

SOLVE FOR X.

“Sustainability Trends within Supply Chain Management”

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Can someone define for me what a “Sustainable Supply Chain is?”

What are characteristics of a sustainable supply chain?

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Sustainable supply chain management involves *integrating environmentally and financially viable practices into the complete supply chain lifecycle*, from product design and development, to material selection, (including raw material extraction or agricultural production), manufacturing, packaging, transportation, warehousing, distribution, consumption, return and disposal. Environmentally sustainable supply chain management and practices can assist organizations in not only reducing their total carbon footprint, but also in optimizing their end-to-end operations to achieve greater cost savings and profitability. *All supply chains can be optimized using sustainable practices.*

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Sustainability in the supply chain encapsulates a number of different priorities:

- Environmental stewardship
- Conservation of resources
- Reduction of carbon footprint
- Financial savings and viability
- Social responsibility

Supply chain sustainability practices, in order to succeed, must deliver improved environmental performance within a financially viable operating construct.

<http://www.sustainable-scf.org/>



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Why sustainability within the supply chain ?

"Even though we were the first manufacturer in America to offset 100% of the CO2 emissions from our manufacturing plants, these incredible offsets amounted to a rounding error in terms of our total carbon footprint. We realized that our supply chain — what's coming in and going out of our plant — represents 80% to 90% of our total carbon footprint. So despite the great things we did in our plant, unless we tackled our supply chain's carbon footprint, we were nowhere."

—Gary Hirshberg, President and CEO, Stonyfield Farms

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Lisa's definition for sustainability

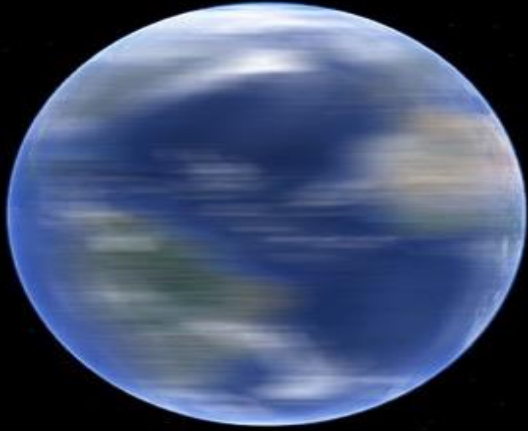
Sustainability can only be accomplished by taking a ***holistic systems wide approach to management of the business.***

(i.e. successful initiatives do not occur in a silo, they require buy in at all levels within an organization)

<http://learningforsustainability.net/systems-thinking/>

2017 Trends in Supply Chain Management

- (1) Sustainability
- (2) Emphasis on Ethics & Increased Transparency
- (3) Greater collaboration between suppliers and manufacturers (i.e. more complex, interconnected)
- (4) Rise of information management, procurement (big data, IoT)
- (5) Digital Supply Chains and real-time data



Ever feel like life is speeding up?

**What general trends do you see happening in the world?
In your business?**

Major Business Trends.....

- (1) Changing culture/face of workplace
- (2) UN's Sustainable Development Goals & impacts on business/operations
- (3) Globally connected w/ “on demand” info.

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Employment & How “we” work today.....

Changing workforce

- Culturally diversity workplace
- Rise of the Gig economy
- Rise of social media & impacts on company reputation
- Worker shortage (People & Skills Gap)
- More Millennials in workplace

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UN's newly adopted Sustainable Development Goals for 2030

"We have a big, bold agenda before us – now we must work to make it real in people's lives."

