

AT INDUSTRY AND SUSTAINABILITY

The purpose of this section is to describe some of the ways the AT industry is responding to sustainability challenges. For those wanting to contribute to the transition toward sustainability, the AT industry provides diverse opportunities.

PROFESSIONAL DEVELOPMENT FOR EDUCATORS

AT INDUSTRY AND SUSTAINABILITY

CHANGES THE AT INDUSTRY IS MAKING TO REDUCE ENVIRONMENTAL IMPACTS

One of the first steps that many manufacturers and retailers in the AT industry have taken is to **learn more about the sources of the materials** used in their products and then share what they have learned with consumers, an **effort towards transparency** (Nimon & Beghin, 1999). Conducting a **life-cycle analysis** of their products revealed that there were certain phases where products and processes had significant environmental impacts (Smith & Barker, 1995). The initial focus was often on the fibers used for products and companies like Patagonia led the transparency movement by switching to organic cotton and then sharing with their customers the rationale behind the change (Chouinard & Brown, 1997). Soon, companies that were already focusing on social responsibility efforts found that being transparent about the sources of materials and the places where their products were manufactured could create a **competitive advantage** that outweighed the benefits of keeping their sources secret (Porter & Kramer, 2006).

At the same time, researchers were working to develop fiber from materials, such as PLA (Polylactic Acid), that could **reduce the environmental impact of fiber production** while keeping the properties, such as easy care, that consumers had come to value (Vink et al., 2003).

When lifecycle analyses showed that the **consumer use phase of apparel products have the most significant impact on carbon emissions** through energy use (Allwood et al., 2015), the AT industry also began working on changing care labels to encourage energy reduction. Marks & Spencer, a major UK retailer, incorporated climate change as one of the major pillars in their pivot towards sustainability and required their suppliers to produce garments that could be labeled as “cold water wash” as well as opening stores that made major improvements in energy use (Bell et al., 2009).

Besides the concern about energy use and its relationship to climate change through carbon emissions, **the AT industry depends on water** for almost every phase of production, from water for crops to water for laundry (Morrison et al., 2009). Brands like Levi’s have developed innovations in textile processing that reduce water consumption and created educational campaigns to help their customers reduce water use at home (<http://store.levi.com/waterless/>). DyeCoo, a process of waterless dyeing with reclaimed CO₂ uses a closed loop system that produces no waste water and is energy efficient is being used to dye textiles (<http://www.dyecoo.com/co2-dyeing/>).

Groups such as the **Sustainable Apparel Coalition** have formed to share tools created by leaders in the AT industry to improve the ability of designers, producers and retailers to reduce the impact of their products on climate change (<http://apparelcoalition.org/the-higg-index/>).

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 **ACTIVITY: Waste Equals Food - Jeopardy**

 **ACTIVITY: Assign - Chapter 4 "Waste Equals Food" from Cradle to Cradle: Remaking the Way We Make Things**

McDonough, W. & Braungart, M. (2002). *Cradle to Cradle: Rethinking the Way We Make Things*. New York: North Point Press.

View video listed in More Information and Resources: WeWantToLearn.Net Waste = Food (Cradle to Cradle) (49:19 minutes)

 **ACTIVITY: Waste Equals Food Lecture Slides**

 **AT Industry and Sustainability - 6.2 - PowerPoint Presentation**

MORE INFORMATION AND RESOURCES

AT INDUSTRY AND SUSTAINABILITY

- WeWantToLearn.Net Waste = Food (Cradle to Cradle) (49:19 minutes)
<https://wewanttolearn.wordpress.com/2012/04/16/waste-food-cradle-to-cradle/>
- On this page *A Business Leading on Sustainability* about Interface Carpet (5:17 minutes)
<http://sustainabilityhub.com/newvideos/>
- V&A joint fashion and climate change hackathon https://www.youtube.com/watch?v=5A_sKZvoV0o
- TED Talk Changing the World Through Fashion: Eva Kruse <https://www.youtube.com/watch?v=d4VTPLpfGqQ>
- Nicole Bridger: Sustainable Fashion <https://www.youtube.com/watch?v=mak8FqhnPKM>

REFERENCES

- Allwood, J.M., Laursen, S.E., de Rodríguez, C.M., & Bocken, N.M.P. (2015). Well dressed?: The present and future sustainability of clothing and textiles in the United Kingdom, 42. Available: <http://www.ifm.eng.cam.ac.uk/resources/sustainability/well-dressed/>
- Bell, D.E., Nitin S., & Winig, L. Marks and Spencer: Plan A. Harvard Business School Case 509-029, January 2009. Available: <http://www.econ1.fudan.edu.cn/userfiles/file/20120401070457562.PDF>
- Chouinard, Y. & Brown, M.S. (1997). Going organic: converting Patagonia's cotton product line. *Journal of Industrial Ecology* 1(1), 117-129.
- Morrison, J., Morikawa, M., Murphy, M., & Schulte, P. (2009). Water scarcity & climate change: Growing risks for businesses and investors. Oakland, CA: Pacific Institute. Available: <http://www.ceres.org/resources/reports/water-scarcity-climate-change-risks-for-investors-2009>
- Nimon, W. & Beghin J. (1999). Are eco-labels valuable? Evidence from the apparel industry. *American Journal of Agricultural Economics* 81(4), 801-811.
- Porter, M.E. & Kramer, M.R. (2006). The link between competitive advantage and corporate social responsibility. *Harvard business review* 84(12), 78-92.
- Smith, G. G. & Barker, R.H. (1995). Life cycle analysis of a polyester garment. *Resources, conservation and recycling* 14(3), 233-249.
- Vink, E.T.H., Rábago, K.R., Glassner, D.A., & Gruber, P.R. (2003). Applications of life cycle assessment to NatureWorks™ polylactide (PLA) production. *Polymer degradation and stability* 80(3), 403-419. Available: http://www.natureworkslc.com/~media/The_Ingeo_Journey/EcoProfile_LCA/EcoProfile/NTR

