



GIROUX
ENVIRONMENTAL
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Framework and Implementation Plan for a Packaging and Printed Paper Stewardship Program across Atlantic Canada

Deliverable 2: FINAL Jurisdictional Review

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Submitted by: Giroux Environmental Consulting

101 Chimo Drive
Kanata, Ontario K2L 2B4
T: 613-400-3108
Email: Laurie.Giroux@rogers.com

in association with

Duncan Bury Consulting



and

Gardner Pinfold Consulting Economists Inc. East Coast Office



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1 Introduction

1.1 Project Overview

This project is an initiative of Recycle New Brunswick, RRFB Nova Scotia, Multi-Material Stewardship Board (MMSB) of Newfoundland and Labrador, and the Prince Edward Island Department of Environment. The objectives of the project are to:

- Develop a proposed **Framework Model** for a packaging and printed paper (PPP) stewardship program for Atlantic Canada based on the findings of the jurisdictional review and the analysis of framework options, and;
- Develop an **Implementation Plan** for a PPP stewardship program which could be adapted to serve the needs of each of the four Atlantic Provinces individually or collectively.

Giroux Environmental Consulting, along with associates Duncan Bury Consulting and Gardner Pinfold Consulting have been contracted to undertake this assignment. The project commenced in early November 2013.

1.2 Terminology

In this document, the following terms are utilized:

- The terms *producers*, *stewards*, and *brand owners* refer to the same group of stakeholders: the companies that place or first import the packaging onto the consumer market;
- The term “*model*” has been used to refer to what the NB Recycle Request for Proposals termed a “*framework*”: which is the type of program design utilized for a packaging and printed paper recycling program within a jurisdiction. This could refer to an Extended Producer Responsibility model, a Shared Responsibility Model, or another model. Additional details on models are presented in Sections 2.1, 3.1, and 4;
- The terms “*Producer Responsibility Organization*” (PRO) and “*Industry Funding Organization*” (IFO) are terms used in different Canadian jurisdictions but refer to the same type of organization: the organization that collectively represents stewards or producers in fulfilling their financial and operational obligations in an EPR or product stewardship program; the term PRO will be used throughout the report as it is more commonly used in Canada and is the term used by the OECD.
- The term *effectiveness* means to increase the material recovery levels, and *efficiency* means to lower or control program costs.

1.3 This Document

This document presents the results of our jurisdictional review. The jurisdictional review was undertaken to examine, compare and contrast other frameworks utilized in Canada and abroad to manage PPP at the post-consumer stage of the life cycle while involving producers in either physical or financial aspects in management of the program. Programs reviewed include:

- Five Canadian programs: British Columbia, Saskatchewan, Manitoba, Ontario, and Quebec;
- Six international programs.

This document presents program profiles for each program reviewed. The Canadian programs have additional information included such as key stakeholder viewpoints.

2 Canadian PPP Models

The five Canadian programs reviewed in this report are presented in the subsections below. Below is a summary table with an overview of all five models.

2.1 Summary Overview of Canadian PPP Models

Exhibit 1 presents the model used in each program along with the percentage funding of net costs that producers pay into the program. Current operational programs include Manitoba, Ontario, and Quebec, while programs planned for launch in 2014 include Saskatchewan and BC.

Exhibit 1: Five Canadian PPP Models that Involve Producers in Funding % Net Costs

	Current Programs			Planned Programs	
	Manitoba	Ontario	Québec	BC	Saskatchewan
% Net Costs Paid by Industry	80%	50%	100%	100%	75%
Model	Municipality-Operated	Municipality-Operated	Municipality-Operated	Industry and Municipality -Operated (2014)	Municipality-Operated (2014)

2.2 British Columbia's PPP Stewardship Program

The BC program is a legislated program, and has been in the planning stages for 2 years. The intention of the program is to be the first industry-operated program in Canada where producers have 100% responsibility for net program costs and 100% responsibility for operating the program. This program will be operated by a stewardship association, Multi-Material British Columbia (MMBC). Under this model, municipalities have the option to be a service provider under contract to MMBC and retain responsibilities to collect PPP, or they can remove themselves from this role and MMBC will hire a contractor to provide the service. There have been extensive negotiations and consultations in BC surrounding the planned launch of this program in May 2014. Although no official list of municipal responses to the MMBC offer was available at the time of writing, there are unofficial reports from those working close to the MMBC process that indicate approximately 90% of municipalities (by BC population) have opted to become service providers to MMBC and to maintain a direct operational role for collection of PPP in their communities.

BC will be the first PPP EPR program in Canada to require PPP diversion from streetscape / public spaces (e.g. parks, arenas, recreation areas, etc.). This will pose unique challenges in the new program but according to their stewardship plan, to provide streetscape service MMBC will offer a financial incentive to the local government for the provision of services that include PPP collection, public education, promotion and first point of contact for collection service to customers. Where the local government declines the offer, MMBC may implement a competitive procurement process for PPP streetscape collection services, may select a service provider to do so, subject to reaching agreement with the local government on the management of the garbage component of streetscape system.

MMBC is a supporter of efforts to develop a national approach to PPP stewardship across Canada. In 2013 they joined the Canadian Stewardship Services Alliance (CSSA), a new organization that has been created with the goal of harmonizing PPP services for stewards Canada-wide.

Stakeholder Issues Identified:

1. Elimination of in-kind contributions: Newspaper stewards are covered under PPP EPR regulations as obligated parties and have commonly (in most Canadian programs) provided their program contributions as stewards through in-kind advertising rather than direct funds. In some provinces there are formal Memoranda of Understanding for this arrangement. The Newspapers Association in BC had negotiated such an agreement with MMBC, however when MMBC joined the CSSA they rescinded this agreement. For the BC newspapers participating in the program costs would be the equivalent of approximately \$6 million per year in fees, which they indicate is not sustainable¹. As a result the newspapers in BC have not joined MMBC yet (as of November 2013).
2. National and possibly international decision-making: there is some concern among municipalities and other BC stakeholders that with MMBC joining CSSA the decisions regarding the province-wide BC recycling program will be made by CSSA which has a Board of Directors made up of large multi-national corporations (i.e. Proctor and Gamble, Unilever, Metro, Loblaw, Walmart, Coca-Cola and Tim Hortons). Stakeholder concerns relate to a loss of local control and influence over local and provincial recycling programs and a shift of decision making out of the province largely to Ontario headquartered companies or even ones outside the country.
3. Municipal concerns: Due to the complexities involved with municipalities who may have long-term service contracts in place for recycling contractors, and also municipalities who have long-term capital investments in infrastructure (multi-material sorting facilities, etc.) some municipalities have strong concerns about this program. There is a flat fee system being offered by MMBC to municipalities who wish to maintain their role as service providers, which is problematic if their costs are higher than the flat fee negotiated. In these cases there is a risk that municipalities will not get all their costs covered if they remain service providers.
4. Concerns about competition and the market dominance of MMBC and CSSA. Some waste management companies which have traditionally collected recyclables are concerned about the contractual terms and conditions they are being offered by MMBC/CSSA. The BC Recycling Regulation is silent on the issue of competition between compliance schemes as are all other comparable regulations for product stewardship in Canada. There are however indications that some stakeholders are concerned enough about the situation in BC and possibly elsewhere in the country to consider raising the issue of monopolistic practices with competition authorities. To date however there has been no formal action by the Competition Bureau and there is no relevant jurisprudence on this issue in Canada although competition issues of this sort have resulted in the breakup of large single packaging compliance schemes in Germany and Austria (see section 3.1 page 24).

¹ Surry North Delta Leader, Jeff Nagel, Nov 27, 2013 <http://www.surreyleader.com/business/233668001.html>

Exhibit 2: British Columbia’s PPP Program (Planned for 2014)

Program Name:	Multi-Material British Columbia (MMBC) PPP Program
Sector(s) of PPP:	Residential printed paper and packaging (but does not include aluminum beverage cans or beer bottles).
Management Model:	MMSB was formed to operate this program, planning has been underway since 2011. It is 100% EPR: MMBC program is first fully industry-funded and managed packaging and printed paper program in Canada.
Municipal Role:	Producers will be responsible for curbside recycling, they can contract with municipalities to provide this service, or municipalities can opt out and another contractor would be hired to provide the service.
Funding / Financing Mechanism(s):	Funding formula is set out in legislation: 100% eligible net costs paid for by producers. 1,310 stewards submitted Letters of Intent (LOIs) to join MMBC – these are still in process, with 678 stewards current members in good standing with MMBC. Very Small Businesses that join MMBC and meet ANY of the following criteria will be exempt from reporting : <\$1M in revenues; OR <1 tonne PPP; OR Business operates as a single point of retail sale and is not supplied by or operated as part of franchise, chain or under a banner. Flat Fees for Low Volume Producers - MMBC is proposing two categories of flat fees: \$550 for those that supply between 1.0 and 2.5 tonnes PPP; and \$1200 for those that supply between 2.5 and 5.0 tonnes of PPP. This is a simplified reporting requirement rather than detailed annual reporting as required by larger members; they can calculate their tonnage using a simplified online tool. The material-specific fee setting process intends to set packaging categories to signal that high performing / recyclable materials attract a lower fee than low performing (hard-to recycle) materials.
Cost Effectiveness:	MMSB has a 75% target for the overall program. Estimates for 2014 indicate that the program’s 2014 target is 185,491t of packaging stewards have put on the market. Total operational costs are anticipated to be \$60,887,500 for 2014, NOT INCLUDING \$7.5 million in program start-up costs. MMBC estimates the cost of recycling PPP in BC is \$455 per tonne of PPP.
Competitiveness:	MMBC will tender collection and processing contracts where needed. MMBC is (as of December 2013) the only compliance scheme in place so there are some stakeholder concerns emerging regarding competition.
Impact(s):	Approximately 3,760,000 people will have access to the program (78% of households). Projected impacts of the program: Net cost per tonne \$454.9 (2014); Program management as a % of net cost 6.4% (2014); Net cost per capita \$22.4 (2014); Recycled kg/capita 49.3% (2014)
Oversight and enforcement:	The provincial Ministry of Environment is responsible for enforcement. MMBC has identified approximately 150 companies that have not yet submitted a Letter of Intent to join MMBC. While MMBC is part of CSSA, MMBC is still accountable to the provincial government to fulfill requirements of the legal Program Plan.
Transparency and reporting:	Service providers submit actual costs to MMBC, and MMBC reimburses these actual costs within a month (which is commonly termed in businesses payment within a “net-30 basis”). CSSA is accountable to its stewards (in terms of transparency of costs).
Unique Approaches:	This is the first producer-operated program in Canada, where municipalities could serve as a service provider, or not. Reimbursing actual costs of the program on a monthly basis rather than annually or estimated costs, is unique. MMSB views this as a difficult business model to drive with this new system and municipalities are finding it challenging to come to grips with the possible changes. The program also targets “streetscape” sources for recyclables – sidewalks, parks, city squares and municipal public spaces.
Advantages of Model:	Considered to be “ true ” EPR with 100% producer involvement . The program could streamline recycling services across some municipalities which may not have had extensive service and regionalize infrastructure. The program also includes equal focus on multi-family residential, through new infrastructure to address this sub-sector. Other programs have largely left multi-residential out of the program. There is better integration of collection, processing and marketing of materials is streamlined province wide under this program. The costs in this model are more stable and predictable for stewards , since they are “actual” costs, not projected. The advantages of moving to the harmonized CSSA approach are that it is streamlined for stewards, more cost effective for stewards, and takes advantage of program administration functions that are already in operation.
Disadvantages of Model:	The program does not include the ICI sector . The geography of BC has disadvantages – islands, mountains, remote northern areas are difficult to access for a steward organization, while municipalities are already operating in those areas. New Business Model: Having to pay invoices within 30 days is a significant challenge, so they are invoicing stewards by Jan. 1, 2014 (4 mos before program launch) to get cash in the bank prior to receiving invoices. They have had to borrow significant funds from the bank backed by Board Members in order to have working capital to pay for costs at program launch (the program needed \$16 million in working capital accumulation or about 2.5 months of costs to be able to pay invoices after launch). A significant change in municipal role in both the cases where municipalities remain as service providers and where they vacate recycling operations. One of the associated challenges is explaining to a public used to a municipal service that municipalities no longer have operational responsibility for the recycling program. Public education and communications regarding this change will be challenging. Also, municipalities and service providers get a flat fee “incentive” rate per household collected, year over year, which many municipalities are not in support of since it may not be enough to cover their actual costs. Beverage containers on deposit: the program loses out on economies of scale and commodity revenues, especially revenues associated with valuable aluminum and PET, from beverage containers on deposit.

