Bundeskartellamt

Sector Inquiry

Compliance Schemes

Interim Assessment of the Opening to Competition of Compliance Schemes

Report in accordance with Sec. 32e of the GWB - December 2012

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Sector Inquiry Compliance Schemes

Interim Assessment of the Opening to Competition of Compliance Schemes

Final Report

December 2012

Sector Inquiry Compliance Schemes
Report in accordance with Sec. 32e (3) of the GWB
File no. B4 - 62/12
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Summary

The economic sector of “compliance schemes” has been characterised by serious competitive restrictions until some years ago. The Duales System Deutschland (DSD) has been the only compliance scheme in Germany from its foundation in 1990 until the year 2003. Beginning with the year 2000, the competitive conditions have been improved gradually thanks to numerous steps taken by the competition authorities and due to legislative measures. This resulted in the market entry of nine competitors of DSD, whose market share fell until the year 2011 to 44 %. This competition among the compliance scheme is supported mainly by the fact that the collection of packaging was decoupled from its sorting and recovery, and that the relevant compliance scheme which bears the main responsibility of the arising cost organises calls for tenders for collection services in their area.

The opening up of this sector to competition resulted in a massive reduction of the disposal costs. The costs for collecting packaging near the households and for their recovery which are ultimately borne by the consumer through the product prices, fell from formerly approx. DEM 4 billion (or approx. EUR 2 billion) to less than EUR 1 billion. This cost reduction stands for savings of at least EUR 50 per year for one family.

The negative consequences which had been anticipated from opening this sector up to competition, did, however, not occur. The collection of waste in yellow bins and glass containers is still working reliably, no “ruinous competition” occurred. Likewise, recycling quotas have not fallen, but the opening up to competition rather resulted in a boost in innovation as regards the sorting technologies necessary for the mix of materials collected in the yellow bin. This modern separation technology is not only accompanied by cost cutting, but also creates the preconditions for another increase in high-value recycling, since its separation performance is higher.

Municipal disposal companies and even some parts of the private disposal industry increasingly ask for an elimination of this competition between the compliance schemes. But, transferring the responsibility for awarding the contracts for these disposal services to one “central body” or to the municipalities would, generally, mean a return to former DSD times. Consequences would be higher disposal costs for the consumer and a loss of innovations.

The opening of this market to competition should, instead, be continued consequently. This Sector Inquiry will identify some of the remaining competitive restrictions which

should be decreased in the future. Significant potential for rationalisation, both in terms of economic and ecological aspects is still available regarding the structure of the collection systems. But, an improvement of the collection systems is impaired by the fact that the compliance schemes need to coordinate their activities with the public bodies responsible for waste management (örE). Insofar as compliance schemes continue communitarising individual cost blocks, inefficient structures might continue to exist in so-called ancillary fees and recycling bins under municipal scheme management. Competitive restrictions are also caused by disposal companies which couple the collection of waste paper performed on behalf of the compliance schemes with the request for being engaged with their recovery as well. The Bundeskartellamt will continue pursuing the aim of gradually eliminating any competitive restrictions which still exist.

1 Introduction

1.1 Objectives and Contents of the Sector Inquiry

As defined in Sec. 32e of the GWB, a Sector Inquiry is not directed against individual companies, but is performed to inquire and analyse the competitive and market conditions on the affected market, as a whole.

The sector of "compliance schemes" (systems according to Sec. 6 of the Packaging Ordinance) has been characterised by serious competitive restrictions until some years ago. The competitive conditions were gradually improved by numerous steps taken by the competition authorities and due to legislative measures. Even though the prices of compliance schemes fell strongly thanks to this step, the process of opening up the sector to competition has, in the opinion of the Bundeskartellamt, not been fully completed yet.

Objective of the Sector Inquiry or of this Final Report is to make an interim assessment of the opening up of this sector to competition and to determine its consequences as well as to identify and assess any competitive restrictions which are still in place.

To facilitate the understanding of this Report, section 2 will initially explain the functioning of the compliance scheme and introduce the most important technical terms. The evaluation part (in section 3) will not provide an evaluation of the Packaging Ordinance or assess its ecological efficiency.[1] It rather focusses on the effects which arose when the sector of "compliance schemes" was opened up to competition. For this purpose, data have been obtained from all compliance schemes over a period of 19 years.

Over the past years, the Bundeskartellamt has been dealing permanently with issues under competition laws in the field of "compliance schemes". It often receives requests or complaints from different bodies on issues relevant in the practice. Since the affected companies stopped any conduct reproached by the Bundeskartellamt normally

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1 The data published herein might, naturally, also be used for such purposes.

without any formal procedural steps, the Bundeskartellamt only issued few decisions lately. Section 4 of the report thus provides a comprehensive explanation on the overall concept under competition laws applicable to this sector.

Finally, any still existing shortcomings regarding competition will be dealt with in section 5. It will identify any starting points for potential future procedures and any practical changes which might result therefrom. And, it contains some recommendations for decreasing legal restrictions on competition.

The publication of this Final Report should also contribute to increasing the transparency of this sector. Some of the relevant players criticise the sector by saying that it was non-transparent, too complex and bureaucratic. This argument is sometimes even used to demand an abolishment of the yellow bin, the compliance schemes or the Packaging Ordinance. The Bundeskartellamt considers that this criticism is not only the result of the interests of the different players, but partly also of information deficits. This report publishes comprehensive and reliable data and background information which might contribute to basing this discussion on more facts.

1.2 Course of the Sector Inquiry

The 4th Beschlussabteilung (Decision-Making Department) of the Bundeskartellamt initiated the Sector Inquiry Compliance Schemes in July 2012 pursuant to Sec. 32e of the GWB.

In the formal decision requesting information dated 26 July 2012, the individual compliance schemes were obliged to provide information on their licence quantities, revenue, collected quantities and recovery quantities for the period from 1993 to 2011; and, to provide cost data and data on the five regions in which recycling bins are under municipal scheme management for the year 2011. No recourse has been filed against these formal decisions requesting information, all companies fully provided the information they had been asked to give. The Bundeskartellamt subjected the collected data to several reviews for consistency and compared them with findings from other procedures. A large part of the aggregated data is shown in the tables attached hereto as Annex 1.

In addition, the ten scheme operators, three associations of disposal companies (BDE, bvse, VKU) and four associations of distributors (AGVU, BVE, HDE, Markenverband) had

been asked to provide statements on qualitative aspects.[2] All scheme operators and associations made use of their option to provide statements. No unsolicited statements have been received. The set of questions is documented in Annex 2.

The Gemeinsame Stelle dualer System Deutschlands GmbH was asked to submit versions of the tender agreement, the quantity take-off agreement and the ancillary fee clearing agreement of the compliance schemes which are intended for publication. These agreements are published as Annex 4 hereof.

Findings and data from the application of competition law over the past years have been used beyond the information obtained in the context of the Sector Inquiry. They are identified as such in this report.

2 Functioning of the Compliance Scheme

2.1 Requirements in the Packaging Ordinance

The German *Verordnung über die Vermeidung und Verwertung von Verpackungs-abfällen* (Ordinance on the Avoidance and Recovery of Packaging Waste) (VerpackV or Packaging Ordinance) defines different performance features of a "scheme" as defined in Sec. 6 (3) of the VerpackV. The terms "compliance scheme" or "scheme operator" which are used as synonyms prevailed in the practice and will also be used in this report. Furthermore, a differentiation is made between one compliance scheme and the compliance scheme: while one compliance scheme designates a scheme operator, the compliance scheme means the overall system of taking back and recovering packaging near the households which consists in an interaction between the individual scheme operators and the disposal companies engaged by them (cf. also Sec. 6 (3) sentence 3 of the VerpackV).[3]

For any company to become active as a compliance scheme, it initially needs to undergo an approval procedure for each individual German federal state. The competent waste authority (normally the ministry for the environment or the environmental office of the relevant German federal state) will determine, on

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[2] See the List of Abbreviations (page 93) for full names of the companies and associations.

[3] This differentiation was irrelevant at the times when the DSD held the monopoly. The term "the compliance scheme" has then often been used as the name for the company DSD. In the German language, the compliance scheme has been called "dual system" since its introduction in 1991, because it had been established besides or in addition to the municipal disposal of household waste.

application by the scheme operator, whether a compliance scheme has been set up on a full-coverage basis (so-called assessment decision, Sec. 6 (5) sentence 1 of the VerpackV). In the practice, the competent authorities of the German federal states will primarily verify in this procedure whether the applicant is able to prove that they have concluded contracts on the collection of packaging waste near the household for the entire territory of the federal state (collection contracts) and have obtained written statements of coordination in relation to the collection systems (e.g. removal intervals) with the individual public bodies responsible for waste management (Sec. 6 (4) of the VerpackV). It took the first competitors to the DSD several years to obtain the approval for the entire territory of the Federal Republic of Germany, compliance schemes which were set up later needed a period of approx. twelve months (cf. section 3.2). The start-up costs associated with this approval process have fallen significantly in the past years.

During their operation, scheme operators must not only ensure the collection, free of charge, on a full-coverage basis, but also ensure, in particular, compliance with the recycling quotas and provide evidence of such to the waste management authorities of the federal state in form of a so-called quantity record (Annex I no. 3 (3) of the VerpackV). The recycling quotas will be calculated as a nationwide quotient of the quantities of used packaging recovered by the scheme operator (or on their behalf) and the packaging quantities placed on the market by the customers of the relevant scheme operator. The following quotas apply to material recycling: glass 75 %, tinplate 70 %, aluminium 60 %, paper and cardboard 70 %, composites 60 %. A mechanical recycling quota of 36 % applies to plastics and a total recovery quota of 60 % (Annex I no. 1 (2) of the VerpackV).[4]

The economic basis for the activity of a compliance scheme is set forth in Sec. 6 (1) of the VerpackV. It provides that manufacturers and distributors who put sales packaging filled with product into circulation for the first time (so-called distributors) shall “take part” in one or several compliance schemes, unless they take back the packaging quantities themselves. To “take part” means to engage them with the take-back and recovery of the packaging quantities on a full-coverage basis against a fee.

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[4] For an explanation of the terms used under waste laws, see the definition of the term “Recovery“ in the Glossary.

Such engagement is done by concluding an agreement which is typically called “License Agreement“[5] or “Participation Agreement”. The quantities for which the agreements are concluded are therefore called “licence quantities” or “participation quantities". The distributor who is obliged under Sec. 6 (1) of the VerpackV is the manufacturer (filler / packer) or the importer, for “retail brands”, it is normally the seller, in deviation from the above[6]. Accordingly, major retail groups are the biggest customers of the compliance schemes.

2.2 Organisational and Technical Processes

The organisational and competitive specifics of the sector when compared to other industries is that the collection of packaging waste constitutes a bottleneck factor for the individual compliance schemes due to the obligation to perform it on a full-coverage basis (cf. section 4.1). Therefore, collection is organised by the compliance schemes individually, but jointly among them. Important organisational conditions and details are provided for in a total of four agreements concluded between the scheme operators. These agreements have been prepared historically after DSD’s competitors entered the market and have successively been amended or expanded. Individual regulations are based on requirements under competitive laws (cf. also section 4). These agreements are made available to the public for the first time as Annexes to this report (Annex 4: tender agreement, quantity take-off agreements, ancillary fee clearing agreement).

Packaging waste undergoes the three process steps of collection, sorting / processing and recovery. Initially, used sales packaging is collected near the households (“collected”) by disposal companies on behalf of compliance schemes.

Such collection systems have different features which are agreed in coordination with the local public bodies responsible for waste management (örE). Germany has,

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5 The term "License Agreement” has been chosen for historical reasons. Under the original participation agreements, DSD made the granting of a license to use the sign “Der Grüne Punkt” dependent on the condition to participate in their compliance scheme in an agreement. These agreements have been called Licence Agreements.

6 A distributor is deemed an obligated person putting packaging in circulation for the first time, if they are indicated exclusively as filler / manufacturer on the packaging and hold the trademark right. Cf. *Mitteilung* (notification) by the Bund/Länder-Arbeitsgemeinschaft Abfall (Waste Work Group of the Federal Government / Federal States - LAGA) 37 (“M37”) version of December 2009 / March 2012, page 7.

currently, more than 400 collection areas whose borders correspond mainly with those of the areas of responsibility of the örE (cf. Annex 2 of the tender agreement). In the most common collection systems, sales packaging is collected in three separate containers: glass in glass containers (drop-off system [7]), paper and cardboard (P&B) in a "blue bin" or in paper containers and lightweight packaging[8] (LWP) in a "yellow bin" or in "yellow bags" (kerbside system). The most important fraction from an economic point of view is LWP which accounts for approx. 80 % of the costs or revenue of the compliance systems. The fractions of glass and P&B account each for approx. 10 % of the costs or revenue.

The collection of the fractions of LWP and glass is subject to an annual call for tenders in approx. one third of the territories and contracts are awarded for a period of three years. The tender agreement provides that one of the compliance systems will be responsible for organising the collection in each area (so-called "tender organisation management"). The tender organisation management will be raffled separately for the material groups of LWP and glass. Each participating scheme operator will be given the tender organisation management for one part of the raffled territories which roughly corresponds to their licence quantity share. The organisational responsibility of the tender organisation manager ranges from coordinating the specifications of the collection system with the örE, the preparation of the tender documents, the obtaining of bids for a joint tender platform, the award of the contract, the supervision of the implementation of the collection contract by the partner and they are responsible for correcting any problems which might arise during the three-year term of the contract. The organisational responsibility is combined with the so-called "main cost responsibility". The tender organisation manager shall bear a minimum of 50 % of the collection costs in the affected territory (Art. 5 of the tender agreement). The other compliance schemes ("tender participants") will engage the collection company selected by the tender organisation manager in each area on a pro-rated basis (typically referred to as "joint-use agreements"). Since these parallel collection contracts are based, in each territory, on the same specification of the collection system, the scope of

[7] "Kerbside system" means that the waste is collected from the private end consumer; "drop-off system" means that the waste is collected in the vicinity of their home (Annex I no. 2 (1) of the VerpackV).

[8] The fraction of lightweight packaging is called "lightweight", since the bulk density (weight per volume) is relatively low for the collection in yellow bins / yellow bags.

services agreed upon is mostly identical. Deviations exist as regards the transport service (e.g. other transfer point for the collected waste) and regarding the bilaterally agreed conditions. The individual share of engagement of each scheme operator depends on the licence quantity shares which are determined on a quarterly basis (Articles 5, 6 of the tender agreement).

The collection of the P&B fraction has, so far, not been tendered by the compliance schemes (Art. 1 (8) of the tender agreement). Packaging waste made of paper is collected together with other waste paper and typically accounts for a quantity share of approx. 15 - 20 % of the collections organised by the relevant örE (or in some territories also by a private disposal company). The individual compliance schemes engage the operating collection companies selected by the örE, individually and on a pro-rated basis (also referred to as "joint use agreements"), where the latter are either municipal or private companies. The shares of engagement depend, once again, on the respective licence quantity shares.

The collection contracts provide that the fractions of LWP and glass must, as a standard, be transported to a transfer point. The collected mixture will be unloaded there from the collection vehicle and loaded to larger containers for further transport. The collected quantities will also be distributed to the individual compliance schemes: the collected quantities will be handed over to the individual compliance schemes on a pro-rata basis according to the relevant licence quantities (cf. Art. 11 of the tender agreement, Art. 1 (2) of the quantity take-off agreement for LWP / glass). In deviation from the transfer provided for as a standard, individual compliance schemes may agree with the collection company to make direct deliveries of their quantity share to any sorting plant.[9]

Each compliance scheme individually organises the sorting / treatment and recovery of the waste they collected. Specialised sorting or processing plants are in place for each of the three fractions which are being collected.[10] Thanks to advanced plant engineering, these systems have, in the meantime, achieved a high degree of automation, manual sorting only plays a very tangential role. For the fractions of LWP

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9 That is sensible from an economic point of view, if the affected compliance scheme engages a plant located in the vicinity for sorting.

10 For an overview of the sorting and treatment plants in Germany and the recovery channels specific to the material group, see: Arbeitsgemeinschaft Verpackung + Umwelt e.V., Vom Abfall zum Wertstoffreservoir - Verpackungen im Wandel (From Waste to Material Reservoir - Packaging in a Changing World), May 2012. Available at www.agvu.de

and P&B, the processing step after the collection is called “sorting”, for waste glass, it is normally called “processing”. The waste glass sorted or processed in glass processing plants, is subsequently used for glass production. Likewise, P&B is used in paper production after sorting. The recovery steps for LWP are more complex. The collected mix of LWP will be separated in LWP sorting plants into more than 10 material fractions: several types of plastic (PP, PE, PET, PS), metals (aluminium, tinplate), packages for liquids, P&B and sorting residues. Different material recycling processes are available for the individually sorted fractions, more processing steps are partly necessary, depending on the fraction concerned. Sorting residues from LWP are energetically recycled (i.e. incinerated).

