Using EPR to create the circular economy

by Roger Guttentag

The modern industrial economy can be visualized as an efficient, tireless pipeline that receives raw materials in one end, transforms them into products we use and, when we're done with them, shoves them back into the pipeline to be directed to their end-of-use destinations. In the last 25 years, we've managed to bend some of this pipeline to send back some of our discards upstream for reuse or recycling. However, to the concern of many in our profession, this effort appears to have stalled.

According to U.S. Environmental Protection Agency municipal waste report for 2001, per-capita waste generation and overall recycling rates were estimated to be 4.4 lbs. and nearly 30 percent respectively. The data estimates presented in the 2012 report, however, showed that the per-capita waste generation rates remained basically unchanged, while the overall recycling rates increased slightly to about 35.5 percent.

This situation has prompted many to argue that a root cause of the stagnation is the focus on managing what happens at the end of the material's pipeline and not enough on what happens at the beginning. Until we refocus our efforts to include minimizing materials consumption and waste at all stages of a material's life cycle, it is maintained, we will not make further progress toward the "circular economy" that would be a crucial foundation for a low- or "zero-waste" society. This has led to a more vigorous advocacy for public policies based on extended producer responsibility (EPR).

Some history

The first articulation of EPR principles was published in a 1990 report prepared for the Swedish Ministry of the Environment by Thomas Lindhqvist regarding the incorporation of all costs, including social and environmental ones, associated with the use of economic goods through their life cycles within the market prices paid by their users. These early EPR concepts were then used as the basis for the 1991 German Packaging Ordinance that required the product manufacturers and distributors to take back sales packaging from consumers and recycle a percentage of it. It should be pointed out that requiring businesses to take back their products in order to reduce the environmental impact of their discards was not a new idea. According to the Bottle Bill Resource Guide, the Canadian Province of British Columbia was the first to enact mandatory beverage deposit legislation in North America in 1970 which was quickly followed by Oregon's deposit law in 1971. However, the German Packaging Ordinance set the stage for incorporating take-back or product stewardship principles within a more encompassing EPR policy umbrella.

A 2013 working paper published by the Mossavar-Rahmani Center for Business & Government within the Harvard Kennedy School provides a good review of the U.S. experience with EPR policies for the period of 1991 through 2011, particularly with respect to the reasons these policies were adopted and covering specific product categories such as rechargeable batteries, mercury-containing products and paints.

Basic concepts

Discussions over EPR often include references to programs that promote the adoption of product stewardship practices. Sometimes a certain degree of confusion is introduced during these discussions because while these two ideas are often used interchangeably in some cases they seem to refer to different issues. In order to promote conceptual clarity, the Product Stewardship Institute (PSI) has a definitions section on its website that covers what EPR and product stewardship mean and how they relate to each other. According to PSI, product stewardship refers to any voluntary or mandatory system for minimizing the negative social, economic or environmental impacts stemming from a product's use or distribution that involves the manufacturer and other relevant stakeholder groups. EPR, in contrast, is a mandatory system of public policies that requires the product manufacturer to accept more of the responsibility for end-of-life product management and provides various incentives for manufacturers to minimize the environmental end-of-life impact of their products through better design and product management.

EPR advocacy

EPR advocacy exists on a global basis and to profile it adequately would take more than one column. So, for now, I will confine my review to U.S.-based organizations.

Container Recycling Institute (CRI) – CRI's mission is to promote the reduction of negative environmental and social impacts from container packaging through better product stewardship practices and EPR policies. Their website has a valuable online library of data, reports and webinars on various packaging materials such as plastics, recycling practices and EPR programs.

Northwest Product Stewardship Council (NWPSC) – The NWPC focuses on EPR programs and practices within the Oregon and Washington. News and information is organized within 11 product categories, industry chemicals, mattresses and paint.

Product Management Alliance – The Alliance represents trade organizations that advocate for EPR that is based on voluntary participation by producers and other

involved business sectors, such as retailers. A page on the group's website provides information on various EPR programs sponsored by members, such as the Consumer Technology Association and the Foodservice Packaging Institute. Another page also has numerous links to reports and articles related to member activities.

Product Stewardship Institute (PSI) – The focus of PSI is on the implementation of EPR policies and programs with the support of public sector members and private sector partners consisting of corporations, trade groups and various non-governmental organizations. The work that has been done by PSI is organized into 19 product categories. Each product category page describes the salient issues and actions that have been made in response to them. PSI also maintains other EPR information sources, such as webinars, an online newsletter and blog.

Product Stewardship Society – This is a new organization that describes its mission as providing professional education and networking support to individuals with product stewardship responsibilities. Information on its programs and educational resources can be found on its web site.

Upstream – Upstream describes itself as a "Think and Do Tank" for promoting EPR and sustainable materials policies. It is currently involved in three major projects: Sustainable Packaging, Plastic Pollution Policy Project (addresses marine plastic debris) and the Make It, Take It Campaign. Information on these initiatives, as well as other EPR-related topics, can be accessed on their website.

Web Address Directory

Bottle Bill Resource Guide	bottlebill.org
Container Recycling Institute	container-recycling.org
Extended Producer Responsibility in the U.S.	tinyurl.com/Harvard-EPR
Northwest Product Stewardship Council	productstewardship.net
Product Management Alliance	productmanagementalliance.org
Product Stewardship Institute	productstewardship.us
Product Stewardship Society	tinyurl.com/PSS-EPR
U.S. Environmental Protection Agency – MSW data	tinyurl.com/EPA-MSW12
Upstream	upstreampolicy.org

Final thoughts

The Mossavar-Rahmani Center working paper cited earlier provides a useful overview regarding what has been accomplished in the U.S. through the application of EPR. For political reasons, there is currently no EPR legislation that functions at the federal level, so states and various industries have been experimenting with a variety of voluntary and mandatory EPR approaches for different products. According to the authors, voluntary industry-sponsored programs have not done well in terms of overall product recycling rates. The results achieved by mandatory state programs, on the other hand, range from mediocre to highly effective. These results, the authors assert, are influenced most by how well stringent accountability mechanisms are implemented along with effective incentives to adhere to them. Acceptance of these requirements by all public and private stakeholders will be the key to driving further progress in making EPR a standard practice. Achieving this type of consensus within the current partisan climate that now exists will be one of the principal challenges confronting our journey to the circular economy.

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