2.3 Saskatchewan's PPP Stewardship Program

The Household Packaging and Paper Stewardship Program Regulation of The Environmental Management and Protection Act, 2002 transfers the responsibility for financing up to 75% of recycling programs for residential waste packaging and paper from municipalities to packaging stewards. The regulation took effect February 15, 2013. Under the program, businesses that supply packaging or paper to residents were required to submit a stewardship management plan by August 6, 2013, or be part of a plan submitted on their behalf. In response to the planned regulation, Multi-Material Stewardship Western (MMSW) was established in 2010 to represent the interests of industry stewards in fulfilling their obligations to fund recycling programs in the province for residential packaging and paper. MMSW submitted its Waste Packaging and Paper (WPP) Stewardship Plan to the Minister of Environment on August 2, 2013. MMSW is considered a non-profit organization.

Municipalities that operate residential collection programs for waste packaging and paper can choose whether they wish to participate in the Multi-Material Recycling Program (MMRP). If they participate, they will be required to comply with collector and processor policies and procedures and can receive funding from MMSW of up to 75% of their net program costs.

It is unclear why Saskatchewan selected a 75% funding model given the precedents elsewhere in the country where legislation had been set for 100% funding or moves were being made to shift towards a 100% producer funding model. The selection of 75% is particularly interesting given that recycling programs were poorly developed in the province when the decision was made and municipalities were not as heavily engaged in waste diversion as municipalities elsewhere in the country. The lack of major municipal involvement in recycling also meant that an opportunity existed for the province to develop a full 100% producer funded and operated system without impacting municipalities as directly and causing the challenges which are being confronted in B.C. with the transition from a long history of municipal recycling programs.

Similarly to MMBC, MMSW is a strong supporter of ongoing efforts to develop a national approach to PPP stewardship across Canada. In 2013 they joined the CSSA, created with the goal of harmonizing PPP services for stewards Canada-wide. MMSW will continue to be the local office responsible for municipal interactions and government relations.

Stakeholder Issues Identified:

1. A key challenge identified during the consultations for this program is that when stewards report to MMSW stewards must differentiate between the packaging they supply that's intended to go to a household from packaging that is intended to go to a business or an institution, because the regulation is specifically for household packaging only. Similarly, MMSW will be seeking to clarify in the data reported from municipalities the distinction between residential waste packaging and paper and ICI waste packaging and paper. Some small Saskatchewan municipalities use depot systems that both ICI and residential PPP material is collected. Municipalities will individually have to report on percentages that they think is residential.
2. New municipal reporting requirements: Municipalities have also identified new information that they will need to collect from their contractors: the Regulations require that MMSW report the quantity of commodity revenue from recyclable PPP to the

Ministry of the Environment, which means that MMSW will require that information be reported to them from their contractors².

3. Confusion over packaging included: one other issue identified with this particular program is the question of whether empty paint cans are included as packaging in this program since they are only specifically included in the Paint Stewardship Program operated by Product Care if there is still waste paint contained in them³. The draft program plan submitted to the Minister of Environment includes empty paint cans as packaging, but stakeholders are concerned that this will cause confusion⁴, although this is the way it is commonly done in other PPP stewardship programs, such as Ontario's.
4. Saskatchewan is the last jurisdiction in the country to embrace large scale municipal curbside recycling with Saskatoon and Regina only just in 2013 starting programs. The roll out of the MMSW program will be done in parallel to very new or yet to be started municipal programs. Integrating the new municipal programs with the new funding model and the role of MMSW will present some challenges.
5. The existing beverage deposit system will be maintained, as it is in BC, and this means that high value aluminum will continue to be handled through depots and not collected through the new MMSW funded municipal recycling programs. This will affect program revenues (however glass packaging is included in the MMSW program, unlike BC).

² MMSW Consultation Report Transcript, June 2013, accessed Nov 2013

<http://www.mmsk.ca/sites/default/files/documents/pdf/consultation/transcript-questions-answers-june11-2013.pdf>

³ MMSW Consultation Report Transcript, June 2013, accessed Nov 2013

<http://www.mmsk.ca/sites/default/files/documents/pdf/consultation/transcript-questions-answers-june11-2013.pdf>

⁴ MMSW Waste Packaging and Paper Stewardship Plan, August 1, 2013, accessed Nov 2013

<http://www.mmsk.ca/sites/default/files/documents/pdf/plan/MMSW-WPP-Stewardship-Plan-Aug1-2013.pdf>

Exhibit 3: Saskatchewan's PPP Program (Planned for 2014)

Program Name:	Multi-Material Recycling Program (MMRP) by Multi-Material Stewardship Western (MMSW)
Sector(s) of PPP:	Residential: Primary packaging (packaging that contains the product at the point of sale to the residential consumer); grouped packaging or secondary packaging that goes to the household; transportation, distribution or tertiary packaging that goes to the household; service packaging; and packaging components and ancillary elements integrated into packaging (glass, metal, paper, boxboard, cardboard, paper fibre or plastic or any combination of those materials are included). Beverage containers on deposit are exempt. Paper packaging means all paper materials regardless of the cellulosic fibre source of the material. Paper included: paper of any description including flyers, brochures, booklets, catalogues, telephone directories, newspapers, magazines, paper fibre and paper used for copying, writing or any other general use.
Management Model:	Legislative: The Household Packaging and Paper Stewardship Program Regulation of The Environmental Management and Protection Act, 2002 transfers the responsibility for financing up to 75 % of recycling programs for residential waste packaging and paper from municipalities to businesses. The regulation was effective February, 2013. In response to the regulation, Multi-Material Stewardship Western (MMSW) was established to represent the interests of industry stewards in fulfilling their obligations to fund recycling programs in the province for residential packaging and paper. In 2014 the interface with stewards will be moved to a new nationally harmonized organization developed by stewards: the Canadian Stewardship Services Alliance. MMSW will still receive fiduciary oversight from a national board of directors, and will participate in and provide support to the provincial Advisory Committee comprising local stakeholders/stewards. MMSW will be responsible for implementing the product management program on behalf of the stewards that have chosen to be members. MMSW will administer the implementation of the product management program through: a local office to provide direct interface to municipalities and First Nations, and centrally managed administrative utilizing common business processes and information systems for steward registration, reporting, fee invoicing, payments, audits and compliance in order to facilitate harmonized systems for Canadian stewards.
Municipal Role:	Municipalities and First Nations maintain responsibility for operating curbside programs and keep any revenue from sales of recyclables. MMSW provides financial incentives to municipalities and First Nations to deliver curbside and multi-family building collection services and/or to operate depots to accept WPP delivered by residents, given Saskatchewan's demography and geography; and provides financial incentives to municipalities and First Nations to maximize collection and recycling of residential PPP reducing demand for disposal capacity.
Funding / Financing Mechanism(s):	Funding formula is set out in legislation: 75% eligible net costs paid for by producers.
Cost Effectiveness:	No information available yet.
Competitiveness:	No information available yet. Municipalities participating in the program when not using municipal staff will be tendering for collection and processing services
Impact(s):	No information available yet.
Oversight and enforcement:	Enforcement of the Household PPP regulation is ultimately a responsibility of the Ministry of Environment. While MMSW is part of CSSA, is still accountable to the provincial government to fulfill requirements of the legal Program Plan.
Transparency and reporting:	MMSW and stewards are obligated to report on the program annually to provincial authorities MMSW/CSSA is accountable to its stewards (in terms of transparency of costs).
Unique Approaches:	The MMSW program plan states that MMSW will follow a collaborative approach and work together with other waste diversion programs in the province such as: Recycle Saskatchewan to collaborate with SARCAN Recycling, the Saskatchewan Waste Electronic Equipment Program, the Saskatchewan Association for Resource Recovery Corporation, the Saskatchewan Scrap Tire Corporation and the Saskatchewan Paint Recycling Program to identify and implement joint projects that can assist the organizations in achieving their regulatory objectives together. MMSW provides financial incentives to support existing PPP collection and processing services which have been established through investments in social and capital infrastructure in Saskatchewan; MMSW will provide financial incentives to maximize collection and recycling of PPP which will allow additional investment into social and capital infrastructure and will provide entrepreneurial opportunities associated with PPP management. Recyclers will be required to compile and report their data, allowing recycling service providers to benchmark their operations and identify opportunities for improvements to yield more effective, efficient and sustainable PPP collection and recycling programs.
Advantages of Model:	The advantages of moving to the harmonized MMSW/CSSA approach are that it is streamlined for stewards, more cost effective, and takes advantage of program administration functions that are already in operation. The MMSW program includes multi-family residential.
Disadvantages of Model:	Does not include the ICI sector.

2.4 Manitoba's PPP Stewardship Program

Multi-Material Stewardship Manitoba (MMSM)'s goal is to promote the reduction, reuse and recycling of those materials managed under its programs. Industry stewards are responsible for 80% of the net costs of efficient recycling programs in Manitoba. The 80% funding model derives from the former legislation which mandated that the beverage industry fund 80% of municipal program net costs. MMSM is a non-profit industry-funded organization that develops, implements and operates waste diversion programs for designated packaging and printed paper in the Province of Manitoba. It was established in accordance with the Packaging and Printed Paper stewardship Regulation (Man. Reg. 195/2008) pursuant to The Waste Reduction and Prevention Act.

MMSM's Municipal Services Program was introduced April 1, 2010. The overall objectives of the Municipal Services Program are to:

- Promote the reduction, reuse and recycling of designated packaging and printed paper in Manitoba;
- Provide stable, long term funding for municipal recycling programs;
- Through municipal funding and recycling markets research & development, help reduce the uncertainty inherent to recycling markets;
- Ensure that the cost of handling designated materials is reflected in the steward fees; and
- The Municipal Services Program allows participating municipalities and local governments, including First Nations, to design their recycling program to meet the specific needs of their community. Recycling programs can be delivered by municipal employees or contracted to private suppliers. Each municipality is responsible for establishing, promoting and maintaining their own recycling services.

MMSM's Municipal Services Program is an incentive-driven program which requires that municipalities share the cost of providing recycling services to their communities. Municipal Recycling Services Payments are paid for each metric tonne of eligible material recovered from the residential waste stream. The payment rate is set each year to offset up to 80% of the net cost of an efficient collection and processing recycling program. Materials recovered are transported to recycling facilities where they are sorted and sold to end users.

MMSM supports ongoing efforts to develop a national approach to PPP stewardship across Canada and in 2013 they joined CSSA. MMSM will continue to be the local office responsible for municipal interactions and government relations.

Stakeholder Issues Identified:

1. Participation by northern and remote communities: getting participation in recycling programs by northern and remote communities in Manitoba has been a challenge for MMSM and the province. In 2012, MMSM joined forces with the Canadian Beverage Containers Recycling Association (CBCRA) to implement the Northern Community Clean-up Program. This initiative was developed to assist northern communities in increasing recycling awareness and combatting litter. Support was given by providing waste and recyclable collection supplies to assist the participating communities with their community clean-up initiative. Many of these communities are very remote; therefore, transportation of collected recyclable materials to an approved recycling facility was also provided.

Exhibit 4: Manitoba's PPP Program

Program Name:	Multi-Material Stewardship Manitoba (MMSM).
Sector(s) of PPP:	Residential: Any package or container, or any part of a package or container, that is comprised of glass, metal, paper or plastic, or any combination of any of those materials and includes, but is not limited to, service packaging; and printed paper means paper that is not packaging, but is printed with text or graphics as a medium for communicating information, and includes newsprint and telephone directories, but does not include: bound books. Service packaging means packaging that is filled or applied at the point of sale to enable or facilitate the delivery of goods by a retail seller or a food service industry or other service industry outlet. They are working towards a national material list under CSSA.
Management Model:	This program is managed by MMSM. From program inception, MMSM contracted out all of its obligations including performance tracking, financial control, payment processing and analysis to a consulting firm (StewardEdge) who provided stewards with an online registration and reporting service; invoiced stewards for fees owed, and paid municipalities. In 2014 the interface with stewards will be moved to a new nationally harmonized organization developed by stewards: the Canadian Stewardship Services Alliance (CSSA).
Municipal Role:	Municipalities maintain responsibility for operating curbside programs and keep any revenue from sales of recyclables.
Funding / Financing Mechanism(s):	Legislative: Funding formula is set out in legislation: 80% eligible net costs paid for by producers.
Cost Effectiveness:	The program has achieved a recycling rate of 54% (2012) of materials sold into the market, or 71,197t. Recycled kg/capita = 60.3 As the newest and smallest program entering its third year, Manitoba experienced a year over year increase to the overall recycling rate based on a greater number of tonnes being recycled against a lower number of tonnes generated which, like Ontario, was likely caused by a shift to lighter material and declining amounts of newsprint. Manitoba continues to operate under its first program plan which is due to be revised in 2015. Manitoba must include small, northern and remote fly-in communities in its program and this is felt to impact its cost effectiveness. Projected steward obligations for 2013 are \$ 12,283,850. Despite increased cost obligations to municipalities, MMSM's steward obligation decreased by 10% from 2013 to 2014 due to drawdown of surplus while the supply chain obligation has increased by 3%. In 2011, there were 808 stewards registered with MMSM, 585 reports received, and 196 voluntary stewards.
Competitiveness:	The MMSM program is not considered to have any substantial impacts on competitiveness. The smaller population, smaller scale, and remoteness of communities all contribute to higher program costs for stewards, and joining CSSA is considered to be a way to ensure that stewards are treated equally across the country and within jurisdictions they pay similar costs.
Impact(s):	The impact of the program has largely been in the residential sector province-wide, with 93% of households across the province having access to the program (population served by program=1,181,100). There are two program performance targets: both are material specific. Net cost per tonne is \$246.70 (2012). Program management as a % of net cost 13.8% (2012). Net cost per capita \$14.9.
Oversight and enforcement:	Provincial oversight responsibility has been delegated to Green Manitoba, a provincial agency that works closely with the Ministry of Conservation and Water Stewardship on regulation enforcement. While MMSM is part of CSSA, is still accountable to the provincial government to fulfill requirements of the legal Program Plan. MMSM has implemented a non-compliance notification process, including written notification of when fees are due. If stewards and products are identified that have not registered or reported under the PPP Program, a notification is sent. If the steward's registration and data submission process is not complete at the end of 120 days, MMSM may request the Manitoba Government to take enforcement action as stipulated under the WRAP.
Transparency and reporting	MMSW and stewards are obligated to report on the program annually to provincial authorities. CSSA is accountable to its stewards (in terms of transparency of costs).
Unique Approaches:	The Manitoba regulation did cover some pesticide packaging and as a result Clean Farms the operator of the national take-back program for pesticide containers submitted a stewardship plan which was accepted that was based largely on the existing program they operated in the province. Thus a voluntary stewardship program has become a regulated program.
Advantages of Model:	The advantages of moving to the harmonized CSSA approach are that it is streamlined for stewards, more cost effective for stewards, and takes advantage of program administration functions that are already in operation. Small provinces such as Manitoba will be able to achieve a greater scale in program operations, which is very important in this type of operation.
Disadvantages of Model:	Does not include the ICI sector. Does not include transportation and distribution packaging or industrial or bulk packaging.

