



Cultivating connections for new secondary markets with CRD wood

This case study was developed to showcase applied circular principles and business/organizational practices and is intended only for education and/or informational purposes.

Circular Economy Unit, Waste Reduction and Management Division,
Environmental Protection Branch/Environment and Climate Change Canada

1. Introduction

An innovative new program is engaging Vancouver Island businesses to prevent valuable construction, renovation, demolition (CRD) materials from going to waste. By cultivating connections among those with surplus materials – from old growth lumber to concrete – with others who can put these materials to use, the [Building Materials Exchange](#) (BMEx) program is building the momentum to drive industry-wide change.

By design, BMEx actively engages the input and participation of companies in the building materials value chain: developers, contractors, designers, and architects, among others. Powered by Light House, companies have access to:

- A unique online retail marketplace (the BMEx Marketplace),
- A supply-demand matchmaking service,
- A physical materials hub for the collection and reselling of building materials, and
- Pitch-or-fix events that encourage creative reuse solutions (the BMEx Challenge).

BMEx is based on a concept of industrial symbiosis: one company's trash is another company's treasure.

– Gil Yaron, Light House

While still in its infancy, the program is already having an impact: sparking interest in expanding secondary markets that create economic value, reducing greenhouse gas emissions, and diverting thousands of pounds of CRD materials from landfill. It's already helping the Regional District of Nanaimo, which provided seed funding, achieve its target of diverting 90% of waste generated in the region away from landfill by 2030.¹

This case study examines the challenges, solutions, and outcomes of the BMEx program to date.

About Light House

Light House's mission is to advance regenerative and circular practices in the built environment that nurture ecological and human health. That means designing buildings and communities that reduce and reuse building materials and associated waste, and lower carbon emissions. Its BMEx program launched in 2023.

BMEx program overview (year one)

Material Exchange Marketplace: This online business-to-business [retail platform](#) is similar to Facebook Marketplace, but for the CRD industry: participants list and acquire excess and salvaged building materials from reliable local sources. Unlike other retail platforms:

¹ *Construction Waste Best Practices Guide*, Regional District of Nanaimo (April 2023).

- Sellers provide specific details about their materials, making it easier and faster for buyers to find what they need;
- Sellers can post in advance of materials becoming available, so buyers can be assured of access to the materials they need, when they need them;
- Participants can sign up to receive alerts when a specific type of material becomes available.

The platform has launched, and activity is growing.

Challenge Matchmaking: This free matching service helps companies identify and quantify the surplus materials they either have or need. Participants receive ongoing support to find suitable matches and build sustainable relationships with other CRD businesses. Among many recent examples, a construction company was matched with an organization that works with local farmers, community gardens, and agricultural societies to build greenhouses and planter boxes from the builder's unused offcuts.

BMEx Challenge: This "pitch-it or fix-it" competition has already proven to be an exciting, valuable event that's attracting Vancouver Island's CRD businesses. Similar to Dragon's Den, where companies pitch products to investors, the BMEx Challenge invites companies to pitch their surplus or salvaged building materials to others with a novel solution for their reuse. For example, at a November 2024 event that attracted dozens of participants, one company that removes stone from soil and uses sensors to separate out aggregate by colour was seeking a partner that would integrate the salvaged pebbles into a product. It pitched the challenge; another pitched a solution (using the materials in terrazzo flooring). Once the partners connect at the event, they met face-to-face to negotiate logistics and terms (e.g. sale or barter; transportation of materials).

These events are generating significant buzz among the participants, excited by the opportunities to network, find sellers and buyers, and showcase their solutions. The most recent events captured

Key Facts

Location: Operating across Vancouver Island, BC

Reach: Contacted 900+ companies, including 300+ contractors as well as manufacturers, suppliers, waste haulers, demolition companies, designers, engineers, and architects. More than 150 companies have signed up as active BMEx participants.

Funding partners: The Regional District of Nanaimo's Zero Waste Grant for seed funding; Cowichan Valley and Capital Regional Districts, and the City of Nanaimo; Coast Capital Savings as sponsor.