2.3 Contractual Relations of a Compliance Scheme

The above explanations show that the operation of a compliance scheme comprises mainly the coordination of a series of disposal services. The compliance schemes which are active throughout Germany conclude a high number of contracts with the individual service providers for the great number of disposal services which are necessary. While the collection contracts are largely standardised, a great number of different contracts has been developed for sorting and recovery which reflect the different strategic orientations of the compliance schemes. The DSD, for instance, started in 2009 to no longer award the contracts for LWP sorting according to collection territories, but based on fixed sorting quantities (“decoupling from allocated areas”). Some compliance schemes award contracts for sorting and recovery as separate services (so-called “job-order sorting”), other schemes ask companies to provide sorting and recovery as a complete service. Differences exist also e.g. regarding the agreed minimum results of the sorting (“application rate”).

Five of the compliance schemes are referred to as “vertically integrated” compliance schemes. The schemes are owned by operating disposal groups.[11] They perform one part of the processing, sorting and recovery services in their group or through affiliated

[11] These are: Eko-Punkt (Remondis/Rethmann), Interseroh (Alba), Veolia, BellandVision (Sita/Suez/GDF), Zentek (Stratmann/Nehlsen/Becker).

companies. The other schemes operators - which are not vertically integrated -all engage third parties with the operating disposal services.

The typical contractual structure of a compliance scheme is shown in Figure 1 at the example of waste glass:

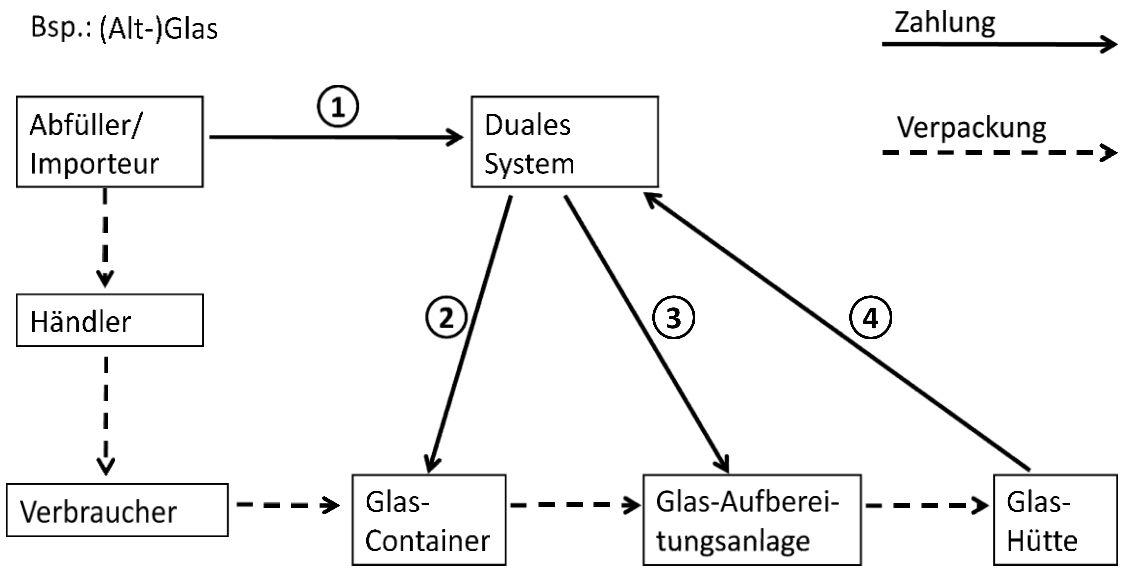

Figure 1: Contractual structure of a compliance scheme at the example of waste glass

Source: own research

Abfüller/Importeur	Filler / importer
Duales System	Compliance Scheme
Händler	Trader
Verbraucher	Consumer
Glas Container	Glass container
Glas-Aufbereitungsanlage	Glass processing plant
Glas-Hütte	Glass factory
Zahlung	Payment
Verpackung	Packaging

CD License agreement: The scheme operator is engaged by a distributor of glass packaging (filler / importer) with the take-back and recovery of “their” quantity of glass packaging (e.g. wine bottles) on a full-coverage basis and will receive a respective fee for that activity.

Collection contract: The scheme operator engages a local collection company, on a pro-rata basis, which sets up glass containers, empties them on a regular basis and transports the pro-rated quantity of waste glass to a glass processing plant selected by the compliance scheme.

® Sorting and processing agreement: In the glass processing plant, this quantity of waste glass will be processed on behalf of the scheme operator (here: job-order processing), to achieve the quality requested by the glass factory (crushing of the fragments, sorting out of metals, ceramics and other impurities, separation according

to colours of the glass).

® Recovery agreement: The system operator sells the processed fragments to a glass factory which melts down the fragments to produce new glass bottles.

In addition to these service agreements, compliance schemes engage the municipalities (or the relevant örE) with the setting up, maintaining and cleaning of areas for the sitting of containers and the giving of waste management advice (so-called ancillary fees, Sec. 6 (4) sentence 8 of the VerpackV).

2.4 Importance of the Licence Quantity Share for Waste Disposal Agreements

The license quantity shares will be calculated on a quarterly basis for each of the three fractions based on the license quantity reports made by the compliance schemes (cf. Art. 2 quantity take-off agreement for LWP / glass or P&B). Each scheme operator aggregates "their" licence quantities for these reports on the license quantities, i.e. they add the quantities of packaging for the take-back and recovery of which they were engaged by their customers pursuant to Art. 6 (1) of the VerpackV. The licence quantity shares of the individual compliance schemes will then be calculated by an independent third party (auditor), based on the licence quantities reported by the compliance schemes as a whole (in the sector also referred to as "market quantity"). For details regarding the reporting and calculation process, please refer to the quantity take-off agreements in Annex 2.

In the collection contracts for LWP and glass, the collection company and the individual compliance schemes agree individually on a flat-rate price for the territory.[12] The territory price is a fixed price applicable to the three-year term of the collection contract. The fee paid by each individual scheme operator to the collection company on a quarterly basis is calculated by multiplying the (individual) territory price by the engagement share of the scheme operator which, in return, arises from the key specified in the tender agreement which is based on the license quantity share. According to this calculation mode, the engagement shares for the collection service correspond, on average in Germany, for each scheme operator, exactly to their license quantity share for the affected fraction. A scheme operator with a LWP licence quantity share of 10 % places orders for 10 % of the LWP collection service on average in Germany.

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12 The tender participants are not aware of the territory price agreed between the tender organisation manager and the collection company.

Furthermore, the licence quantity share has a direct impact on the waste quantity for which the relevant scheme operator holds the responsibility for sorting and recovery. A scheme operator having a licence quantity share of 10 % for glass, will transfer 10 % of the quantity of waste glass collected in the area, at the transfer point. Finally, the cost allocation for the so-called ancillary fees depends on the relevant licence quantities, where a weighting is made here across the three fractions, in deviation from the above (cf. ancillary fee clearing agreement in Annex 4).

The operating disposal costs are thus fully variable from the point of view of each individual compliance scheme. A compliance scheme with a license quantity share of 0 % bears thus no operating disposal costs. In addition, the operating disposal costs increase, from the point of view of the individual scheme operators, linearly with the licence quantity share, at least for the collection service and for the ancillary fees[13]: if the licence quantity share is double as high, the scheme operator incurs the double amount of operating disposal costs. When the shares are re-calculated every quarter, the disposal costs to be borne individually are also adapted without undue delay to the then applicable license quantity share.

On the other hand, the operating disposal costs of the individual scheme operators are hardly dependant to any changes in the total quantities recorded on behalf of all compliance schemes which occur in the short to medium term. Scheme operators and collecting companies agree bilaterally on a fixed territory price for three years. If the collected quantities fall, that will only result in lower collection prices during the next call for tender, when the collection system is adjusted accordingly (e.g. longer emptying interval).[14] Likewise, ancillary fees are a fixed cost block from the total scheme's perspective, which do not depend on the actual collected quantities. It is only the costs for sorting and recovery which depend on the collected quantities.

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13 According to the most typical contracts used in the practice, that applies in most of the cases also to sorting and recovery. These contracts contain usually prices per tonne, so that the fee is completely variable according to the quantities actually sorted or recovered on behalf of the scheme operator. The amount of the quantities allocated to a scheme operator results, in return, directly from their licence quantity share.

14 In the practice, collection systems have not been restricted in case of falling collected quantities.

3 Impacts of the Opening to Competition of Compliance Schemes

3.1 Opening up the Market to Competition

DSD's former monopoly was opened up mainly by measures taken by the competitive authorities, but also by some changes in the legislation. Out of the numerous processes, there is not one that can be identified as "the one" process which led to the opening up of this market to competition. It was rather necessary to eliminate several private and legal competitive restrictions to enable the entry of other competitors in the market.[15] The processes under competition laws were complex and not only directed against DSD, but also against the private and municipal disposal companies and companies procuring secondary raw materials, against associations and, in the past years, even against agreements concluded between scheme operators. The explanation below deals only with the aspects which, in retrospect, were most important under competition laws. It should only provide an overview of these processes, for details please refer to the sources quoted.

3.1.1 1991-1997: Set-up of the compliance scheme as a monopoly

In the 1980s, increasing quantities of household waste and landfills with exhausted capacities were recognised as a critical problem in the waste sector. Part of this problem were increasing quantities of packaging waste. Therefore, the aim was, on the one hand, to decrease the amount of packaging by internalising the disposal costs (avoidance of packaging waste, "product responsibility") and, on the other hand, to no longer dispose of them on landfills, but to recover them. After self-obligations of industry and trade proved little effective, a compliance scheme (in German: "dual system") was planned to be introduced nationwide in Germany, based on the Packaging Ordinance which had been introduced in 1991. According to the will of industry and commerce, the disposal sector and politics, this compliance scheme was designed as a monopoly. Even the Packaging Ordinance used as theoretical basis only

[15] So, while the European Commission, has, e.g. taken largely identical decisions against the relevant operator of the compliance scheme in Germany, France and Austria, a competition between the compliance systems has, however, only come about in Germany so far.

one single scheme operator. The quotas specified in the VerpackV related, in particular, to the total consumption of packaging, so that the quotas could only be fulfilled by one single scheme operator, insofar as the VerpackV was interpreted in a strict manner.

The company DSD was founded in the year 1990 with 95 shareholders from industry and commerce to organise the take-back and recovery of packaging waste in Germany. DSD was exclusively intended to serve this waste management purpose and was not established to work in a profit-oriented manner. It was thus provided for in the Articles of Association of the DSD that profits would not be distributed to shareholders. Industry and commerce advertised a wide-range participation in DSD - not only as customer ("licensee"), but also as shareholder. DSD had more than 500 shareholders as early as in the year 1993. Initially, no disposal companies were shareholders, based on concerns of the Bundeskartellamt.

The DSD awarded the contract for collection and sorting of LWP, glass and P&B as a total package to only one contract partner per region, who was then authorised to engage sub-contractors. The agreements were awarded directly with a term of usually until the end of 2007. Insofar as municipal disposal companies were willing, they were engaged with the performance of the disposal services. The disposal contract was subject to several amendments, given several undesirable effects (in particular excessive costs, bad sorting quality).[16] DSD awarded the recovery contracts separately from collection / sorting. So-called "guarantors" were contracted for recovery - in part even on an exclusive basis - which were, partly, cartels of companies procuring such secondary raw materials.[17] In the year 1993, the DSD experienced a massive funding shortfall, so that DSD increased its prices and needed to be "saved" by special allowances from its customers and by a debt waiver of disposal companies and/or a transformation of their receivables to loans.[18] Since loans from disposal companies were

16 For a more detailed explanation of some of the undesirable developments, see: Bünemann/Rachut, Der Grüne Punkt – Eine Versuchung der Wirtschaft (Der Grüne Punkt - A Temptation of the Economy), 1993.

17 For example, the sole "guarantor" of DSD for waste glass recovery was a cartel of the glass industry (cf. Bundeskartellamt, Decision B4-1006/06 of 31 May 2007, WuW DE-V 1392-1406). Another example is the company Interseroh in which several leading disposal groups held shares, at the time, and which had been engaged as DSD's "guarantor" for other fractions (cf. Activity Report of the Bundeskartellamt 1999/2000, BT-Drs. 14/6300, pages 174-177).

18 Cf. Activity Report of the Bundeskartellamt 1993/1994, BT-Drs. 13/1660, page 128.

transformed in silent participations, disposal companies became silent shareholders of the DSD in the year 1995.

The Bundeskartellamt and the European Commission tolerated, in principle, the DSD or the contracts associated with the DSD's system in this period.[19]
But, the competitive authorities reserved the right to come back to some aspects restricting the competition. The Bundeskartellamt prohibited, in particular, that DSD would become responsible also for the disposal of commercial packaging (so-called transport packaging), in addition to the disposal of packaging arising at the end consumer (so-called sales packaging).[20] Based on concerns voiced by the European Commission, DSD cancelled the regulation that disposal companies were obliged to provide the recyclable material to the guarantors, free of charge, on 01 Jan. 1996 (so-called "interface zero"); from then on, only disposal companies were authorised to do that.[21]

For distributors, the so-called "self-disposal", i.e. the take-back of packaging through a collection system that was independent of any compliance scheme, had been the only alternative to engaging the DSD, since the introduction of the Packaging Ordinance in 1991. Several service providers active in the market offered the organisation of such self-disposal solutions, some distributors actually organised the disposal themselves. But, since distributors were only able to opt for self-disposal under certain conditions and/or only for a certain share of the packaging quantities, alternative options in form of self-disposal were (and continue to be) limited.[22] Controversial discussions have been (and are still being) conducted since the introduction of the Packaging Ordinance to what extent self-disposal was and should be permitted.

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19 Cf. Activity Report of the Bundeskartellamt 1991/1992, BT-Drs. 12/5200, page 132.

20 Decision B10-82/93 of 24 June 1993, WUW/E BKartA 2561-2573. The Bundeskartellamt ceased other proceedings with similar objectives (B10-8/93), when the reproached conduct was stopped (determination of a so-called "commercial interface" by the DSD). Cf. Activity Report of the Bundeskartellamt 1993/1994, BT-Drs. 13/1660, page 128.

21 The practical impacts of this change were limited, since the guarantors still had a cartel-type structure and some of the secondary raw materials had a negative market value.

22 See also Art. 3.2.

3.1.2 1998-2003: Creation of the preconditions for market entries

In the first revision of the VerpackV in 1998 (VerpackV-Novelle 1998), the legislator changed the reference value for the quotas from the total consumption of packaging to the packaging quantity fed to a compliance scheme. This amendment clarified that the VerpackV allows for the operation of several compliance schemes. It also introduced an obligation to perform calls for tenders for the disposal services which initially, however, remained ineffective, in view of the long terms of the contracts which DSD had concluded.

In the years 1999/2000, the Bundeskartellamt and the European Commission announced to take stronger action in this sector. Beginning with the year 2000, the Bundeskartellamt took the view that other (potential) operators of compliance schemes should also be allowed to engage the collecting companies engaged by the DSD, in parallel and free of discrimination, (so-called "joint use"), since each local collecting company held a market-dominating position in relation to potential competitors of DSD. The European Commission decided, accordingly, in 2001, that the DSD was prohibited from using exclusivity clauses in the service contracts it concluded with disposal companies, which would prevent such a parallel engagement.[23] Furthermore, this Decision restricted the term of the disposal contracts to 31 Dec. 2003, which meant that the obligation to organise calls for tenders took effect four years earlier. In another decision, the European Union prohibited that the full fee for use of the sign "Der Grüne Punkt" be charged, if the disposal services were demonstrably performed by a competitor ("no service – no fee").[24] In October 2001, the Bundeskartellamt conducted a search among several companies and associations, inter alia, based on the suspicion that DSD, BDE and leading disposal companies had encouraged other disposal companies to reject the conclusion of a joint-use agreement with the company Landbell AG.[25]

In August 2002, the Bundeskartellamt announced that it would only tolerate the DSD and the agreements associated with DSD until the end of 2006 and initiated prohibition

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23 Decision 2001/837/EC of 17 Sep. 2001, OJ L 319/1-29.

24 Decision 2001/463/EC of 20 April 2001, OJ L 166/1-24.

25 In the opinion of the OLG Düsseldorf (Higher Regional Court of Düsseldorf), the encouragement of imposing a ban on delivery to the detriment of Landbell AG had not been unfair, so that the affected persons were acquitted in the Judgement of 16 Nov. 2004 (VI-Kart 28-31 OWi). A similar matter related to a call to refuse purchases to the detriment of BellandVision GmbH. Cf. Activity Report of the Bundeskartellamt 2003/2004, BT-Drs. 15/5790, page 179-180.

proceedings in October 2002. Consequently, the DSD decided to dissolve its cartel-type shareholder structure. In March 2003, the company initially paid off its silent shareholders (disposal companies), and the distributors left the company as shareholders in December 2004, by selling their shares in DSD to a financial investor. Subsequently, the Bundeskartellamt ceased the prohibition proceedings.[26]

At the beginning of 2003, the DSD conducted a call for tender for collection, sorting and recovery for the period of 2004-2006 in almost all collection territories. In September 2003, the Bundeskartellamt searched numerous disposal companies based on the suspicion of bid rigging during the call for tender, to the detriment of DSD.[27] The DSD only awarded a contract in approx. 50 % of the areas. DSD started to tender for the remaining territories in 2004 - at the instigation of the Bundeskartellamt - under significantly changed tender conditions.