2.5 Ontario's PPP Stewardship Program

Widely known as the Blue Box Program, Ontario's packaging and printed paper program started in May 2004 following government legislation in September 2002, which made industry responsible for funding 50 % of the costs for operating a packaging and printed paper recycling program. The legislation provided funding for municipal recycling programs that originally started in the late 1980's. As the first extended producer responsibility (EPR) program for residential packaging and printed paper in Canada, the program has been managed by Stewardship Ontario since May 2004. Stewardship Ontario is a non-profit organization established to develop a program plan to represent industry stewards in fulfilling their obligations to fund 50% of the cost of managing the collection and processing of residential packaging and printed paper. Stewardship Ontario is designated in legislation as an 'Industry Funding Organization' and operates the Blue Box Program under the authority of the Waste Diversion Act (WDA), 2002.

The Ontario approach uses an intermediary between the stewardship organization and the government, called Waste Diversion Ontario (WDO). Stewardship Ontario is accountable to WDO, a non-crown corporation created under the WDA. WDO is funded through levies on the established PROs in the province and is in turn accountable to the provincial Ministry of Environment (MOE). The program must meet a series of targets ranging from waste diversion to financial performance⁵.

The province is currently planning to overhaul the WDA, and in the summer of 2013 proposed a new Waste Reduction Act (WRA). The new WRA was at a second reading at the provincial legislature at the time of writing. Concerns have however been expressed in some quarters that that continuing legislative debate on the Act could result in the bill failing to pass before the minority government tables an expected spring budget which might precipitate a provincial election and the bill would then not progress at all. The proposed WRA has a supporting Waste Reduction Strategy which would require each producer of a designated waste to meet government-set waste reduction requirements (e.g. collection, reduction, reuse, and/or recycling targets). It would also require each producer to meet government-set service standards, and promotion and education standards. The Strategy identifies ICI PPP as the first material to be designated, proposes the use of disposal bans, and would also allow for greater producer funding of the Blue Box program beyond 50% of net costs⁶.

Stewardship Ontario is a supporter of ongoing efforts to develop a national approach to PPP stewardship across Canada and in 2013 they joined CSSA. Stewardship Ontario will continue to be the local office responsible for municipal interactions and government relations.

Stakeholder Issues Identified:

1. Multiple Levels of management: Stakeholders have felt that Ontario's PPP program had unclear areas of authority since there were many levels of management which results in confusion regarding lines of communication (including the MOE, WDO, and Stewardship Ontario). A 2011 performance audit concluded that the lack of a formal communication protocol outlining lines of communication between SO and WDO, and between MOE and SO could lead to inefficiencies in program operations⁷.

⁵ Stewardship Ontario website, accessed November 2013 <http://www.stewardshipontario.ca/about-us/>

⁶ Ontario Waste Reduction Strategy June 2013.

⁷ ICF Marbek and Stratos, 2011. Performance Audit Report: Blue Box Program <http://www.stewardshipontario.ca/wp-content/uploads/2013/03/performance-audit-bluebox.pdf>

2. Complex Fee-Setting Rules: Published information has highlighted the complexities involved in the annual fee-setting process in the model used by SO. A 2011 Performance audit concluded that there was not a formal procedure documented to apply this fee setting process⁸.
3. Municipalities have voiced long standing concerns about how Stewardship Ontario determines their 50% funding contribution and annual arguments about eligible costs have resulted in an adversarial relationship between municipalities and stewards in Ontario⁹. As a measure of the state of this relationship it was announced in December 2013 by WDO that the determination of eligible costs and payments to municipalities and the stewards obligation for 2014 has been sent to an arbitrator by mutual agreement between the Association of Municipalities of Ontario, the City of Toronto (not an AMO member) and Stewardship Ontario¹⁰. The arbitration process has been precipitated by the failure of negotiations over many months to come to a resolution.
4. Stewards (and Stewardship Ontario) feel that their lack of direct control over municipal recycling operations results in inefficiency. Municipalities which currently operate the collection programs and are responsible for processing materials respond that most municipal recycling services in the province are contracted out to private waste management companies and costs paid by municipalities result from competitive tendering processes.
5. There is no standard for municipal recycling programs in the province which contributes to some of the difficulties between municipalities and stewards on funding levels. The provincial legislation mandates municipalities collect a core list of materials and then select from a secondary list. This means that materials collected in programs are not the same across the province and differences can be quite significant with for example most municipalities collecting OCC curbside but some not allowing it in the blue box but providing a depot collection system instead.
6. [If the new WDA passes] Stewards feel that the proposed changes to the WDA that allow municipalities to negotiate payments from producers with a (new) Waste Reduction Authority rather than directly with producers is unfair and reduces producers' ability to control costs and drive design for environment through full accountability. Stewards feel that this is a fundamental flaw in the proposed changes to the WDA and will continue to cause poor relations between municipalities and stewards¹¹.
7. [If the new WDA passes] Stewards feel that the proposed changes to the WDA that open the door for increasing stewards' financial responsibility from the current 50% of net costs should have a corresponding increase in stewards' responsibility and control over the recycling program. In addition, Stewards should have the flexibility to determine their commercial arrangements without the involvement of intermediaries.

⁸ IBID

⁹ Stewardship Ontario Submission on the Proposed New Waste Reduction Act, September 4, 2013
<http://www.stewardshipontario.ca/wp-content/uploads/2013/09/2013-09-04-SO-EBR-Submission-FINAL.pdf>

¹⁰ WDO Update on 2014 Blue Box Funding Negotiations, Dec 5, 2013

¹¹ Stewardship Ontario Submission on the Proposed New Waste Reduction Act, September 4, 2013
<http://www.stewardshipontario.ca/wp-content/uploads/2013/09/2013-09-04-SO-EBR-Submission-FINAL.pdf>

Exhibit 5: Ontario's Blue Box PPP Program

Program Name:	Ontario Blue Box Program
Sector(s) of PPP Included:	Residential: Materials are set in legislation: packaging made of glass, metal, paper, and plastic(s). Definition of packaging: all products made of paper, glass, metal, plastics, or any combination thereof to be used for the containment, protection, handling, delivery and presentation of goods, from raw materials to processed goods, from the producer to the user or the consumer. Municipalities have a minimum list they must collect for recycling, some municipalities collect much more than others, every municipality has a different list across the province.
Management Model:	Legislative: Ontario mandates an Industry Funding Organization (IFO) called Stewardship Ontario (SO), authorized in the 2002 Waste Diversion Act to: operate designated waste diversion programs, promote reduction, reuse and recycling, conduct research and development activities relating to designated wastes, provide education and outreach activities on waste diversion programs. Operational: From 2003 to 2013 SO contracted out all of its obligations including performance tracking, financial control, payment processing and analysis to a consulting firm (StewardEdge) who provided stewards with an online registration and reporting service; invoiced stewards for fees owed, and paid municipalities. In 2011 SO developed a new, detailed IT management system and took over responsibility for full management of the program. In 2014 the interface with stewards will be moved to a new nationally harmonized organization developed by stewards: the CCSA.
Municipal Role:	Each municipality develops its own waste management program which could include: curbside collection, depot drop-off, pay-as-you-throw or any combination of these elements. Municipalities maintain responsibility for operating programs and keep any revenue from sales of recyclables.
Funding / Financing Mechanism(s):	Funding formula is set out in legislation: 50% eligible net costs paid for by producers. Municipalities must apply to WDO for reimbursement. Exceptions: 1) the newspaper industry is exempt from paying fees to SO; and 2) Businesses with sales under <\$2 million /or businesses that generate Blue Box wastes below a 15 tonne de minimus threshold. There are over 1500 stewards that are required to pay fees for BB wastes, out of over 4000 registered stewards. Approximately 135 stewards account for 80% of fees. The Blue Box budget, material-specific fees and steward rules are developed by SO and approved by the WDO each year in order to allow stewards the necessary time to plan for their next year's obligation.
Cost Effectiveness:	The program has achieved a recycling rate of 64% (2012) of materials sold into the market, or 904,850t. Recycled kg/capita =69.6. Program expenses for 2012 were \$96M (94% to municipalities for recycling operations, 4% for SO management, 1% regulatory costs, 1% promotion costs). There is a substantial increase in costs annually, when compared with published costs from recent years: 2008 : \$58.6M; 2009 : \$71.6M 2010 : \$88.8M 2011 : \$95.4M (~22% year over year increase in reported costs by municipalities, due largely to a drop in commodity revenues).
Competitiveness:	There have been some concerns among industry stakeholders with respect to the complex funding formulas used annually to estimate material sales into the market each year.
Impact(s):	The impact of the program has largely been in the residential sector province-wide, with 95% of households across the province having access to the program (population served by program=12,825,000). Net cost per tonne is \$272.30 (2012) Program management as a % of net cost 2.4% (2012). Net cost per capita \$19.00 (2012)
Oversight and enforcement:	SO is responsible for conducting compliance audits of stewards. Waste Diversion Ontario (WDO) was created under the WDA to oversee diversion programs, so WDO oversees and approves program activity undertaken by SO. WDO charges SO costs related to this oversight role in accordance with the WDA. The Ontario Ministry of the Environment is ultimately responsible for WDO. While SO is part of CSSA, is still accountable to WDO to fulfill requirements of the legal Program Plan. SO's obligation to fulfill these obligations in a cost-efficient way.
Transparency and reporting:	SO conducts all program monitoring activities and posts these publicly. Annual reports are submitted to WDO and published. CSSA is accountable to its stewards (in terms of transparency of costs)
Unique Approaches:	Ontario has the longest province-wide program in effect (10 years) utilizing and EPR approach of 50% funding.
Advantages of Model:	From a municipal point of view this model maintains control of program operations and public education. The advantages of moving to the harmonized CSSA approach are that it is streamlined for stewards, more cost effective, and takes advantage of program administration functions that are already in operation.
Disadvantages of Model:	Stewards feel that they do not have sufficient control of costs when municipalities are responsible for program operations. The shared model has resulted in considerable argument between municipalities and stewards on levels of funding. Limitation of the CSSA model is that it does not include the ICI sector. Current program results in different materials collected in each municipality across the province.

2.6 Québec's PPP Stewardship Program

Éco Entreprises Québec (ÉEQ) is a non-profit organization responsible for financing municipal services for the collection, sorting and conditioning of containers, packaging and printed matter in Quebec in a sustainable development perspective. ÉEQ's contributors include over 3,000 companies and organizations that market containers, packaging and printed matter in Quebec. They have been requirements under the Environment Quality Act (EQA) to compensate an increasing share of the net costs of municipal curbside recycling services. Set at 80% in 2011, the share of net costs grew to 90% in 2012 and 100% in 2013.

The Province has indicated that they are reviewing the possible transition of the operation of municipal PPP programs to producers along the lines of the B.C. program.¹²

The fee structure is at the heart of ÉEQ activities. The organization adopted measures to ensure a more equitable fee structure for companies that generate containers, packaging and printed matter, breaking new ground by introducing in the contribution schedule a number of provisions to foster the use of recycled materials.