UN Secretary-General
Ban Ki-moon



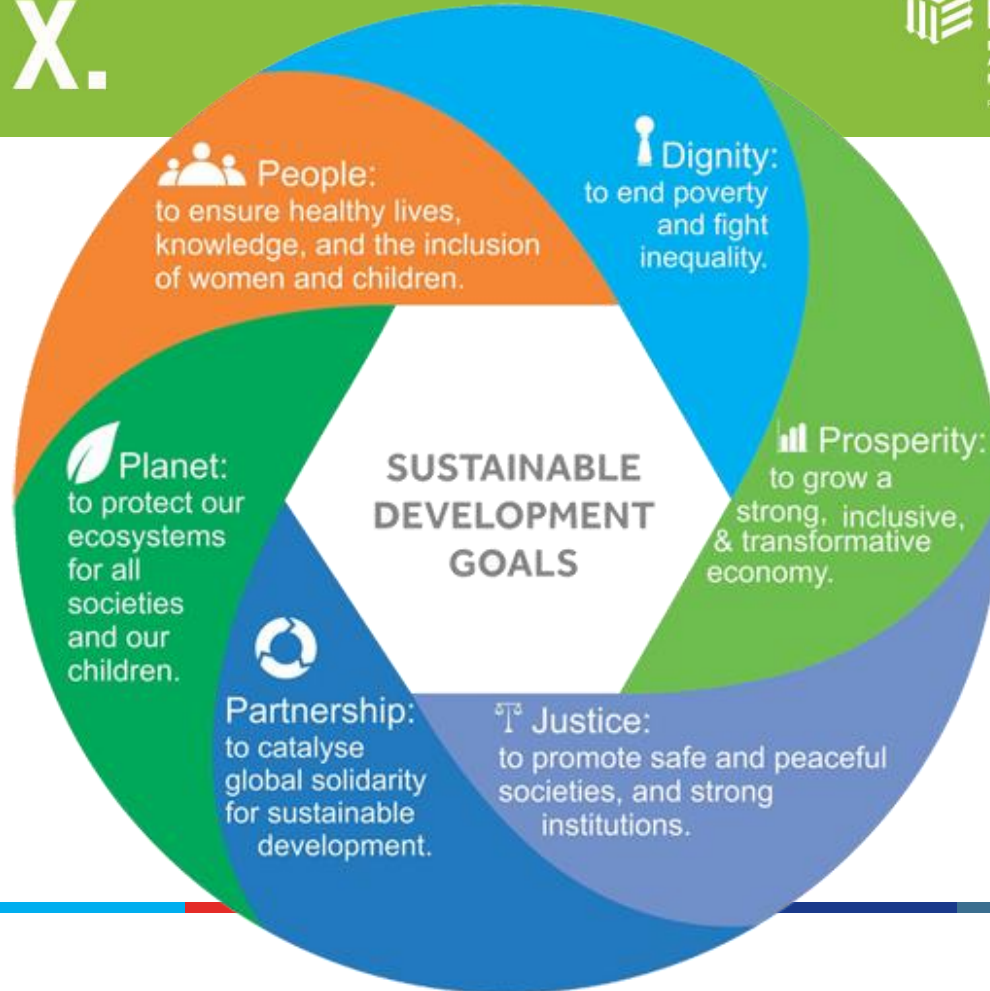
UNITED NATIONS
SUSTAINABLE
DEVELOPMENT
SUMMIT 2015
25-27 SEPTEMBER

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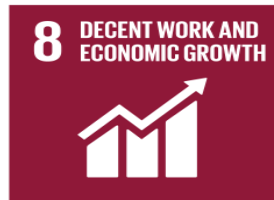
“The new agenda is a promise by leaders to all people everywhere. It is a universal, integrated, and transformative vision for a better world.... It is an agenda for shared prosperity, peace, and partnership [that] conveys the urgency of climate action [and] is rooted in gender equality and respect for the rights of all. Above all, it pledges to leave no one behind.”

-(Former) United Nations Secretary-General Ban Ki-moon

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SUSTAINABLE DEVELOPMENT GOALS



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Sustainable Development Goals Compass (for business)

“The SDG Compass explains how the SDGs affect your business – offering you the tools and knowledge to put sustainability at the heart of your strategy business.”

<http://sdgcompass.org/>



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Increased Transparency in supply chain

- Product transparency (LCA - EPD & HPD, C2C)
- Supplier surveys
- Third Party Reporting (ISO – CDP – GRI – B Corp)
- Chain of custody independent third party eco-labels (FSC – LEED)

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Life-cycle assessment (LCA, also known as life-cycle analysis, eco-balance, and cradle-to-grave analysis)^[1] is a technique to assess environmental impacts associated with all the stages of a product's life from raw material extraction through materials processing, manufacture, distribution, use, repair and maintenance, and disposal or recycling.