3.1.3 2004-2012: Further reduction of the competitive restrictions

After these fundamental proceedings, the Bundeskartellamt focussed its work from 2004 on competitive restrictions affecting individual partial areas of the compliance scheme. The competitive conditions for competitors of DSD improved successively. In 2005, the compliance schemes - DSD, Landbell and Interseroh - concluded a first agreement to determine the license quantity shares ("quantity take-off agreement"). The "joint-use shares" for the collection were now adjusted "automatically" to the changed licence quantity shares based on the quantity take-off agreement, without the need for subsequent negotiations on an adaptation of the fees.[28] That improved the situation of DSD competitors in negotiations for the conclusion of joint-use agreements

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[26] Cf. Activity Report of the Bundeskartellamt 2003/2004, BT-Drs. 15/5790, page 178.

[27] While the suspicion was confirmed according to the results of the Bundeskartellamt's investigations, these proceedings could not be completed in due time with the issue of fine notices. The proceedings were stopped, since one part of the accusations, in particular, those against major disposal companies became statute-barred in the year 2009. Cf. Activity Report of the Bundeskartellamt 2009/2010, BT-Drs. 17/6640, pages 105-106.

[28] Cf. Activity Report of the Bundeskartellamt 2005/2006, BT-Drs. 16/5710, page 176.

with the collection companies selected by DSD. From the year 2009, the DSD decoupled the use of the trademark "Der Grüne Punkt" from the licence agreements, so that distributors have, since then, no longer needed to be engaged by the DSD, at least in part with disposal services to be able to use the trademark.[29] The option that a scheme operator subjects themselves to a coordination agreement concluded between the örE and another scheme operator without the örE being able to request a new coordination, which option had been introduced with the revision of the Verpack V (VerpackV-Novelle) 2009, also resulted in an improvement of the conditions for other compliance schemes to enter the market.

The Bundeskartellamt still dealt with agreements restricting competition even after several scheme operators had entered the market. In its Decision called "Neu-Ulm", the Bundeskartellamt clarified in 2004 that municipalities were not allowed to call for a boycott of compliance schemes or must not force them to enter a demand cartel, even if P&B collections organised by the municipality were jointly used by compliance schemes.[30] In 2007, the Bundeskartellamt prohibited the waste glass procurement cartel of the glass industry.[31] Concerns were raised in the year 2008 based on agreements planned between the compliance schemes which would have exceeded the extent necessary for the joint organisation of collection. After the Gemeinsame Stelle dualer Systeme Deutschlands GmbH had received a note from the Bundeskartellamt, it refrained from implementing this plan.[32] The so-called "quantity transfer agreements" concluded between compliance schemes were also problematic under competition laws. After two compliance schemes had made commitments to end the quantity transfer agreements on 31 Dec. 2008[33] such agreements were excluded, in general

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29 Activity Report of the Bundeskartellamt 2007/2008, page 155.

30 Decision B10-97/02-1 of 6 May 2004; confirmed by the *OLG* Düsseldorf (Higher Regional Court of Düsseldorf), Decision VI-Kart 17/04 (V) of 29 Dec. 2004, WuW DE-R 1453-1460.

31 Bundeskartellamt, Decision B4-1006/06 of 31 May 2007, WuW DE-V 1392-1406; confirmed by the OLG Düsseldorf (Higher Regional Court of Düsseldorf), Decision VI-Kart 9/07 (V) of 14 June 2007.

32 Cf. Activity Report of the Bundeskartellamt 2009/2010, page 106. Art. 6 (7) of the VerpackV obliges compliance schemes to participate in a joint body. The duty of the Gemeinsame Stelle (joint body) as defined in Sec. 6 (7) of the VerpackV is to assess the quantities and to coordinate the tendering of collection.

33 Decisions B4-32/08-1 and B4-32/08-2 of 18 Aug. 2008, WuW DE-V 1689-1690.

based on a clarification in Art. 1 (1) of the quantity take-off agreement.

The Bundeskartellamt once again accompanied the tenders by DSD in the years 2006 and 2007 as well as in 2009 and 2010, in particular, with a view of avoiding a restriction of the group of bidders (e.g. by a discrimination of small and medium-sized disposal companies). It regularly evaluated the results of the tenders to detect any competitive shortcoming at an early time. Insofar as the Bundeskartellamt requested changes to the tender conditions, DSD complied with such requirements. Since the year 2008, the Bundeskartellamt has been working towards an implementation of the principle of awarding contracts for collection services based on competition, without exceptions. Accordingly, any requests from municipalities which aimed at tolerating a direct award of contracts to the municipal disposal company, received a negative response.[34] In anticipation of a tender agreement between the compliance schemes, DSD designed, in the tenders for the years 2009 and 2010, the terms of contract such that approx. one third of the territories would be subject to tenders beginning with the year 2011.

In November 2010, the compliance schemes entered into the so-called tender agreement, on the basis of which calls for tenders for collections have been made since the year 2011.[35] In line with the objective of Sec. 6 (7) of the VerpackV of 2009, the tender agreement ensures that the collection infrastructure is no longer organised only by the DSD, but in some territories also by other compliance schemes. In this agreement, the compliance schemes undertake mutually, to organise calls for tenders for the collection service; and the compliance system responsible for the relevant area bears the main responsibility for the collection costs.

3.2 Market Entries and Market Shares

The company Landbell AG, another compliance scheme, has been trying since the year 1997 to establish a competition to DSD. In August 2003, the company Landbell received

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34 Activity Report of the Bundeskartellamt 2009/2010, BT-Drs. 17/6640, page 106.

35 Cf. Case Report of the Bundeskartellamt B4-152/07 “Koordination der Erfassungsausschreibungen dualer Systeme“ (Coordination of Calls for Tenders for Collection by Compliance Schemes) of 18 April 2011, available at www.bundeskartellamt.de. Eko-Punkt and RKD have not yet become parties to the tender agreement. The total of eight signatories currently account for approx. 99 % of the packaging quantities of all compliance schemes.

the approval as compliance scheme for the German federal state of Hesse. In March 2004, Interseroh was approved as compliance scheme for the federal state of Hamburg. Both scheme operators received the nationwide approval for Germany in August 2006. Another six companies have been approved as compliance schemes in the years 2007 and 2008 in all 16 federal states, so that a total of nine scheme operators were active. Another company entered the market at the end of 2011. The time sequence of the market entries is presented in Table 1:

Scheme operator[36]	Approval as compliance scheme in the "first" federal state	Approval as compliance scheme in the "last" federal state	Start of operating activity[37]
DSD	December 1992	4/1/1993	1991
Landbell	5/8/2003	18/8/2006	1/10/2004
Interseroh	12/03/2004	28/8/2006	1/1/2005
Eko-Punkt	11/5/2006	13/11/2007	1/10/2006
Redual	3/5/2007	17/3/2008	1/7/2007
BellandVision	25/5/2007	5/12/2007	1/1/2008
Zentek	25/5/2007	12/3/2008	1/10/2008
Vfw	5/3/2007	10/9/2007	1/1/2009
Veolia	23/7/2007	20/11/2008	1/1/2009
RKD	16/12/2011	28/3/2012	1/10/2012

Table 1: Market entries of compliance scheme operators

Source: Data of the notices of approval according to information received from the compliance schemes (formal decision requesting information of 26 July 2012).

[36] The currently active scheme operator is disclosed, in case of legal successors / changes of company names (e.g.: Eko-Punkt formerly Contwin, Veolia formerly Verlo). Redual and Vfw merged in the year 2012.

[37] The term "Start of operating activity" means the date when the compliance scheme actually commenced their operation. That corresponds to the date of the first quantity report pursuant to the quantity take-off agreement, from 2006.

The DSD's market shares fell accordingly after the competitors entered the market. The Bundeskartellamt defines, in its standing practice, the market in Germany in which the distributors as procuring companies obliged under Sec. 6 (1) of the VerpackV and the service companies as providers available to fulfil this obligation face each other. In the cases disclosed herein, the Bundeskartellamt assumed as basis a uniform market for the three fractions of LWP, glass and P&B. The case practice has not defined so far, whether the former self-disposal solutions or today's sector solutions (Sec. 6 (2) of the VerpackV) or self-take-back solutions (Sec. 6 (1) sentence 5 of the VerpackV) are to be included in this market, besides the services provided by the compliance schemes.

38 These alternative offerings only constitute restricted substitutions for the feeding of quantities to a compliance scheme and are of a minor importance as regards quantity for the purpose of the considerations made herein (up to 10 % of the revenue or up to 20 % of the packaging quantities). Insofar as the terms "market" or "market shares" are mentioned below, these refer to the (tighter) market of the compliance schemes.

The market shares of the individual compliance schemes can be calculated based on revenue or based on licence quantities. The shares are not significantly different for the two calculation versions.[39] DSD has lost significant market shares since 2003. In 2011, DSD's market share stood approx. at 44 % (cf. Figure 2).

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38 Last in the merger control proceedings Reclay/Vfw (B4-32/12). For detailed information on this issue, see: Commission Decision 2001/463/EC of 20 April 2001, OJ L 166/1 24, recital 67-86.

39 If the calculation is based on licence quantities, the shares for the three fractions of LWP, glass and P&B are naturally not identical. A market share across fractions can be determined by weighing the quantity-based shares according to the economic importance of the three factions (approx. 80:10:10).

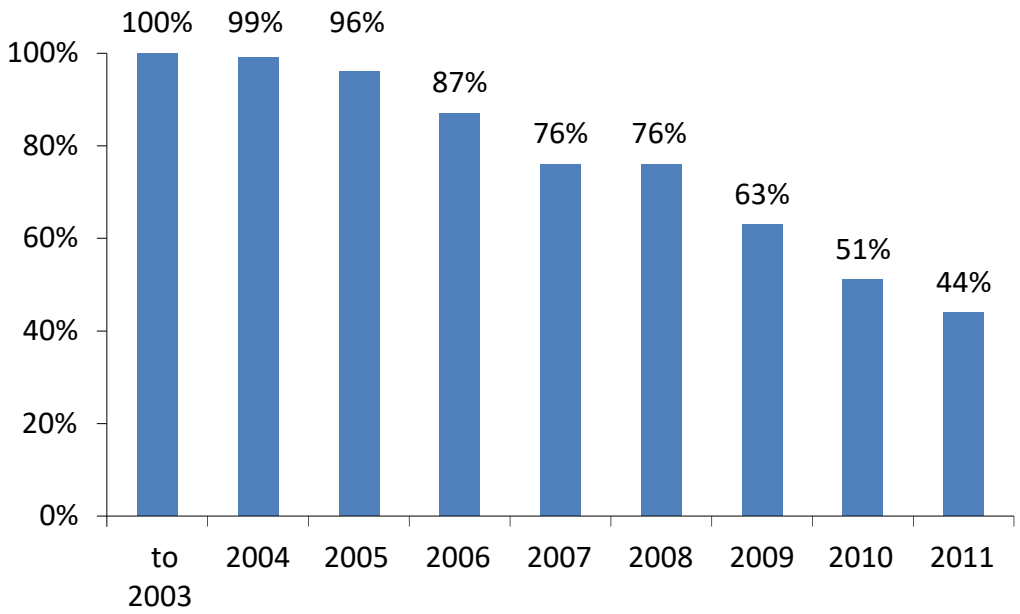

Figure 2: Changes in DSD's market shares

Source: Own calculation based on the data transmitted by the compliance schemes (formal decision requesting information of 27 July 2012).

3.3 Collected Quantities and Influencing Factors not Caused by Competition

An analysis of the effects of having opened up the market to competition must consider that there are other factors which might have a significant impact on the recycling quotas, disposal costs and prices / revenue discussed in the paragraphs below. The explanations below focus on the fraction of LWP which is economically more important than glass and P&B.

One essential objective of the introduction of the VerpackV was the nationwide set-up and expansion of the LWP collection in Germany. In 1993, a large number of districts did collect LWP separately from other waste. So, the LWP collection quantity rose strongly in the period from 1993 to 1997. In those years in which the collection was established, LWP was initially collected mainly in yellow bags. These yellow bags were, in many areas, replaced in subsequent years by the yellow bin. This change from bags to bins led to higher collection quantities which also contained a higher share of other waste (so-called "missortings"). Reason for the further increase of the LWP collection

quantities which was still recorded from 1997 and after 2005 (cf. Figure 3) is, in all probability, the further expansion of LWP collection system. A smaller part of the increase of LWP collection quantities in the period from 1997 to 2002 was due to the higher consumption of lightweight packaging caused by the increased use of disposable PET bottles.

One important change for the compliance scheme was the introduction of a mandatory deposit for disposable beverage packaging on 1 Jan. 2003. From this date, consumers were required to pay a deposit on disposable packaging filled with mineral water, beer or carbonated soft drinks (e.g. Cola, lemonade). This duty to pay a mandatory deposit was expanded to still soft drinks and alcoholic mixed beverages (e.g. so-called "alcopops") on 01 May 2006. At first, so-called "isolated solutions" applied from 1 Jan. 2003, i.e. consumers needed to return their disposable deposit bottles to the same shop, and present the receipt for such. These isolated solutions have been prohibited since 1 May 2006; a uniform, nationwide deposit system has been in place since then. This deposit on disposable bottles removed one essential waste from the compliance scheme's field of activity or from their collection structures, since these bottles now had their separate channels for take-back and recovery. That resulted in a decrease of the licence quantities and collected quantities. In the period from 2002 to 2006, the licence and collected quantities for the LWP fraction fell by approx. 330,000 t/a. This impact on the collected quantities in comparison to the licence quantity was slightly delayed both for LWP and the glass fraction: in 2003, the licence quantity fell by approx. 300,000 t compared to 2002 and thus significantly stronger than the collected quantity (approx. 150,000 t). Two factors might be mainly responsible for that fact: The BMU (German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety) estimates that between 20 % and 30 % of the disposable deposit bottles or cans have not been returned to the shops in the years 2003/2004 on account of isolated solutions which still existed then.[40] In addition, beverages are partly stored in

[40] Quoted according to: Cantner et al. (bifa Umweltinstitut GmbH), Bewertung der Verpackungsverordnung - Evaluierung der Pfandpflicht (Assessment of the Packaging Ordinance - Evaluation of the Duty to Pay a Deposit), April 2010, page 143. Since the year 2006, the share of non-returned deposit bottles or cans should no longer play an important role, based on the uniform system in place in Germany - also thanks to the activities of "bottle collectors".

households,[41] i.e. some of the bottles or cans bought at the end of 2002 were only disposed of in the year 2003.

The LWP collected quantity has, as a whole, remained relatively constant in the period from 1997 to 2011, since the two effects described above (expansion of LWP collection and deposit on disposable bottles) roughly cancelled each other out. In the year 2011, the LWP collected quantity achieved approx. the level of 1999 or 2003.

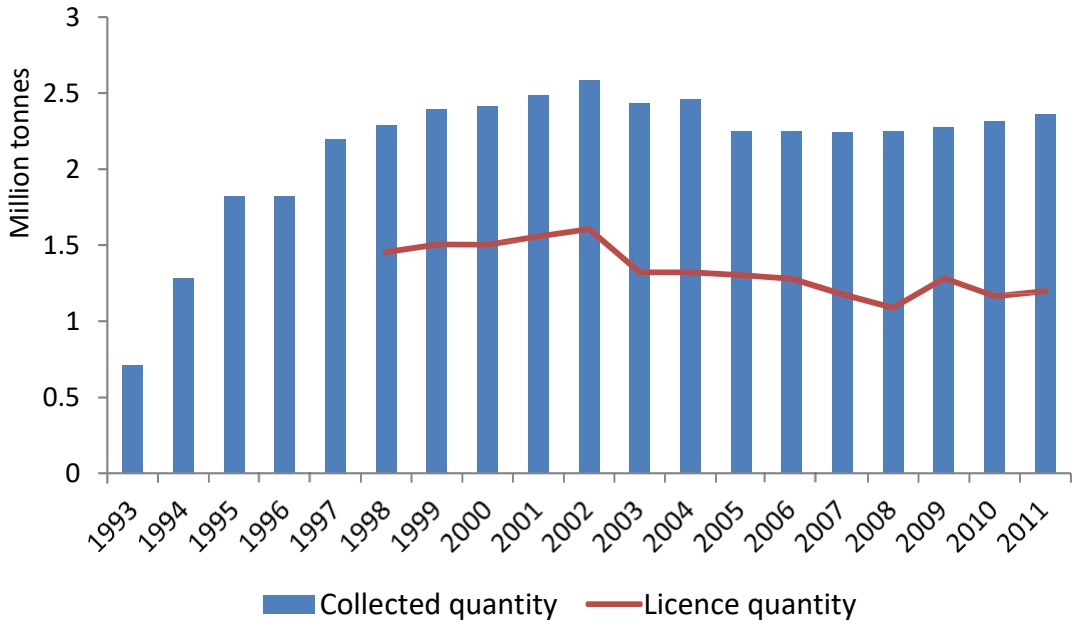

Figure 3: Changes in collected and licence quantities for LWP

Source: Own research. For figures see Table 6 and Table 8 (p. 95, 97).

