Recycling Development Center (SERDC)	Recycling Market Business Support
South Carolina Recycling Market Development Program	Recycling Market Business Support
Clean Washington Center (past key staff)	Existing WA Recycling Market Support
Impact Washington	Existing WA Recycling Market Support
Pacific Northwest National Laboratory	Existing WA Recycling Market Support
NextCycle Michigan & Seattle Office of Economic Development	Equity & Material Management / Existing WA Recycling Market Support
Washington Economic Development Finance Authority	Existing WA Recycling Market Support
Washington State University Composite Materials & Engineering Center	Existing WA Recycling Market Support
Blue Daisi Consulting	Equity & Material Management
Cero.Coop - Boston Impact / UJIMA	Equity & Material Management
Circle Economy Jobs Initiatives	Equity & Material Management
<u>CiviCorps Recycling</u>	Equity & Material Management
Front and Centered	Equity & Material Management
Indigenous Zero Waste Technical Advisory Group (IZWTAG)	Equity & Material Management
LA Compost	Equity & Material Management
Portland Bureau of Planning & Sustainability	Equity & Material Management
Refugee Artisan Initiative	Equity & Material Management
Rural Action	Equity & Material Management
Seattle University Ramp-Up Program	Equity & Material Management
Share, Repair, Reuse Initiative	Equity & Material Management
West Michigan Sustainable Business Forum	Equity & Material Management

Note: this rolodex is a starting point and meant to be updated over time. 34









CalRecycle

Programming Overview

A program within the state environmental agency provides business assistance, funding and incentives for recycling businesses siting operations within a designated Recycling Market Development ZONES (RMDZ):

- Grants
- Loans
- Business assistance
- Connecting with local regulators permitting support, etc.

- Share best practices for operating a broad platform and accelerator program.
- Open dialogue for potential recruitment of businesses that may be interested in expanding into each others' markets.











Minnesota Pollution Control Agency

Programming Overview

Traditional economic development approach focused on supporting end markets that use recycled commodities. It is a material-based focus aimed at developing end market capacity for recyclables generated or imported into the state. Activities are centered on providing funding and supporting partnerships to develop, recruit and expand recycling businesses, including:

- Infrastructure grants (\$800k annual budget)
- \$400k revolving loan fund
- Facilitate project implementation
- Track market and economic conditions
- Manage response to market barrier

Opportunities for Engagement

- Share best practices for recycling market development.
- Open dialogue for potential recruitment of businesses that may be interested in expanding into each others' markets.



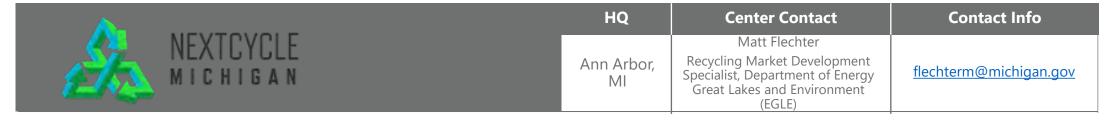
 P_{F} **Process Facilitation**

Sc Supply Chain

RP Research/ Planning







NextCycle Michigan

Programming Overview

Best described as a circular economy innovation platform and project accelerator, A contractor-opérated, State-Funded program, NextCycle Michigan brings together research, grant funding, public/private partnership and investment, process facilitation and networking to advance supply chain and end market businesses and projects focused on early state development or growth. Available for public and private sector entities, the program utilizes a Partnership Portal, Innovation Challenges focused on specific materials and/or market segments and Funding (grants and private investment) to identify and accelerate ideas into investable, shovel ready projects that have the potential to grow Michigan's recycled materials supply chain and end markets:

- Partnership portal to engage a wide range of organizations and facilitate formal or informal connections around aligned priorities
- Six different innovation challenge accelerator programs
- Annual statewide gap analysis and publicly available data portal
- Partnership portal to coordinate funding, partners, and projects
- Workshops and trainings
- Matchmaking along supply chain and with investors
- State grant funding and private funding "awards"

- Share best practices for operating a broad platform and accelerator program.
- Open dialogue for potential recruitment of businesses that may be interested in expanding into each others' markets.











Northeast Recycling Council

Programming Overview

Independent non-profit organization with a regional focus, NERC brings together industry, state environmental agencies and economic development entities to advance recycling markets in an 11-state region in the Northeast comprised of Connecticut, Delaware, Maine, Massachusetts, New Hampshire, New Jersey, New York, Maryland, Pennsylvania, Rhode Island, and Vermont. Supported by industry membership:

- Shared learning among members and to educate public through workshops, conferences, webinars and other means.
- Work to align state environmental agencies within region and align industry and state regulators.
- Matching specific needs with experts that can assist.
- Facilitate stakeholder involvement.

- Share best practices for engaging on a regional level to explore a similar model among west coast states.
- Open dialogue for potential recruitment of businesses that may be interested in expanding into each others' markets.