Participants: Many start-up entrepreneurs and innovators with a vested interest in circularity; today, the project is also attracting champions in mid- and large-sized companies. Each has different interests and goals that BMEx seeks to address.

significant media attention for the participating businesses. When a business participates in BMEx, it not only saves money on tipping fees or building materials; it also builds its reputation as an industry leader.

2. Project Challenges and Solutions

The ingenuity of the BMEx team is demonstrated at every turn – an essential quality if deeply entrenched, unsustainable CRD industry practices are to evolve. Problem-solving is baked into the program’s DNA; as the team approaches year two of the program, it recognizes the obstacles and is making changes as it rolls out.

Creating trust in the secondary market: Secondary markets are a new idea for many CRD industry businesses. Recognizing the industry “runs on trust,” as managing director Gil Yaron describes, demonstrating successes and getting the word out is fundamental. By creating opportunities for those in the industry to meet and match to the benefit of all parties, BMEx is nurturing a necessary ingredient that can one day make secondary markets much more commonplace. As familiarity grows, and the business cases emerge, companies will be more inclined to seek out CRD materials from the local secondary market.

Recognizing different interests and needs: The BMEx team learned early on that there are two main streams of materials being generated by BMEx participants: one from manufacturers that produce a certain type of waste, 24/7 (e.g. wood frames that generate offcuts, shavings and sawdust); and the second from contractors that generate discrete amounts of material on an erratic basis (e.g. on site wood offcuts, plastics from piping, film from windows). As a result, manufacturers value sustained relationships with buyers that can take their waste on a regular basis; hence, the Matchmaking service. Contractors, designers and deconstruction/salvage companies have a greater interest in the Marketplace and Materials Hub to donate/barter/sell excess and salvaged building materials. To supplement the programs, the team is planning to offer targeted sessions to further guide each type of participant, and are tailoring BMEx to further engage and show each the unique value proposition the program provides.

Physical spaces for small volumes and inventory: The BMEx team learned that small quantities of materials are not always worth the effort to a buyer, which led to conversations with Nanaimo’s Habitat ReStore to establish a hub for CRD materials such as wood, concrete, aggregate, rebar, piping, flashing, and more. Gil Yaron points to a large, well-run, low-cost, and municipally funded hub in Boston, Massachusetts as a model², noting that in British Columbia, many deconstruction companies are not able to find a dedicated space in their own communities, even for safely storing salvaged wood. Low-cost, centralized spaces

BMEx is the Tinder of the construction sector.

– Gil Yaron, Light House

² [Boston Building Resources](#)

for the sorting and storage of salvaged materials would facilitate wider industry participation.

Seeking a supportive framework: Government support was crucial to get the BMEx program off the ground, but as Gil Yaron explains, while governments are doing their best, they are missing the mark and not moving fast enough. For example, deconstruction policies are inconsistent from one municipality to the next and barriers persist, including the absence of drivers to make deconstruction more attractive than traditional demolition.³ He points to the lack of incentives in the building process to counter the “quick and cheap” model where costs are passed down from developer to contractor, and no one is incentivized to recover materials. While there are some exceptions, such as for a LEED-certified building where a developer is willing to cover some costs, for the most part, the traditional model has not been disrupted – until now.

Light House recommends the following policy and financial supports:

- Expanding existing deconstruction policies to require all structures to be assessed to determine if they are candidates for deconstruction.
- Ensuring municipal waste disposal rates (tipping fees) are high enough to incentivize deconstruction, salvage, and reuse rather than demolition.
- Banning disposal of certain construction and demolition materials in landfills.
- Creating a provincial policy framework for deconstruction that is consistent across municipalities.

Of the thousands of homes being torn down in Metro Vancouver every year for new development, Light House estimates that at least 60% could be deconstructed to salvage valuable wood and other building materials.

3. Outcomes, Benefits, and Opportunities

The BMEx program is facilitating material exchanges to achieve the highest and best use for excess, unused, and salvaged materials. Light House is now planning for its second year, evaluating what is working, and continuing to learn from participants in south and central Vancouver Island.