The Figure also shows that the collected quantities for the LWP fraction significantly exceed the licence quantities (approx. by a factor of two). Reasons are food leftovers which are attached and so-called “missortings by the consumer”. Used food packaging (such as yoghurt cups) often contain food leftovers which result in a higher collection weight compared to the licence quantity. Missortings (i.e. waste thrown in the bin which is no packaging) consist partly of residual waste which accounts for 23 % of the collected quantity.

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41 Consumers buy beverages in larger quantities particularly, if their price is reduced due to sales campaigns, and store them. Cf. the results of the investigations in the proceedings EDEKA/trinkgut (B2-52/10, Decision of 28 Oct. 2010, page 40-41).

42 This is topped by non-packaging made of metal or plastic ("economically sensible" missortings) accounting for another approx. 12 % of the collected quantity. "Sub-licensing" (see below), thus plays no important role for the high difference between the LWP collected quantity and the LWP licence quantities. The share of missortings or the share of packaging with food left-overs attached rose as a consequence of the expansion of the LWP collection and the introduction of the deposit on disposable bottles. Likewise, the ratio of licence quantity to collected quantity fell in the course of time.

The fraction of glass has already been largely collected in nationwide available glass containers upon introduction of the VerpackV. Since this drop-off system is characterised by few missortings and since used glass bottles have very few food leftovers attached, the collected and licence quantities of this fraction are approximately identical. Figure 4 shows a significant decrease of the collected quantities for glass of approx. 2.7 million t in the year 1999 to approx. 2 million t since 2005. This is due to a general decrease of the consumption of (returnable) glass packaging resulting from the substitution of glass packaging by plastic packaging and, partly, also the substitution of disposable glass bottles by reusable bottles.[43]

42 Cf. Planspiel zur Fortentwicklung der Verpackungsverordnung Teilvorhaben 1 (Simulation Game to Further Develop the Packaging Ordinance, Partial Project 1): Bestimmung der Idealzusammensetzung der Wertstofftonne (Determination of the Ideal Composition of the Recycling Bin), Bünemann et al. (cyclos GmbH / HTP GmbH), February 2011, page 55.

43 After the introduction of the deposit on disposable bottles in the year 2003, disposable glass bottles for beer have, for instance, practically disappeared from the German market.

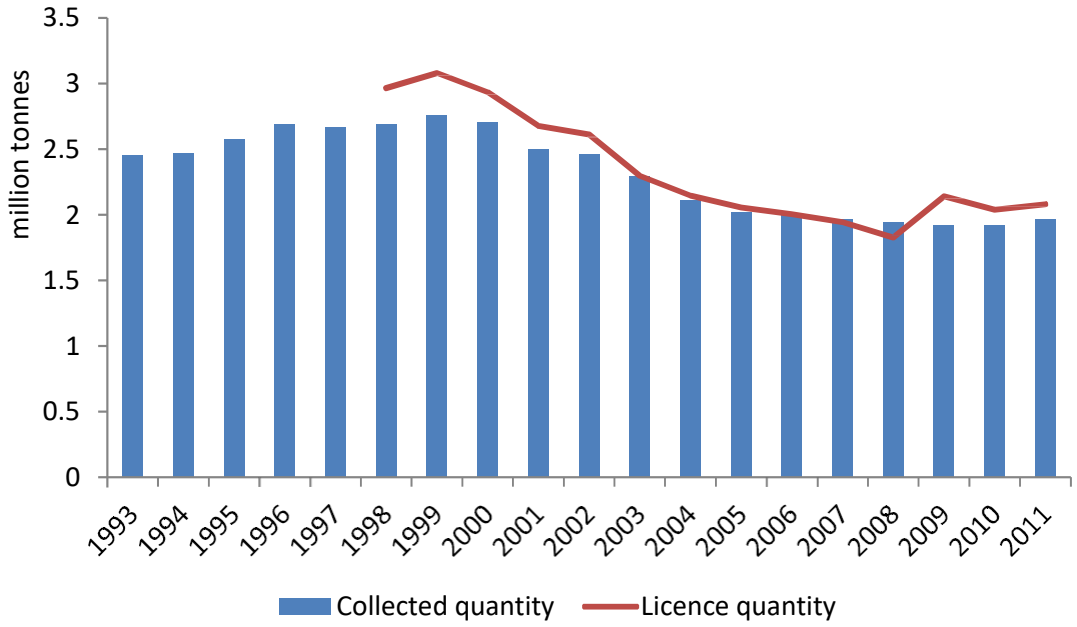

Figure 4: Changes in collected and licence quantities for glass

Source: own research. For figures see Table 6 and Table 8 (p. 95, 97).

The fifth VerpackV-Novelle 2008/2009 (revision of the VerpackV) had no recognisable effect on the collected quantities, but on the licence quantities. Objective of the revision had predominantly been a reduction of so-called free-riders ("sub-licensing"). These are distributors who fail to comply or only partly comply with their obligation to take back and recover sales packaging pursuant to Sec. 6 of the VerpackV. The share of free-riders was to be reduced mainly by the introduction of a so-called Letter of Representation on 05 April 2008.[44] The changes in the licence quantities shows a decrease in the year 2008, for the two fractions, and an increase in the year 2009.[45] In

[44] Since that time, distributors are obliged under Sec. 10 of the VerpackV to submit to the locally competent Chamber of Industry and Commerce, an audited statement on the quantities of sales packaging they put into circulation, if they exceed certain quantity thresholds.

[45] While the increase in 2009 revealed the result intended by the legislator, the reason for the decrease in 2008 is still unclear.

this revision, the former practice of self-disposal was replaced on 01 Jan. 2009 by sector-wide solutions and self-take-back solutions which were thought to be better suited for control by the enforcement authorities.[46]

It is not recognisable through which mechanisms the opening of the market to competition could have had an effect on the collected quantities. The collected quantities remained almost at the same level after competitors were able to enter the market. In return, the causes for the recognisable changes in the collected quantities are obvious. Therefore, it can be assumed that the opening up of the market to competition had no effect whatsoever on the collected quantities of LWP or glass. The collected quantities of P&B have not been determined as part of the Sector Inquiry, since no reliable result could be expected.[47]

3.4 Recycling Quotas and Quantities

One of the most important arguments against the opening of the market to competition was the fear that such competition would result in lower recycling quotas. It was suggested that recyclable material would, in part, no longer be recycled, but incinerated or put on landfills for cost reasons. This fear ought to have referred exclusively to the LWP fraction, since collected P&B and glass already had a positive (or at least no negative) market value prior to sorting / processing, even then. On the other hand, the DSD made high additional payments for the recovery of plastic in the 90s (and still until 2003).

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46 This measure should have resulted in a significant increase of the quantities returned as part of the sector solution and self-take-back solutions, since the change was accompanied by an improved reputation, in particular, of the sector solution compared to the former self-disposal. Prior to the revision of the Ordinance, only some scheme operators offered self-disposal solutions, while all scheme operators have been offering sector solutions - in particular, the market leader DSD - since the revision. See also the assessment of the register for letters of representation: www.ihk-ve-register.de

47 P&B is predominantly collected on behalf of the compliance schemes jointly with the P&B collections made under municipal responsibility. The actual quantity shares of packaging and non-packaging contained in these waste paper collections can only be determined in sorting analyses which are only available selectively and, in particular, not for the long period considered herein. The contractually disclosed collected quantity shares of compliance schemes are, inter alia, the result of bilateral negotiations between scheme operators and collection companies and are the subject matter of some court proceedings.

During this Sector Inquiry, the Bundeskartellamt obtained the figures for the recovery quantities for the period from 1998 to 2011 from scheme operators (see Table 7 in the Annex). This section only presents the results for the LWP fraction, since the fractions of glass and P&B are of minor economic importance, because economic incentives for incineration or landfilling are generally excluded for these fractions from the beginning and since the recycling quotes have always been above 90 %.[48]

The effects of the deposit on disposal bottles must also be taken into account for this analysis. With the introduction of this deposit, it was to be expected that the LWP fraction would bring not only significantly lower absolute recycling quantities (of up to 300,000 t/a), but also lower recycling quotas from 2003. That is because the PET bottles, aluminium cans and tinplate cans which have been removed from the LWP collection due to the deposit, are a share of the LWP collected mix which can be very well recycled materially, in comparison to the other components of this mix.[49] It can therefore be assumed that the quantities affected by the deposit have previously been largely subject to material recycling.

Figure 5 shows only the total LWP quota of the material recycling (LWP recycling quota). Significantly higher LWP recovery quotas of more than 100 % would arise, if one were to include other recovery processes (energetic or feedstock recycling). The Figure shows that the recycling quotes in the period of the monopoly fell and then rose after the entry of competitors to DSD (i.e. from 2004), despite the counter-effect arising in this period from the deposit on disposal bottles / cans. The isolated effect of the

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48 The values for glass and P&B can be calculated from the data provided in the Annex. Please note for P&B that the recovery quotas which have been calculated earlier are largely meaningless. Collected P&B is recycled in full (also glass). The P&B recovery quotas of more than 160 % disclosed formerly were inconsistent in themselves and resulted mainly from an excess share of P&B packaging in the waste paper collection which has been assumed until 2003. Furthermore, the P&B licence quantity rose essentially by the introduction of the letter of representation in 2009. The P&B recovery quota was 97 % in 2011.

49 Cf. the example for PET beverage bottles compared to PET bottles for detergent/cleaning agents in DSD's Annual Report 2003, page 25.

deposit arising from the calculation can be estimated with a quota reduction from 62 % in 2002 to up to 54%.[50] The quota rose, however, in fact from 62% to 73% in the year 2011. The rapid changes in the years 2003 and 2008/2009 have no significance.[51]

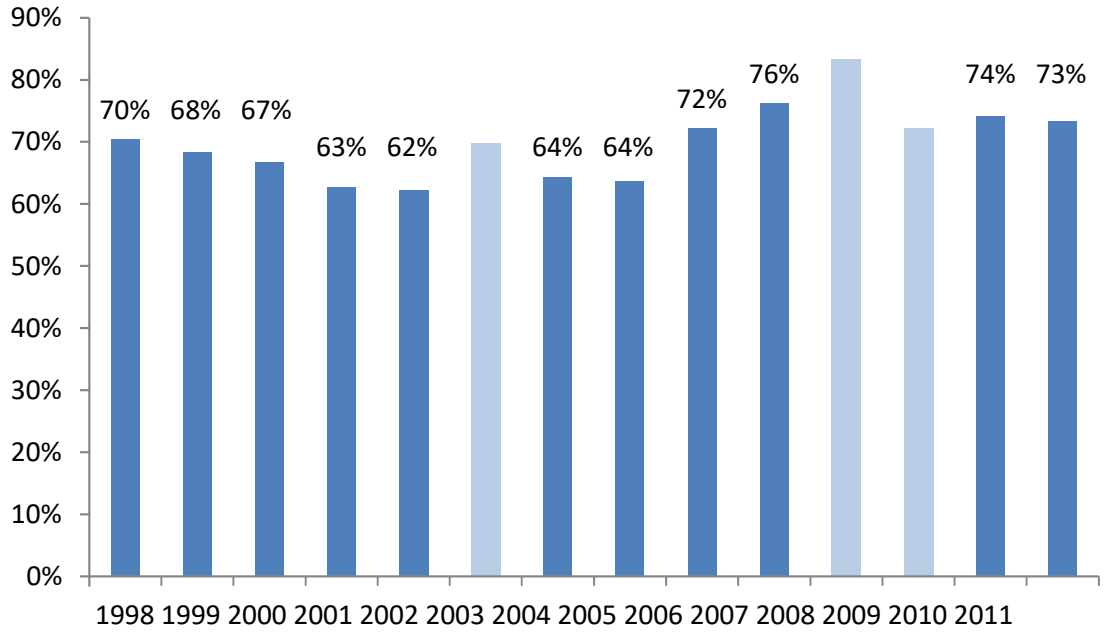

Figure 5: Changes in the LWP recycling quota

Source: own research. LWP recycling quota = quotient of the LWP recycling quantity and LWP licence quantity (cf. Table 7, page 96 and Table 8, page 97). The values for 2003, 2008 and 2009 are identified as outliers.

Figure 6 shows the absolute LWP recycling quantities according to the categories of plastic, tinplate, composite and aluminium as defined in the VerpackV. It reveals a decline in the recycling quantities from 1 million t in 2002 to approx. 830,000 t in the

[50] Calculated from the LWP licence quantity of 2002 (approx. 1.6 million t), the LWP recycling quantity of 2002 (approx. 1 million t) and the loss due to the deposit of approx. 300,000 t of LWP licence quantity and up to max. 300,000 t of the LVP recycling quantity.

[51] Given the delayed reaction which the collected quantity experienced from the introduction of the deposit compared to the licence quantity (see page 30), the value disclosed for 2003 is “too high”. Fluctuations are shown for 2008 and 2009 on account of the fluctuations of the licence quantity which is a result of the fifth revision of the VerpackV (VerpackV-Novelle) (see p. 33), which are, however, not the result of a change in the actual recycling quantities.

year 2005. This decline of the absolute values by approx. 170,000 t is clearly lower than would have been expected by the introduction of the deposit (up to 300,000 t). The LWP recycling quantity in the years from 2006 to 2011 is approx. 900,000 t/a.

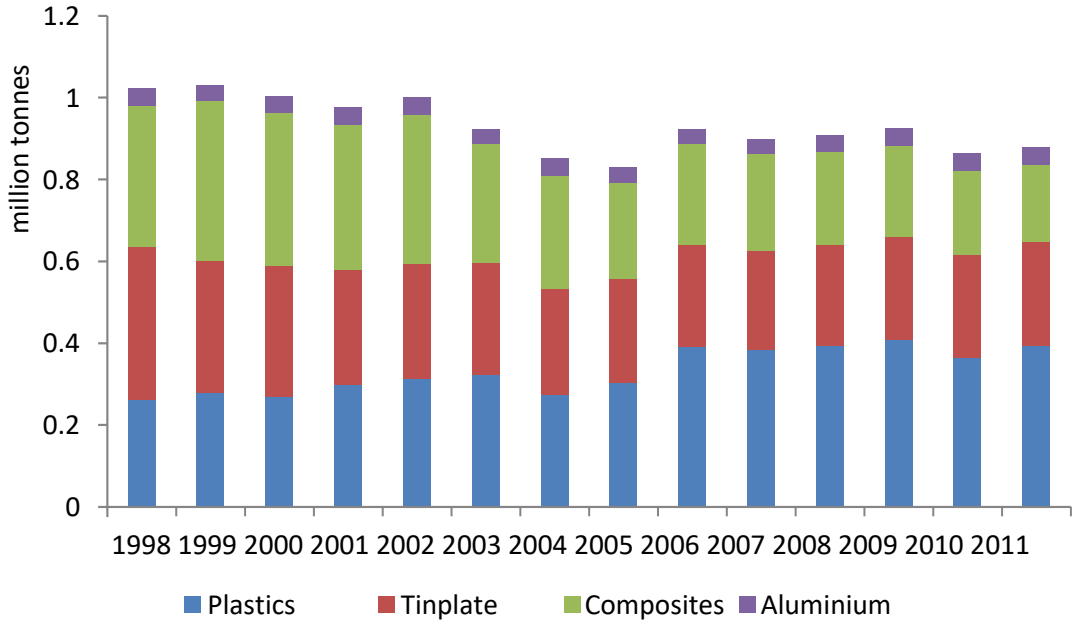

Figure 6: Changes in the LWP recycling quantities

Source: own research. For figures, see Table 7, page 96.

It is even directly understandable from an economic point of view, that the competition between the compliance schemes resulted not in a falling, but a rising recycling share. The recyclable materials belonging to the material groups of tinplate, aluminium and plastics divided according to type which are sorted in LWP sorting plants, have a positive market value; i.e. an operator of a LWP sorting system or a compliance scheme (depending on the ownership rules for the sorting output) will receive money for the further material recycling of such. They must, in contrast, bear costs for incinerating sorting residues and mixed plastics ("fractions subject to additional payments"). Cartons for liquids are almost at the 0 Euro limit. There is, thus, also an economic incentive to achieving good LWP sorting results. There is no competition regarding "the possibly lowest" recycling quantities up to the minimum quota specified by the VerpackV, but regarding the highest possible recovery of recyclable materials. Accordingly, the sorting agreements concluded between the scheme operators and the LWP sorting system operators typically provide for bonus or penalty payments in case of "job-order sorting", which depend on the sorting results of the fractions bearing proceeds.

A conceivable incentive for fewer recycling existed therefore, exclusively regarding the plastic share in the LWP collected mix. Until the year 2003, the DSD made high additional payments for the recovery of plastics.[52] The recycling of plastic which is of a low value from an economic and technical perspective ("downcycling"), i.e. remelting of plastic mixtures for simple applications (e.g. for pedestals of mobile traffic signs or similar) has permanently been the subject matter of controversial discussions regarding the yellow bin. Prior to times when the market was opened up for competition, the minimum quotas of 36 % for material plastic recycling as prescribed in the VerpackV were actually achieved only by such "downcycling". The minimum quota of 36 % was only slightly exceeded in the years 2000 to 2002 in view of 43%-44%.[53] Upon introduction of the deposit, it was even questionable whether this quota could be fulfilled in the future.

