

Overseas Drivers and Lessons from International Product Stewardship and Extended Producer Responsibility Schemes

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Overview

- Independent report by MS2 and Perchards for the Australian Government:
 - ✦ to prepare a single, concise summary of the key features of, and outcomes arising from, international product stewardship or extended producer responsibility (EPR) schemes
 - ✦ informed development of a national waste policy for Australia
 - ✦ facilitating development of a product stewardship framework for Australia
 - ✦ addressed packaging, e-waste, batteries, lamps and other mercury-containing products
 - ✦ packaging was a central component due to its historical and ongoing relevance to product stewardship and EPR
- Other recent developments in EPR legislation and programs
- Need for international harmonisation

North American and European Packaging Schemes

- Swiss arrangements for beverage containers
- German and UK packaging schemes
 - ✦ to advise the Australian Government on how and why these schemes became costly or less effective than others, so that their lessons can be learnt for Australia
 - ✦ Germany's Green Dot and impacts of Germany's introduction of container deposits on top of comprehensive recycling
- French packaging take-back (including Green Dot)
- British Columbia's Encorp Pacific program for beverage containers
- Stewardship Ontario

Report: <http://www.environment.gov.au/settlements/waste/publications/product-stewardship-na-eu.html>

Swiss Packaging Scheme for Beverage Containers

First Implemented	1990
What it covers	All beverages except milk and milk products
Funding source and liability point	<p>Funding source: Suppliers of empty glass bottles for use in Switzerland, importers of empty or filled glass beverage bottles, and producers and importers of drinks packed in PET bottles or metal cans (and retailers in the case of home-brand products).</p> <p>Liability point: Beverage producers, bottlers, importers and distributors. All sales outlets must take back used containers.</p>

Swiss Packaging Scheme – Drivers

- 1990 Beverage Containers Ordinance aimed at eliminating PVC containers and ensuring replacement of refillables by non-refillables did not increase pressure on disposal facilities
 - ✦ mandatory deposit on refillable bottles
 - ✦ mandatory deposits would be applied to non-refillables at the same rates if the waste reduction targets were missed
- 1997 amendments imposed take-back obligations for non-refillable packaging in PET and aluminium not covered by private recovery organisations
 - ✦ deposits made discretionary
- 2000 Beverage Containers Ordinance mandated deposits on non-refillable PVC as well as on all refillable containers
 - ✦ deposits may be imposed on glass, PET or aluminium beverage containers if a material-specific 75% recycling target was not met
- Producers can meet the PET and aluminium targets individually or through a collective system. For glass beverage containers, however, there is an advance disposal fee (ADF) of between CHF 0.02 (A\$0.02) and CHF 0.06 (A\$0.07), depending on bottle size.

Evaluation

- The systems rely entirely on a dense, convenient network of 'bring' collection containers for all the materials
- The sectoral organisations all run large-scale communications programmes to encourage consumer participation, and they all co-operate on an anti-litter programme
- Collection is further incentivised by buy-back schemes
- This approach challenges the view that a container deposit system (CDS) is the only way to achieve a high recycling rate for beverage containers
 - ✦ Swiss beverage container recycling rates are comparable with those in Sweden, where the deposit system achieves a return rate of 85% for cans and PET, and Norway where the rates are 90% for cans and 81% for PET
 - ✦ the Swiss have achieved this by making collection containers available and convenient for everyone – at work, at play, on the move or close to home

