EPR for Packaging in Germany – Der Grüne Punkt

Green Dot Norway Conference
November 22, 2017,
Oslo
Mega Trends increase relevance of Packaging Recycling everywhere!

- Global Warming 2°C (Paris Conference 2015)
- More plastic than fish in the oceans (Ellen MacArthur Foundation 2016)
- Climate change
- Environmental pollution
- Decreasing natural resources
- Population increase
- World exhaustion day 2017: 2. August
- World population > 9,6 billion by 2050
Der Grüne Punkt – Duales System Deutschland GmbH

- First Producer Responsibility Organization for packaging
- From Monopoly to competition - market leader among Packaging Recovery Systems in Germany
- Full-cost, full control of collection, sorting, recycling of household packaging

➢ How did we get here?
Der Grüne Punkt – Duales System Deutschland GmbH (DSD)

Der Grüne Punkt – Duales System Deutschland GmbH since 1990 actively contributes to the protection of the environment and climate, and represents proven environmentally beneficial packaging recycling.

Der Grüne Punkt provides international companies with high quality secondary raw materials. In addition to managing circular economy activities, the company also takes over logistics and processing.

Successful transformation from a monopoly to a competitive, customer oriented and diversified market mover.

- **1990**: Founding of Grüner Punkt by producers and retailers – implementation of a full-cost single scheme.
- **2001**: Market opening for competition.
- **since 2005**: Changing into for profit company.
- **since 2006**: Competing national systems.
- **DSD today**: Market leader among dual systems.

Since 1990, Der Grüne Punkt actively contributes to the protection of the environment and climate, and represents proven environmentally beneficial packaging recycling. Der Grüne Punkt provides international companies with high quality secondary raw materials. In addition to managing circular economy activities, the company also takes over logistics and processing.

Successful transformation from a monopoly to a competitive, customer oriented and diversified market mover.

Der Grüne Punkt – Duales System Deutschland GmbH (DSD)
The German Packaging Legislation

- **1991** – first Packaging Ordinance: Legal framework set by Federal Government for Extended Producer Responsibility for Packaging
- Packaging waste to be managed in a **separate stream** from household waste („Dual“ System)
- **Obligation** of packaging producers/fillers to ensure take-back and recovery of their packaging (e.g. through compliance scheme)
- Industry has **100 % responsibility and control of costs**!
- **Minimum requirements** for compliance schemes: coverage, communication, coordination with local authorities, documentation and verification
- **Recycling/recovery targets** by material

Principle: Obliged producers responsible for setting up and organizing the system, as a collective effort, „self-policing“
Who is responsible for waste?

Dual Systems: 100 % Cost and Control for household packaging
The Principle of EPR
Compliance Schemes as Central Coordinator for Packaging Recycling

**Obliged Producers/bottlers**
- **Register** their packaging with a compliance scheme
- **Pay** by material and tonnage

**Consumers**
- **Pay** for recycling via internalized cost of product
- **Sort** their packaging (>90%!) 
- **Save** fees for residual waste in PAYT scheme

**Waste management**
- Collects packaging based on tenders
- Sorts packaging based on tenders
- **Recycle/recover materials** as demanded by Compliance Schemes
The Role of the Municipalities in Packaging Recycling in Germany

- Packaging waste to be managed in a separate stream from household waste („Dual“ System)

- Industry has 100 % responsibility and control of costs!

- Compliance Schemes must agree with municipalities on
  - Collection system (yellow bag, yellow bin, container sites) -> harmonization is essential!
  - Payment for container sites (rent, cleaning)
  - Payment for consumer information on packaging recycling

- Municipal waste management companies can compete with private companies on
  - Tender for collection of glass and lightweight packaging
  - Tender for sorting of lightweight packaging
The new German Packaging Act

Key regulations of the Packaging Act

› Foundation of a Central Packaging Registry to fight freeriding and cheating

› Obligation to register for manufacturers and producers of packages

› Increase of recycling targets for all materials

› Monetary incentives for ecological packaging in accordance with their recycling capability

› Going into effect on 1 January 2019!
The new Packaging Act:
Organization of a Central Registry by Industry

Ensuring fair competition!