It is, therefore, particularly noteworthy that the material plastic recycling increased - despite the deposit - from a little less than 300,000 t in the monopoly period (1998 - 2003) to a little less than 400,000 t under competitive conditions. This increase corresponds to a rise of the plastic recycling quota from 43-44 % to 55%-60%.[54]

These figures are also the result of a significant qualitative change of the recycling of plastics contained in the LWP collection. One precondition for a high-value recycling, i.e. for the production of sorted recycled plastic (so-called regranulate) which can be used in higher-value applications (textiles, packaging, etc.) is a separation of the waste according to the different types of plastic. The separation technology necessary for separating plastic into different types (optical recognition of the individual plastic types) has been available since 1999, but hardly prevailed under monopoly conditions. The economic incentives only gained in importance when the market was opened up to competition and when contracts for LWP sorting were therefore awarded by competing compliance schemes (from 01 Jan. 2004). Mixed plastics from LWP sorting are a fraction subject to additional payments, while prices of up to EUR 300 / t are achieved

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52 In the year 2003, these still amounted to EUR 197 million, cf. DSD's Annual Report of 2003, page 17.

53 Plastic licence quantities in the year 2000 amounted to: 611,589 t, 2001: 678,500 t, 2002: 736,426 t. Source: DSD's Annual Reports 2000-2002. In its Annual Reports, the DSD only published the total recovery quantities for plastic, but no quantities allocated to plastic recycling. These are, however, published in this report, see Table 7, page 96.

54 Plastic license quantities in 2009: 705,206 t, 2010: 661,773 t, cf. also Euwid 48/2011 of 29 Nov. 2011.

for plastics sorted in different types (i.e. PP, PE PET, PS). In this competitive situation, disposal companies invest heavily in modern LWP sorting systems with a high degree of automation which sort the plastic according to types. Table 2 lists the six biggest LWP sorting plants ensuring a sorting according to types of plastic which have been commissioned from the year 2005. The total capacity of these six plants corresponds almost to 30 % of the LWP collected quantities in Germany and to an investment volume of approx. EUR 100 million.

LWP Sorting plant	Commissioning	Capacity approx.
Alba Berlin	2005	120,000 t/a
Tönsmeier Porta Westfalica	2007	80,000 t/a
Alba Braunschweig	2007	115,000 t/a
Tönsmeier Oppin	2008	100,000 t/a
Alba Walldürn	2008	160,000 t/a
Veolia Hamburg	2010	100,000 t/a

Table 2: Bigger and new LWP sorting plants ensuring sorting according to types of plastic

Sources: See footnote[55]

Seven other new LWP sorting plants capable of sorting plastics according to types have been established since 2005, in addition to these six plants, and nine existing plants have been retrofitted with this technology.[56] As a result of this boost in investments, any LWP sorting plants which were unable to sort according to plastic types were hardly competitive. In the year 2009, already approx. 70 % of the LWP collected quantity were sorted in plants equipped with separation systems according to types of plastic.[57] Given the economic incentives, it is to be expected that the share of high- value plastic

[55] Euwid 44/2005, Euwid 48/2007, Euwid 23/2008, Euwid 1/2009, Fränkische Nachrichten 29 April 2009, http://www.htp.eu/de/ref11.php, Brochure "Recyclingstadt Berlin (Recycling City of Berlin)" of the Stiftung Naturschutz Berlin, August 2011, Veolia company video http://www.youtube.com/watch?v=38d3HgdtZ0Q

[56] Information received from cyclos GmbH and HTP GmbH during the Sector Inquiry.

[57] Cf. Planspiel zur Fortentwicklung der Verpackungsverordnung Teilvorhaben 1 (Simulation Game to Further Develop the Packaging Ordinance, Partial Project 1): Bestimmung der Idealzusammensetzung der Wertstofftonne (Determination of the Ideal Composition of the Recycling Bin), Bünemann et al. (cyclos GmbH / HTP GmbH), February 2011, page 45.

recycling will increase in the future under competitive conditions.[58]

3.5 Disposal Costs

The costs incurred by a compliance system consist, to more than 90 %, of operating disposal costs.[59] This includes the costs for collection, sorting and recovery (including interim transports and less proceeds from recyclable material) as a well as municipal ancillary fees. The operating disposal costs must be delimited from the costs of system management, i.e. costs for distribution, organisation of operating disposal, IT, public relations, legal advice and similar. Included in the costs of system management are mainly the salaries of the personnel employed by the relevant compliance scheme.

During the proceedings of the past years, the Bundeskartellamt has gained an insight in the data of the operating disposal costs several times. The Bundeskartellamt has, for instance, analysed DSD's calls for tenders several times. The most important developments are outlined below. In addition, detailed data on the operating disposal costs which have arisen in 2011 due to the operation of the compliance schemes have been obtained from the scheme operators during the Sector Inquiry.

Disposal costs until the year 2003

Originally, the DSD concluded service contract with the operating disposal companies for a term of 15 years, i.e. with a term from 1993 until the end of 2007. The conditions of such contracts have been changed several times in the 90s; relating negotiations were conducted centrally by the DSD with the associations of these disposal companies. The former Annual Reports of the DSD contain the amount of the disposal

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58 The reason stated by Dehoust/Christiani for their proposal to increase the requirements for the recycling quotas set out in the VerpackV are, insofar, incorrect, since they base their reasons on the claim that there were "too few" economic incentives for recycling. Cf. Dehoust/Christiani, Analyse und Fortentwicklung der Verwertungsquoten für Wertstoffe (Analysis and Further Development of the Recovery Quotas for Recyclable Materials), May 2012.

59 In the year 2003, the operating disposal costs of EUR 1,777 million stood against costs for system management of EUR 74 million which corresponded to a share of the operating disposal costs of approx. 96 %. Cf. DSD's Annual Report 2003, pages 16-17.

costs. The disposal costs have not been subject to essential changes since 1995, even despite several adaptations of the conditions, in the years 2000-2003 they amounted to approx. EUR 1.8 million per year (cf. Figure 7). Until the year 2003, disposal companies achieved a very high return of sales of typically approx. 30 % with the orders from DSD. That was revealed in the documents which the Bundeskartellamt seized during the nationwide searches conducted among 120 disposal companies in September 2003.[60]

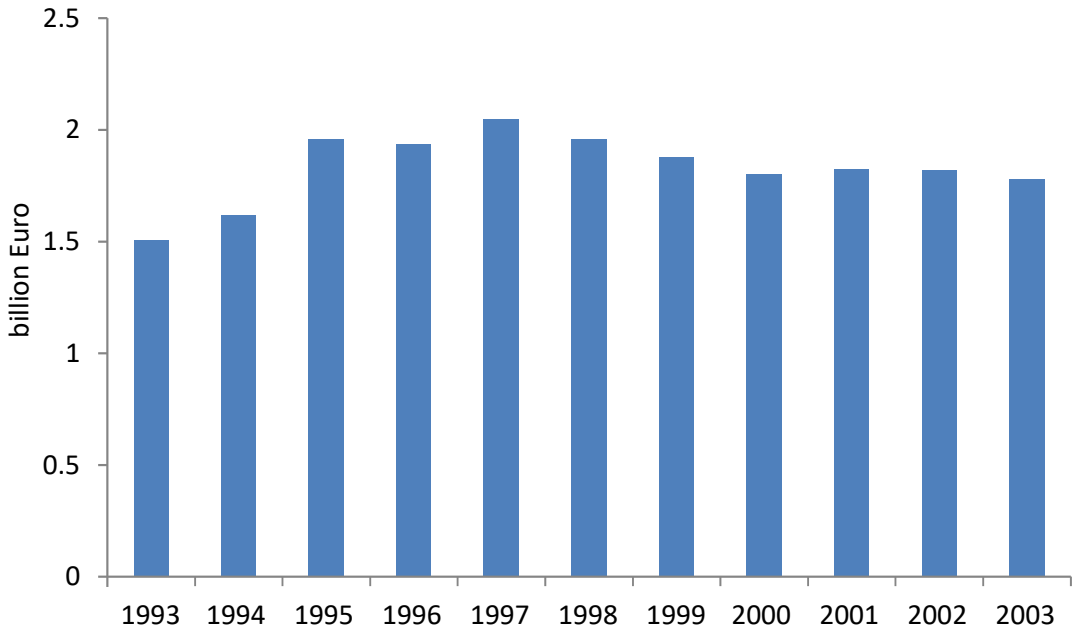

Figure 7: Operating disposal costs of the DSD until 2003

Source: own research. Figures obtained from DSD's Annual Reports 1993-2003.[61]

Changes in disposal costs from the year 2004

The disposal contracts which had originally been concluded until 2007, were cancelled prematurely on 31 Dec. 2003 based on a Commission Decision. In 2003, DSD conducted a call for tender for the disposal contracts for the service period of 2004-2006. This first call for tender however, did not bring about a real bidder competition

60 Cf. Press Release of the Bundeskartellamt of 11 Sep. 2003, www.bundeskartellamt.de. File no. B10-57/03, B4-200/07.

61 1993: € 1,504 million, 1994: € 1,616 million, 1995: € 1,956 million, 1996: € 1,934 million, 1997: € 2,045 million, 1998: € 1,959 million, 1999: € 1,879 million, 2000: € 1,802 million, 2001: € 1,823 million, 2002: € 1,821 million, 2003: € 1,777 million. Amounts in DEM (1993-2000) were translated by using the official exchange rate.

in numerous contract territories. Only one bid was submitted in almost half of the territories. In these territories, offer prices were, on average, by approx. 70 % higher than the average prices in territories with more than one bid.[62] The DSD awarded the contracts for about half of all territories and the disposal costs fell in these territories, until 1 Jan. 2004 by approx. 20%.[63] That means that disposal costs would have even gone up, if DSD had awarded the contract to the bidder with the best offer also in the other half of the contract territories. For these territories, the DSD initially prolonged the agreements based on bilateral negotiations by one year and conducted a second call for tender in 2004 (service period 2005-2007). In the second tender, the DSD had significantly improved the competitive conditions, at the suggestion of the Bundeskartellamt, the collection contracts were now awarded separately for each fraction from the sorting and recovery and any bidding consortiums consisting of bigger disposal companies were excluded. A much higher number of bidders took part in this second call for tenders and costs fell by approx. 30% compared to 2003.[64]

The subsequent years were characterised by a different development of the collection costs, on the one hand, and the costs for sorting / recovery on the other hand.

After the collection costs had fallen during the tenders of the years 2003-2006, they did not decline further in subsequent years. The calls for tender for LWP collection in 2009 and 2010 each resulted in price increases almost at the level of inflation: the contract batch awarded in the year 2009 saw an increase in the collection prices, on average in Germany, by approx. 8 % compared to the prices effective before (i.e. in the service period 2007-2009). This value stood at 5 % for the batch awarded in 2010. In the year 2011, collection contracts were awarded by several compliance schemes, for the first time, in accordance with the tender agreement. For this batch, prices remained at the same level, on average, all over Germany.

In contrast to the collection costs, the costs for sorting / recovery also fell continuously and to a significant degree after the year 2006. As a consequence of the gains in

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62 Cf. Press Release of the Bundeskartellamt of 11 Sep. 2003, www.bundeskartellamt.de

63 Cf. Press Release of the Bundeskartellamt of 12 Oct. 2004, www.bundeskartellamt.de

64 Bundeskartellamt, Case Report B4-152/07 of 18 April 2011, www.bundeskartellamt.de

market shares of DSD's competitors and the individual award of contracts for sorting / recovery, a competition arose among the procuring compliance schemes which resulted, inter alia, in a diversity of the structure of the sorting agreements (see page 16). The DSD has, for instance, since the year 2009 no longer awarded contracts for LWP sorting according to collection territories, but according to LWP sorting quantities, regardless of their territorial origin. Stated aims of this "decoupling from allocated territories" were, among others, a higher calculation security for the bidders of the sorting service and a decrease of the transport costs between the transfer point and the sorting plant, which are taken into account by a complex optimisation programme when the contract is awarded. For the service providers, the competition resulted in significant investments in modern LWP sorting plants (see page 39). While LWP sorting/ recovery cost, on average in Germany, approx. € 150/t, according to knowledge gained by the Bundeskartellamt from other processes, this value stood at only approx. € 100/t in 2011.

Finally, the cost block of ancillary fees (incl. joint-use of recycling centres) has not been exposed to any competitive pressure even in the period 2004-2011: these costs are completely communitarised between the compliance schemes according to the ancillary fees clearing agreement, no competition exists (cf. section 5.3.1). The amounts which have been agreed with the örE have not been subject to change since 2004, fees were only reduced in individual cases.

Disposal costs in 2011

The operating disposal costs of all compliance schemes were determined for the year 2011 as part of the Sector Inquiry. Costs were calculated for each of three fractions (LWP, P&B, glass), and each separately for the services of collection, sorting / recovery and ancillary fees (incl. joint use of the recycling centre). The inquiry of the cost data for sorting / recovery took account of the variety of agreements used in the practice. The information provided by the scheme operators is not only consistent based on a cross-comparison, but also consistent with the findings made by the Bundeskartellamt in other processes. The aggregated results (sum for all scheme operators) are presented in Table 3 (each rounded to full million Euros).

[in € million]	Collection	Sorting + Recovery	Ancillary Fees	Total	in %
LWP	328	229	105	663	80%
Glass	101	-24	12	89	11%
P&B	88	-32	16	72	9%
Total	517	173	133	824	100%
in %	63%	21%	16%	100%	

Table 3: Operating disposal costs of the compliance schemes in 2011

All values in million Euro (rounded). Source: own research. Aggregated values of the information provided by the scheme operators (formal decision requesting information of 26 July 2012)

According to the typical agreements, transport costs which arise until the transfer point are included in the position of "collection" and transports from the transfer point to the sorting plants are included in the position of "sorting / recovery". For glass and PWK, sorting / recovery is a net proceeds position (shown as a negative value in the Table), since the proceeds arising from the recyclable materials exceed the costs of glass processing or P&B sorting (incl. transports). In other words, the collected waste has already a positive market value at the transfer point. Furthermore, information was requested on how the position of sorting / recovery for the fractions of LWP and glass is divided, roughly, over the sorting costs and proceeds from recovery. This additional division requires certain estimates to be made and is, thus, not disclosed in the Table. The net proceeds for glass of EUR 24 million consists approximately of processing costs of approx. EUR 75 million (incl. transport to the processing plant) and proceeds from recovery of approx. EUR 100 million (from the processing plant). For LWP, the costs and proceeds from the recovery of the output of the sorting plant (proceed fractions vs. fractions subject to additional payments) are almost at the same level. Therefore, the value stated of EUR 229 million for sorting and recovery almost equals the costs for the pure sorting service. Please observe for the position of ancillary fees (including joint use

of the recycling centre) that the division shown over the three fractions of LWP, glass and P&B is a result of the cost allocation key of Art. 4 of the ancillary fee clearing agreement (attached as Annex 4). The ancillary fees have, so far, still been agreed with the municipalities as a flat-rate per collection territory, without a differentiation according to the three fractions. Ancillary fees consist predominantly of payments for container stand rent and cleaning, so that they would need to be allocated mainly to the fraction of glass.[65]

Comparison of disposal costs in 2003 and 2011

A summary of the changes in costs in the period from 2003 to 2011 is shown in Table 4. The operating disposal costs fell by a total of 54 % from EUR 1,777 million in 2003 to EUR 824 million in the year 2011. Figures for 2003 are based on DSD's Annual Report for that year. Since it only contains a cost split into fractions, in addition to these total disposal costs, certain estimates are necessary for distributing the costs of 2003 over the categories of collection, sorting / recovery and ancillary fees (incl. joint use of the recycling centre).[66]

The table shows that the cost reduction is different according to the individual cost blocks. That is a direct result of the different competitive conditions: the highest cost reduction arose for sorting+recovery, due to the free competition between the compliance schemes. High cost reductions were also achieved for collection due to the (decoupled) calls for tender for collection, but not to the same degree as for sorting and recovery. The cost block of ancillary fees was, in contrast, practically not exposed to any competitive pressure, so that only low cost reductions could be achieved here.

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65 Cf. also the detailed section 5.3.1.

66 The most important factor for the estimate is the distribution of the position "lightweight packaging and ancillary fees" in the amount of EUR 1,218 million (cf. DSD's Annual Report 2003, page 17). According to findings made by the Bundeskartellamt in other proceedings, the costs contained in this position for LWP collection, on the one hand, and for LWP sorting, on the other hand, were approximately identical in 2003. Therefore, one half of these LWP costs was allocated to the position of collection and the other half to sorting / recovery, in the distribution made in Table 4.