Pennsylvania Recycling Markets Center

Programming Overview

Located at PSU Harrisburg campus, the independent non-profit corporation supports businesses that use recycled material. Established and base funding through state RFP set in motion through statute. The Center includes direct support for both early stage and established businesses, in addition to research and outreach aimed at supporting recycling market development across the industry:

- Feedstock supply connectivity and matchmaking
- Business growth assistance and technical support 1 on 1 consulting
- Concierge to innovative research
- Early-stage commercialization support, such as prototyping or pilot projects
- Recruitment of established businesses
- Industry outreach programming workshops, webinars and conferences
- Research projects economic impact, end market database, price indices (fiber)

Opportunities for Engagement

- Share best practices.
- Open dialogue for potential recruitment of businesses that may be interested in expanding into each others' markets.
- Collaborate on research and consult for technical support of recycling operations.

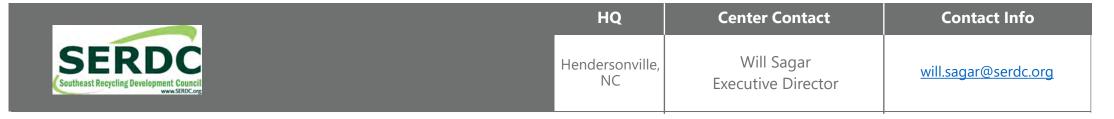
Ts RP Nτ Sc Networking Research/ Supply Technical Chain Support Planning











Southeast Recycling Development Council

Programming Overview

Independent non-profit organization with a regional focus, SERDC brings together industry, state environmental agencies and economic development entities to advance recycling markets in the Southeast. Supported by industry membership:

- Recycling infrastructure map to help connect supply and demand.
- Research on economic impact of recycling.
- Communications and networking support around best practices and making the case for recycling.
- Workshops and conferences.
- Facilitate connections along supply chain and between state agencies and industry.

- Share best practices for operating a broad platform and accelerator program.
- Open dialogue for potential recruitment of businesses that may be interested in expanding into each others' markets.











South Carolina Department of Commerce

Programming Overview

Traditional economic development approach housed in State Commerce Department focused both on recruiting existing and emerging businesses in the state to use more recycled content and recruiting out of state businesses to site plants in the state. Does not provide direct funding, rather they facilitate collaboration within Commerce to leverage their existing tools and resources (tax breaks, jobs credits, etc.) with a lens on recycling:

- Track industry, infrastructure & economic impact and define opportunities
- Matchmaking of supply and demand
- Recruitment and referrals for grants and economic incentives
- Develop strategic communications campaigns
- Execute specific material-based initiatives based on market needs

Opportunities for Engagement

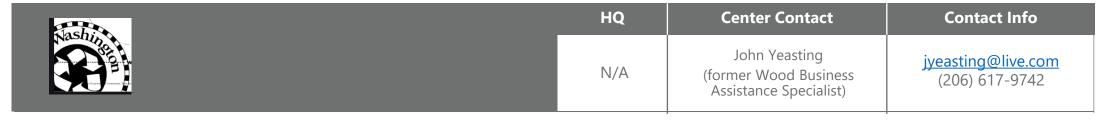
- Share best practices
- Open dialogue for potential recruitment of businesses that may be interested in expanding into each others' markets

Rc RP Sc P_{F} Supply Recruitment Research/ Process **Facilitation** Planning Chain









Clean Washington Center (perspective from a former staffer)

Programming Overview

Formerly housed within the then-called WA State Department of Community, Trade & Economic Development, the Center focused on developing markets to consume recycled materials and making recycled materials cost competitive with virgin materials and disposal options. The Center took a material-bymaterial approach, with dedicated technical experts serving as key staff. Takeaways include:

- Small and large business should not be supported—or regulated—similarly.
- Keeping technical findings in the public domain can support an entire sector.
- Support with permitting and technical matters can be more mission-critical than financing and marketing support.

- Understand the needs of the specific industry being engaged.
- Increasing government spending and other procurement drivers can help bolster markets for recycled-content product.
- Coordinators can function to resolve regulatory conflicts between state agencies.











Impact Washington

Programming Overview

Washington's designated NIST Manufacturing Extension Partnership (MEP) organization. Each state has an MEP. It is a fee for service, third party brokerage model. Impact is connected to a broad network of experienced manufacturing industry management and engineers that are engaged to support a requesting business depending on their needs. Primarily serve established businesses to assist with:

- Product development and commercialization
- Manufacturing process design
- Site development
- Staffing strategy
- Business scaling

Opportunities for Engagement

- Resource for established recycling end markets developing new product lines or expanding.
- Potential channel partner for referring manufacturers that may be able to incorporate recycled content into existing products.
- Linkages to the community college system supports future training needs for developing markets and production requirements.