Wikipedia

Image from:

https://www.dsm.com/markets/electrical-electronics/en_US/science/bright-science/life-cycle-assessment.html



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What is an EPD®?

An EPD® (Environmental Product Declaration) is an independently verified and registered document that communicates transparent and comparable information about the life-cycle environmental impact of products.

Having an EPD® for a product does not imply that the declared product is environmentally superior to alternatives — it is simply a transparent declaration of the life-cycle environmental impact.

The **EPD®** is a registered trademark within the EU.

<http://www.environdec.com/en/What-is-an-EPD/>

IPC CORNER GUARD

IPC DOOR AND WALL PROTECTION SYSTEMS



Phoenix Children's Hospital



Since 1979, Inpro has been eliminating building-related worries by making and servicing products with an obsessive commitment to protecting safety, health, environment and appearance. Inpro, headquartered in Muskego, WI, is the nation's premier manufacturer of architectural products in five divisions including: door and wall protection, washroom systems and commercial surfaces, engineered metal products, privacy systems and architectural signage.

Inpro is committed to sustainable business practices in our dealings with employees, customers, suppliers, government entities and our community neighbors — all with an eye toward our obligation to future generations.

www.inprocorp.com

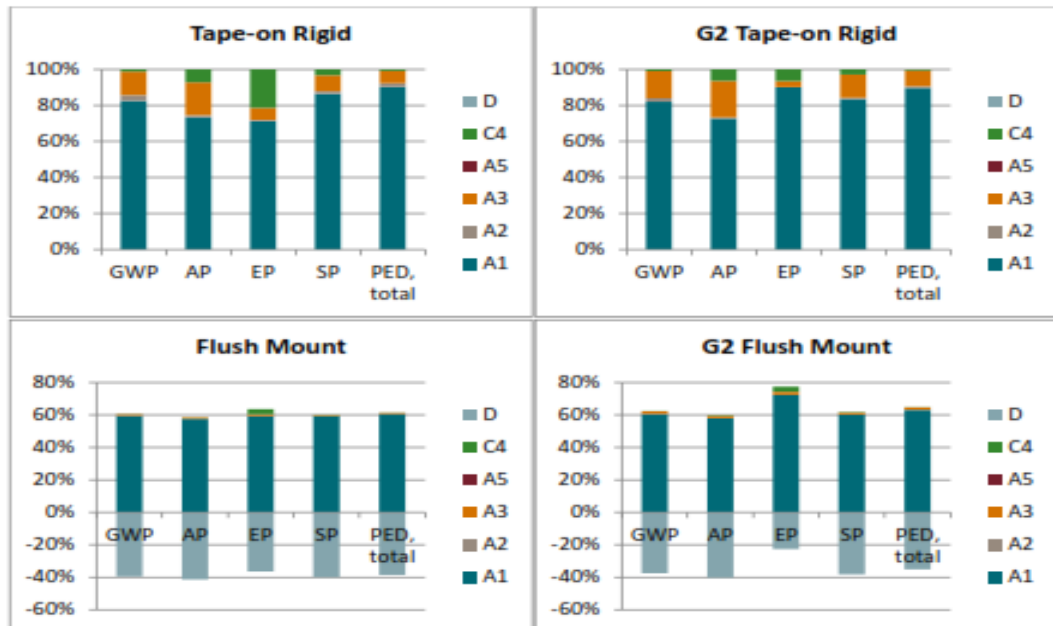


Example



Interpretation

The following plots show the breakdown of environmental impacts (TRACI 2.1) and the total Primary Energy Demand (PED, total) over the life cycle. The raw materials supply (A1), which includes the plastic, aluminum, electricity, and other flows, is the highest source of impact across all impact categories. Manufacturing (A3) has a significant impact when the plastic represents a large proportion of the product weight due to the extrusion, injection molding, and other processing occurring at the IPC facility. When aluminum is present in the product (e.g., G2 flush mount corner guards), the onsite manufacturing processes are small compared the impacts from aluminum manufacturing, which occurs offsite and thus represented in the raw material supply module (A1). Credits for recycling potential for aluminum and steel are represented in module D and appear as negative values on the plots.