[in € million]	2003	2011	Change in %
Collection	approx. 918*	517	approx. -44%
Sorting + Recovery	approx. 715*	173	approx. -76%
Ancillary fees (incl. recycling centre)	approx. 144*	133	approx. -8%
Total	1,777	824	-54%

Table 4: Operating disposal costs of the compliance schemes in 2003 and 2011

All values in million Euros (rounded). Source: own research. Total costs for 2003 pursuant to DSD's Annual Report 2003. Cost split 2011 according to information provided by the scheme operators (formal decision requesting information of 26 July 2012). *Distribution of the total costs of 2003 to the individual positions estimated.

3.6 Revenue and Prices

Revenue achieved by the compliance schemes in the period of 1993 to 2011 was also inquired as part of the Sector Inquiry. It could be determined back to the year 2002, how such revenue is distributed over the three fractions of LWP, glass and P&B. Figure 8 shows the changes in revenue. It reveals that the revenue during the period of the monopoly totalled approx. EUR 2 billion (i.e. approx. DEM 4 billion) and fell to below EUR 1 billion after the market was opened up for competition. It amounted to EUR 941 million in the year 2011.

The revenue curve followed approximately the course of the cost trend explained in section 3.5, from the year 2004, as was to be expected under competitive conditions. Since the DSD had formerly been structured as a "non-profit" company, the revenue corresponds, roughly, also to the DSD's costs at the time of the monopoly (1993-2003). A certain degree of deviation arises for the period from 1993 to 2003 only insofar as the DSD achieved profits to a low degree in the 90s (probably also to compensate for the high loss in the year 1993), achieved a neutral result in the years 2001 and 2002 and

even suffered a significant loss of EUR 118 million in the year 2003.[67] As can be seen from the constant costs in the years 2000 to 2003 (Figure 7, page 41), the price reductions made in the years 2001 to 2003 were not the result of lower disposal costs. The price reductions in 2001/2002 were probably caused by the improved competitive conditions for fringe competitors (self-disposal companies) after the decision was made on the "Grüner Punkt" on 20 April 2001; and the prices which fell below the costs in 2003 should, at least partly, be a reaction to the pending market entry of Landbell AG.[68]

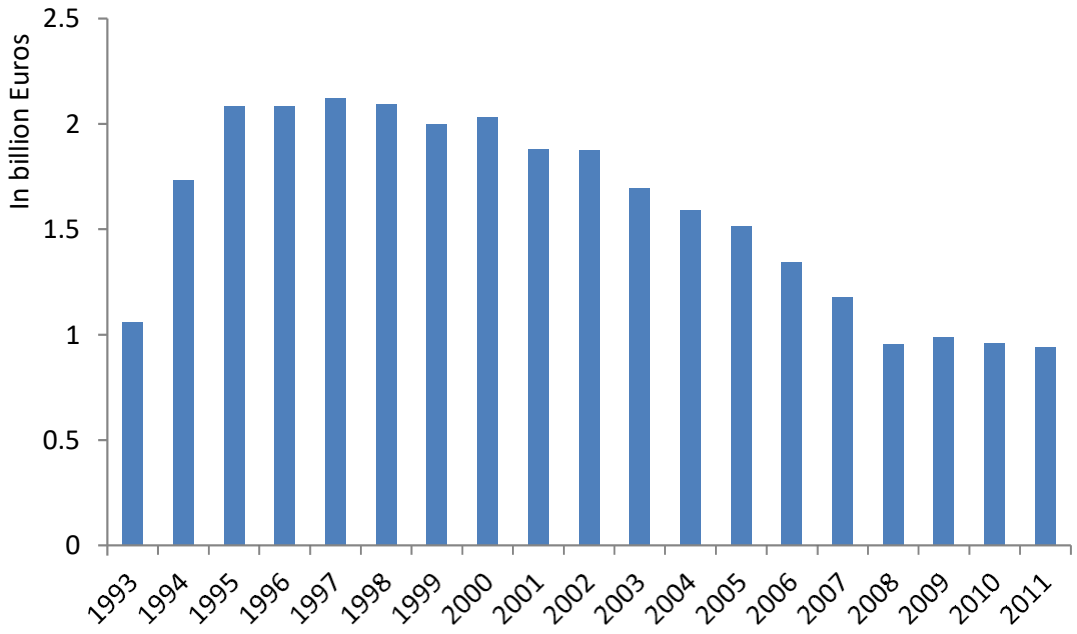

Figure 8: Changes in revenue of the compliance schemes

Source: own research. For figures, see Table 9, page 98.

The compliance schemes agree with their customer on prices in Euro per packaging quantity, which such customer places on the market (€/t). The disposal costs incurred by

[67] DSD's Annual Report of 2003 (pages 17, 19) discloses formally a balanced result, since the reversal of another provision of EUR 118 million was set off with the disposal costs.

[68] DSD's Annual Report, however, names as reasons for the decline in revenue of 2003 exclusively the introduction of the deposit on disposable bottles. Under competitive conditions, however, it could have been expected that the license fees for the packaging remaining in the compliance system would rise to an extent which is compensated by the loss in revenue arising from the licence quantities which are eliminated.

a scheme operator depend liniarily, on the licence quantities of the relevant scheme operator (cf. section 2.4). The total license quantity (in the sector typically referred to as “market quantity”) is thus an important operand for the pricing of scheme operators. They calculate the price they offer their customers based on their individual cost situation (pursuant to their operating disposal agreements) and the (expected) total licence quantity. A scheme operator will, for instance, calculate the lowest limit of their price based on the (variable) disposal costs, as follows: A LWP licence quantity of e.g. 100,000 t would correspond to a LWP licence quantity share of 10 % in case of a LWP market quantity of e.g. 1 million t. Based on the individual agreements concluded with the operating disposal companies, scheme operators calculate expenditure for this licence quantity of e.g. EUR 60 million, i.e. EUR 600 per licence tonne of LWP. If, however, the LWP licence quantity of the total market is 1.2 million t, the LWP licence quantity of 100,000 t corresponds to a LWP licence quantity share of only 8.33 %. The scheme operator will then only incur disposal costs of EUR 500 per t of LWP licence quantity (cf. also section 2.4). Insofar as the total licence quantity changes, this will lead to corresponding changes of the price per licence quantity.

It is, for these reasons, significantly more meaningful to directly consider the revenue trend, than the changes in the revenue per licence quantity. The latter are only disclosed in Figure 9 for reasons of completeness. It shows the average prices in the relevant calendar year. The high price reductions are also revealed in this Figure. Please note that the alleged price increase from 2002 to 2003 for LWP from approx. € 945/t to approx. € 1,022/t is, in reality, a price reduction. If the same matter is presented as price per licence quantity, this “increase” results from the elimination of approx. 18 % of the total LWP licence quantity because of the deposit on bottles introduced on 01 Jan. 2003. In order to keep the revenue on a constant level, DSD ought to have increased the price per tonne for the year 2003 much more (for LWP from approx. € 945/t in the year 2002 to approx. € 1,148/t in the year 2003, instead of increasing it “only” to € 1,002/t). In return, the lower price for LWP tonnes in the year 2009 should not be misinterpreted as a price reduction: the lower price per tonne in the year 2009 is only a result of the higher total LWP licence quantity in the year 2009.

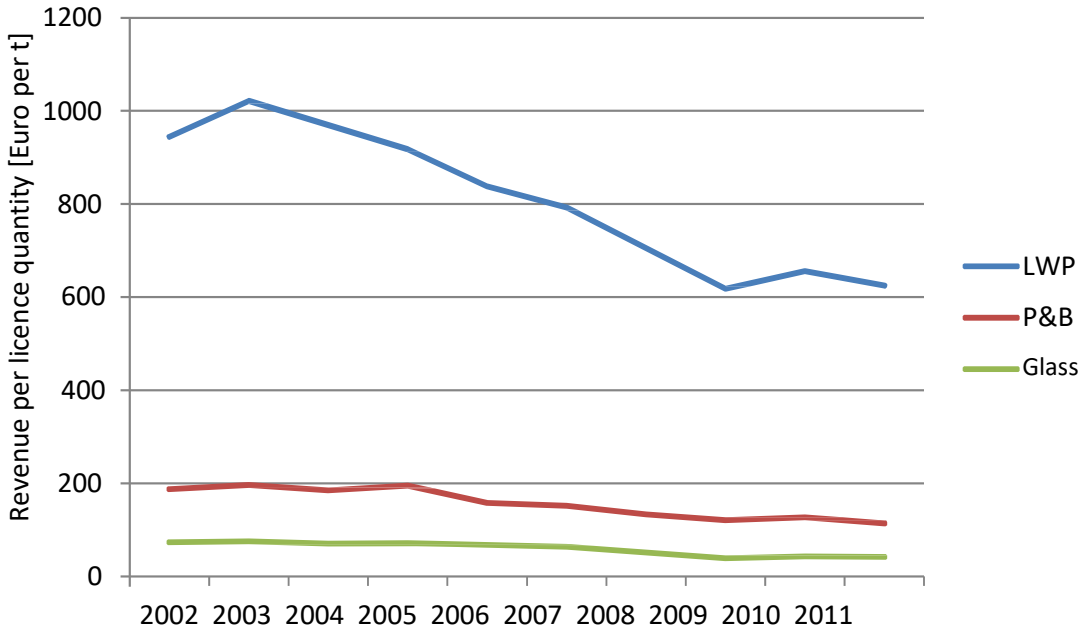

Figure 9: Changes in revenue per licence quantity 2002-2011

Source: own research. Calculation based on the figures disclosed in Table 8, page 97 and Table 9, page 98.

3.7 Anticipated Negative Effects did not Occur

When the Bundeskartellamt and the European Commission planned to open this market up to competition, numerous concerns were raised by disposal companies, the DSD and others.[69] They claimed that the competition would cause a collapse of the compliance system ("ruinous competition"). They also said that the competition would at least lower the recycling quotas ("environmental dumping") and that prices would actually rise due to additional transaction costs. These arguments were not only used in political discussions (with the aim of creating an exemption under competition laws), but also in legal issues. The competitive restrictions existing at the time were justified as being permissible under competition laws on the basis of these arguments[70] or a collision of standards was assumed to exist between the VerpackV and the competition

[69] All parties represented then in the Bundestag (lower house of the German parliament) had members supporting and opposing the idea of opening the market to competition. The same applies to representatives from science and experts of the VerpackV.

[70] Cf. e.g. Velte, Duale Abfallentsorgung und Kartellverbot (Dual Waste Disposal and Ban of Cartels), 1999.

laws which they claimed needed to be solved in favour of the VerpackV.[71] Below, these fears will be explained, in detail. And, new points of criticism regarding the competition between the compliance schemes will be discussed below as well.

3.7.1 Collapse of the Scheme

Contrary to fears, the compliance scheme has not collapsed eleven years after the first decisions were made by the cartel authorities to open up the market, or nine years after the approval of Landbell AG as a second compliance scheme in the German federal state of Hesse. No scheme operator has filed for insolvency. The scheme was only seriously threatened during the financial crisis of the DSD in the year 1993, i.e. under monopoly conditions. Insofar as "ruinous tendencies" of the competition between the compliance schemes are still subject to speculation due to "price dumping" or "sub-licensing",[72] these considerations lack an internal logic and are not based on facts. In the year 2011, scheme operators achieved licence revenue of EUR 941 million and incurred operating disposal costs of EUR 824 million. After deducting their own costs for scheme management (i.e. personnel, office rent, and the like), scheme operators still had a sufficient profit margin, also in the year 2011. Any potential insolvency of one of the several scheme operators poses a comparatively low risk for the scheme's stability compared to an insolvency of a monopoly provider.[73]
Based on the tender agreement concluded in November 2010, the organisation of collection does no longer depend on the continued existence of one certain company. Thus, the presence of several scheme operators rather makes a positive contribution to the stability of the total scheme.

The different theories why the competition between compliance schemes should result in a collapse of the scheme, are based on unrealistic assumptions.

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[71] Cf. e.g. Kirchhof, Der verfassungsrechtliche Status der Duales System Deutschland AG als privatwirtschaftlicher Entsorgungsgarant (The status of the Duales System Deutschland AG under constitutional laws as a private guarantor for disposal), 2001.

[72] Cf., in particular, Cantner et al. (bifa Umweltinstitut GmbH), Evaluierung der Verpackungsverordnung (Evaluation of the Packaging Ordinance), page 161 et seq., February 2011.

[73] In order to avoid any functional disturbances caused by insolvency, it seems sensible to include an explicit clarification in the VerpackV saying that customers of an insolvent scheme operator will be obliged to re-license their packaging quantities with another scheme operator.

One of these theories says that competitors of DSD would restrict their collection activities to "profitable" locations ("cherry picking"), while the DSD was to be responsible for "unprofitable" locations.[74] Please note here that the obligation to work on a full-coverage basis (Sec. 6 (3) sentence 1 of the VerpackV) applies equally to all schemes. In addition, the collection of LWP and glass is not organised on an individual basis, but jointly by the compliance schemes (cf. section 2.2). The second version of the arguments says that a competition by other compliance schemes was only possible if they were subject to lower environmental requirements than the DSD, which would then threaten DSD's existence.[75] It suffices to say here that the environmental requirements set out in the VerpackV – in particular the recovery quotas - are the same for all scheme operators.

Yet another theory argues that competition between compliance schemes was to result in a massive increase of so-called "free-riders" which would cause the scheme to collapse. One version of this argument says that scheme operators would refrain from increasing the license fees for their remaining customers, if their total licence quantities were falling. That implies that scheme operators would consciously accept their own insolvency. As explained above (page 47 et seq.), the total licence quantity is naturally an important parameter in the scheme operator's calculations. As far as the Bundeskartellamt knows, this calculation parameters typically requires the consent of the management of the relevant company. Most licence agreements have a term of one year, some of the agreements also provide for options to terminate them during the year. So, scheme operators could and would react to any rise in the number of free-riders by increasing their prices per tonne within a short period of time. Alternatively, scheme operators could include price regulations in the licence agreements which would apply in case of market quantity changes.[76]

Another version of this free-rider theory says that while scheme operators would increase the price per tonne, that would, in return, initiate a spiral effect: an increasing number of distributors would become free-riders, due to the constant price increases,

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74 Cf. e.g. Velte, Duale Abfallentsorgung und Kartellverbot (Dual Waste Disposal and Ban on Cartels), 1999, page 256.

75 Cf. e.g. Kirchhof, Der verfassungsrechtliche Status der Duales System Deutschland AG als privatwirtschaftlicher Entsorgungsgarant (The status of the Duales System Deutschland AG under constitutional laws as a private guarantor for disposal), 2001, p. 118.

76 So, the "reimbursement" of licence fees by DSD in 2001 and 2002 to customers was, for instance, a subsequent price adaptation.

so that no paying customers were left in the end. This version implies that both the enforcement authorities and the scheme operators which have a claim for reimbursement against free-riders, were completely inactive (Sec. 6 (1) sentence 4 of the VerpackV). In addition, a sufficient number of paying distributors existed some years ago, even when the price level was double as high as now. Even if the licence quantity were to be cut in half, the former prices per tonne would be achieved "only" for the remaining customers. Four major retail groups account for about half of the current licence quantities, so that in order to achieve the former price level, it would suffice if only these four companies properly licensed their quantities. So, even a strong increase of free-riders poses no threat to the scheme's stability. Accordingly, the current projects to counteract possible "reactions of evading the obligation to take part in the compliance scheme", by introducing a central body[77] are based on considerations of fairness and not on concerns about the scheme's stability.

What remains largely unclear regarding these theories is why competition between compliance schemes should cause an increase in free-riders at all. HDE and Veolia rather said in their statements that the opening of the market to competition resulted in a lower number of free-riders.[78]

The competent enforcement authorities are responsible for keeping the share of free-riders low. There is no reason to believe that an enforcement among distributors could be made noticeably harder by the competition among the compliance schemes. The causal link claimed in this argument is rather typically restricted to the (marginal) substitution by self-disposal solutions (or sector solutions and self-take-back solutions available today). But, since this Sector Inquiry focusses on compliance schemes, this aspect should not be discussed in more detail herein.[79]

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77 Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit (Federal Ministry for the Environment, Nature Conversation and Nuclear Safety), Thesenpapier zur Fortentwicklung der haushaltsnahen Wertstofferfassung vom (Position Paper on the Further Development of the Collection of Recyclable Materials near the Households of) 18 July 2012.

78 Such a causal link would, perhaps, be derived from Sec. 6 (1) sentence 4 of the VerpackV, according to which scheme operators have a claim for reimbursement of costs against free-riders.

79 Insofar, it is claimed that sector solutions or self-take-back solutions would partly not operate in accordance with the provisions of the VerpackV. Given the inactivity of enforcement authorities and due to regulation deficiencies in the VerpackV, a strong expansion of these alternative offers would, indirectly, result in an increase of the number of free-riders. Regardless of whether such claims are true,

that the opening up of the market to competition had resulted in an increase of free-riders cannot be derived from the trend of the licence quantities. Figure 10 shows the LWP licence quantities of the compliance schemes without sector solution quantities (or until 2008 without self-take-back quantities) and after deduction of self-take-back quantities.