Ts Technical Support

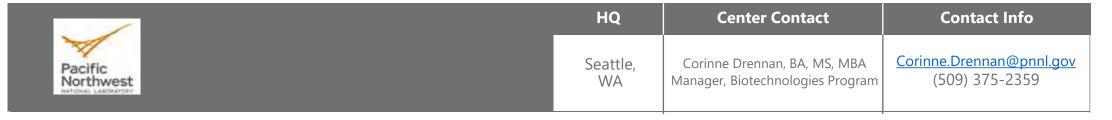
Networking

Sc Supply Chain

Tc Technologies and Processes







Pacific Northwest National Laboratory

Programming Overview

PNNL is one of seventeen national laboratories managed, through private contractors, by the Department of Energy's Office of Science. Lab research lays a foundation for innovations that advance sustainable energy through decarbonization and energy storage and enhance national security through nuclear materials and threat analyses. The overall focus is more on R&D and technology transfer than technical assistance. Services range from workshops and conferences to engineering, techno-economic analysis, and lifecycle assessments.

The Bioproducts, Sciences, and Engineering Laboratory (BSEL) is a joint effort between Washington State University and PNNL. Within BSEL, researchers are developing technology for converting agricultural byproducts into chemicals for products like plastics, solvents, fibers, pharmaceuticals, and fuel additives.

Opportunities for Engagement

- Eligible projects often originate out of abundant material supply and typically require expensive laboratory work and are therefore best aligned with large scale efforts.
- Carbon management: sewage sludge, manures, and waste gas may present opportunities.
- Clean fuel standards have helped establish a supportive frame for technical gains.





MF Materials **Expertise**

Sc Supply Chain

Tc **Technologies** and Processes









	HQ	Center Contact	Contact Info
Seattle Office of Economic Development	Seattle, WA	Stephanie Gowing Green & CleanTech Lead	stephanie.gowing@seattle.gov

Seattle Office of Economic Development (OED)

Programming Overview

OED is currently going through a restructuring, but focus as of now is on equitable recovery, with a priority on BIPOC and key zip codes. We spoke with Stephanie Gowing who is the green business advocate and has been focused on fossil fuel transition, clean energy, and connecting circular economy to clean energy and clean tech. OED has also been building wealth building work from a procurement perspective with the Connective, as well as real estate-based wealth building strategies. Lastly, their neighborhoodbased approach has centered on supporting community leaders, so they can support stakeholders within the community.

Offerings include:

- Grants for circular economy, small business support, emergency funds
- Collaboration with Seattle Good Business Network on Materials Marketplace launching this week.
- Community wealth conversations and prototypes
- Green New Deal focus
- Focusing on transitioning off fossil fuels and impacts on jobs

- Working with & recruiting diverse small businesses, as well as understanding basic needs like technical support and business planning.
- OED support Seattle Good Business Networks Material Marketplace.
- Engage OED for explorations of clean energy and the circular economy. Here's their prototype/website to start having this conversation.
- OED also has a prototype focused on equitable procurement and community engagement.

Networking	Rc Recruitment	TS Technical Support
CE Community Engagement	Investment/ Grants	BS Business Plan Assistance









Washington Economic Development Financing Authority

Programming Overview

WEDFA is an independent agency in the executive branch of state government, created by the legislature to act as a financial conduit to businesses through issuance of nonrecourse revenue bonds. WEDFA operates under a special federal income tax incentive, allowing them to pass on some benefits of state governmental financing to private enterprise and local governments. WEDFA operates based on fees assessed on transactions they arrange. WEDFA may provide capital financing to the following types of organizations:

- Manufacturing and processing
- Alternate energy production
- Waste, disposal, and recycling
- Water and sewage treatment
- 501(x)(3) non-profit

Opportunities for Engagement

- Funding can be applied to waste-related activities including collection, processing, byproduct extraction, and repurposing.
- Given the current low interest rates, \$50 million is the current floor for eligible projects.
- Larger projects with a higher-than-average risk profile are good candidates for the tax-exempt financing available through WEDFA.
- Employment is a key performance metric for WEDFA; coordination with labor and green infrastructure could present mutual opportunities.
- The construction and demolition sector and food waste streams may both provide projects of the scale commensurate with WEDFA services.
- Appropriately crafted regulations can provide impetus for innovation and market utilization, such as Clean Fuel Standards.



IC Incentives/ De-risking









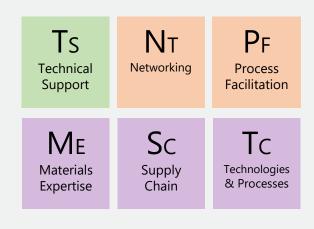
Washington State University Composite Materials & Engineering Center

Programming Overview

The WSU Composite Materials and Engineering Center (CMEC) is an interdisciplinary research organization focused on developing new building materials and manufacturing technologies from a range of recycled and renewable resources. A large lab is utilized to conduct materials development and manufacturing, as well as structural testing. The Center often works directly with Industry. Focus areas include:

- Wood materials and engineering
- Structural engineering
- Cementitious and bituminous materials
- Polymeric materials

- High-volume, low-value materials are a specialty.
- Beyond technical support, the Center offers processing analysis, feedstock valuation, transportation assessment, supply chain analysis, and market feasibility studies.