Example

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Cradle-to-Cradle (C2C)

C2C includes aspects from both the environmental and social sides of sustainability. It takes a qualitative approach, using a top-down perspective. It starts with a vision of what a sustainable world looks like and what role a product can fulfill in this world. This means that the whole product system can be re-imagined to fit the vision.

<http://www.c2ccertified.org/>



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A **Supplier Survey** is used by a company to collect information from current and/or prospective **suppliers** to gauge whether or not they satisfy specific social and environmental criteria that are meaningful to that company.

B Labs (B Corporation™) Guide to Conducting a Supplier Survey

http://bimpactassessment.net/sites/all/themes/bcorp_impact/pdfs/B%20Resources%20-%20Conducting%20a%20Supplier%20Survey.pdf



International Organizations for Standardization (ISO)

ISO is an independent, non-governmental international organization with a membership of 164 national standards bodies. Through its members, it brings together experts to share knowledge and develop voluntary, consensus-based, market relevant International Standards that support innovation and provide solutions to global challenges.

ISO 5001 – energy management

ISO 14001 – environmental management system

ISO 9001 – quality

ISO 26000 – social responsibility

<https://www.iso.org/>

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Additional Programs:

B Corporation™

<https://www.bcorporation.net/>

GRI <https://www.globalreporting.org/>





Carbon Disclosure Project
<https://www.cdp.net/>



Dow Jones
Sustainability Indexes

<http://www.sustainability-indices.com>



DOW JONES
SUSTAINABILITY INDICES

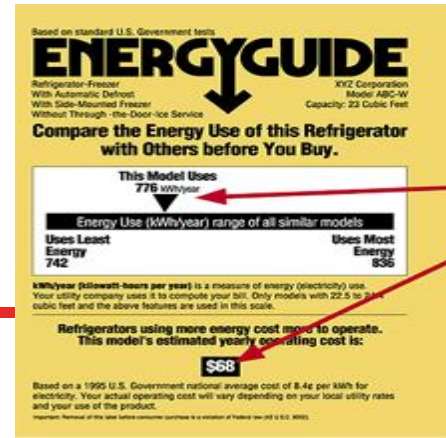
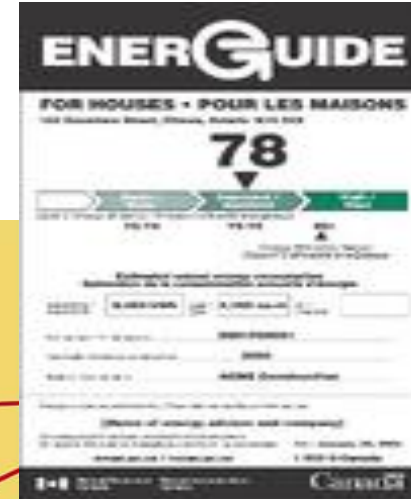
In Collaboration with RobecoSAM

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Use **independent product labels/ certifications** to help your products legitimately highlight their environmental/social benefits.

Voluntary Labels: Forest Stewardship Council certified (FSC), Green Seal, Recycled Content, Environmental Product Declaration

Mandatory Labels:
Declarations of content
Energy Guide Label



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Looking to the future.....