<table>
<thead>
<tr>
<th>BOARD OF TRUSTEES</th>
<th>MANAGING BOARD</th>
<th>ADMINISTRATIVE BOARD</th>
<th>ADVISORY BOARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defines principles of business policies, and appoints and discharges the Managing Board</td>
<td>Conducts business operations, and represents these both in and out of court</td>
<td>Advises the Board of Trustees and the Managing Board</td>
<td>Autonomous formulation of recommendations on improving the collection, sorting and recovery of waste containing recyclable materials</td>
</tr>
</tbody>
</table>

› **Sponsors:** Producers (i.e. fillers) and distributors of not-yet-filled sales or secondary packages

› **Financing:** Dual Systems + operators of sectoral solutions

› **All stakeholders represented** in one of the 4 pillars
Recycling rates of sales packaging

Comparison 1991 – 2016* in Germany

<table>
<thead>
<tr>
<th>Material</th>
<th>1991</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass</td>
<td>85.6%</td>
<td>85.6%</td>
</tr>
<tr>
<td>Paper/Cardboard</td>
<td>53.7%</td>
<td>81.1%</td>
</tr>
<tr>
<td>Tinplate</td>
<td>33.8%</td>
<td>92.9%</td>
</tr>
<tr>
<td>Aluminum</td>
<td>5.1%</td>
<td>88.0%</td>
</tr>
<tr>
<td>Beverage Cartons</td>
<td>n.A.</td>
<td>77.6%</td>
</tr>
<tr>
<td>Plastics</td>
<td>3.1%</td>
<td>53.0%</td>
</tr>
<tr>
<td>Packaging in total</td>
<td>37.7%</td>
<td>76.2%</td>
</tr>
</tbody>
</table>

*refers to household packaging incl. deposit

Source: GVM, Recycling-Bilanz für Verpackungen, Berichtsjahr 2016, October 2017; s. Table 2.2
# The new Packaging Act: Increase of recycling targets

Higher recycling targets for all materials!  
Target for plastics will increase from 36% to 63%!

<table>
<thead>
<tr>
<th>Material</th>
<th>Target Packaging Ordinance</th>
<th>Target 1 Jan. 2019</th>
<th>Target 1 Jan. 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass</td>
<td>75 %</td>
<td>80%</td>
<td>90%</td>
</tr>
<tr>
<td>Paper, board and cartons</td>
<td>70 %</td>
<td>85%</td>
<td>90%</td>
</tr>
<tr>
<td>Ferrous metals</td>
<td>70 %</td>
<td>80%</td>
<td>90%</td>
</tr>
<tr>
<td>Aluminum</td>
<td>60 %</td>
<td>80%</td>
<td>90%</td>
</tr>
<tr>
<td>Beverage carton packages</td>
<td>60 %</td>
<td>75%</td>
<td>80%</td>
</tr>
<tr>
<td>Other composites</td>
<td>55%</td>
<td>70%</td>
<td></td>
</tr>
<tr>
<td>Plastics</td>
<td>60 %</td>
<td>90%</td>
<td>90%</td>
</tr>
<tr>
<td>Mechanical recycling (plastic)</td>
<td>36 %</td>
<td>58,5%</td>
<td>63%</td>
</tr>
</tbody>
</table>

Review additional increase in the material-specific recovery targets *within 3 years after 1 Jan. 2022*

Targets are already being achieved today.
The new Packaging Act: Outlook for plastic packaging in Germany

Recycled volume of plastic packaging in accordance with min. legal targets in kto

Status quo 2016: 288 kto (36%)
Scenario 2019: 526.5 kto (58.5%)
Scenario 2022: 756 kto (63%)

- Consumption of plastic packaging increases by 2-3 % in Germany/year
- Central Packaging Registry will reduce free-riding
- Recycling targets are set against the licenced packaging – higher targets will significantly increase the amount of plastics recycling in Germany

Source: GVM, ATK, Estimate DSD
Summary

Which lessons can be learned from EPR in Germany?

› All parts of the **packaging value chain** – producers, fillers, retailers, consumers, collectors, sorters, recyclers, municipalities and EPR schemes – must do their part to increase and improve recycling
› **Cost responsibility and control by industry** has made the system efficient and professional
› **Competition** has reduced cost and improved service
› **Legislation** has not been adjusted to new competitive landscape – Problems!
› Competition requires more **supervision** – Central Packaging Registry will improve the situation
› Higher **recycling targets** will require harmonization of collection, new sorting technology, and innovative recycling – in Germany and Europe!
BACKUP
The new Packaging Act: Incentives for environment-friendly packages

Ecologically based participation fees (§ 21)

→ Growing importance of recycling capability as well as use of recyclates for obliged producers of packages

→ Establishment of minimum standards for quantifying recyclability

› Dual systems have to create incentives: for using recyclates and renewable raw materials

› Medium-term: participation fees to be fixed in accordance with ecological criteria

› Dual systems have to report proportion of participating packages that have been sent for high-quality recycling to the "Central Registry" and to the German Federal Environmental Agency

› DSD is preparing for this by e.g. offering a certification of recyclability
Certified Recyclability: How effectively does packaging get recycled in Germany?