Blue Daisi Consulting

Programming Overview

Blue Daisi Consulting offers WMBE consultancy services focused on business assistance, specifically on how businesses can think about waste, waste reduction, zero waste, and circular economies. They use an accessible approach of starting where people are at and help navigate complex policies and rules around material management.

Focus areas:

- SPU Zero Waste Partnership for South Seattle businesses with an overall awareness of BIPOC businesses.
- Workshops for zero waste businesses
- Custom education for large organizations

- Free zero waste program for Southeast Seattle businesses in partnership with SPU
- Waste reduction goals for small and large businesses. Waste audits.
- Accessible language for communities.
- WMBE leadership





Center Contact

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Contact Info

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Cero Coop

Programming Overview

CERO (Cooperative Energy, Recycling, and Organics) is an award-winning commercial composting company providing food waste diversion and pickup services for a wide range of commercial clients in the metro Boston area.

CERO transports food scraps to local farms, where they are recycled into nutrient-rich compost products used to support the local agricultural economy.

Specific equity focus:

- Economic democracy green jobs and cooperative ownership
- Community owned, BIPOC-owned commercial composting companies
- Highest and best use model

- Centering Just Transition and Green New Deal
- Cooperative economic models and creating hubs for community development and relationship funding models
- Direct to public offering funding model example
- Successes of using community based economic models and funding











Circle Economy Jobs Initiative and Monitor

Programming Overview

Circle Economy's Job Initiative's value prop is focused on a what they call a "'positive transition' to circularity for work and workers". The main goal of the initiative is to leverage a data tool they built called the Circular Jobs Monitor, which helps define and identify circular jobs data and maximize cross referenced environmental and social benefits.

They partner with the UN Environmental Program, Ellen MacArthur Foundation, ICLEI, C40 Cities, Doughnut Economy Action Lab, employers, workers, governments, multilateral organizations, education institutions and research organizations.

Key goals with their initiative and the monitor:

- Categorize and highlight circular jobs across many regions
- Leverage a material flows analysis
- Currently have a skills focus, but there is an equity grant exploration to overlap with Doughnut Economics, the UN Sustainable Development Goals, and the EU Green Recover to showcase social impacts of jobs, location, types. The goal is to use a zoom in, zoom out approach with Doughnut Economics & circularity.

- Test and use the jobs monitor, currently only 3 areas are highlighted, in the next few months, they have 250 new areas that will be populated.
- Engage on the data structure classifying circular strategies. You can find a Pacific Northwest Dataset here. This mirrors the data structure on the jobs monitor.









HQ	Center Contact	Contact Info
Oakland,	Brian Hickey	brian.hickey@cvcorps.org
CA	CFO	cvcorps.org/

CiviCorps

Programming Overview

CiviCorps is a youth corps model for conservation and recycling. Their mission is to re-engage young adults to earn a high school diploma, gain job skills, pursue college, and embark on family sustaining careers. Many of these youth come from BIPOC communities, and staff go through trainings to learn about systemic racism to face their own biases.

CiviCorps crews are paid and taught soft skills, like interviewing. The recycling program is for high school age and is funded by Cal Recycle. Focus is single stream, commercial bottles and cans, cardboard.

The program has 14 crews working throughout the county, 45 staff, and 130 youth. Youth at most stay for five years and then must graduate out of the program and usually get a class V commercial drivers license.

They expressed that having it be a non-profit helps them focus more on equity and the environment because they don't have to only focus on profit, though they are continuing to diversify their revenue stream to adjust to large changes in the industry.

- Experience working with diverse youth corps; model similar to AmeriCorps and EarthCorps.
- Working with non-profits, City, and commercial businesses to get franchise permits.
- Partnership experience with CalRecycle, they are non-profit, but 55%-60% is earned income from recycling.

TS Technical Support	PR Policy Recommendations	Sc Supply Chain
CE Community Engagement	Materials Expertise	Tc Technologies and Processes









Front and Centered

Programming Overview

Front and Centered is the largest coalition of communities of color-led groups in the Pacific Northwest, whose diverse missions and work come together at the intersection of equity, environmental and climate justice. Their programs include coordinating statewide strategies, research, policy and advocacy, technical assistance, grantmaking, and other capacity efforts to support the leadership and resiliency of their members

The focus mostly on:

- Building community power
- "Changing the rules" using the Just Transition framework
- Building capacity for organizations
- Most of their connection is in the energy sector, which can easily translate to the circular economy

- Engagement on the <u>HEAL Act</u> in Washington State, which centers BIPOC community involvement, and a clear definition of environmental justice.
- Leverage the WA Health Disparities Map, which may be required with the HEAL Act
- How Just Transition language can be applied to communities of color.











IZWTAG – Indigenous Zero Waste Technical Advisory Group – (BC)

Programming Overview

The Indigenous Zero Waste Technical Advisory Group (IZWTAG) offers training and resources to First Nations to implement zero waste systems within their communities. Their main focus is creating community recycling "centers" in indigenous communities without recycling services.