ÉEQ is also involved in a number of initiatives to optimize the curbside recycling value chain, particularly to reduce at the source the quantities of PPP generated (waste reduction at the top of the 3Rs hierarchy) and increase the recyclability of difficult to recycle PPP (middle of 3Rs hierarchy). As an example, in 2011, ÉEQ launched the *Voluntary Code for the Optimization of Containers, Packaging and Printed Matter*. As the industry's first voluntary initiative in Canada, the Code proactively encourages companies to adopt best practices in the design of packaged products and printed matter. This life cycle approach takes into consideration environmental, economic and social issues related to packaged products, which are today considered as factors of competitiveness and performance. The Code provides companies with a framework that stimulates innovation as well as identifies and promotes best practices related to eco-design. The Code suggests that companies implement initiatives that are based on 3 areas for action: 1) reduction at the source; eco-design and recyclability of packaging and printed matter¹³.

The Voluntary Code uses a progressive, two-phase approach to packaging optimization. The first phase addresses specific business sectors starting with the Food and Health & Beauty sectors, which produce 80% of packaged products marketed in Quebec. By 2015, all business sectors targeted by the compensation plan will be covered by the Voluntary Code, therefore providing all companies with a framework to optimize their containers, packaging and printed matter¹⁴.

Stakeholder issue identified:

1. Stewards feel that their lack of direct control over municipal recycling operations results in inefficiency. Municipalities which currently operate the collection programs and are responsible for processing materials respond that most municipal recycling services in the province are contracted out to private waste management companies and costs paid by municipalities result from competitive tendering processes.

¹² EPR Canada 2012 Report Card, Notable EPR Policy and Program Developments Expected in 2013

¹³ ÉEQ website, accessed Nov 2013, <http://www.ecoentreprises.qc.ca/companies/company-best-practices/voluntary-code-for-the-optimization-of-containers-packaging-and-printed-matter-2406f1>

¹⁴ ÉEQ press release Launch Of The Voluntary Code For The Optimization Of Containers, Packaging And Printed Matter, <http://www.ecoentreprises.qc.ca/documents/pdf/applications/communiquelancementcodevolontaireeeqan.pdf>

Exhibit 6: Québec's PPP Program

Program Name:	Éco Entreprises Québec (ÉEQ) Curbside Recycling
Sector(s) of PPP Included:	Residential: Containers, packaging and printed matter (CP&PM)
Management Model:	<p>LEGISLATIVE: ÉEQ is a non-profit organization created by companies that put containers, packaging and printed paper onto the market in the province in response to the Residuals Management Policy under the Environmental Quality Act.</p> <p>OPERATIONAL: This program started with 50% ÉEQ contributions to municipal net costs for recycling in 2009, and increased to 80% in 2011, 90% in 2012 and 100% in 2013. In the design of this program, ÉEQ reviewed various European management models to identify any best practices to optimize curbside recycling that could be applied in Quebec. Exemptions: gross sales \leq 1 \$M, designated material produced onto the market \leq 10 t in the previous year.</p>
Municipal Role:	Municipalities continue to be responsible for curbside recycling.
Funding / Financing Mechanism(s):	EEQ is certified by the government of Québec to establish a fee structure and collect contributions from companies to compensate 100% of the net costs of municipal curbside recycling. The program utilizes an Activity-Based Costing model (ABC) for each material class. The ABC model was developed by RECYC-QUEBEC and an accounting firm. The model, a first in North America, enables EEQ to determine the net costs of curbside recycling according to category of materials and specific material that takes into account the costs of collection, transportation, sorting and conditioning, as well as of the revenues generated from the subsequent resale of those materials. The model was developed using verifiable data and studies, including the 2010 characterization study of materials collected curbside and processed in sorting centres. The ABC costing methodology developed for the program allows ÉEQ to analyze orphan products that are collected curbside (programs for which stewards are not paying into the system by ÉEQ). There are currently 3000 stewards paying into ÉEQ.
Cost Effectiveness:	No data for 2013 yet, as the 100% producer funded model has just rolled out in 2013. In 2010 the partially funded producer model achieved recovery of 656,000t PPP, which was a 24% increase from 2006. In 2012 the % curbside access by households was 99%.
Competitiveness:	There was no information identified on competitiveness. Municipalities do contract out through tendering processes.
Impact(s):	<p>The program outlines a 2015 objective of 70% recovery rate.</p> <p>Upstream impacts: The program has developed a <i>Voluntary Code for the Optimization of Containers, Packaging and Printed Matter</i> to help companies reduce the quantity and improve the recyclability of the CP&PM they produce. In 2012, the Canadian Council of Ministers of the Environment selected our Code as the basis for the online North-American Sustainable Packaging Design Guide. ÉEQ is cooperating on this project with the Packaging Association of Canada (PAC) and the Sustainable Packaging Coalition in the U.S.</p> <p>Downstream impacts: ÉEQ took steps to increase the value of curbside recycling, particularly by strengthening ties with municipal partners and participating in the creation of bacs+, a group created to take concrete action on enhancing curbside recycling in Quebec.</p>
Oversight and enforcement:	RECYC QUEBEC authorizes payments to municipalities. RECYC QUEBEC is authorized by the Government to provide program oversight.
Transparency and reporting	All companies use the same ABC costing method, track total payments, and EEQ produces a detailed annual report. Program reports are filed with RecycQuebec.
Unique Approaches:	<p>In order to encourage contributing companies to voluntarily adopt responsible purchasing policies, ÉEQ offered companies a credit of up to 20% for using recycled paper content in the manufacturing of their CP&PM. ÉEQ was the first financing organization to develop such an initiative and now plans to add a similar initiative for certain recycled plastics and cardboard in 2013.</p> <p>Although not part of its legal obligations, ÉEQ co-founded the Table pour la récupération hors foyer and has been financing its activities for a number of years. ÉEQ decided in 2012 to take over the Table and finance the organization in cooperation with the MDDEFP with a five-year commitment totalling \$1.6 million a year – this money is intended exclusively for municipal organizations to serve indoor and outdoor public spaces.</p>
Advantages of Model:	The model adopted by ÉEQ has been very engaged with municipalities downstream as well as producers upstream to optimize the efficiencies in the system. From a municipal point of view this model maintains control of program operations and public education.
Disadvantages of Model:	Stewards feel that they do not have sufficient control of costs when municipalities are responsible for program operations.

3 International Jurisdictions

3.1 European Union

Introduction

All of the European packaging and packaging waste programs are derived from the original German Packaging Ordinance of 1991 and the European Packaging and Packaging Waste Directive which followed in 1994 (94/62/EC). The “Directive aims to harmonize national measures in order to prevent or reduce the impact of packaging and packaging waste on the environment and to ensure the functioning of the Internal Market. It contains provisions on the prevention of packaging waste, on the re-use of packaging and on the recovery and recycling of packaging waste.” The specific objectives of the Directive can be summarized as follows:

- Packaging volume and weight must be the minimum amount necessary to maintain safety, hygiene and acceptance of the packaged product;
- Packaging must be manufactured to permit reuse or recovery when packaging waste is disposed of. Recovery includes the recycling of packaging materials, separate composting of biodegradable packaging, and energy recovery through incineration;
- Noxious and hazardous substances must be minimized when packaging is incinerated or landfilled¹⁵

The Directive established the polluter pays principle and identified the producer of packaging and packaging products as the party responsible for packaging waste and for its recovery. The definition of packaging is a broad one and addresses both consumer/residential sources and commercial sources throughout the packaging supply chain. The Directive covers primary packaging, secondary packaging and shipping and transportation packaging. The Directive was amended 2004 (2004/12/EC) to clarify and add new packaging definitions and to increase the packaging recovery and recycling targets. A 2005 amendment allowed new member states (Eastern Europe) more time to achieve the recovery and recycling targets. A 2013 amendment supported the objective of re-using materials in the materials cycle. The Directive is silent on the issue of visible and non-visible fees, and on the number of compliance schemes or competition between them.

The Packaging and Packaging Waste Directive obligates all member states of the European Union implement and transpose the goals and objectives of the Directive into their own national legislation and regulations. The Directive is a high level document that does not prescribe the means by which nation states should fulfil their obligations. It does however set targets for recovery and recycling of packaging waste (“recycling rate” is defined as the total quantity of recycled packaging waste as a percentage of the total quantity of generated packaging waste):

- Recovery of waste packaging: minimum 60%
- Recycling of recovered waste packaging: minimum 55%
- Specific recycling rates: Glass/paper/OCC 60%; Metals 50%; Plastics 22.5%; Wood 15%.

¹⁵ RSJ Technical Consulting “What About Packaging in the EU?” website accessed November 2013.
<http://www.rsjtechnical.com/WhataboutPackaging.htm>

Four “Models” Identified in EU

Because of the high level goals and objectives and the performance based nature of the EU Packaging and Packaging Waste Directive European countries have been free to adopt their own unique approaches to packaging recycling and as a result a number of different approaches have evolved. There are four basic “models” that have been identified in this study as member states developed their own approaches to meeting the Directive’s obligations. These are listed below and then discussed in separate paragraphs following the list:

- 1) Shared responsibility EPR with municipalities providing collection services but with producer funding (model also used in Canada);
- 2) Full EPR with producers fully responsible for both packaging waste recycling operations and funding (model also used in Canada);
- 3) A tradeable packaging recycling certificate system; and
- 4) Packaging taxes.

First, the majority of EU member states and some other non-EU countries (e.g. Serbia, Turkey, Ukraine and Norway) follow a **shared responsibility model** with municipalities involved in operations in the collection of recyclable packaging to processors and end markets with 100% of their net costs covered by obligated packaging producers. This is the model used in Belgium and is followed with minor variations in many other EU states. The model operates in a very similar way to the PPP programs in Ontario, Québec, Manitoba and Saskatchewan (planned) but in all the European cases with 100% producer funding.

Second, Germany, Austria and Sweden follow a **full EPR model** with funding and operational responsibilities with producers in a way similar to the British Columbia PPP program (planned for 2014). Packaging stewards operate a collection and recycling program for packaging waste parallel (duale) to regular municipal waste management programs. Producers, through their PRO compliance schemes, will interact with municipalities. It is interesting to note that discussions are underway in Germany and Sweden regarding the model and the option of shifting to a shared model with municipal operational responsibilities, similar to the majority of EU countries, is being actively discussed. The two drivers for this are the interests of municipalities in providing enhanced collection and recycling services beyond that provided by the producer run program. In addition there are continuing challenges associated with educating the public on who is the responsible party – the packaging producers’ EPR program, not the municipality – for collection and recycling and any problems associated with it¹⁶.

Third, the United Kingdom operates a program with a **shared model** for residential packaging waste (producer funding and municipal operations) and a **full EPR program** for commercial packaging waste. The approach that makes the UK interesting is the focus on competition between compliance schemes and the use of **tradeable Packaging Recovery Notes**. In addition the UK program distributes responsibility throughout the packaging supply chain.

Fourth, the Danish uses a product stewardship **taxation** model. The Netherlands also has a packaging tax program but in conjunction with an EPR packaging program based on the Belgian model. There is nothing comparable in Canada that utilizes taxation for packaging this way. The data collected on all of the European programs suggests that the Danish approach has not been successful. The recycling rates for waste packaging in Denmark are low.

¹⁶ Thomas Lindhqvist and Joachim Quoden, Product Stewardship Institute webinar “Europe’s EPR Alliance (EXPRA)” November 20, 2013

Target Sectors and Competition

Most EU programs are focused on residential collection despite the broad packaging definitions of the EU Packaging Directive which include both ICI and residential. Many countries like the UK do however have program elements which are targeted at ICI packaging.

The attention to competition and the use of more than one compliance scheme to meet packaging recycling targets is an interesting area of distinction in Europe between countries and how they have transposed the Packaging Directive. The Packaging Directive sets out high level objectives and program targets and does not dictate program design and operational elements. Nor does it prescribe competition aspects of how a program should operate or any concerns that might exist surrounding monopolistic PROs. As a result there are two broadly different approaches that can be seen in Europe with regard to competition.

Approximately half of European countries have adopted approaches which support a **single possibly monopolistic PRO** through which designated stewards fulfil their obligations. This is the model in Belgium. The other half of European countries have adopted approaches or otherwise encouraged approaches resulting in **more than one compliance scheme**. Under these arrangements a packaging waste generator has a choice in the marketplace of any one of a number of compliance schemes to contract with to ensure collection and recycling of waste packaging. In Germany there are 9 such programs and in the UK there are 48. Compliance schemes compete on price, fees, and levels of service to improve efficiency and cost effectiveness. In most countries there appears to be a dominant compliance scheme. In Germany for example DSD has approximately 50% of the business¹⁷ with the other 50% shared between 8 other smaller programs, and in the UK ValPak has approximately 50% of the market.