- Hyper- transparency (within supply chain, operations and overall how your business does business)
- Rise in number of certifications that are going to be required for you to do business in different parts of the world, or sectors etc...
- Expectation that your business is going to help solve the worlds problems (i.e. corporate adoption of SDG's) = increases in “mission based organizations”
- Figure out how the **circular economy** can benefit your operation



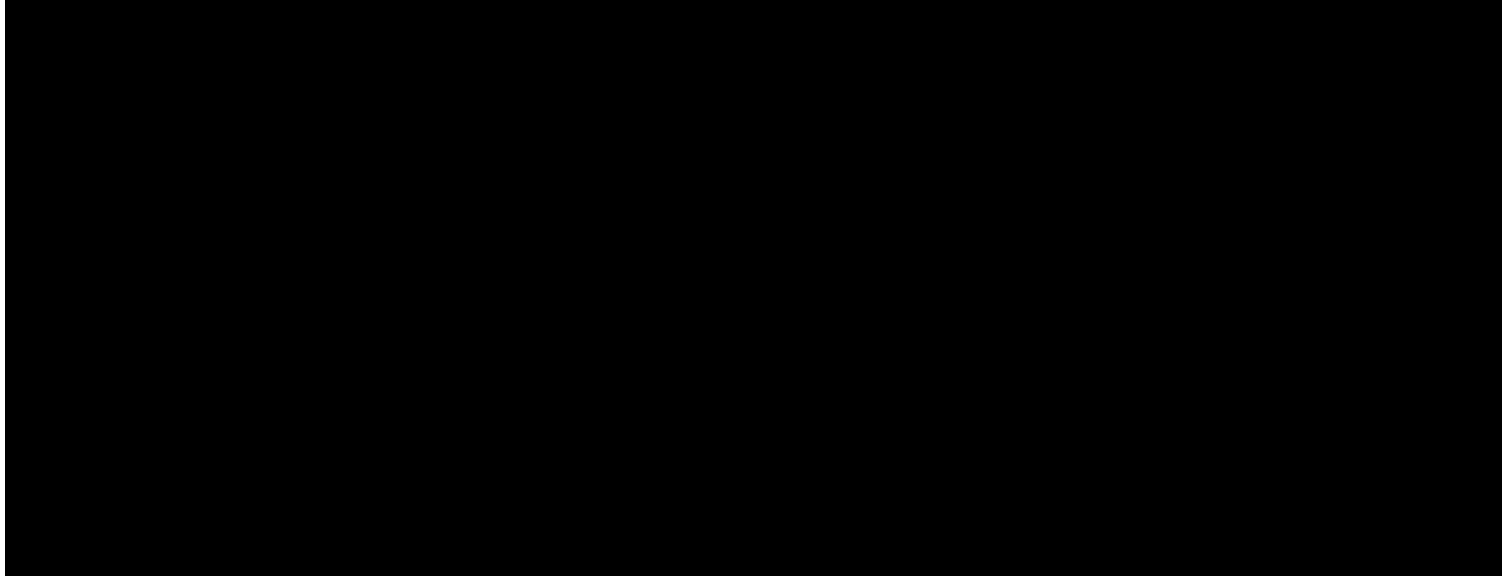
Circular economy thinking

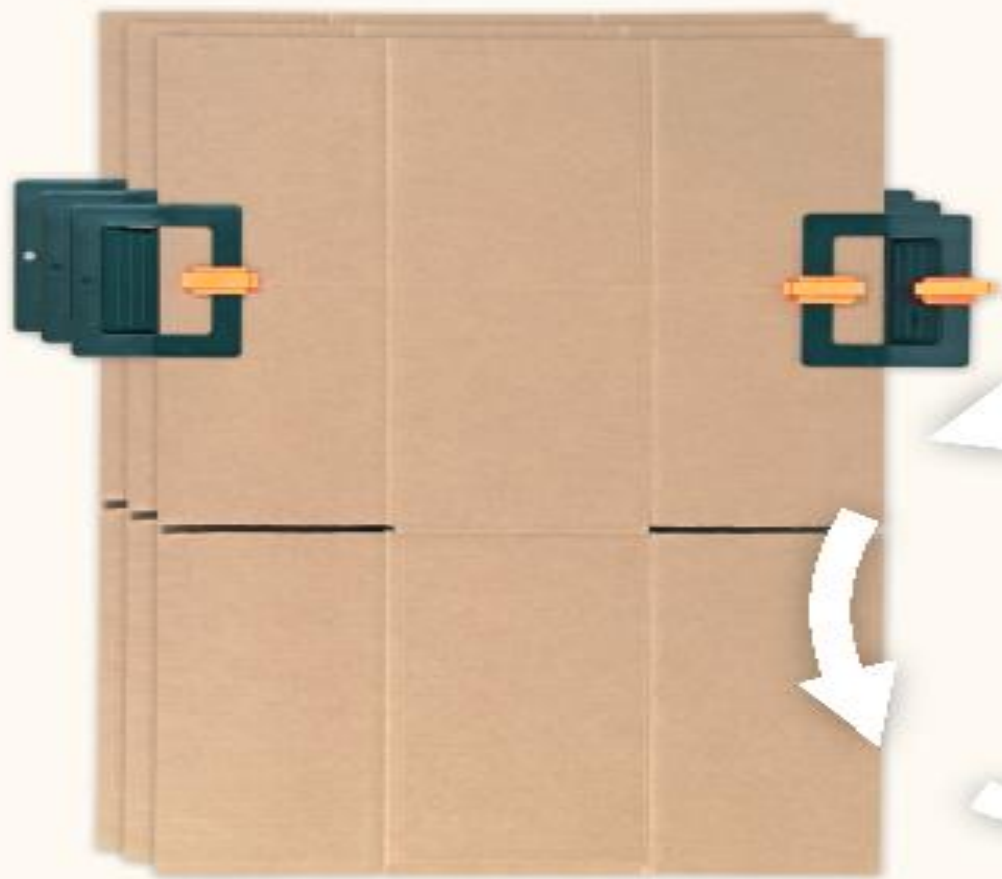
- alternative to “take, make, dispose” economic models
- regenerative by design
- aims to keep products, components & materials at their highest utility & value at all times
- C2C can design products for this system

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Example of a Circular Economy solution

Box Latch Product in Action – VF Corporation Video





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Box Latch Mission: Change the way the world closes and Re-Uses boxes. Develop the products and tools to help the world understand that Re-Use, not recycling, is the most effective long-term solution to corrugate waste management.

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You want to see in the world!

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Resources – Trends in Supply Chain

(1) Thomasnet's 2017 Trends for Supply Chains article
:<http://blog.thomasnet.com/six-supply-chain-trends-to-watch-out-for-in-2017>

(2) PLS Logistic's Top 6 Supply Chain Trends to Watch in 2017
<http://info.plslogistics.com/blog/the-top-6-supply-chain-trends-to-watch-in-2017>

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Resources – SDG's & Business