Services include:

- Education, community engagement, funding for systems
- Recycling infrastructure, mobile depots, training, jobs, tools
- "Share sheds" where users can exchange items
- Composting
- Community advocacy, education, upkeep
- Vision is to process materials, entrepreneurship

Opportunities for Engagement

- Engaging indigenous communities to expand dialogue and two-way fluency within "stewardship programs"
- Decentralized zero waste and circular economy systems in remote areas
- Right language and expertise for Indigenous communities and zero waste, circular economies.



PR Policy Recommendations

Tc См Comms Technologies and **Processes**

ME Materials Expertise









LA Compost

Programming Overview

LA Compost co-creates decentralized, community hubs for local compost access and engagement, regenerative practices, and community empowerment. These hubs are now supported by CAL Recycle and will grow these hubs from 30 to roughly 130 community compost hubs throughout California.

Core programs and purpose include:

- Leveraging compost as a holistic public and social health multiplier
- Lower food waste prices
- Local food resources, urban farming skills
- Basic infrastructure, collection logistics,, skills, language, policy support for distributed composting systems

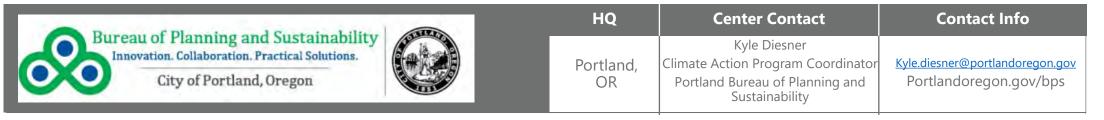
- Expertise in decentralized composting models
- Coalition building around decentralized compost
- Community engagement expertise for BIPOC and lower income communities as well as higher income and white communities
- Slide shows decentralized compost partners, policies, hubs, farmers market - ecosystem.

PF Process Facilitation	RP Research/ Planning	CM	Tc Technologies and Processes
CE Community Engagement	PR Policy Recommendations	SC Supply Chain	ME Materials Expertise









City of Portland, Planning & Sustainability Doughnut Economics

Programming Overview

PDX is a pilot city for C40, Doughnut Economic Action Lab, Circle Economy, and others for a Doughnut Economics city snapshot.

Focus on conversation was regarding a series of workshops with industrial and manufacturing around a net zero pathway and exploring life cycle and embodied carbon. Take away was lots of excitement around a circular economy hub. Industry groups, apposed to climate work, more RECEPTIVE TO CIRCULAR then to climate. Pathway to innovation allows a competitive approach to green infrastructure.

Programs include:

- Portland Doughnut Economics events
- Portland Clean Energy Community Benefits Fund
- Shelter to Housing
- Garbage, Recycling, Compost,
- Smart City PDX

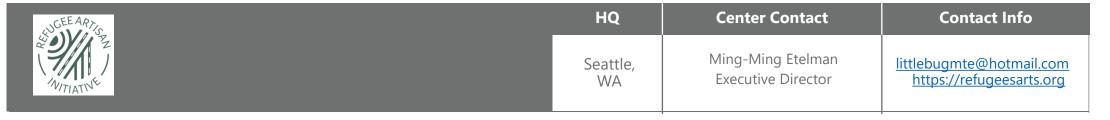
- Portland Doughnut Economics workshops See Appendix for more slides.
- A city program focused on community benefits to clean energy through a large business tax.
- Looking at upstream solutions to solid waste
- Portland Doughnut Economy data

lv Investment/ Grants	Bs Business Plan Assistance	CE Community Engagement	CM Comms	Sc Supply Chain
TS	PF	RP	ME	Tc Technologies and Processes
Technical	Process	Research/	Materials	
Support	Facilitation	Planning	Expertise	









Refugee Artisan Initiative

Programming Overview

Refugee Artisan Initiative works with immigrant women to work towards what they call an "inclusive, prosperous transition for all", through small batch textile manufacturing. They focus on reusing and upcycling circular textiles in the Seattle and King County area. They also have a give back program where they make sure every scrap is used.

Offerings include:

- Upcycled circular textile products like clothing, medical, pet needs, accessories and more.
- Skilled decentralized seamstresses for repair and product development from home or in a centralized facility
- Local small batch manufacturing facility/skills in Lake City
- Wholesale and retail sales
- Business skill incubation for immigrant women

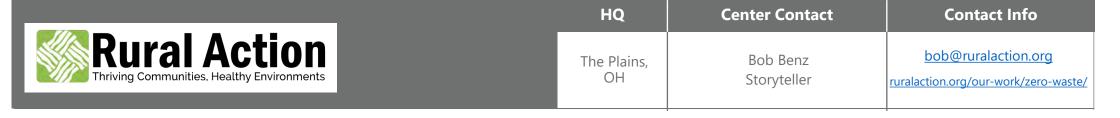
- Deep experience with textile end-markets, repair, remaking, cascading materials, workforce development
- Technical and business support for immigrant women
- Tips on working with women with English as a second language
- Needs sourcing, distribution, product, funding, sales channel support, partnships, workforce development, large procurement buyers needed
- Recently won people's award for Seattle Good Business Networks Circular Innovation Challenge

TS Technical Support	CE Community Engagement	CM Comms	Sc Supply Chain
PF Process Facilitation	RP Research/ Planning	Materials Expertise	Tc Technologies and Processes









Rural Action

Programming Overview

Education, business skills development, and strategic planning for zero-waste economies. Developing a just economy is a core element of their mission, a key goal of rural communities control their destinies around multiple sectors like agriculture, forestry, zero waste and recycling, environmental education, watershed restoration, and energy. Core work is social enterprise development and local environmental tourism.

