As a lead expert for ISO MC/TC-323 on the Circular Economy I've noticed that the International Standards Organization's direction on the circular economy concept often times leans towards ways to build products that are more easily recycled and this is certainly an important aspect of the circular concept, but it might be argued that this puts the proverbial cart before the horse. If someone is to start designing their products to be more easily recyclable, then their financial analysis would probably start by determining if they can retrieve these products cost effectively enough to justify undertaking such a strategy. Circular Supply Chains Inc. has been studying circular economics for quite some time now and have come to realize that it is our current supply and reverse chain processes that limit our ability to develop an effective and efficient circular economy.

Our experience from having handled reverse logistics for Walmart for fifteen years has us developing a newly patented system to address this problem with a new innovation called the Cargo Carousel System (CCS). Until our reverse chains are as well developed as our supply chains it will be difficult to ever envision a true circular economy. To avoid additional GHG emissions from the additional shipping required to return end-of-life merchandise back to the OEM as feedstock for further reuse/recycling, the supply and reverse chains need to be married into a single cyclical system that combines the supply and reverse chains into one and that's exactly what the CCS accomplishes. This can help to eliminate empty backhauls and partial loads to cut GHG emissions from truck traffic in half. Over 30% of all the trucks on the road are travelling completely empty because of this problem!

Our current systems have our supply trucks returning empty after delivery and the trucks we use to return end-of-life products leave their depot when they're completely empty and then return full. There is currently available space for both the supply and return trips and yet neither is being utilized. Empty backhauls should be used to return end-of-life merchandise because it's wasted space otherwise and the trucks that leave their depot empty to pick up end-of-life merchandise should utilize that empty space to make deliveries. Our new system can do both simultaneously.

We chose agricultural applications as our first business use case because of their ability to move the needle on helping others, but our system is applicable to any supply and reverse chains. In our view, developing this new system appears to be a much quicker path to a functioning circular economy that has the cost of recovery justifying new designs for circularity. A cost effective recovery system sets the stage for circularity and invites new product designs and waste systems that can capitalize on our already efficient system for end-of-life product recovery and redistribution.

Whether the focus of an investment’s impact is economic, environmental or social, we’re developing a system to justify the investment because it impacts all three and almost in equal measure. As a board member of Canada’s National Zero Waste Council on the Circular Economy and a member of the UN’s One Planet Network, we are helping to turn the tide on climate change and poverty through a profitable venture that is slowly gaining traction as it reduces GHG emissions while monitoring supply chains to help eliminate modern slavery (forced labour) among workers; it’s not too late to re-balance what we’ve done to the environment.

Another study by EARTH University in Costa Rica indicates that we can reduce single-use packaging (cardboard boxes, plastic bags, wooden pallets) costs by US $188,000,000 annually in their banana sector alone with this same system to help provide smallholder farmers with a substantially better standard of living. It’s not too late to re-balance social inequalities either.

~ The biggest threat to our planet is thinking someone else is going to save it! ~