Article :

<http://www.triplepundit.com/2016/04/paris-agreement-means-business/>

Business Coalition in support of the SDG's :

<http://www.wemeanbusinesscoalition.org/about>

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Deloitte's Millennial Survey 2016

<https://www2.deloitte.com/content/dam/Deloitte/global/Documents/About-Deloitte/gx-millennial-survey-2016-exec-summary.pdf>

Forbes Employee Engagement what & why?

<http://www.forbes.com/sites/kevinkruse/2012/06/22/employee-engagement-what-and-why/#36f9d7534629>

Cone Communications Employee Engagement Article June 2016

<http://www.conecomm.com/research-blog/2016-employee-engagement-study>

Business Case for Employee Volunteer Programs

<https://www.charities.org/news/business-case-employee-volunteer-skills-giving-programs>

Gig Economy article

<https://www.fastcompany.com/3049532/the-future-of-work/heres-why-the-freelancer-economy-is-on-the-rise>

Harvard Business Review Article –Employer Branding

<https://hbr.org/2015/05/ceos-need-to-pay-attention-to-employer-branding>

7 Trends in Employee Engagement

<https://www.15five.com/blog/7-employee-engagement-trends-2016/>

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Resources – Life Cycle Assessment

Inpro Corporation – images of their EPD and HPD's website : <https://www.inprocorp.com/our-obsessions/sustainability>

Understanding the difference between LCA & C2C article
<https://www.pre-sustainability.com/lca-and-c2c-friends-or-foes>

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For More Information:

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Or visit ProMat Booth # N1114

{in Sustainable Facility Solutions Theater - North Hall}

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Q&A