Current programs and resources:

- Union jobs, business plan assistance, incubation, grants for rural business development around circular economies and waste reduction goals.
- Distribution, market development, incubation support, grants
- Zero Waste Pledge
- Events and guide
- Reusable dishware
- Action plan development

Opportunities for Engagement

- Community strategies for rural communication, and community engagement
- Rural landscapes, needs, material suggestions, programming expertise
- Reuse Corridors Rural Action



Ts Technical Support

Iv

Investment/

Grants

Bs **Business Plan** Assistance

IN

Incubator/

Accelerator

CE Community Engagement

PF

Process

Facilitation

См Comms

RP

Research/

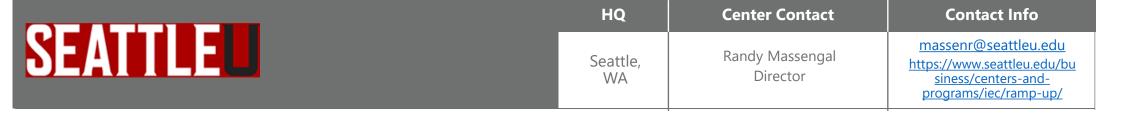
Planning

Tc **Technologies** and Processes









Seattle U | Ramp-Up Program

Programming Overview

Ramp-Up's focus is to transform local small business by leveraging a campus-community engagement strategy.

Key Objectives

- Increase the capacity of local, underserved businesses
- Support the local business ecosystem by partnering with existing service providers and organizations.
- Strengthen Seattle U's capacity as an anchor institution to offer key resources and connections within the local business ecosystem.

- Capacity building for underserved businesses
- Leveraging anchor institutions as community wealth building strategies.
- Neighborhood-based approach to economic development.











Share Reuse Repair Initiative - BC

Programming Overview

Similar to other "forum" projects, the Share Reuse Repair Initiative brings business, government, and community together to support conversations supporting circular innovation and social considerations.

Their Just Circular Transition program focuses on prioritizing COVID recover and economic development around sharing, reuse, repair, that green and just. A study of their findings of their work with BIPOC and low-income communities is to the right.

Other program highlights include:

- Facilitating connections around material economies
- Repair café-type program management
- Policy recommendations, including Right to Repair as a current focus

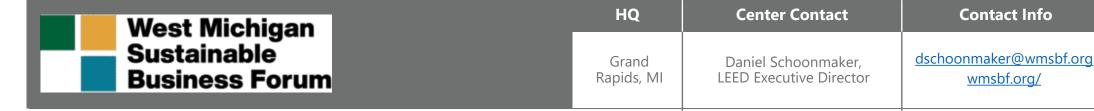
- International approach to circular economy
- How to use right language when working with BIPOC and low-income communities
- SHIFT Framework of behavior change expertise
- BC collaboration

Ts Technical Support	CE Community Engagement	PR Policy Recommen -dations	ME Materials Expertise	Tc Technologies and Processes
PF Process Facilitation	RP Research/ Planning	CM Comms	SC Supply Chain	









West Michigan Sustainable Business Forum

Programming Overview

Program is structured as a membership program and in essence fosters network development. They facilitate a rotating portfolio of a dozen working groups, task force, round tables, various constituencies, and have a recycling group, food waste group, an anti racism roundtable, and three sustainability and equity groups (one for each region). They facilitate community conversations around climate change, circular economy, and social responsibility.

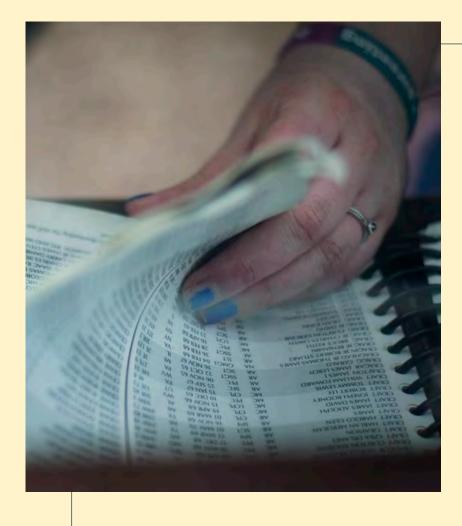
The seek out entrepreneurial, shorter term projects, fulfill a specific need or opportunity, engage sustainability and equity through facilitating conversations, building threads, then expanding into projects and programs. They bring together several partners, ideally ones who don't already work together, to address an issue. They are funded through a community foundation.