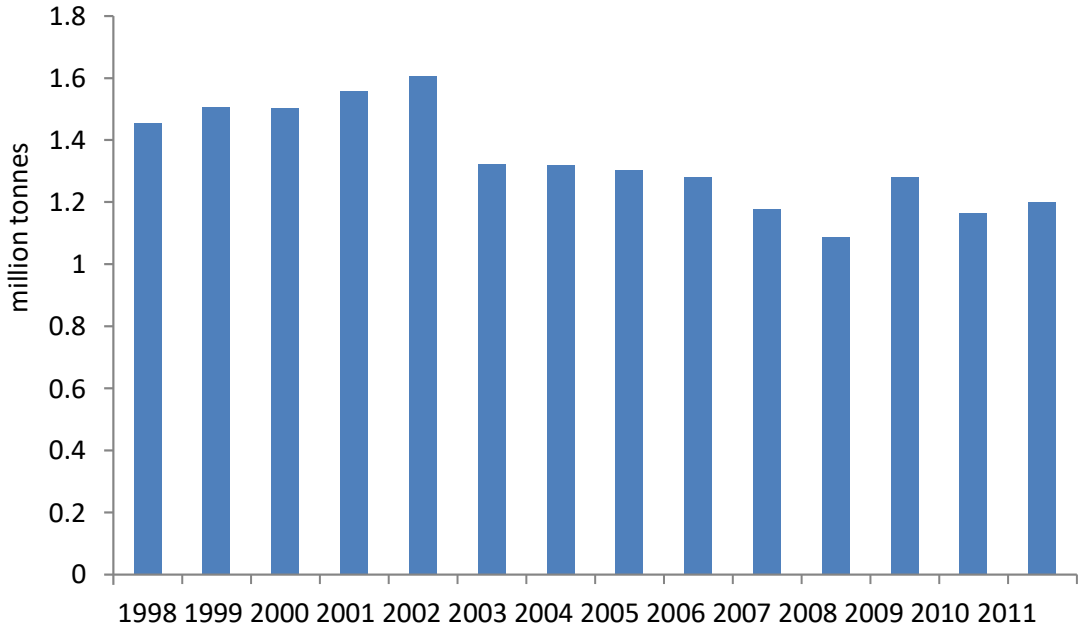

Figure 10: Changes in the LWP licence quantities 1998-2011

Source: own research. For figures see Table 8, page 97.

The changes in LWP licence fees are attributable to several factors. From 1998 to 2002, the LWP licence quantities rose due to the increasing distribution of disposable PET bottles.[80] Upon introduction of the deposit on disposable bottles on 1 Jan. 2003, LWP licence quantities fell by approx. 18%. The expansion of this deposit on 01 May 2006 left its traces in 2006 and, in particular, in the year 2007. Based on the changes introduced by the fifth revision of the VerpackV (VerpackV-Novelle), the license quantities initially rise in the year 2009 (introduction of the letter of representation)

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any resulting "ruinous tendencies" (going beyond the reasons mentioned above) are not to be feared, also due to the fact that sector solutions have been offered, in the meantime, by all operators of compliance schemes. Providers of "pure" sector solutions account only for very low quantity shares.

80 Cf. DSD's Annual Report 2002, page 9, DSD's Annual Report 2001, page 13.

and fall in 2010/2011 (expansion of the sector and self-take-back solutions). The LWP licence quantity of the year 2011 is by approx. 9 % lower than in 2003. Since the LWP quantities put in circulation in the period from 2003-2011 remained almost at the same level - apart from a certain decrease caused by the expansion of the deposit on 1 May 2006 - it can be excluded that the number of free-riders has risen significantly.[81]

3.7.2 Decline in Quality

One of the most important arguments against the opening up of the market was that competition would result in falling recycling quotas. But, the opposite occurred, in fact. The establishment of a high-value recycling for the LWP fraction and, in particular, for the plastic waste contained therein was one of the most important reasons (if not the most important reason) for the introduction of a compliance scheme or of the yellow bin. This aim was ultimately only achieved after the market was opened up (cf. section 3.4). The LWP recycling quota which rose due to the competition or, in particular, the improved plastic recycling is, thus, to be regarded as a significant increase in quality.

According to the statements submitted by customer associations for the Sector Inquiry, the service level for distributors has improved since the market was opened up. These associations mention, as examples, consulting services for distributors[82] and individual reporting routines which reduced the efforts of the obliged companies significantly in individual cases[83]. Some scheme operators even underline the advantages of an

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81 The Gesellschaft für Verpackungsmarktforschung mbH which constantly prepares estimates for the figures regarding the consumption of packaging, also assumes that the share of free-rider quantities for the fraction of LWP remained constant (and that free-rider quantities for the fractions of glass and P&B have fallen) (cf. e.g. Schüler, Wirksamkeit der 5. Novelle der Verpackungsverordnung – die Lizenzierung von Verkaufsverpackungen (Effectiveness of the 5th revision of the Packaging Ordinance - Licensing of Sales Packaging), conference on municipal waste management, Magdeburg 21-22 Sep. 2011). But, please note regarding the share of free-rider quantities mentioned by the GVM that these shares are unknown, since the exact amount of private packaging consumed is naturally unknown. In contrast to the exact licence quantity data, any consumption data are subject to a high degree of predictive uncertainty. The share of free-riders estimated by the GVM for LWP to remain constant at approx. 30 %, seems to be far too high, in view of the composition of the LWP collected mix explained above (p. 31).

82 Statement of the trademark association.

83 Statement of the AGVU.

increased variety of offers in their statements.

Furthermore, the LWP collection was also further expanded after the market was opened up by an increased collection in yellow bins, instead of yellow bags (see above, p. 30). According to an estimate of the Bundeskartellamt, this improvement in quality was not caused by the opening of the market. Likewise, the number of locations where waste glass containers are available was not decreased, despite the lower consumption of glass.

Municipal disposal companies have been complaining for years that the quality of the collection service awarded by the compliance schemes would suffer if the contract was awarded to their private competitors. They say that the competition in the calls for tenders for collection services was based purely on cost reductions, without quality standards playing any role. This argument is objected to by both the private disposal companies and the compliance schemes. They claim that there was no difference in quality compared to the service level tendered. Insofar as operational faults occur in rare cases, they occurred to the same extent among municipal disposal companies and were usually caused by weather conditions and not by the opening up of the market. Against this backdrop, the Bundeskartellamt asked both scheme operators and associations of disposal companies during the Sector Inquiry, in which cases operational disruptions had occurred since 2008 and in which cases the örE had to perform the service (cf. Annex 2, question c). The Verband kommunaler Unternehmen (BKU) underlined their arguments submitted for the Sector Inquiry by filing a survey among their members conducted for this purpose,[84] but mentions no concrete individual cases. DSD reports of a case in which the efficiency of a disposal company which had been engaged for a total of three territories, decreased over the term of the agreement, so that they needed to change the collection company. There have been only two cases since 2008 (rural district of Barnim in 2010, city of Frankfurt in 2012), in which the örE requested a reimbursement of costs from the DSD since they had to perform the disposal; but the preconditions for performing such work in place of the DSD had not

[84] The collection company would, inter alia, “leave out” some roads or individual customers; the quality of the yellow bags was often bad; the roads would be polluted; operational disruptions occurred particularly often if the contract partner was changed; removal intervals were too long for waste glass.

been met in both cases. Veolia also mentions the case of Frankfurt and believes that the collection company had not been at fault there.[85] All other statements contain no descriptions of concrete individual cases. This number of only two individual cases is very low, in view of more than 800 affected collection contracts in Germany (more than 400 for LWP and glass, each), in a period of more than four years.

It cannot be understood, why compliance schemes should tolerate that the services of the collection company remain below the quality level specified in the tender. The same applies to other legal standards (e.g. minimum wage). The relevant tender organisation manager is, for their own purposes, interested in a smooth operation in order to avoid own liability risks (e.g. due to violations of the law on the part of the contractor) and since replacement measures are costly. According to knowledge of the Bundeskartellamt, the collection company is regularly controlled by the tender organisation manager, in particular, even before the services commence.[86]
In order to avoid operational disruptions which might occur since the services of a new collection company start on 1 January when there is usually snow and black ice, some statements suggest postponing the date of such change of the service providers to 1 July.

When considering the aspects mentioned above as a whole, the opening up of the market has resulted in an improvement of the quality of the compliance scheme.

3.7.3 Price Increases Caused by Higher Transaction Costs

Another argument against the opening up of the market was that it would result in strongly rising transaction costs, since more agreements would need to be concluded between the compliance schemes and operating disposal companies. As a result, the disposal costs or the prices of compliance schemes might even increase since increases

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[85] Main reason for the bottleneck in the removal of waste glass in the city centre of Frankfurt in December 2011 was a sharp increase in the quantity of waste glass and a delayed approval practice on the part of the city administration for the set-up of more collection containers.

[86] DSD controls, for instance, according to information it submitted, the preparatory steps of the collection company already prior to the start of the service period in a time schedule, it performs detailed checks of tour plans, collection containers, vehicle registration documents of the collection vehicles, employment contracts of the personnel to be deployed, tests of the yellow bags, and the like.

in efficiency caused by the competition might be lower than the additional transaction costs.

Increases in costs or prices which had been feared, did not occur. On the contrary, costs or prices have been cut by almost one half (cf. sections 3.5 and 3.6). While it is correct that the competition among the compliance schemes is accompanied by a higher number of disposal agreements, but, transaction costs associated therewith are completely insignificant in terms of quantity compared to the high increases in efficiency and the lower transaction costs achieved on other levels.

Nevertheless, the argument is still emphatically being upheld today (inter alia by the VKU), to justify the demand for an elimination of the competition among the compliance schemes. Currently, the persons using this argument refer to a rough estimate made by the company HWWI consult GmbH on behalf of the trade associations Wirtschaftsverbände Papierverarbeitung e.V. In this study, the costs of bureaucracy associated with the VerpackV were estimated on the basis of a definition of the regulatory costs - which is wider in comparison to the standard cost model of the Statistisches Bundesamt (German Federal Statistical Office) - and were referred to as "Transaction Costs of the VerpackV".[87] While the Statistisches Bundesamt states that the costs of bureaucracy associated with the VerpackV amount to approx. EUR 69 million[88], the wider definition of the term regulatory costs as used by the HWWI results in an estimate of EUR 168 million. But, there is no connection between these figures and the competition between the compliance schemes - in contrast to the suggestions made by third parties when they quote the HWWI study.

Transaction costs generally mean costs for initiating and performing or enforcing agreements.[89] Such transaction costs arise in relation to the compliance scheme mainly on three levels: for distributors, scheme operators and the disposal companies engaged by them. HWWI estimates that the "transaction costs" incurred by these three groups

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87 The terms "regulatory costs" and "transaction costs" which are usually used by economists with significantly different contents, are insofar mixed together.

88 https://www-skm.destatis.de/webskm/menu, category of laws – VerpackV.

89 Normally, the term transaction costs refers to the costs for finding and initiating transactions, the costs for information, allocation, negotiation, decision making, agreements, handling, securing, enforcing, controlling, adapting and terminating transactions. The counter-term which is often used is called "production costs".

on the basis of the VerpackV amount to EUR 65 million, 32 million or EUR 44 million.[90] The study provides no information on how these amounts have changed on account of the entry of competitors in the market.

According to HWWI's estimate, the biggest block of the transaction costs is incurred by the distributors. The service improvements mentioned by the distributors (cf. section 3.7.2) constitute a decrease of the transaction costs. Accordingly, the transaction costs for distributors should have fallen essentially. And also the transaction costs incurred by scheme operators have experienced a falling trend, and have in no case gone up. The transaction costs incurred by scheme operators are expressed in particular in the number of employees.[91] DSD employed 394 employees in the year 2003, and only 220 employees in 2011 - despite the fact that the DSD's activities were expanded to business fields going beyond the compliance scheme. While other scheme operators increased their staff number, the number of all employees employed by scheme operators for scheme operation has not risen since the market was opened up.

It is typically claimed that transaction costs rose among the operating disposal companies based on the higher number of collection and sorting agreements. HWWI estimates that the transaction costs associated with the VerpackV incurred by this group amount to EUR 44 million, this estimate is based on the reports on quantities fed to the scheme. In view of operating disposal costs of EUR 824 million in the year 2011, the share of transaction costs contained therein, is low.[92] Numerous statements pointed out that bureaucratic efforts for operating disposal companies has only gone up slightly, inter alia, due to the use of uniform data interfaces. Assuming that a certain percentage rate of the amount estimated to total EUR 44 million results from the

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[90] Schlitte/Schulze/Straubhaar, Liberalisierungspotenziale bei der Entsorgung gebrauchter Verpackungen aus Papier, Pappe und Karton (Potentials for Liberalisation in the Disposal of Used Packaging Made of Paper, Cardboard and Carton), study of HWWI consult GmbH on behalf of the Wirtschaftsverbände Papierverarbeitung e.V., November 2011, p. 45.

[91] Finally, the total costs of the scheme operators for scheme management can be interpreted as being their transaction costs, since the service of the scheme operator is, in fact, to break down a license agreement to numerous operating disposal agreements (which are the "production costs" of these scheme operators). The costs of scheme management consist predominantly of personnel expenses incurred by the scheme operators.

[92] Please note in this regard that each business activity is inevitably connected with significant transaction costs - that applies also to all disposal services.

opening up of the market to competition, the increase of the transaction costs among operating disposal companies was significantly less than EUR 44 million. Regardless of the exact amount of the percentage rate assumed, that only corresponds to a fraction of the decrease of the operating disposal costs by approx. EUR 953 million (cf. section 3.5).

Please note, in addition, that the transaction costs arising on the level of the scheme operators and the operating disposal companies are already included in the fees paid by the distributors. That is the reason why such “indirect” transaction costs are typically not understood as “transaction costs” - contrary to the perspective chosen by the HWWI - it is normally only the “direct” transactions costs incurred by the relevant contract partner (i.e. the distributor in our case) which are referred to as such. But even for the purpose of this overall consideration of the direct and indirect transaction costs, the opening up of the market should, as a whole, have resulted in a decrease of the transaction costs.

The current demands for an elimination of the compliance schemes and for their replacement by a “central body” or the örE (cf. section 5.1), should be opposed by saying that this would not only lead to high losses in efficiency - i.e. increases of the operating disposal costs - but also to higher transaction costs. Since a monopoly for awarding contracts would arise like the one in 2003, it must be assumed that worse services for distributors and more personnel for scheme management would cause higher transaction costs. In addition, the awarding of contracts by one “central body” or the örE would only be conceivable by applying the procurement law. This would cause more transaction costs to a significant extent.

Some bodies (VKU, among others), claim in connection with the transaction cost argument that the competition between the compliance scheme was “purely a joint use of identical operational services”. That is incorrect. Sorting and recovery are individually organised by each scheme operator (cf. sections 2.2 and 3.5), that is connected with individual logistics and the engagement of different sorting and recovery companies. It is only in the field of the ancillary fees that one can speak of a “purely joint use of identical operational services”. Collection is organised in a mixed form, with the main cost responsibility on the one hand and the parallel engagement of the same collection company on the other hand.

3.7.4 New Points of Criticism

Sections 3.7.1 to 3.7.3 deal with the arguments voiced already prior to the time when the market was opened up for competition. Below, two new points of criticism will be explained.

"Unknown scheme costs" and bad eco-efficiency

A study of Cantner et al. from the year 2011 estimated the operating disposal costs of the LWP fraction for the year 2007 and compared them to the former list prices of the DSD.[93] The authors concluded that a significant share of "unknown scheme costs / overhead" of up to EUR 800 / t would exist even after the market was opened up to competition. While the authors qualified the figure they had disclosed, this qualification, however, was lost when the figure was quoted by third parties.

The figures assumed by Cantner et al. are far away from the actual costs / prices. The high amount of up to EUR 800 / t results primarily from a market price which is assumed to amount to up to EUR 1,300 per LWP licence tonne and corresponds to the former DSD list prices. The actual average price in the year 2011 amounted, however, to EUR 625/t. In addition, the disposal cost estimates compared by Cantner et al. for the year 2007 refer probably to the disposal costs per tonne of waste. For the reasons mentioned above (see p. 31), the LWP collection quantity is double as high as the LWP licence quantity (in the year 2011: 2,360,769 t vs. 1,198,949 t). It makes a decisive difference, whether the costs / prices relate to the collected quantity or the licence quantity.

With reference to the relevant LWP licence quantity or LWP collected quantity, the correct amounts compared to the estimates made by Cantner et al. are as follows:

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93 Cf. Cantner et al. (bifa Umweltinstitut GmbH), Evaluierung der Verpackungsverordnung (Evaluation of the Packaging Ordinance), p. 154-155, February 2011.