Benefits secured to date

Participation in BMEx offers benefits to everyone involved:

- Developers can reduce costs, waste, and carbon emissions across the development process and support affordable housing.
- New businesses can establish themselves with lower costs, and as industry leaders.
- Homeowners can preserve the heritage value of their homes and save on demolition costs.
- Municipalities can advance their carbon emission goals and reduce the reliance on landfill.
- Non-profits can source materials for affordable housing projects.

³ *Blueprint for Change* (Light House, 2023).

- Designers and architects can plan to integrate salvaged materials ahead of time, knowing the materials will be available when they need them.
- Everyone can benefit from strengthened relationships within the industry.

Opportunities to expand the secondary market

While Light House is already exploring next steps for the second year of the BMEx program, further work with industry and other stakeholders on Vancouver Island could include:

- Assessing additional capacity for CRD materials reuse and recycling to identify where more innovation and support is needed, for reclaimed wood and other materials.
- Implementing consistent municipal policies and financial incentives, particularly those that would disincentivize traditional machine demolition.
- Sharing knowledge and best practices to facilitate replication in other jurisdictions.
- Supporting participation in BMEx's Marketplace, Matchmaking, and Challenge events.
- Tracking and showcasing successful matches and success stories.

4. Conclusion

BMEx demonstrates that with demolition and new development come opportunities to grow Canada's circular economy for salvaged lumber and other CRD materials that would otherwise end up in landfill. Light House is helping government and industry advance regenerative built environments through continual learning from program participants, trial and error, and timely adaptation.

With almost 300,000 tonnes of CRD waste being generated each year in Metro Vancouver alone,⁴ the potential to expand the program is tremendous. Less than one year in, BMEx is already boosting the circular economy on Vancouver Island by generating economic value, avoiding waste, and reducing greenhouse gas emissions – demonstrating the potential to drive material recirculation in markets across Canada.

High value building materials, including rare old growth lumber, are disposed of or incinerated as quality single-family homes are eliminated to make way for larger developments. New construction to replace these homes requires the consumption of virgin resources, with an estimated minimum 40 mature pine trees felled to frame and finish an average 2,000 ft² home (A Blueprint for Change, 2023.)

⁴ Metro Vancouver Housing Data Book (December 2022), 54.

<https://metrovancover.org/services/regional-planning/Documents/metro-vancouver-housing-data-book-2022.pdf>

Recommended Resources

Light House (April 2023). [*A Blueprint for Change*](#).

Light House and the National Zero Waste Council (March 2021). [*Watching our Waste: Executive Summary*](#).

MountainMath.ca. [*Vancouver's Teardown Cycle*](#).

Recycle BC (2018). The [*Pollution Prevention Hierarchy*](#).

Regional District of Nanaimo (2023). [*Construction Waste Best Practices Guide*](#).

Reducing building material waste by 50% would equate to 295 garbage trucks of waste and 1,185 tonnes of GHG emissions saved. A recent landfill composition study from Nanaimo showed that 58% of materials being landfilled can be readily reused, recycled, or composted, and many of these materials are from the construction and demolition, commercial and multi-family sectors. (Construction Waste Best Practices Guide, 2023.)

Project Lead

Gil Yaron, Managing Director, Circular Innovation, Light House

Website: [Light House](#)

Email: BMEx@light-house.org

LinkedIn: [in/gyaron](#)

Get Involved with BMEx:

- Register at <http://www.light-house.org/BMEX>.
- Use the [BMEx Marketplace](#).
- Schedule a brief interview to identify waste streams or required materials for the Matchmaking service.
- Spread the word throughout the industry.

About this series: The Waste Reduction and Management Division profiles opportunities to recover and reintegrate construction, renovation, and demolition (CRD) materials to develop the circular economy of Canada's CRD sector. This series focuses on the diversion of wood from landfills through improved secondary markets, boosting recovery of materials, and connecting supply and demand.