- How to hold complicated community conversations with large stakeholders
- Approaches to connecting climate change and circular economy for community and policy adoption









06 Appendix



PRIORITIES & GAPS WORKSHOP

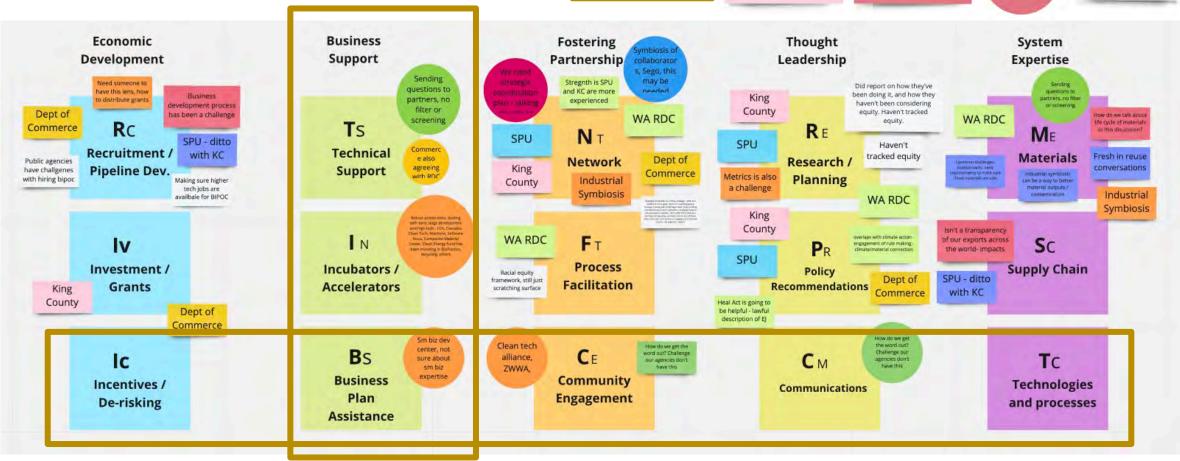
Participating agencies: King County, Seattle Public Utilities (SPU), Dept. of Commerce, and Recycling Development Center (RDC)



Lighter rectangle = strengths / priorities Darker rectangle = challenges

Circles = Gaps

White rectangle = Equity challenges







EXAMPLE: JUST TRANSITION FRAMEWORKS

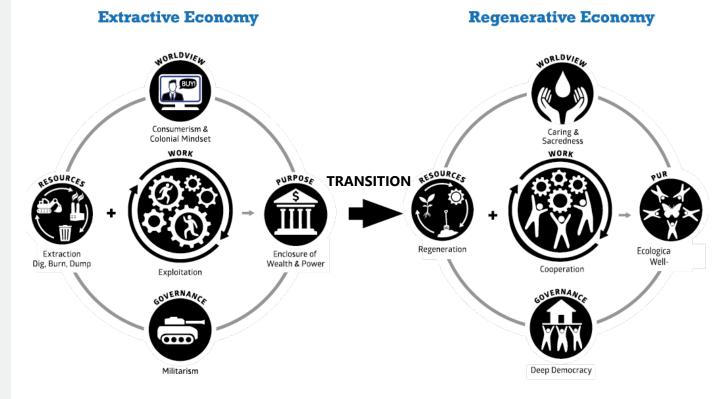
Case Study: People's Economy Lab, Equitable Development Initiative, Front and Centered

Many BIPOC community-based organizations are already leveraging the Just Transition framework from Movement Generation to help visualize and organize around what a just transition from an extractive economy to a regenerative economy could look like.

Overburdened community economic organizations like Front and Centered, The People's Economy Lab, Got Green, Puget Sound Sage, Rainier Beach Action Coalition, NEW Economy Washington, and more have been collaborating in deep ways around this framework.

Building off already established community-based work is key to working with overburdened communities from the start.

Contact Deric Gruen at <u>Front and Centered</u> for more details on this project.



NT Networking PF Process Facilitation CE Community Engagement

PR Policy Recs RP Research/ Planning

CM Comms





EXAMPLE: JUST TRANSITION FRAMEWORKS

Case Study: Portland City Doughnut

An important consideration on how and why to leverage Just Transition frameworks like Doughnut Economics is the ability to vision a thriving city and region together with communities, businesses, leaders, and others. Shown on the right is Portland's mapping with industrial stakeholders and a vision for a future thriving state of the people of Portland.

The City of Portland is one of three pilot programs with Circle Economy, the Doughnut Economics Action Lab, and C40 Cities specifically focused on the overlap of climate, circularity, and a just transition.

Front and Centered has been interested in pulling together local stakeholders in this area and could be a community-based effort for integrating equitable material development.

Contact Kyle Diesner from the <u>City Of Portland</u> for more on this work.