Germany began with a single compliance scheme, DSD, but as a result of competition challenges and concerns about the cost of the DSD program the national approach began to shift in 2002 towards a more competitive market and the creation of different compliance schemes. Under this competitive approach a Clearing House has been created through which data collection, cost allocation, and coordination of tendering processes are undertaken. As a result of these changes the overall cost of the German packaging program dropped significantly but with the retention of collected volumes¹⁸. The following lists those countries in Europe with monopoly compliance schemes and those with competitive markets:¹⁹

European countries with monopoly compliance schemes	European countries with competitive markets
France	Germany
Belgium	UK
Netherlands	Poland
Ireland	Turkey
Finland	Estonia
Denmark	Romania
Norway	Lithuania
Sweden	Latvia
Spain	Slovakia
Cyprus	Slovenia
Greece	Bulgaria
Italy	Malta
Portugal	Austria (as of 2015)
Hungary	
Luxemburg	
Czech Republic	

¹⁷ Gordon Day Reclay StewardEdge, Waste Not/Envirogate workshop, November 27, 2013

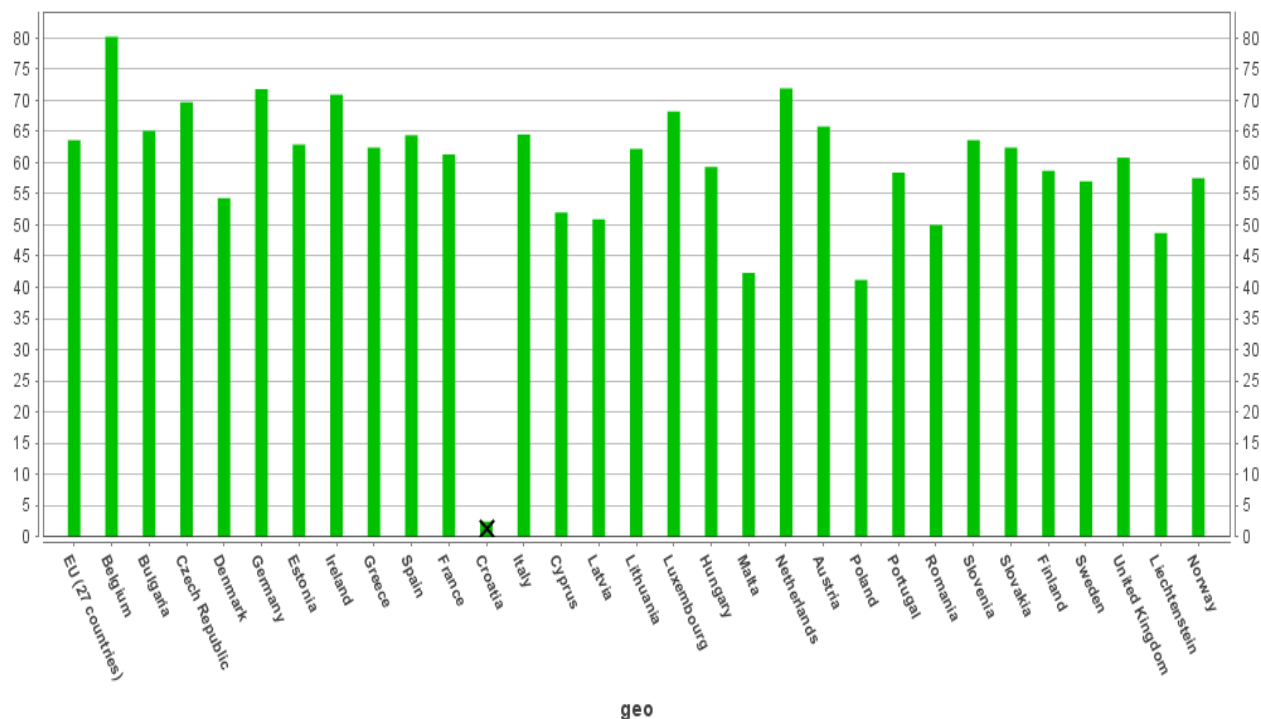
¹⁸ Ibid

¹⁹ Ibid

Performance: European Recycling Rates

The results of all the EU programs as documented by the EU's statistics agency, EuroStat, are shown below.

Exhibit 7: Packaging Recycling Rates Across EU Countries (%)^{20,21}



Key:

Geo = geographic region / country

X = no data available

The wide variations in the recycling rates of the European programs makes an analysis of the success of the packaging program models as measured by recycling rates difficult. In general the recycling rates are fairly positive and for all of the EU members the average recycling rate in 2011 was 63.6%. This rate is comparable to the highest blue box rates in Canada.

Within the largest group of shared responsibility programs the range of recycling rates runs from the high of 80.2% in Belgium to a low of 41.2% in Poland with a significant number of countries clustered around the range of high 50% to high 60%. For the three full EPR programs the recycling rate varies widely with Germany at 71.8%, Austria at 65.8% and Sweden at 57%. The UK's competitive compliance scheme has produced a recycling rate of 60.8% which is below the EU average. Perhaps the clearest signal on program models is that packaging taxes used in Denmark have not been successful in comparison to other EU countries. Denmark has a recycling rate of only 54.3%; one of the lowest rates cited in the Eurostat data and significantly lower than the EU average.

Additional information on specific programs in Belgium; Denmark; Germany; and United Kingdom (UK) is profiled in the following tables.

²⁰ European Commission - Eurostat Statistics website accessed Dec 2013

http://epp.eurostat.ec.europa.eu/tgm/graph.do?sessionid=9ea7d07d30e7d91332290afd4abd8707d68e69ad4afc.e340aN8Pch_aTby0Lc3aNchuMc3yMe0?tab=graph&plugin=0&language=en&pcode=ten00063&toolbox=type

²¹ Disclaimer: This graph has been created automatically by Eurostat software according to external user specifications for which Eurostat is not responsible. Giroux Environmental Consulting is not able to modify this graph.

Exhibit 8: Belgium

Program Name:	Fost Plus	
Sector(s) of PPP Included:	All household packaging – producers, fillers, importers; 93% market coverage. Companies putting less than 300kg of packaging per year onto the market are exempt and do not have to meet recycling targets but can still be part of Fost Plus.	
Management Model:	Legislative: Revised agreement effective January 2009 between Flanders, Wallonia and Brussels transposing the EU Packaging and Packaging Waste Directive 94/62/EC (as amended 2004/12/EC). It is a shared EPR model – producers 100% responsible financially for program; municipal operation. Fost Plus funds municipalities for collection services and some sorting operations and contracts with recyclers; glass collected through depots, paper fibres and containers by curbside collection (weekly and bi-weekly). Fost Plus also pays for program coordination, promotion and education.	
Municipal Role:	Fost Plus signs 5 year agreements with municipalities (local and regional authorities) setting out terms and conditions for packaging collection. Approximately 50% of collection is provided directly by municipal authorities (staff and equipment) and 50% by municipalities contracting to private service providers.	
Funding / Financing Mechanism(s):	Companies pay Fost Plus annual fees based on the quantity and type of packaging – including a “Green Dot” licensing fee.	
Cost Effectiveness:	No information available.	
Competitiveness:	No information available.	
Impact(s):	Fost Plus is consistently the highest performing program in the EU; 80.2% packaging recycling rate 2011 <i>Eurostat</i> .	
Oversight and enforcement:	Obligated companies must annually report packaging put on the market and recycled to the government agency Commission Interrégionale des Emballage (CIE). Use of “Green Dot” label assists in identifying free riders.	
Transparency and reporting	Eurostat reports (EU statistics agency) on achievement of EU Directive targets.	
Unique Approaches:	National standardized program has resulted in the highest recycling rates in the EU. Program provides tools for packaging assessment and recycling.	
Advantages of Model:	A uniform national collection system with standardized levels of service applied equitably across the country.	
Disadvantages of Model:	As with all shared responsibility models there is potential for producer/ municipality conflict; there is no evidence however that this is an issue	
Other Comparable Examples (The list also includes PRO members in countries that are not part of the EU):	Bulgaria – ECO Pack Bulgaria AD Croatia – Ozra Cyprus – Green Dot (Cyprus) Ltd Czech Republic – EKO-KOM Estonia – Estonia Recovery Organization Finland – PYR France – Eco-Emballages Greece – Hellenic Recovery Recycling Organization Hungary – OKO Pannon Iceland – Urvinnslojodur – Icelandic Recycling Fund Ireland – Repak Ltd Italy – CONAI – Consorzio Nazionale Imballaggi Latvia – Latvijas Zalais puinkts JSC Lithuania – Zaliasis taskas	Luxemburg – VALORLUX Malta – Green Pak Netherlands – Nedvang Norway – Gront Punkt Norge Poland – Rekopol Organizacja Odzysku Portugal – Sociedade Ponte Verde Romania – Eco-Rom Ambalaje Serbia – Sekopak Slovakia – ENVI-PAK Slovenia – Slopak Spain – Ecoembes Ecoembalajes Espana Turkey – CEVKO Ukraine - UkrPEC

Exhibit 9: Denmark

Program Name:	Danish Packaging Tax (Adopted April 2001)
Sector(s) of PPP Included:	18 retail consumer packaging categories; does not cover all products.
Management Model:	Product stewardship taxation system. (N.B. New national policy announced August 2013 to mandate source separation for recycling and reduced incineration)
Municipal Role:	No direct involvement for municipalities. Little or no municipal recycling; most waste is unsorted and incinerated for EFW; only recent pilot recycling programs in Copenhagen and elsewhere.
Funding / Financing Mechanism(s):	Volume based tax on containers greater than 20 litres designed to support re-use/re-fill; weight based tax on other packaging categories designed to support reduction in material use. Tax covers 15% of all retail packaging by weight and 30% of total sales value of packaging. All funds flow to Danish government general revenue.
Cost Effectiveness:	Generated 55million Euros 2010.
Competitiveness:	N/A
Impact(s):	Denmark is not meeting the EU Packaging Directive targets: 53.7% diversion in 2011 <i>Eurostat</i> (one of the lowest rates reported). Impact of the tax on packaging reduction has been hard to assess – no baseline, pre-tax data, available. Funds generated over time have remained stable ²² which raises questions about reduction impact.
Oversight and enforcement:	Standard taxation enforcement by the Danish Ministry of Taxation.
Transparency and reporting	Eurostat reports (EU statistics agency) on achievement of EU Directive targets.
Unique Approaches:	Tax system with no producer responsibility or involvement. Only European system of its kind (exclusively tax based). There is a question on whether or not the system meets the requirements of the EU Packaging Directive
Advantages of Model:	Potential to drive better consumer decisions in favour of re-use and re-fillables.
Disadvantages of Model:	Established in lieu of a recycling system. No producer incentives for packaging diversion or reduction.
Other Comparable Examples:	Netherlands (in addition to a shared responsibility EPR model similar to Belgium).

²² European Topic Centre for Sustainable Consumption and Production (ETC/SCP) “Effectiveness of Economic Instruments for Packaging” December 2012; prepared for the European Environment Agency to support the European Commission’s Resource Efficiency Roadmap

Exhibit 10: Germany

Program Name:	Der Grune Punkt, Duales System Deutschland (DSD) and 8 other smaller compliance schemes , driven by same regulation.
Sector(s) of PPP Included:	Focus on residential household packaging/sales packaging for consumer products and some small business packaging. Transportation and industrial packaging not included. Covers first dealers of filled packaging, branded packaging, first importer packaging. There is a packaging threshold below which the obligations are removed.
Management Model:	Legislative: Ordinance on the Avoidance and Recycling of Packaging Waste, June 12, 1991, amended April 4, 2008. It is a full producer responsibility EPR (both financial and operational) model. There are 9 licensed compliance schemes of which DSD is the largest. DSD and other compliance schemes contract collection to municipalities and private waste companies. DSD and others run systems separate from other municipal collection services (duales system) with direct compliance scheme responsibility for processing and marketing of recyclables
Municipal Role:	Municipalities can act as contracted service providers. DSD and others contract with 450 municipalities (local municipalities and county/regional councils). Municipalities approve the operation of the duales system (DSD or other compliance scheme) within their jurisdiction
Funding / Financing Mechanism(s):	Financed by licensing fees paid per tonne by obligated companies and a trademark fee for use of the Green Dot symbol. Fees vary by material
Cost Effectiveness:	No information available.
Competitiveness:	System provides choice of compliance schemes for packaging waste generators.
Impact(s):	Packaging diversion rate of 71.8% (2011) - exceeds the EU Packaging Waste Directive target of 60% <i>Eurostat</i> .
Oversight and enforcement:	Declarations of compliance provided by all designated/obligated companies responsible for placing packaging on the market submitted to Chambers of Industry and Commerce (government agencies). Obligated companies are required to report and verify packaging material flows Use of “Green Dot” label assists in identifying free riders.
Transparency and reporting	Eurostat reports (EU statistics agency) on achievement of EU Directive targets.
Unique Approaches:	Full EPR responsibility with municipalities as contracted service providers. Direct producer responsibility for collection made possible to some degree by program launch in the early 1990’s in the absence of municipal recycling programs. Multiple compliance schemes developed and implemented across the country – all support the national legislation.
Advantages of Model:	No cross subsidization between packaging materials – compliance scheme fees are different for different packaging materials. Full EPR eliminates potential controversy with municipalities about costs of collection etc. – producers fully responsible for collection, processing, and marketing materials. Some choice in compliance schemes.
Disadvantages of Model:	Does not include non-residential sources (except for some small business). Program costs unclear – not transparent.
Other Comparable Examples:	Sweden – Reparegistret AB (REPA) Austria – Altstoff Recycling Austria AG (N.B. Eurostat does not report data for Austria)