DSD is the exclusive PRO partner of the „Institut cyclos-HTP for Recyclability and Product Responsibility

Recyclability of packaging (i.a.)
› Evaluation of packaging on the basis of objective and transparent standards
› Behavior in the automatic sorting process, Sortability, Recyclability, Non-separable components
› Standard also available for Austria, France, Belgium, etc.

Result: How much of the original packaging can be returned to the material cycle?
New Packaging Act preserves principle of competition among EPR schemes

› Competition between EPR schemes in Germany has brought **benefits** for industry
  » Lower prices
  » Better service
  » Increasing performance

› It has also created **challenges** in the market
  » Unfair competition
  » Less investment in communication

› The discussion on whether competition or „monopolies“ are the **best solution for EPR** for packaging is complex

› To add transparency and better understanding in this topic, Der Grüne Punkt, together with Green Dot schemes from France, UK, Poland, Austria, Ireland and Portugal (together >50 % of EU population and GDP) has commissioned a **study from Deloitte Sustainability on „EPR and Competition“**
Deloitte Study: “Extended Producer Responsibility and Competition”

Background: Debate on EPR

**Consensus on effectiveness of EPR**

leads to increased political importance

Circular Economy Package (2015):
Proposal to introduce *minimum operating conditions* for Extended Producer Responsibility


**Dissent about implementation of EPR**

results in a large variety of schemes across Europe

„No single EPR model emerges as the best performing and the most cost-effective“

*bio by Deloitte 2014:
Development of Guidance on Extended Producer Responsibility (EPR)*
Study: Approach and objectives

**Approach:** Analyse consistencies of different EPR models; focus on collective EPR schemes (presence of PROs) for packaging

**Database:** theoretical analysis, practical examples from AT, FR, DE and IR

**Analysis parameters:**
- **Scope:** operational or financial obligation
- **Coordination:** type of compensation mechanism
- **Control:** price regulation, shareholding, monitoring of performances, sanctions, anti-trust
- **Incentive schemes:** for-profit/not-for-profit, competition/single scheme

**Key question:**
Under which conditions is it more beneficial to implement a competitive or a single-scheme solution for EPR systems?
There are two equally consistent organisational types of EPR:

» “operational – competition” model:
  - enables “market oriented” self regulation, incentivises cost-efficiency and fee reduction
  - requires monitoring, control, coordination and/or compensation mechanisms

» “financial – single scheme” model:
  - enables exploitation of economies of scale, reduces cost of regulatory oversight
  - requires control by producers, rules to ensure adequate level of cost coverage

Policy Recommendations

› National level: both models need a clear legal and regulatory framework to work effectively and efficiently

› EU level: retain enough flexibility in EU rules to accommodate particularities of local organisational and legal frameworks (⇒ EPR minimum requirements)
Governance

- **Full-cost** system, i.e. 100 % cost and control over collection, sorting, recycling
- DSD is **independent from waste management companies** – business focused on preserving and advancing EPR in the interest of industry and retail
- Change of shareholder structure in 2004 – pressure from **anti-trust authority**
- **Obligated industry**, material producers and retailers **no longer allowed** to be shareholders
- Turn from **non-profit**, member owned company to **privately held, for-profit business**
- DSD still is **market leader** with close ties to customers, but industry no longer has direct „vote“ on business decisions
- **Competition**: Industry can choose among 10 service providers, and has at least as much „control“ over the system performance than during the monopoly era
## Variety of situations exemplified by four countries

<table>
<thead>
<tr>
<th></th>
<th>Austria</th>
<th>France</th>
<th>Germany</th>
<th>Ireland</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size of the market</strong></td>
<td>1.3Mt</td>
<td>4.7Mt</td>
<td>8.2Mt</td>
<td>0.98Mt</td>
</tr>
<tr>
<td><strong>Scope of EPR scheme</strong></td>
<td>Household and industrial and commercial packaging</td>
<td>Household packaging</td>
<td>Household packaging except packaging under deposit system</td>
<td>Household and industrial and commercial packaging</td>
</tr>
<tr>
<td><strong>Legal target for recycling</strong></td>
<td>(47%)(^9)</td>
<td>75% by 2022</td>
<td>Aver. 85 % by 2022(^{10})</td>
<td>55%</td>
</tr>
<tr>
<td><em>Plastics</em></td>
<td>22,5%</td>
<td>N/A</td>
<td>63% by 2022</td>
<td>22,5%</td>
</tr>
<tr>
<td><em>Plastics</em></td>
<td>33.6%</td>
<td>25%</td>
<td>42%</td>
<td>34%</td>
</tr>
</tbody>
</table>