NT Networking PF Process Facilitation CE Community Engagement

PR nity Policy nent Recs RP Research/ Planning CM Comms

WECON WHAT WOULD IT MEAN FOR THE PEOPLE OF PORTLAND TO THRIVE? CITY TARGET CITY STATUS CITY TARGET Avoid or minimize negative health 80% of Portlanders live in a impacts and improve opportunities HEALTH for Portlanders to lead healthy. 'complete neighborhood' with CONNECTIVITY and convenient access to the and services needed in daily I Target year: 2035 Strive to produce and fund at least HOUSING & 10,000 new regulated affordable ENERGY housing units citywide by 2035 that will be affordable to households in Ensure a safe and peaceful COMMUNITY the 0-80 percent MFI bracket. community by [...] promoting Target year: 2035 community responsibility. commitment, and preparedne Target year: 2035 All Portlanders have safe and WATER reliable water stormwater and CULTURE sewer services. Target year: 2035 Support a thriving arts and cu community including a diverse 90% of Portlanders live within a range of artists, arts organizat FOOD half-mile of a store or market that and arts providers in Portland sells healthy, affordable food. Target year: 2030 SOCIAL FOUNDATIONS CITY TARGET CITY STATUS CITY TARGET Portland continues to have among LY JUST AND ECOLOGY the lowest rates of violent crime PEACE & JUSTICE compared to similarly sized cities. Target year: 2035 Close the unemployment rate JOBS between white workers and we of color by 2020.





EXAMPLE: JUST TRANSITION FRAMEWORKS

Case Study: Portland City Doughnut Data

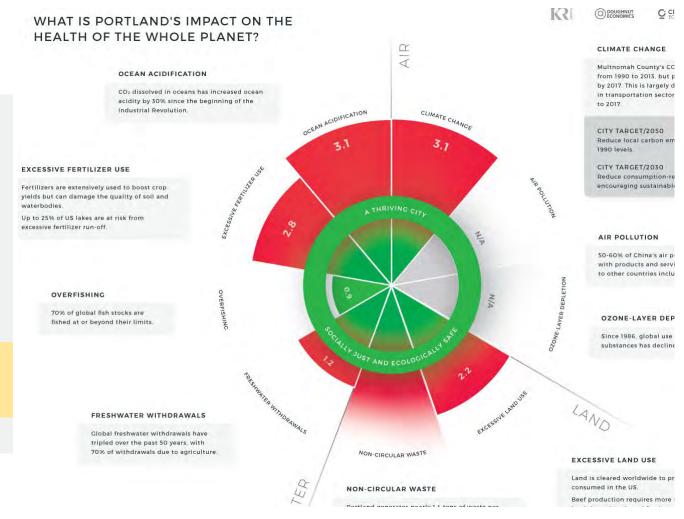
Doughnut Economy experiments are happening throughout the world. This slide to the right focuses on ecological data for Portland and how it connects to ecological goals and data. Climate, non-circular materials, and other ecological overshoots are present on this map.

You can find the focus area for Portland here:

https://doughnuteconomics.org/tools-and-stories/14

Contact Kyle Diesner, from the <u>City Of Portland</u> for more on this work. This work is ongoing.

NT Networking Process Facilitation CE Community Engagement PR Policy Recs RP Research/ Planning CM Comms







EXAMPLE: CO-DESIGNED DEVELOPMENT

ends from one ther

Case Study: The Connective & Seattle Office of Economic Development

Seattle's Office of Economic Development (OED) has started a co-design process to integrate small BIPOC business development with capacity buildings, funders, government, and procurement to collaboratively map out a program and website form for equitable procurement for small BIPOC businesses.

Participants included: Front and Centered, Africatown, Community Credit Lab, small business, King County Procurement, OED, Seattle University Ramp-Up, UW Procurement, and many others.

This co-design process and potentially the Connective itself could be an avenue to partner with OED, Seattle and King County BIPOC communities on advancing equitable economic development and procurement.

This work is still ongoing.

See map and presentation here

Contact Stephanie Gowing from Seattle Office of Economic Development for more on this project.



PF Process Facilitation

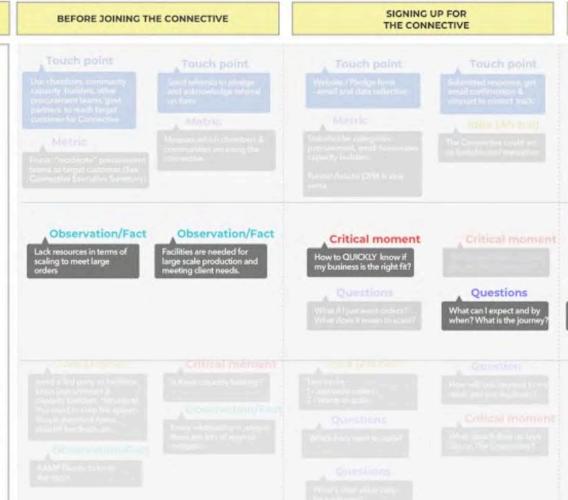
CE Community Engagement

 P_R Policy Recs

 R_P Research/ Planning

См Comms





This report was produced for King County through a grant from the Department of Ecology's Recycling Development Center by Full Circle Environmental, Kamal Patel, and Resource Recycling Systems.







Credits: this presentation was partially made with a template created by Slidesgo.