German Packaging Ordinance – Overview of Beverage Container Provisions

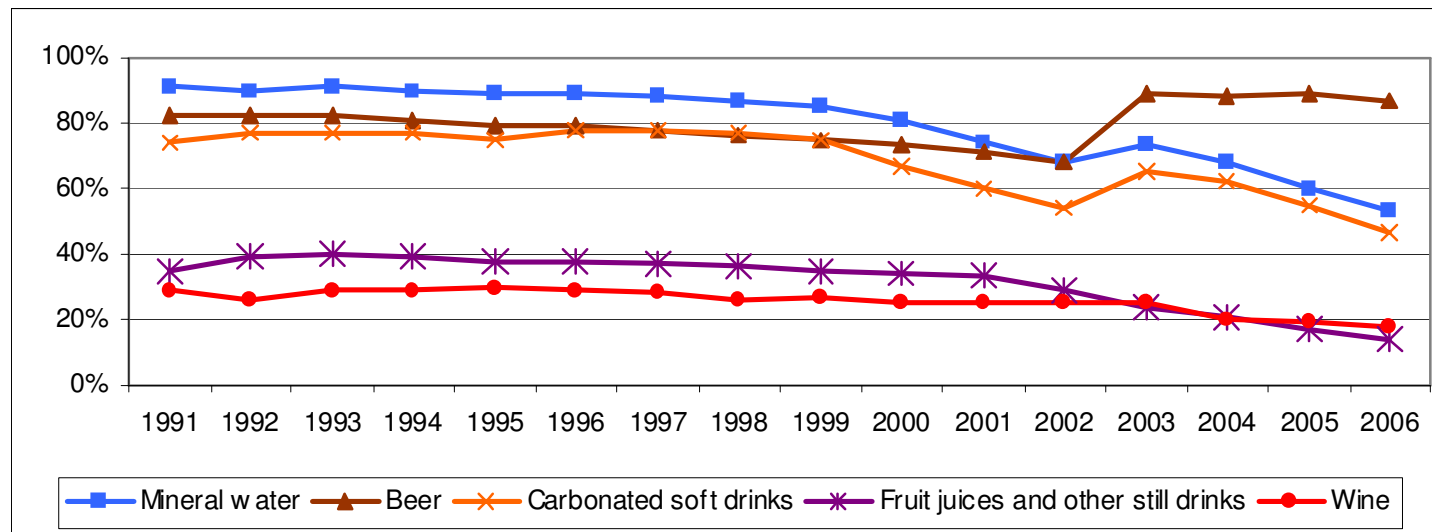
First Implemented	Enabling legislation since 1991, deposit law in force since 2003
What it covers	All beverage containers (but no deposit on beverage cartons, polyethylene and foil pouches or plastic containers with at least 75% renewable material).
Funding source and liability point	<p>Funding source: Drinks producers, importers, wholesalers and retailers.</p> <p>Liability point: Deposit initiators, redemption centres, wholesalers and large retailers, label printers and can makers, service providers (financial clearing, data systems, reverse vending machine supply, logistics and recycling) must all register with the deposit system operator, DPG.</p>

German Packaging Ordinance – Drivers for Beverage Container Provisions

- Defence of the refillable bottle
 - ✦ believed to be more resource-efficient (depending on transport distances) and less likely to create litter
 - ✦ limitations on non-refillables protected small local German brewers from competition from further afield
- The 1991 Ordinance said that a mandatory deposit would be imposed on any type of beverage container if
 - ✦ DSD's recycling targets for all packaging (not just beverage containers) were not met
 - ✦ the national market share of refillable containers fell below 72% (the rate prevailing in 1991)
- In 1997 the overall market share of refillables for water, beer and carbonated soft drinks fell below 72%
- After prolonged discussions and many legal proceedings, mandatory deposits on non-refillable containers for water, beer (and drinks containing beer) and carbonated soft drinks were finally introduced in January 2003

