The Benefits of Today's Circular Economies: What Can We Learn?

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### **Executive Summary**

The climate crisis and limited resources have everyone concerned. The linear economy's model focuses on the production and consummation of products, and not considering what happens to items after use is making it less appealing. While the circular economy minimizing waste and making the most of existing resources is a better solution to help our environment.

Interface decided to become a circular economy to continue the legacy of their founder of doing well by doing good. This company takes back old used carpet and repurposes it, giving it to charities, small businesses, and other people in need."Plus our products are designed to be fully recyclable, to make new carpet tiles for the future." Even with this success, they are still a carbon neutral company showing that is possible. They can use the old materials to produce new carpet. Due to the company's circular economy they are able to keep all their products out of the landfill and are able to keep their products' waste to a minimum.

Philips uses this model because they are aware of the earth running out of resources and want to produce good quality items that will improve people's lives. They claim that by offering use of their products as a service, they can maximize the use of their resources and are motivated to design their products for longevity, durability, and eventually recycling.

Nova Scotia will need to start promoting having companies buy better and long lasting materials so the products can have longer lifespans. If people knew what they were or how they can help, many would be keen to be part of the solution. Everyone needs to put sustainability at the front of their minds, both individuals and corporations.

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With the global climate crisis, sustainability, and the earth's limited resources on everyone's mind, most people are wondering what they can do to help. To do their part, many companies have adopted circular economy models rather than linear models. The linear economy model focuses on the production and consummation of products, not considering what happens to items after use. The circular model comes from another perspective. It aims to protect our environment, improve the quality of goods, and keep it sustainable. Many people see this switch as necessary for the survival of humanity, with our population growing to numbers that cannot be supported by our natural resources.

The definition of a circular economy is an economic system that aims to minimize waste and make the most of existing resources. It involves designing products that can be reused, repaired or recycled instead of being thrown away. This way the amount of waste that is produced can be reduced, and our natural resources can be conserved (UNCTAD, 2015). This is different from the linear model which relies on massive quantities of cheap and easy to access materials and energy, which end up polluting our environment (Santander 2021). Even though recycling is much better for our environment than simply throwing items in the garbage, a circular economy is more full scale, aiming to reuse resources for as long as possible. This entails repairing and refurbishing items, reusing materials and products, as well as recycling. The recycling industry is more specific, seeking to collect, process and reuse some materials that would often be thrown away (Johnson, 2022).

An example of a small-scale circular economy is Interface Inc., a company which specializes in flooring. Interface was started in 1973 by their founder, Ray Anderson (Stansfield, 2023). After seeing carpet tile flooring in Europe, Anderson brought it back to the United Stats and started the commercial flooring revolution. They decided to become a circular economy as they wanted to continue the legacy of their founder of doing well by doing good. Their goal is to help the environment while having a successful business. This company will take back old used carpet and repurpose it, giving it to charities, small businesses, and other people in need. "Plus our products are designed to be fully recyclable, to make new carpet tiles for the future. Nothing goes to the landfill." The company has been motivated to be sustainable for over twenty-five years, and has been very successful. They have manufacturing facilities on four continents: North America, Europe, Asia and Australia. They sell their flooring products in over one hundred countries. Even with this success, they are a carbon neutral company and have the numbers to prove it. Interface tries to ensure that carpet does not end up in landfill when it has the chance for a second life.

To maintain a circular economy model, they design long-lasting products using materials that are recyclable and environmentally friendly. To close their economic circle they want consumers to reuse the product to lengthen their lifespan. When this is not possible, all their products, as previously mentioned, are totally recyclable. They can use the materials to produce new carpet, and some of their carpet designs can actually be converted into energy. They also partner with NetWorks to recycle used fishing nets into carpet fibers. Interface works with NextWave to intercept plastic waste from polluting the oceans as part of their Climate Take Back Mission. They have even produced carpet tile that is carbon negative. These initiatives contribute to the global circular economy. Due to the company's circular economy they are able to keep all their products out of the landfill and are able to keep their products' waste to a minimum (Stansfield, 2023). There are also many large scale circular economies such as Philips, a health and technology company, whose motto is "Healthy people, sustainable planet" (Wang 2021). Philips is a massive multinational company that manufactures everything from razors to hospital ultrasound machines. Founded in 1891, they sell their various products in over sixty countries, to individuals, other businesses and organizations. Their focus is helping improve people's health and their day to day life. They use three of the United Nations Global Goals as the forefront of their motivation: Good Health and Well Being, Decent Work and Economic Growth, and Industry, and Innovation and Infrastructure (United Nations, 2015). They use this model because they are aware of the earth running out of resources and want to produce good quality items that will improve people's lives. They believe the current linear model most other companies follow, take, make and dispose is in need of new direction. They practice a circular model of make, use and return through five returning loops: dematerialize/optimize, service, refurbish, parts recovery and recycle (Jakobs, 2023).

The circular economy idea serves as the foundation of Philips' business strategy. As part of this approach, Philips offers their customers the usage of their items rather than just purchasing and owning the products. Philips retains this value throughout the whole product life cycle by offering various types of recycling services rather than destroying things by incinerating them at the end of their life cycle. They claim that by offering use of their products as a service, they can maximize the use of their resources and are motivated to design their products for longevity, durability, and eventually recycling. In the end, the circular economy business model aids in boosting material usage efficiency. In order to create a circular economy, Philips creates new eco-friendly products, services, and business models. These new innovations eventually become the company's core strengths and aid in the achievement of its goals (Wang, 2021). To improve Nova Scotia's circular economy, small things can be incorporated into the province to start. Repurposing abandoned buildings instead of tearing them down to build something else could help with the housing shortage, for one example. There are three major steps that need to be taken, First, eliminating as much waste and pollution as possible. Second, circulating products and materials. This entails keeping materials in use, either as a product or, when that is no longer possible, as components or raw materials of other products. The last step is regenerating nature (Ella MacArthur Foundation, 2020). These are popular strategies used that can be implemented all over Nova Scotia; collecting items, recycling when needed, reusing or reselling, taking parts that can benefit other products, repairing instead of throwing away, and remanufacturing (Côté, Emeritus, 2016).

Local companies can start asking for people to return broken or damaged items, or those no longer in use, so they can be repurposed or repaired where possible. This benefits the environment by producing less waste and using less materials, and helps the business because they would not have to acquire as many raw materials as they would be able to source some from returned goods. To start off, the government may have to incentivize the consumer to encourage them to bring items back. They may also need to promote having companies buy better and long lasting materials so the products can have longer lifespans.

More information explaining circular economies should be provided in schools and on social media. Many citizens are not aware of the benefits of the circular model or have never heard of one. If people knew what they were or how they can help, many would be keen to be part of the solution. Education is key. Even letting them know the small things they can do to help, such as buying second hand, might encourage businesses to do something themselves when they see it is what people want. It is terrible to say but some companies will only start helping the climate and reducing their carbon footprint if there is money involved for them. If people knew the incredible environmental benefits and companies realized the revenue that they could make by filling in the gaps, it could popularize the model.

Everyone needs to put sustainability at the front of their minds, both individuals and corporations. The earth does not have an unlimited supply of materials, and circular economies are part of the solution.

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