Exhibit 11: United Kingdom

Program Name:	Packaging Producer Compliance Schemes (there are 48 registered schemes)
Sector(s) of PPP Included:	All packaging and packaging waste . Obligated producers are those with more than £2 annual turnover; or produce more than 50 tonnes of packaging annually. Generators handling more than 500 tonnes of packaging annually have to prepare an operational plan showing how the recovery and recycling obligations will be met.
Management Model:	Legislative: Producer Responsibility Obligations (Packaging Waste) Regulations 2007, (as amended); and Transposition of EU Packaging and Packaging Waste Directive 94/62/EC (as amended 2004/12/EC) into UK legislation. There is a shared EPR model for municipal/residential – producer funding / municipal operation; full EPR for ICI generators. All producers within the packaging supply chain contribute financially (raw material manufacturer 6%, converter 9%, packer/filler 37%, seller 48%). Obligated producers must register with one of a number of approved compliance schemes. Packaging compliance schemes are businesses which take on the legal obligations of packaging producers and are responsible for obtaining evidence of recovery and recycling. There are currently (as of 2013) 48 registered compliance schemes. The largest is Valpak (a PRO Europe member) with approximately 50% of the market
Municipal Role:	Municipalities collect (with municipal or contracted service providers) PPP for delivery to processors. The value of Packaging Recovery Notes (PRNs) – <i>see funding/financing mechanism</i> - held by processors is often passed back to municipalities through waste management companies to offset costs and incentivize packaging waste collection.
Funding / Financing Mechanism(s):	A packaging waste generator will contract with a compliance scheme such as Valpak and pay Valpak a fee for each tonne of different packaging materials that the compliance scheme handles on their behalf. Compliance schemes contract with packaging waste processors for Packaging Recovery Notes (PRNs) which are evidence that producers have met their obligations. “PRNs have a market value which depends on the relative supply and demand of packaging materials”. ²³
Cost Effectiveness:	No available information.
Competitiveness:	System provides choice of compliance schemes for packaging waste generators.
Impact(s):	UK packaging diversion rates have just exceeded (60.8% 2011) the EU Packaging Directive targets (packaging recovery 60%; recycling 50% with specific recycling rates for glass/paper/OCC 60%, metal 50%, plastics 22.5% and wood 15%) <i>Eurostat</i> .
Oversight and enforcement:	National government registration system for obligated producers and registration with the National Packaging Waste Database (NPWD). Oversight through the Producer Responsibility Regulatory Service; 1 800 number to inform on non-compliant businesses.
Transparency and reporting	Annual reporting by Department of Environment Food and Rural Affairs (DEFRA) on overall national packaging recovery and recycling ²⁴ . Eurostat reports (EU statistics agency) on achievement of EU Directive targets.
Unique Approaches:	Multiple compliance schemes and PRNs.
Advantages of Model:	Assigns financial responsibility to all stages of the packaging life cycle. No cross subsidization between packaging materials – compliance scheme fees are different for different packaging materials. Value of PRNs reflects costs of managing packaging waste and can incentivize collection. Some choice in compliance schemes.
Disadvantages of Model:	Very complex model. Lack of financial certainty for municipalities and no standard municipal recycling system – a wide mix of curbside and depot. More focus on ICI than residential packaging which is a shared responsibility with lead role by municipalities. Variation in the value of PRNs can influence packaging collection and recycling – a higher cost PRN to a generator or a lower value to a municipal collector could negatively impact quantities recovered. The system is designed to only meet legislated targets - there are no elements of continual improvement.
Other Comparable Examples:	None.

²³ European Investment Bank and Instituto Superior Tecnico, Technical University of Lisbon, “Economic Impact of the Packaging and Packaging Waste Directive: Comparing the Recycling Systems of Portugal, France, Germany, Romania and the UK”, April 2012

²⁴ DEFRA <https://www.gov.uk/government/policies/reducing-and-managing-waste/supporting-pages/packaging-waste-producer-responsibility-regimes>

3.2 United States

There are no EPR programs for packaging waste operating in the US. There are number of beverage deposit programs (bottle bills) although a significant number of these are run by State authorities as product stewardship programs. The issues of packaging waste and producer roles in municipal recycling are being actively debated in the US but the intensity of producer opposition to any kind of producer responsibility program similar to anything that operates in Canada or Europe is such that it appears unlikely that any kind of EPR program for PPP will be legislated or otherwise implemented at any time in the near future. In many ways the US is at the very beginnings of the producer responsibility debate and at a point that Canada was at over a decade ago at the end of the National Packaging Protocol when discussion started to shift dramatically from “shared responsibility” approaches towards EPR and the roll out of new producer responsibility programs. For example, the US Grocery Manufacturers Association released a study²⁵ they funded in September 2012 in which they argued that recycling recovery rates in non-EPR programs can be as high, or higher, than in EPR programs and at reasonable costs. The study reviewed Canadian and European programs and built a lot of its US analysis on the experiences of Ramsey County Minnesota. Interestingly Ramsey County disassociated itself from the study after it was released.

Opposition to EPR and enhanced recycling in general has also been associated in a number of situations in the US with waste management companies which are apparently interested in maintaining their control over waste collection and disposal and see EPR as a threat rather than an opportunity. Waste haulers are often among stakeholders who oppose state product stewardship or producer responsibility in State legislative hearings.

On the other side of the debate, Recycling Reinvented²⁶ which is funded partly by Nestlé Waters, North America was established with the goal of promoting increasing recycling rates of PPP in the US through the use of EPR. It has launched a major study in March 2013 to analyse the current recycling system in the US and to evaluate the costs of collection and recycling of materials through an EPR system. The study is being undertaken by Reclay StewardEdge with a particular focus on programs in Minnesota which has had a history of engagement by the State and municipalities in producer responsibility initiatives and PPP recycling. Recent reports however suggest that Nestlé Waters is reducing its level of support for the study and that the study schedule is being lengthened with a view to finding additional financial support.

In a similar vein to Recycling Reinvented, As You Sow, a not for profit advocacy organization which promotes corporate sustainability and promotes investor intervention in the interests of sustainable development, released a pro-EPR study in September 2012²⁷.

One of the other issues at play in the US on the issue PPP recycling and EPR in general is US competition policy and anti-trust jurisprudence. While there are a number of programs in the US that follow the EPR model in areas such as paint and electronics they are all crafted with great care and due regard to anti-trust laws and often require explicit legislative responses to address whatever concerns might be identified. The challenge of PPP programs in this area is made more complicated by the number of potential stewards and the need for supportive level playing field regulations.

²⁵ Grocery Manufacturers Association/SAIC, “Evaluation of Extended Producer Responsibility for Consumer Packaging”, September 2012

²⁶ Recycling Reinvented: <http://recycling-reinvented.org/about/>

²⁷ Conrad MacKerron, As You Sow, “Unfinished Business: The Case for Extended Producer Responsibility for Post-Consumer Packaging” September 2012

3.3 Australia

The Australian program is a non-regulatory national voluntary program which operates in a way very similar to the former CCME National Packaging Protocol in Canada. To a degree the program is only quasi-voluntary because there are national level regulations which could be used to penalize larger producers if they do not sign on to the Covenant and develop packaging action plans. There is no evidence however that these regulations have been used. The Australian Commonwealth (federal government), state and territorial governments and state level local government associations are signatories along with private companies. Producers put up some modest funds (A\$3m in 2012) matched by government to support pilot packaging recycling programs in municipalities and other capacity building activities across the country but the bulk of the costs of curbside and depot collection and recycling in Australia continue to be borne by municipalities and municipal taxpayers. In a testament to municipal engagement and funding, Australian residential packaging recycling rates, at 63.1% in 2011, appear comparable to Canadian programs.

An exhibit of the Australian program is presented on the following page.

Exhibit 12: Australia

Program Name:	Australian Packaging Covenant
Sector(s) of PPP Included:	Consumer packaging
Management Model:	Voluntary producer/ government agreement for sustainable packaging design, use and recovery (similar to the CCME National Packaging Protocol) – 842 signatories (companies) 2012 Signatories agree to prepare an Action Plan showing how they plan to meet the APC goals and objectives Funds used to support capacity building activities; projects to increase recovery and recycling and reduce litter; APC administration
Municipal Role:	Municipalities fully responsible for funding and operation of PPP collection and recycling – variable levels of service
Funding / Financing Mechanism(s):	Eligible for APC pilot program funding. Industry contribution in 2012 A\$3 million – matched by government at A\$3 million Maximum individual company contribution A\$286,000
Cost Effectiveness:	No information available. Funds are only used for pilot programs and special projects
Competitiveness:	No information available.
Impact(s):	Target of 70% overall recycling rate for used packaging materials. Overall 63.1% recycling rate for 2011 (4,372,856 tonnes generated; 2,759,595 tonnes collected)
Oversight and enforcement:	Threat of regulation (companies over A\$5million/year) under the National Environmental Protection (Used Packaging Materials) Measure for companies not becoming a signatory to the APC.
Transparency and reporting	All signatory action plans and annual reports are independently assessed and approved and are subject to audits. Plans and audits are publicly available on the Covenant website.
Unique Approaches:	Totally voluntary system. Established packaging design/reduction goals and objectives.
Advantages of Model:	Clear goals and objectives for environmental improvements in packaging design. Pilot program funding.
Disadvantages of Model:	Maintains full municipality responsibility for PPP with little financial support from producers.
Other Comparable Examples:	None.

4 Observations

4.1 Cost Effectiveness of Stewardship Programs

Exhibit 13 presents financial performance of two operating Canadian PPP EPR Models (details on the Quebec program were not available publicly, and the BC and Saskatchewan programs have not yet launched).

Exhibit 13: Financial Performance of Two Operating Canadian PPP Models in 2012²⁸

	Current Programs	
	Manitoba	Ontario
Net cost per tonne	\$246.70	\$272.30
Program management as a % of net cost	13.8%	2.4%
Net cost per capita	\$15	\$19
Recycled kg per capita	60.3	69.6

Comparatively, Ontario's Blue Box program is generally a more expensive program than Manitoba's, on both a per tonne (by 10%) and a per capita basis (by 27%). Ontario accepts more material than Manitoba in its recycling program (largely a greater variety of plastics) and is recycling 9 kg more per capita. These PPP materials fall in the more expensive to recycle material categories. Program management cost in Manitoba as a percentage of total cost (13.8%) is higher than other provinces as is to be expected when a financially modest program like Manitoba is required to carry certain fixed administrative expenses in order to comply with the requirements of its stewardship program plan.

The BC program is projected to be the highest cost per tonne program in the CSSA family of recycling programs with net cost per tonne projected to be 67% higher than Ontario. It is likely that there are many variables contributing to higher costs, including: a wider scope of materials being included (including from public spaces); the loss of aluminum and PET revenues from beverage container deposits; as well as lower recycling per capita which means that household collection costs are spread over a smaller base of materials. Geography and topography challenges such as mountains and islands, and the need to provide service to low density areas all add complexities and cost to the supply chain.

²⁸ CSSA Discussion Paper for Annual General Meeting, *Packaging & Printed Paper Programs across Canada: Look Back & Look Forward*, October 31, 2013.

4.2 Harmonization

As observed in the review of the EU program, there are some jurisdictions that have chosen to follow similar models of shared responsibility (or full EPR) to fulfill the umbrella EU Directive on packaging. It should be noted, though, that although they follow similar models, none of the programs identified are actually “harmonized” in the sense that they share program infrastructure, although materials markets are transnational and subject to the dynamics of the EU and international marketplaces. Across Canada there have been strong drivers among stakeholders primarily in the private sector to encourage harmonization in Canadian EPR programs. In the Canadian landscape of vast geography, relatively low population density (compared to the EU) and smaller economic base of the entire private sector of stewards (compared to the EU), there are good reasons to harmonize programs where possible and leverage scale (e.g. increasing volumes of recyclables, decreasing program administrative costs by sharing information technology (IT) and accounting systems).