Evaluation

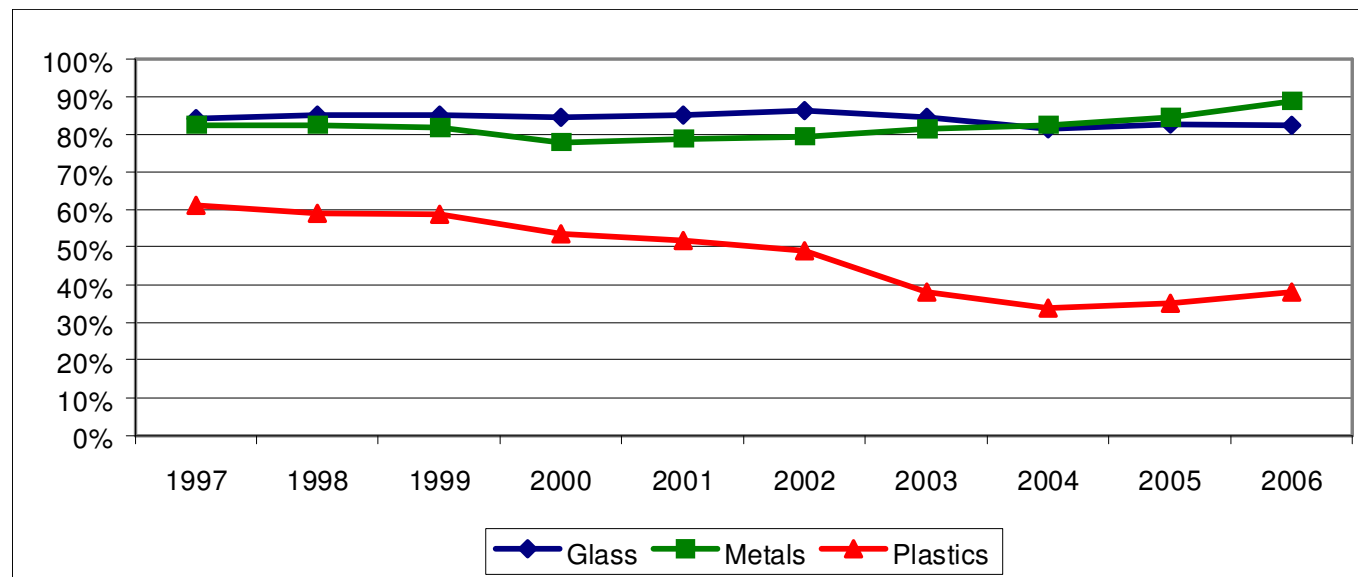
- Mandatory deposits accelerated rather than reversed the decline of refillables in Germany



- EUR 726 million (A\$1.25 billion) initial investment by industry
- Set-up cost A\$15.50 per capita
- Annual costs A\$16.90 per capita
- Cost per container is 3X as much as household-based collection

Lessons for Australia

- Mandatory deposits on top of comprehensive recycling result in duplication, higher costs and marginal impacts on recycling rates



- Duplication could add more to costs than to recycling rates
- Necessary to establish clear boundaries between deposit-bearing and non-deposit-bearing products

French Packaging Take-back Scheme

First Implemented	1992
What it covers	All packaging of which the final consumers are households
Funding source and liability point	<p>Funding source: Producers and importers of packaged goods</p> <p>Liability point: Producers and importers of packaged goods</p> <p>From January 1993, all producers and importers had to contribute to the recovery of packaging waste from households.</p>

French Packaging Take-back Scheme – Drivers

- German Packaging Ordinance meant material demand could not keep pace with collections
 - ✦ once the German Packaging Ordinance was adopted in 1991, DSD began subsidising the collection of packaging waste from households
 - ✦ more material was being collected than German reproprocessors could absorb
 - ✦ surplus material was exported to neighbouring countries
 - ✦ since the collection of this material was subsidised and collection of material in the importing countries was not, reproprocessors lost interest in paying for or arranging collection of packaging waste generated locally
- For Government, the French Household Packaging Decree was devised to prevent existing collection arrangements from collapsing
- French industry was concerned that Germany's high plastics recycling targets would be impossible to meet and that plastic packaging would be forced off the market as a result; they were keen to show that a more realistic adaptation of the German law was possible

Evaluation

- French recovery organisation for household packaging waste, Eco-Emballages, gives financial support to municipalities
 - ✦ for segregated collection and sorting of packaging waste
 - ✦ standard rates of support per tonne collected, with possible additional compensation for long transport distance to recyclers
- Brandowners and importers were responsible only for financing the *additional* costs of moving from a system based on disposal to one based on recovery
 - ✦ very different from Germany, where industry was expected to take on all packaging waste management costs
- Became the basis for most of the Green Dot systems across Europe
 - ✦ considerably cheaper than Germany's Green Dot system
 - ✦ rolled out over time following pilot trials

Recent Developments

- Highly politicised 'Grenelle' process reviewed more than 1000 proposals for improving France's environmental performance
- A framework law implementing the conclusions of the Grenelle was adopted last summer
 - ✦ aims to bring about an increase in the recycling of household packaging waste to 75% in 2012
 - ✦ it will oblige packaging producers to pay a greater share of municipal waste management costs
- Eco-Emballages' fees will rise by an average 25% per year between 2009 and 2012, unless industry can convince the Government it won't be possible to get to 75% until 2015
- The Government wants Eco-Emballages to collect mixed plastics, rather than concentrating on PET and HDPE as now
 - ✦ will mean an additional increase in the plastics fee