Benefits of Harmonized Programs

Below is a list of benefits identified by industry stakeholders associated with the other Canadian programs that are working towards harmonization²⁹:

- Opportunity to streamline and “piggy back” on administrative investments made to develop, manage, and oversee program management components including data management infrastructure systems specifically designed for PPP recycling programs;
- Opportunity to systematically identify cost drivers in a program and scale up efforts to manage reverse supply chains for PPP consistently over a broader geography;
- Opportunity to identify and share best practices across provincial jurisdictions;
- Opportunity to measure program performance consistently across jurisdictions;
- Opportunity to streamline recycling services across municipalities within a jurisdiction, and across jurisdictions;
- A national harmonized stewardship organization (i.e. CSSA) will be working towards reducing issues in the fee-setting methodology that might contribute to cross-subsidization of materials, and towards other streamlining in the fee setting methodology such as paying of actual costs rather than forecasted costs;
- In separate programs, individual municipalities have varying commodity revenue-sharing arrangements with their processors affecting how gross costs and revenues are realized and reported. Driving consistency in reporting of costs and revenue results is a subject of dialogue with municipalities within CSSA programs and will result in consistent comparisons once achieved.
- Sharing of administrative costs (i.e. finance departments, IT departments, etc will all be shared among the collective) among member programs. Larger scale produces efficiencies.

²⁹ CSSA Discussion Paper for Annual General Meeting, *Packaging & Printed Paper Programs across Canada: Look Back & Look Forward*, October 31, 2013.

The Canadian Stewardship Services Alliance Inc. (CSSA)

What is CSSA?

Beginning in 2014, a national, non-profit organization will start to offer a one-stop-shop for stewards to fulfill their stewardship obligations. The Canadian Stewardship Services Alliance Inc. (CSSA) aims to eliminate development of province-by-province stewardship organizations which are not seen to be cost-effective by stewards. CSSA will be the first national organization to provide PPP recycling solutions across several provinces on behalf of its stewards. CSSA will implement and deliver a shared and harmonized administrative and customer service business infrastructure for stewards of extended producer responsibility (EPR) programs and provincial producer responsibility organizations in Canada, whether fully or partially-funded by industry. CSSA was founded by leading Canadian retailers and manufacturers and is industry led and industry funded. CSSA works on behalf of businesses and in partnership with provincial and local governments, and the waste management sector. CSSA's board includes representatives from Unilever, Metro, Loblaw, Walmart, Coca-Cola, Procter & Gamble and Tim Hortons.

CSSA's goal is to make it easy and seamless for businesses to meet their stewardship obligations across Canada. In 2013, CSSA began the process of harmonizing the administration of PPP program requirements across provinces. In 2014, CSSA will administer four PPP programs – British Columbia, Saskatchewan, Manitoba and Ontario – under a single administrative umbrella, in addition to Ontario's Municipal Hazardous and Special Waste Program.

What are the Advantages of CSSA?

There are numerous efficiencies of a nationally harmonized system for both provincial administrators and for producers. For example, a national PPP material list is under development, and steward reporting in 2014 will take place through one electronic portal (for all programs that have joined CSSA) and deadlines for program reporting will be aligned. CSSA will also develop national standards and benchmarks for PPP reporting, and take measures to align various provincial programs across financial and performance benchmarks.

What is the Relationship Between CSSA and Provincial Stewardship Organizations?

CSSA is a shared services organization with a head office/ branch office model. Each of the provincial offices is a member of the CSSA family of recycling organizations. This model allows CSSA to focus on delivering more convenient recycling options, managing strategy, process and administrative harmonization, and allows the provincial stewardship organizations to focus on supply chain execution, local promotion and education activities, and regulatory affairs.

Challenges of the CSSA Model

While the CSSA approach will have a number of clear benefits for the CSSA members and individual stewards, concerns are being raised by some stakeholders, most notably by some waste management companies who are currently engaged in contract negotiations with MMBC/CSSA in B.C. Concerns are starting to be expressed about contract terms and the development and growth of a powerful organization which could be in a position to set terms and conditions and possibly prices over large geographic areas and negatively impact the ability of companies to operate competitively in the marketplace. Similar concerns have been expressed in the area of e-waste by at least one major electronics recycler with regard to the contracting practices and program policies of Electronics Products Recycling Association (EPRA) in both Ontario and in Newfoundland and Labrador.

It has been known for some while that the Competition Bureau has been watching the growth of EPR programs and PROs and the Bureau made a submission to the CCME as part of the consultation on the CCME's Canada-wide Action Plan on EPR. The submission is referenced in the Action Plan:

“In accordance with guidance from the Competition Bureau, authorities, producers and PROs are encouraged to take whatever steps are necessary to ensure competition issues are considered when developing and operating an EPR program”.

“In addition the Competition Bureau recommends that EPR programs are designed not only to avoid offending the various civil and criminal provisions of the Competition Act, but that they are formulated and implemented in a way that minimizes the harm to completion, while still achieving their policy objectives”³⁰

³⁰ CCME Canada-wide Action Plan on EPR, October 2009, page 17, Section 5. Model EPR Program – Key Elements.

Atlantic Canada Electronics Stewardship (ACES) / Electronic Products Recycling Association (EPRA)

A key example of a harmonized regional program operating in Atlantic Canada is the ACES program. In 2007 programs in Nova Scotia and PEI were established under ACES, and in 2012 they joined the national association called Electronic Products Recycling Association (EPRA). There are about 560 businesses participating in the program in Atlantic Canada as stewards that contribute recycling fees to administer and manage the program (these fees are collected by consumers at point of sale). Used and end-of-life electronics are collected at drop-off centres throughout Nova Scotia and PEI, then taken to an EPRA-approved recycling facility where they are dismantled, processed and recycled.

In the first five years of operation over 17,000 metric tonnes of electronics were diverted from landfills, and 5,339 metric tonnes (4.88kg per capita) was diverted in 2012. According to a 2012 survey, there is high program satisfaction among residents in Nova Scotia and PEI. There is about 73% awareness of the programs and about 97% of the population are within 30 kms of a drop-off site. As of 2012 it cost \$1,337 per tonne to operate and manage the programs.

Newfoundland and Labrador joined the program in July of 2013 with a goal of diverting the estimated 2,600 metric tonnes of electronic waste that is generated annually in that province. The initial 14 drop-off centres are expanding to 19 within the first year of operation.

EPRA was established to harmonize the operation and management of electronics stewardship programs across Canada. In partnership with stewards and service providers, the organization is well on its way to ensuring this evolution. This transition of the Nova Scotia, P.E.I., and Newfoundland and Labrador programs to be housed within the EPR framework benefits both stewards and consumers by strengthening the organization's ability to deliver best practices. Standardized, effective policies and processes will increase efficiencies, reduce administrative costs and improve service quality. For stewards, this translates into a more streamlined, simplified administrative process. Under the EPRA model, stewards will benefit from leveraging best practices to provide better, more efficient services. It also means consistent communication, to minimize duplicate messaging to stewards, as well as lower unit costs for shared services due to distribution across more programs.

As part of EPRA, all electronics programs now monitor and report on Key Performance Indicators (KPI) for each of the regulated, industry-led electronics stewardship programs that are members of EPRA since 2011 in Canada³¹. These include operational indicators (e.g. consistently monitoring quantity collected), accessibility indicators (percent of the population that can access the program), awareness indicators, and program costs.

With respect to end of life management of used electronics and to ensure that all end-of-life electronics collected in EPRA programs are processed responsibly, EPRA uses only contracted recyclers which are audited by the Recycler Qualification Office (RQO) in accordance with the Electronics Recycling Standard (ERS). This means that all EPRA programs, including those that are members from Atlantic Canada, adhere to the same recycler qualifications as other EPRA programs across the country³².

³¹ Intergroup Consultants Ltd., 2010. Research and Recommendations for Performance Measures For Regulated, Industry-Led, End-of-Life Electronics Recycling Programs in Canada".

³² EPRA 2012 Annual Report, 2012 <http://eprassociation.ca/ar/en/2012/EPRA2012%20-%20Annual%20Report.pdf>

4.3 Advantages and Disadvantages of PPP Stewardship Program Models

The following exhibit is an overview of the advantages and disadvantages of three stewardship models identified in Canadian and international jurisdictions. The fourth model – the Danish taxation system, is not included in this list since it was not considered to be an effective model for Atlantic Canada to consider. The Danish approach is unique in Europe. It is questionable whether it meets the requirements of the EU Packaging Directive and most importantly its performance is poor and the approach has discouraged the development or support of municipal recycling programs. The Australian program is voluntary, has only a weak financial mechanism to support municipal programs and operates more like the Canadian Council of Ministers of Environment (CCME) National Packaging Protocol and for this reason is not comparable as a stewardship model with the others in the table.

Exhibit 14: Summary Comparative Table of Stewardship Models

Product Stewardship		Shared Responsibility		Full EPR	
Municipal or provincial funding and operation		Varying degrees of producer funding with municipal operation		Full producer funding and operational responsibility	
Atlantic status quo		SK, MN, ON, QC Majority of EU Member States		BC, Germany, Austria and Sweden	
Advantages	Disadvantages	Advantages	Disadvantages	Advantages	Disadvantages
<p>Atlantic provinces of NS and PEI have some of the highest rates of PPP recycling in Canada.</p> <p>PEI and NS already have mandated recycling for both ICI and residential sectors. NO OTHER JURISDICTIONS HAVE DONE THIS.</p>	<p>No involvement of producer; government and consumers pay full costs of recycling packaging.</p>	<p>Maintain municipal operations and levels of service communities are used to (consistency).</p> <p>Opportunity to negotiate financing suitable for each jurisdiction (range of 50%-100% currently used in Canada).</p> <p>Clear public understanding of municipal role and responsibility for collection</p> <p>Opportunity to formalize a dispute resolution mechanism in program design with municipal sector for residential program.</p> <p>Opportunity to standardize and develop higher levels of recycling collection and service.</p> <p>Some programs (QC) with high producer financial contribution led to Design for Environment changes and a Recycling Code of Practice.</p> <p>Opportunity to expand PPP diversion programs to include ICI generated PPP wastes.</p> <p>Could use competitive compliance schemes as in the EU, for ICI sector or residential sector.</p>	<p>Producers do not have control over how their money is spent when they do not have control over municipal costs.</p> <p>Canadian programs are residential only.</p> <p>Potential for argument between municipalities and PROs over eligible costs and levels of funding. Producers and municipalities can develop an adversarial relationship: the higher the funding contribution from producers = higher number of disputes and general dissatisfaction about controls over costs.</p>	<p>Full producer control over the system with ability to effect program costs and rationalize infrastructure</p> <p>Full producer involvement in operations could stimulate Design for Environment in packaging innovation.</p> <p>This model could be utilized for the ICI sector only – which would avoid municipal disputes over services and costs.</p> <p>Could use competitive compliance schemes as in the EU, for ICI sector or residential sector.</p> <p>Opportunity to standardize and develop higher levels of recycling collection and service without any municipal cost.</p> <p>Opportunity to expand PPP diversion programs to include ICI generated PPP wastes.</p>	<p>No direct municipal involvement</p> <p>Municipal challenge/risk of providing a service level above the agreed PPP program if costs are higher than negotiated amount.</p> <p>Concerns about stranded infrastructure assets - Municipalities already have long-term investments in infrastructure.</p> <p>Canadian programs are residential only.</p> <p>Challenges associated with transitioning traditionally municipally operated programs to producer operated programs</p> <p>Communicating to the public that municipalities are not responsible for collection service (either they are not involved at all or function as a service provider/contractor) is challenging</p> <p>Germany and Sweden are reviewing their models and considering changing back to a model with municipal control because municipalities in these jurisdictions often wish to provide enhanced collection and recycling services beyond that provided by the producer run program.</p>

4.4 Summary of Observations

The following are observations relating to the advantages and disadvantages of the models and on some of the key elements of programs in the jurisdictions reviewed:

Levels of Service

- **Levels of service:** Both the shared and full EPR models provide opportunities to expand and grow existing municipal programs to a standardized level of recycling service and in some cases to a level of service beyond that which the municipality had traditionally operated (e.g. moving from a depot service to a curbside service).
- **Municipal incentives for program expansion to include new materials or new sub-sectors:** In a producer-operated model, municipalities could feel they are at risk in terms of cost recovery of expenses, particularly if they wish to provide a higher level of recycling service to their residents. In a full EPR model municipalities have little ability to expand recycling services or collect newer, possibly harder to recycle packaging, without bearing the cost themselves or entering into new agreements with processors. In the shared model, the municipalities hands are tied as they may not have incentive to expand the items collected in municipal programs or expand access to new segments (e.g. multi-residential) because of the level of producer funding that is in place. Concerns related to this have been observed in two of the EU full EPR programs where consideration is being given to changing to a shared responsibility model for the residential sector to allow more municipal flexibility.
- **Lessons Learned from material lists used for PPP in other jurisdictions:** The longest jurisdiction-wide PPP program in Canada that is a producer involvement program (Ontario) limits the number of packaging types that are acceptable to the program or they defer to individual municipal decisions as to what is eligible for collection. This has resulted in different lists of packaging materials which are eligible for the program in hundreds of municipalities across the province. In contrast, the BC EPR program includes a consistent and more inclusive list of packaging materials than has traditionally been included in municipal recycling programs.
- **Sectors included in existing PPP programs with producer involvement target the residential sector only.** PPP programs are primarily focused on residentially sourced waste packaging or, as in the case of BC, transportation, distribution or tertiary packaging which is sourced from a residence. There is generally little or no focus on packaging generated by the ICI sector. Even though the EU Packaging Directive does not make a residential/non-residential distinction, most programs focus on the residentially generated materials also. This is vastly different in the current Nova Scotia and Prince Edward Island models which are government-operated without producer involvement, but already include ICI sectors.
- **Deposit-return systems, primarily for beverages, do co-exist with PPP EPR programs in both Canada and Europe.** The beverage deposit programs in both BC and Saskatchewan will be maintained when the new EPR funding model is implemented in 2014.