UK Packaging System

First Implemented	1997
What it covers	All packaging – commercial, industrial and domestic
Funding source and liability point	<p>Raw material producers (6% share of the recovery/recycling obligation), packaging converters (9%), packer/fillers (37%), and sellers to the final end-user, whether a private household, a business or the public sector (48%).</p> <p>Packaging Recovery Notes (PRNs) and Packaging Export Recovery Notes (PERNs) are the system's funding source and evidence of compliance.</p>

UK Packaging System – Drivers

- Policy driver was the EC Packaging and Packaging Waste Directive of December 1994, which required member states to take measures to ensure that the EU recovery and recycling targets were met
- The UK regulations were designed with the aim of meeting this legal obligation at minimum cost
- The UK system does not distinguish between packaging from households and packaging from commercial and industrial sources
 - ✦ recognised that since packaging from C&I sources can be collected and recycled more cheaply, activity would largely focus on non-household packaging
- UK is aiming for material to be pulled through by the reprocessors instead of encouraging the push-through of material from collectors by supporting the costs of collection and sorting as in conventional European producer responsibility systems for packaging

Evaluation

- While the original objective of low-cost compliance has been achieved, the UK's market-based system has failed to address political and environmental imperatives
- Since 1999 it has cost an estimated GBP 900 million (A\$1.8 bn) in total
 - ✈ ranging from GBP 42 million (A\$84 million) to GBP 141 million (A\$242 million) per year according to market conditions
- Between 2000 and 2007, it has cost French packaging producers over EUR 2.6 billion (A\$4.6 billion) on the household side alone to achieve similar levels of recycling
- While 'administrative systems' like those in France drive recycling forward as far as is practicable, the PRN/PERN mechanism ensures that producers do just enough to meet targets but go no further
- With no direct collection subsidy or Green Dot branding, UK consumers are unaware that industry is providing any funding for recycling

British Columbia's Encorp Pacific Program

First Implemented	First established in March 1994
What it covers	Beverage containers (with a separate milk container program) and Waste Electrical and Electronic Equipment (WEEE)
Funding source and liability point	<p>Funding source: Unredeemed deposits from beverage containers; container recycling fees; revenue from the sale of aluminium and plastic scrap; revenues from service provider contracts.</p> <p>Liability point: For the CDS program, liability rests with the filler/importer that first places eligible drinks on the market; they initiate a deposit, which is charged through to the final consumer and the deposit is redeemed when the container is returned for recycling.</p>

Encorp Pacific – Drivers

- Originally established in March 1994 to help standardise the collection system for used beverage containers under the province's CDS program
- In 2001, began collecting non-refillable alcohol containers as a service provider to the British Columbia Liquor Distribution Branch
- In 2006, began collecting dairy containers as a service provider under a voluntary, industry-led initiative by the British Columbia Dairy Council
- In 2007, began running WEEE collections under contract to the Electronic Stewardship Association of British Columbia



Evaluation

- As of 2007, collected and recycled over 8 billion used beverage containers, and now recycles over 1 billion used beverage containers p.a. (around 243 per capita p.a.).
 - ✦ collected through a network of 170 independent depots, of which around 130 collect milk containers at least 70 collect WEEE items
- Collected and recycled over 86,800 tonnes in 2008
 - ✦ GHG savings of around 138,000 tonnes CO₂-e
 - ✦ an additional 12,000 tonnes CO₂-e savings compared to 2007
- In 2008, had C\$152.4 million (A\$176.8 million) in gross revenues and total reserves of around C\$1.8 million (A\$2.1 million)

Industry Funding Organization (IFO) - Stewardship Ontario

First Implemented	November 2002
What it covers	‘Blue Box’ commingled recyclables & Phase 1 and Phase 2 Municipal Hazardous or Special Waste
Funding source and liability point	Industry stewards designated by Ontario’s Minister of the Environment as being responsible for funding product stewardship/EPR programs for products designated by the Minister



Stewardship Ontario – Drivers

- 1976 Beverage Container Regulations aimed at limiting the development of non-refillables, but this proved impracticable
- 1985 regulations required each type of non-refillable container to meet a target of 50% recycling within three years
- Ontario Multi-Material Recycling Incorporated was founded in 1986 to manage industry's contribution to the world's first kerbside collection system
- Replaced in 1996 by Corporations Supporting Recycling to work with provincial governments to develop recycling
- Waste Diversion Act 2002 (WDA) authorised the Minister of the Environment to develop waste diversion programs for a given “designated waste” in conjunction with an IFO
 - ✈ Blue Box commingled recyclables became the first waste designated under the WDA
 - ✈ since February 2004, Stewardship Ontario has funded half of Ontario's municipal Blue Box collections

Evaluation

- As of December 2008, 1,951 Blue Box stewards were obligated to report as and responsible for over C\$69 million (A\$80 million) in steward fees
- Around 5 million households in Ontario have Blue Box access
- 90% of residents participate in recycling, where available
- Stewardship Ontario has distributed more than C\$229 million (A\$266 million) to municipal recycling programs in Ontario, including C\$51.7 million (A\$60 million) in 2008 alone
- Daily and community newspapers provided an additional C\$7.8 million (A\$9 million) in in-kind advertising to promote recycling of Blue Box materials
- Ontario's Blue Box diversion rate from landfill increased from 53% in 2004 when the program took effect to 63% in 2008
- Provincial target of 60% recovery was exceeded in 2007 and 2008 despite the growth in new products which may be in packaging that is difficult to recycle

Recent Developments

- In October 2009, Ontario Environment Minister calls for 100% industry funding for kerbside recycling (up from 50%)
- In February 2010, Ontario released a Draft Preliminary Revised Blue Box Program Plan:
 - ✦ Expansion of the definition of Printed Paper and Packaging to including printed paper-like and packaging-like products, e.g., aluminium pie plates, compatible with current collection and management systems
 - ✦ Revisions to the methodology for calculating diversion by including additional quantities of residential waste collected through non-municipal systems, e.g. private sector pick-up at multi-residential buildings and charity drives
 - ✦ Measures and related costs associated with achieving a recycling rate of 70% by the end of 2011



Key Regulatory Lessons - Overall

- “Problems” must first be identified/defined
- Program objectives must be clearly articulated
- Collaborative approaches are helpful
- Market intervention must be seen as justified, fair and supportive of competition
- Short implementation times are viable only with stakeholder engagement and consideration of existing or planned systems
- A robust process for establishing fee structures is essential
- Most manufacturers are active in global markets
 - ✈️ strive for consistent standards (whether formal or de facto) that have often been established in Europe
 - ✈️ Australia - little change is likely to occur for some policy objectives such as driving ‘design for environment’
- Industry needs to be proactive internally and externally on harmonisation

Recent Regulatory Developments - Vermont

- Proposed Vermont Extended Producer Responsibility Act 2010 (VEPRA) to replace deposit law
 - ✦ 60% recycling target for packaging and printed material within 5 years of program implementation (i.e. by end 2016)
 - ✦ producers to submit EPR plan, after consultation, by 1/1/2011
 - ✦ plan to be operational 12 months after being approved
 - ✦ Secretary of Natural Resources empowered to authorise producer responsibility organisation(s) to charge fees to pay program costs, cover deficits from previous years and maintain appropriate reserves
- Sale or use of designated materials to be restricted or banned unless producer is part of an approved EPR program
- Local government to adopt mandatory recycling requirements for designated waste and to introduce pay-as-you-throw
- Producers to pay all operating and admin costs

Producer Responsibility Regulations - Canada

- EPR Action Plan & Packaging Strategy adopted last October
 - ✦ Coordinated provincial and federal initiative through Canadian Council on Ministers of Environment (CCME)
- Action Plan commits all jurisdictions to work towards having EPR legislation & systems for packaging etc within 6 years
 - ✦ EPR requirements should encourage take-back initiatives, with or without deposits
 - ✦ territories will consider whether alternative measures more appropriate
- Builds on Action Plan for EPR by outlining a harmonised approach to EPR requirements for packaging (household, C&I and service packaging)