- **PPP from Public Spaces is Important to Consider:** BC is the first jurisdiction in Canada that has explicitly targeted packaging waste generated in public spaces such as sidewalks, parks and public squares jurisdiction wide (however some jurisdictions, such as Nova Scotia and Alberta, have implemented smaller-scale PPP recycling projects in public spaces that are government operated and successful). This broadening of the scope of producers' responsibilities could have a positive impact on littering including PPP which could otherwise be at risk of entering the marine environment in coastal communities.

Performance Measurement

- **Establishing reuse targets with associated program monitoring requirements are keys to program achievement.** While the EU Packaging Directive speaks to the need for reuse there are no targets for reuse (only recycling) and no performance measurement guidance provided to jurisdictions and therefore there is no way of knowing whether these objectives are in any way being met at the EU level. Jurisdictions develop and implement their own monitoring activities and report individually.
- **Consideration of material-specific targets for recycling are keys to program achievement:** The EU Packaging Directive establishes recycling targets for specific packaging materials, rather than packaging as a category. This has not been done in any of the Canadian programs – targets which do exist are for overall packaging (e.g. BC 75%). Although some programs (e.g. Ontario) monitor actual packaging recycled by material, their performance is assessed on the broad overall category of packaging diverted. Plastic packaging recycling is a challenge in all of the reviewed programs. The EU recycling target for plastics is low (22.5%) and in Ontario 2011 data shows that the performance rate for plastics packaging was only 25.7% - the lowest in the packaging category. The weak plastics recycling rates are of concern due to the increasing amount of plastics including more complex or difficult to recycle multi-laminates that are on the market³³.
- **Program maturity** leads to improved performance. Despite a variety of program structures the average EU wide packaging recycling rate is comparable to the average rates in Canada – in the 65% range. It is unclear what specific program features have led to the highest performing programs (Belgium, Netherlands, Germany, Ireland and the Czech Republic) which all have achieved performance rates around 70% (or above) since there are not any obvious common program elements in the approaches used by these jurisdictions. It is possible that higher recycling rates develop over time with program maturity and consistent and effective promotion.
- **Enforcement is an Important Aspect to Ensure Program Performance:** While packaging producers have a regulatory obligation to become a steward for their wastes and PPP PROs have a role to play in ensuring that designated packaging producers are meeting their obligations, the enforcement function of government to level the playing field and ensure there are no free riders is critical in all programs. There are various mechanisms for doing

³³ Geoff Love and Maria Kelleher, Impacts of Future Lifestyles on Residential Recycling Programs, Canadian Waste Symposium November 9, 2011

this including registration systems, annual reporting obligations and hotlines for reporting companies that are suspected of being free riders.

Sector-specific Models

- Consideration of the idea of using **dual models for different sectors**: The idea of using one approach (for example, an EPR model) for the non-residential sector and one approach for the residential sector (for example, a shared responsibility model) has the potential to result in improving the level of service across both sectors. This is a unique idea, not currently used anywhere in Canada, but there are limited examples of this approach in the EU. The approach could be applied in different jurisdictions that have different requirements for different sectors currently (for example, NS and PEI already have programs that involve both the residential and ICI sectors but NB and NL do not).

Collective vs Individual Stewardship Models / Competition

- With the exception of the current Ontario Waste Diversion Act which mandates the formation of collective Industry Funding Organizations, regulations in both Canada and internationally commonly designate producers (manufacturers, brand owners, and first importers) as being **individually responsible** for program obligations. Despite this, in both Canada and the EU producers have come together into **collective organizations** to undertake their responsibilities and the number of individual business operated take back and recycling programs are few in number. This demonstrates that businesses prefer to operate based on economies of scale to improve efficiencies.
- In Canada designated EPR producers in both the area of PPP and other product sectors have formed **collective** larger PROs (for PPP, electronics and used oil). In addition, some of those programs are now collectively harmonizing across jurisdictions in Canada to further capitalize on economies of scale and program administration (used oil, electronics, and the new CSSA). There are no competitive EPR compliance schemes operating in Canada. The only example of more than one compliance scheme for a particular product was a small PRO formed in BC to handle electronics in addition to the larger now EPRA program. The small program was approved by BC Environment but never became operational and the approval was rescinded. In the case of the competitive EPR compliance schemes which were reviewed in the EU, their creation appears to be a result of clear government policy to specifically design them (UK) or as a result of the intervention of competition authorities (Germany and Austria). In Germany the competition interventions were partially driven by concerns regarding the cost of the DSD system. There is no clear evidence that competitive compliance schemes have led to higher packaging diversion rates.

Dispute Resolution

- **Dispute resolution for municipalities**: Conflicts between stakeholders in both shared responsibility programs and full EPR programs highlight the importance of a dispute resolution mechanism for issues like PRO payments to municipalities and levels of recycling service.

- **Sector-specific disputes among steward groups:** In the Canadian programs newspapers have commonly been able to negotiate an in-kind contribution of advertising to the PPP programs rather than fees based on the amount of material they put on the market. This is an area of controversy in BC currently with newspapers arguing that they should not be obligated to fund the PPP program but instead use the in-kind contribution approach. There are varied approaches to this steward group across the country. In Ontario and Quebec, they contribute cash towards the program administration as well as in-kind advertising. In Nova Scotia, they contribute only in-kind advertising. Saskatchewan and Manitoba are considering including them in their stewardship programs, but this is subject to confirmation with interviews.
- **The importance of incremental changes:** Quebec, a shared responsibility model with 100% financing for the residential PPP recycling program, has gradually increased producer contributions to slowly allow the program to manage stakeholder concerns and allow stakeholders to adapt to the changes. There are many benefits to this approach that would make sense to all parties to avoid disputes and manage them gradually so all parties can experience the program changes as they evolve, in small steps.
- **Learn from Current challenges observed in BC:** transitioning an existing fully municipally funded and operated recycling program into a 100% full EPR program with both funding and operational responsibilities with producers is complex and challenging. Municipalities are confronted with a choice of a significant change in role than they have been historically playing to that of a contracted service provider, or vacating a program area which they pioneered and have operated for many years in some cases. Some stakeholders have expressed concern that the changes are too dramatic in too quick a time period.
- **Capitalize on successful program elements realized elsewhere:** Quebec, a shared responsibility model with 100% financing for the residential PPP recycling program, has had success in promoting Design for Environment upstream changes in packaging design with work both by Recyc Quebec and the PPP PRO.

Unique communities

- **Remote community access:** Some communities in Atlantic Canada could be considered to be remote and difficult to access with low populations (e.g. Labrador, some areas of mainland Newfoundland, and Cape Breton Island in Nova Scotia). These areas are already serviced to some degree by municipal or regional authorities and it might be difficult for a new stewardship organization to initiate collection or depot services in these areas where a system is already established. Capitalizing on existing infrastructure is an important consideration.
- **First Nations involvement:** The Saskatchewan model specifically includes involvement of First Nations. This is also an important consideration in Atlantic Canada, especially in Nova Scotia, New Brunswick, and Newfoundland and Labrador.

4.5 Current Programs for PPP in Atlantic Canada

Currently, the four Atlantic Canada jurisdictions operate a variety of product stewardship program approaches to manage PPP in their respective regions. Across the Atlantic region there is no standardized approach for PPP and levels of service and diversion can vary widely depending on such factors as regulations, population density, geography, recyclable materials markets and landfill capacity. A brief overview of these four programs is presented below.

Nova Scotia

Waste management is regionalized in the province of Nova Scotia through seven (7) solid waste management regions. Nova Scotia has established residential curbside recycling, composting (that includes paper fibre) and waste collection programs with consistently high waste diversion rates. The specific items designated for diversion are set by waste management regions and municipalities and differ slightly across the province. Rural areas typically receive bi-weekly pick-up services, while urban services have weekly service (i.e. Halifax Regional Municipality). Nova Scotia also maintains a network of approximately 80 depots that accept recyclable items including deposit-refund beverage containers. Nova Scotia has landfill bans in place for a number of PPP materials: beverage containers, corrugated cardboard, newsprint, steel/tin and glass food containers, as well as low- and high-density polyethylene bags and packaging. For 2013, the province diverted 62,055 tonnes of PPP through municipal curbside programs.

New Brunswick

Waste management is regionalized in the province of New Brunswick with twelve (12) solid waste management commissions that vary in how they handle materials. Curbside collection exists in some regions (i.e. Fundy), and drop-off of selected items at designated locations or depots is established in other regions (i.e. COGERNO, Valley). Other areas still may not have source-separation for certain printed paper and packaging materials so a portion goes in the waste stream (i.e. Westmorland-Albert). New Brunswick operates a beverage container program using a product stewardship model through the Beverage Containers Act. The un-refunded portion of each deposit is used to recover the costs of administering the program. A portion is also deposited into New Brunswick's Environmental Trust Fund, used to promote recycling activities. Beverage container handling fees are paid by beverage distributors to New Brunswick's privately-run beverage container redemption centres as compensation for receiving, paying out refunds for, and sorting beverage containers.

Newfoundland and Labrador

Waste diversion in Newfoundland and Labrador is managed through eight regional waste management authorities located in four main regions of the province: Labrador, Western, Central, and Eastern regions. A Regional Waste Management Authority (RWMA) is responsible for designating, financing, and operating regional waste management systems across Newfoundland and Labrador. A RWMA is established as a legal, incorporated entity operated by a board of directors with representation from the municipalities, Local Service Districts and unincorporated communities in the waste management region.

Recycling and central composting are not offered in Labrador where programs are primarily focused on education for reducing and re-using materials. The remaining three regions offer a mix of services, not standardized or mandatory. In all three, urban areas offer curbside collection (i.e. St. John's, Corner Brook), while drop-off locations and depots are more common

in rural communities (i.e. Gander, Stephenville). More remote locations are less likely to sort waste as the distance to drop-offs/depots is prohibitive. Beverage container deposits apply to: aluminum cans; drink boxes (tetra paks); plastic and glass bottles; steel cans; and gable top containers. There are 56 Green Depots across the province that primarily accept beverage container packaging - most are permanent but some are satellite locations and mobile units to service remote areas. 18 of the Green Depots also accept paper for recycling voluntarily.

PEI

Prince Edward Island has the most comprehensive and standardized program of all the Atlantic provinces, operated by the Island Waste Management Corporation with curbside organics collection and a recycling bag program that requires paper and packaging collection. The program is supplemented by Canada's first biomass-fuelled hot water district heating system operating since the 1980s, the system serves over 100 customers in the downtown core of Charlottetown. Biomass accepted at the facility includes some waxed paper products.

4.6 Next Steps

The next task of this project is to assess the information presented in this document and **recommend a model** for PPP management within the Atlantic Region. We will then have a face-to-face meeting with the Atlantic representatives near the end of January 2014 to discuss our preliminary recommendation, obtain insight from jurisdictional representatives on a proposed model so that we can refine it further and continue with the development of an Implementation Plan for the proposed model.

The development of the Implementation Plan would involve interviewing stakeholders to discuss the proposed model as well as gather information from them relating to the components of the implementation plan that correspond with our methodology outlined in our proposal.

The specific sub-objectives of the Implementation Plan are as follows:

1. To propose a strategy for **change management**, that includes recommended consultation activities and communication outreach that focusses on the major change of switching from a municipally funded and operated program to a producer stewardship program;
2. To outline relevant existing **infrastructure** for PPP and how to use it most efficiently for a potential PPP program across the Atlantic provinces;
3. To indicate potential **material volumes** for PPP and potential **impacts** of a PPP stewardship plan on waste diversion, by province;
4. To propose packaging and printed program delivery **principles**;
5. A proposed program **performance strategy** that includes tracking material management, recovery targets, accessibility, whether there are any impacts to product lifecycle management, and reporting requirements through the use of Key Performance Indicators (KPIs) for use in annual reporting.

The development of the Implementation Plan will start the week of January 27th and the current workplan includes a target date for the submission of the Draft Proposed Framework model and Implementation Plan as the week of April 21, 2014.

Following this draft submission there will be a teleconference with the Atlantic jurisdictional representatives to discuss the draft.

The final Framework Model and Implementation Plan are due for submission the week of May 12, 2014.