Producer Responsibility Regulations – Canada

- Strategy recommends weight-based material-specific and overall province/territory targets for
 - ✦ % of packaging collected through the EPR programme
 - ✦ % of packaging diverted into reuse, recycling or composting
- Jurisdictions encouraged to set targets for other KPIs, e.g.
 - ✦ % weight of packaging materials put onto the market relative to sales of packaged products
 - ✦ % of packaging material that is recycled content
 - ✦ % of packaging material that is recyclable
 - ✦ % of packaging material that is compostable
 - ✦ average relationship between weight or volume of a product & the weight of its packaging
 - ✦ total amount of GhG emissions avoided through EPR

Producer Responsibility Regulations – South Africa

- National Environmental Management: Waste Act (March 2009) requires Industry Waste Plans to be drawn up for designated materials, within the overall framework of the National Waste Management Strategy just published in draft
- If no consensus within a realistic timeframe, the Department of Environmental Affairs will write its own standards and promulgate them as regulations
- The draft national strategy says that standards will be drawn up on product design, 'informed by international best practice'
- The Packaging Council of South Africa has been asked to draw up a producer responsibility plan for packaging & paper

Producer Responsibility Regulations – Israel

- Mandatory deposit on beverage containers less than 1.5 litres
- Government proposed to extend the deposit to larger bottles, but was persuaded by industry to
 - ✦ accept a voluntary agreement to collect 50% of family-size bottles by 2013, and to
 - ✦ introduce a producer responsibility law for all packaging
- Amended deposit law (tightening up requirements for retailers to take back empties) adopted in February
- Environment Ministry working on a draft Packaging and Packaging Waste Law, based loosely on European models

Conclusions - 1

- No one product stewardship or EPR approach can be simply copied and introduced into Australia for any given product
- Program drivers, political & legal factors that have influenced program evolution overseas can vary significantly from those in Australia
- Things are moving very rapidly
- The US tends to see beverage container deposits and EPR as an either/or, but they might get both:
 - ✈ in Europe, EPR systems were built around existing deposit laws rather than replacing them, and now there are moves to superimpose deposits onto EPR systems in some countries, to deal with litter and containers consumed away-from-home
 - ✈ in North America, the assumption seems to be that under EPR, industry will take on the full cost of packaging waste management, rather than sharing cost with local government

Conclusions - 2

- There is more printed paper in household waste than packaging, and printed paper is eminently recyclable
- However, in Europe the publishing industry has had a free ride on the back of the packaging sector
- Vermont and South Africa are treating packaging and non-packaging paper as the same waste stream – which may create difficulties
- For the packaging sector, it would be better for the legislators to address printed paper first, and then move on to packaging as a second stage, but that won't happen as:
 - ✦ politicians and NGOs see packaging as the main problem
 - ✦ the beverage sector is keen to see packaging addressed properly in order to get rid of deposits

Conclusions - 3

- A variety of legislative initiatives overseas threaten to produce a patchwork of competing, expensive programs
- Individual producers are being held more accountable
- US starting to focus more on local government costs to recycle non-hazardous materials, especially packaging
- There is a danger that the US, Canada and other countries could come up with features the packaging supply chain would strongly oppose, and that these ideas could come back to influence other policymakers thus leading to even more diverse, onerous requirements and higher costs
- Packaging managers in international companies need to be aware
- What is needed is a coherent policy on this issue from the entire packaging supply chain, globally



Moving Forward – Global Product Stewardship Council

- Independent, non-profit incorporated association dedicated to understanding and advancing the principles of product stewardship
- Aims:
 - recognition for excellence in independence and contribution to the development of product stewardship
 - transparent and accountable basis for raising of funds for research to investigate and develop product stewardship schemes in an objective manner
 - facilitation of product stewardship scheme development
 - linkage to other relevant organisations (European, Canadian and American product stewardship programs, for example)
- Promote *Product Stewardship Principles and Actions*

Moving Forward – Global Product Stewardship Council

- Functions:
 - an independent forum for product stewardship development
 - web-based clearinghouse for the dissemination of information and research on product stewardship on a free or at-cost basis
 - international linkages to advance product stewardship
 - research on product stewardship as endorsed by the Council's Executive Committee
- Current activities include:
 - development of an international summit on product stewardship
 - establishing a global networks of experts
 - building a database and library on quality research and reports
 - establishing a range of potential member services

<http://www.productstewardshipcouncil.net/>

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