	Costs / revenue 2011	Costs / prices per licence quantity 2011	Costs / prices per collected quantity 2011	Estimate by Cantner et al. 2007 per "quantity"
Collection	€ 328 million	€ 274/t	€ 139/t	approx. €256/t
Sorting+recovery	€ 229 million	€ 191/t	€ 97/t	approx. € 250/t
Ancillary fees	€ 105 million	€ 88/t	€ 45/t	
Total	€ 663 million	€ 553/t	€ 281/t	approx. € 506/t
Licence fees	€ 749 million	€ 625/t	€ 317/t	approx. € 1,300/t
Balance (=gross profit margin of the	€ 86 million	€ 72/t	€ 36/t	≤ € 794/t

Table 5: Costs of the LWP fraction per licence or collected quantity

All values rounded. Source: own research. For LWP cost data for 2011 see Table 3. LWP collected quantity 2,360,769 t; LWP licence quantity 2011: 1,198,949 t. Estimate of Cantner et al., see footnote 93.

The balance estimated by Cantner to amount to up to € 800 per "tonne" for the LWP fraction thus amounts only to EUR 72 per licensed tonne or EUR 36 per collected tonne. This gross margin is a contribution margin of the scheme operator which they use to cover the costs of system management or to make a profit. Therefore, no "unknown scheme costs" exist as suspected by Cantner et al. based on the figure of up to € 800/t.

But, this figure led to new criticism by other authors on the eco-efficiency of the LWP recycling when compared to the incineration of residual waste.[94] The costs of LWP recycling which were suspected to be very high would put in question whether the

[94] Thomé-Kozmiensky, Verantwortung der Kommunen für die Kreislaufwirtschaft (Responsibility of Municipalities for Recycling Management), in: 100 Jahre kommunale Städtereinigung (100 Years of Municipal Cleaning), 2012, p. 13-21; Baum, Zur Rationalität staatlicher Eingriffe in den Abfallsektor – dargestellt am Beispiel der Verpackungsverordnung (On the Rationality of Governmental Interventions in the Waste Sector - Presented at the Example of the Packaging Ordinance), in: Müll und Abfall (Garbage and Waste) 2012, No. 7, p. 366-372.

ecological added value of LWP recycling were paid dearly in comparison to the incineration of household waste. But, this question is no longer applicable today, since LWP sorting and recovery have, in the meantime, become more cost-effective than the incineration of household waste organised by the municipalities. LWP sorting and recovery cost only a little less than € 100 per t of LWP waste (see above). But, the incineration of household waste organised by municipalities still costs significantly more than € 100 per t of residual waste.[95]

"Job-order sorting" and "verticalisation"

The bvse criticises that compliance schemes increasingly place orders for sorting or processing services, both for LWP sorting and glass processin,g as pure "job-order sorting", i.e. the relevant sorting company allocates several or all products to be sorted to the relevant client.[96] The argument is that medium-sized sorting companies were deprived of the option for self-marketing, since sorting and recovery were not awarded as a package. Recovery and sorting companies could no longer agree on individual sorting criteria so that potentials for rationalisation and innovation were lost. Recovery companies had only the option to procure relevant quantities of recyclable materials from few compliance schemes. The bvse calls this trend "oligopolisation" or "monopolisation". Furthermore, the bvse criticises the activity of vertically integrated compliance schemes which perform sorting and recovery, in part, within their own group ("verticalisation"). Such tendencies were inevitably connected with take-back-systems on a full-coverage basis, unless a correcting set of regulations would be implemented within the meaning of an "active policy supporting medium-sized companies". They argue that the legislator ought to re-covert the schemes to a "function as guarantor".

One needs to agree with the bvse insofar that the obligation to work on a full-coverage basis ultimately requires that each scheme operator operates nationwide which

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95 Cf. here the list of the Bundes der Steuerzahler Nordrhein-Westfalen e.V. (Federation of Tax Payers of the German Federal State of North Rhine-Westphalia) of 25 July 2012 disclosing fees for incineration of up to € 251 /t, www.steuerzahler-nrw.de

96 Cf. Press Release of the bvse of 23 July 2012, 9 March 2011; Landers, Sind duale Systeme überflüssig? (Are Compliance Schemes Redundant?), in: Thomé-Kozmiensky/Goldmann, Recycling und Rohstoffe (Recycling and Raw Materials) Volume 4, 2011, p. 135-143; statement of the bvse submitted for the Sector Inquiry.

indirectly limits the number of scheme operators. A huge difference exists in this regard, in comparison to certification schemes.[97] But, to present the developments of the past years as "oligopolisation" or even "monopolisation" is absolutely incorrect. The opening of the market had a strong deconcentrating effect resulting in a decrease of the DSD's market share from 100 % to approx. 44 % (cf. section 3.2). LWP sorting companies now have eight potential clients in addition to DSD so that both sides have, in general, alternative options. Waste glass processing companies have other sources (imported fragments, commercial operations producing waste glass) besides compliance schemes. So, it cannot be assumed that awarding contracts for sorting and recovery as a package would always be more efficient than a separate award of sorting on the one hand and recovery on the other hand. One might also cite the counter-argument. In the competition among the scheme operators or in the competition of the sorting companies, the most efficient of the two awarding versions will prevail in the long run. So, from the point of view of competition, a restriction of the freedom to award contracts is to be rejected.

3.8 Estimate of Effects on Consumer Welfare

This section should present an estimate of the benefits which the opening up of the market brought consumers. A certain degree of abstraction of the actual market trends (cf. sections 3.3. to 3.7) is necessary for such a quantification. In particular, an assumption needs to be made on how the market would have developed if it had not been opened up for competitors. In order to come to a conservative estimate, only the lower limit of the benefits for consumer welfare will be determined here.

No attempt will be made here to attribute the welfare effect to one of the numerous proceedings conducted by the competition authorities (cf. section 3.1) or to even quantify the relative contributions of the legislator, the European Commission and the

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[97] Such certification schemes do not need to meet the requirement to work on a full-coverage basis and do not establish scheme operators. They are rather controlled in a decentralised manner by tradeable recovery certificates which implies a direct governmental supervision of the disposal companies active on the levels of collection, sorting and recovery. The most well known example of such certification schemes applies in the United Kingdom. Cf. here e.g. Schatz, Wettbewerbliche Ausgestaltung von Rücknahmepflichten (Competitive Structuring of Take-Back Obligations), 2005.

Bundeskartellamt.[98] The effects which arose from the opening up of the market should rather be considered as a whole.

The quality increases which could be observed (cf. sections 3.4 and 3.7.2) will not be included in the consideration to ensure a conservative estimate. In other words, it is assumed for quantification purposes, that these quality improvements would have occurred to the same degree if the market had not been opened up. Background of this assumption is that the welfare effects of quality increases are harder to quantify than price effects. Likewise, any changes in the collected quantities which are insignificant in terms of quantity, will remain unconsidered, since they had practically no effect on the disposal costs or the revenue / prices.

Total revenue of the compliance schemes is significantly better suited as a parameter in this investigation than revenue per license quantity, for the reasons mentioned above (cf. section 3.6). As comparison scenario, it is assumed that the revenue level of the compliance scheme would have remained unchanged, if the market had not been opened up from 2001. This assumption is supported, in particular, by the fact that DSD's revenue remained on the same level in the period from 1995 to 2000, i.e. prior to the orders issued by the European Commission in the year 2001 (see page 47). Likewise, DSD' disposal costs remained constant in the period from 1995 to 2003, i.e. when Landbell entered the market or when contracts were awarded in competition from 1 Jan. 2004 (see p. 41). DSD had originally engaged the disposal companies until the end of 2007, so that they would have had no cause to deviate from the price level agreed with DSD until the end of 2007. On the contrary, it must rather be assumed that they would have asked DSD to pay higher fees not later than from 2008, based on the increases in personnel expenses and diesel prices.[99] In the period from 2004 to 2011, consumer prices or producer prices went up in Germany by approx. 15 % or 20 %.[100] Likewise, LWP collection prices rose approx. to the same extent as the inflation rate after 2007 (see p. 42).

So to assume a constant revenue level is also a conservative assumption, and no

98 That would not be possible for most of the processes, see p. 20.

99 If DSD had, for instance, awarded the contract in all territories to the best bidder in the tenders on 1 Jan. 2004, disposal cost would even have gone up (see p. 42).

100 Cf. https://www.destatis.de/DE/ZahlenFakten/Indikatoren/Konjunkturindikatoren/Preise/pre110.html

increases of costs or revenue on account of inflation are implied here.[101]

The mean value of the revenue from licence fees of compliance schemes in the period from 1995 to 2000 is EUR 2,068 million per year. In addition, another amount of EUR 200 million will be deducted from this sum for security reasons. This should cover all conceivable effects. It would be possible, in particular, that the distributors have not fully passed on to the end consumers the price reductions in form of lower product prices. Since the licence fees depend on the packaging quantity and are therefore a completely variable cost block from the distributor's perspective, this should only affect a low share of less than 10 % of the price reduction.

After deducting another amount for security reasons of EUR 200 million, this results in EUR 1,868 million. This minimum revenue is assumed here for the period from 2001, if the market had not been opened up to competition. The difference between EUR 1,868 million and the actual revenue of the system operators arising from licence fees then shows the minimum savings for the consumer which were achieved by the opening of the market (Figure 11). Given the relatively high deduction for security reasons made for the years 2001 and 2002, no savings arise for the consumer, despite actual price reductions which were made (which should have been caused by the marginal competition by self-disposal companies).

The Figure shows the rising savings for consumers which is associated with the constant improvement of the competitive conditions. Beginning with the year 2008, it totals approx. EUR 1 billion per year and that amount is to be expected for the upcoming years as well. The costs for collecting and recovering packaging near the households which are ultimately borne by the consumer, as they are included in the product prices, have fallen by more than 50 %. That corresponds to savings of at least EUR 50 per year for a household with four persons.[102]

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101 The assumption can also be interpreted in the manner that increases of the (personnel) expenses would have been compensated by certain rationalisation even if the monopoly conditions had continued to exist, or that, alternatively, the operating disposal companies would have tolerated constantly falling profits.

102 If the total savings of approx. EUR 1 billion per year are distributed to approx. 82 million inhabitants, it results in approx. EUR 12.2 per inhabitant and year.

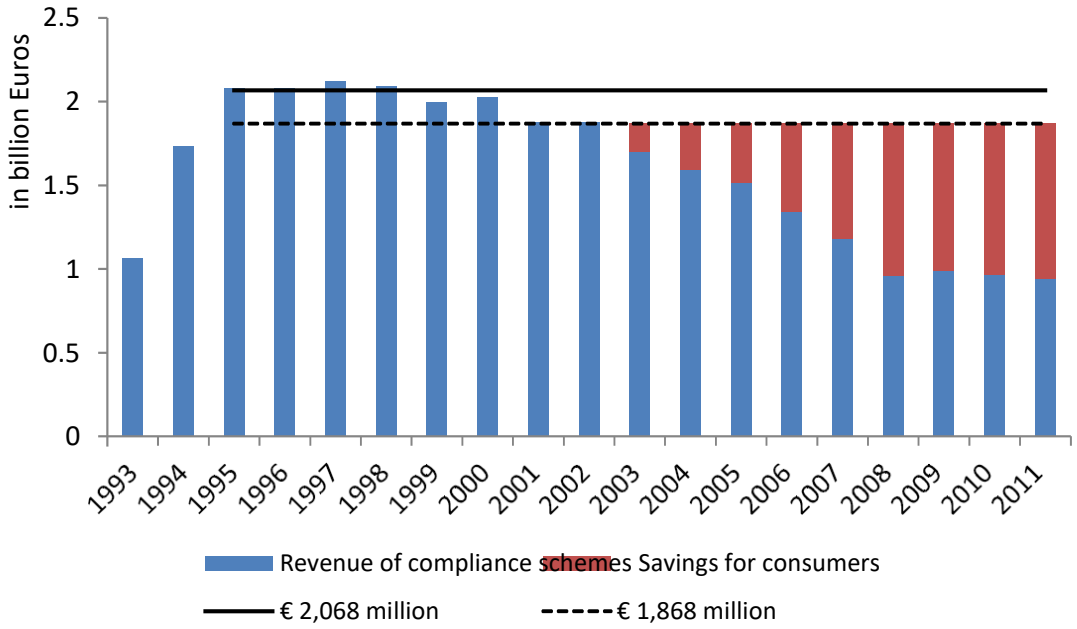

Figure 11: Consumer welfare effects after the schemes were opened up for competition

Source: own research.

In the period from 2003 to 2011, the increase of the consumer welfare amounted, according to the conservative approach selected here, to at least approx. EUR 5.6 billion. Significantly higher consumer welfare effects would arise if less conservative assumptions had been selected. Another EUR 2.2 million are attributable to the deduction for security reasons in the period from 2001 to 2011. Insofar as such were inadequate in general or at least in terms of their amount, the estimated savings for consumers would be proportionally higher. If quality improvements and increases in wage costs are to be considered in addition, this would result in an accumulated increase of the consumer welfare of more than EUR 10 billion until the year 2011.

4 Principles under Competition Laws

In the field of "compliance schemes", the Bundeskartellamt has permanently been dealing with issues under competition laws in the past years. It often receives inquiries or complaints on issues relevant in the practice. But, the Bundeskartellamt needed to take few decisions lately, since affected companies ceased any non-compliant conduct reproached by the Bundeskartellamt in the past years without the need for formal proceedings. Therefore, this section will describe the overall concept applicable to this sector under competition laws. Annex 3 contains some information letters of the Bundeskartellamt on individual questions.

4.1 Collection as a Bottleneck Factor

The sector's special character under competition laws is, in comparison to other economic areas, that the collection of packaging waste constitutes a bottleneck factor, since compliance schemes are obliged to work on a full-coverage basis. The special requirements under competition laws for this sector are ultimately based on this special character.

According to the basic concept of the VerpackV, each scheme operator must ensure collection, free of charge, on a full coverage basis (Sec. 6 (3) sentence 1 of the VerpackV, cf. also section 2). This constitutes an essential obstacle to entering the market. According to the Bundeskartellamt's opinion, the obligation to work on a full coverage basis does, in itself, not violate competition laws. But still, no contents (excessively) restricting competition which are not contained in them must be read into the obligation to work on full coverage basis or into other regulations set forth in the VerpackV.[103] Insofar, the priority of application of Art. 101, 102 of the TFEU would need to be observed.[104] The joint collection resulting from the obligation to work on a full coverage basis did, however, raise various follow-up questions under competition laws

[103] Cf. EuG, Judgement of 24 May 2007, T-289/01, EuGH, Judgement of 16 July 2009, C-385/07. Such attempts are currently directed at a competition-restricting interpretation of the rules on the joint use set forth in Sec. 6 (4) of the VerpackV in favour of the örE, cf. VGH Baden-Württemberg (Administrative Court of the German federal state of Baden-Wuerttemberg), Judgement of 24 July 2012, 10 p. 2554/10.

[104] Cf. ECJ, Judgement of 9 Sep. 2003, C-198/01.

and resulted in the fact that an accusation was made against the Bundeskartellamt, that it further increased the already high complexity of the VerpackV by enforcing the competition law.[105]

The cooperation of the compliance schemes is necessary based on the regulation to work on a full-coverage basis, so that they jointly organise the collection for economic reasons (avoidance of a double collection infrastructure).[106] The scope of cooperation necessary for that purpose is described in Sec. 6 (7) sentence 2 no. 1-3 of the VerpackV.[107] But, this cooperation must be made in accordance with the provisions under competition laws of Articles 101, 102 of the TFEU and Sections 1, 2, 19-21 of the GWB.

The operation of one single, joint collection infrastructure is, in general, a noticeable restriction of competition as defined in Art. 101 (1) of the TFEU or Sec. 1 of the GWB, but is exempted from the ban on cartels, insofar as the concrete structure of the jointly organised collection meets the preconditions for an exemption set out in Art. 101 (3) of the TFEU or Sec. 2 of the GWB.[108] The central requirements to the sector resulting therefrom under competition laws are that the collection contracts be awarded separately from other disposal services which enables a free competition in the fields of sorting and recovery (section 4.2), and that the collection service agreements be tendered by minimising the communitarisation of the collection costs (section 4.3). In the past years, the Bundeskartellamt work toward implementing these principles all over Germany. They are able to solve almost all issues under competition laws arising in

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105 Cf. e.g. Flanderka/Stroetmann, Von der Verpackungsverordnung zum Wertstoffgesetz (From the Packaging Ordinance to an Act on Recyclable Materials), in: AbfallR 1/2012, p. 4; statement of VKU filed for the Sector Inquiry. This criticism misjudges that the complexity is not the result of the application of the competition law, but of the joint collection.

106 However, Sec. 6 (3), (4) or (7) of the VerpackV contains no legal requirement saying that it was only possible to operate one single joint collection system (possibly even in cooperation with the örE). The legal option to organise the collection under the company's own responsibility must rather remain in full force and effect - also for reasons of the competition laws. Cf. e.g. VGH Baden-Württemberg (Administrative Court of the German federal state of Baden-Wuerttemberg), Judgement of 24 July 2012, 10 S 2554/10.

107 Any need for cooperation going beyond that can currently not be recognised. Cf. Bundeskartellamt, Activity Report 2009/2010, BT-Drs. 17/6640, page 106.

108 Case Report B4-152/07 of the Bundeskartellamt of 18 April 2011, www.bundeskartellamt.de

the sector. They are also applied, insofar as compliance schemes organise a collection jointly with the örE competent for them.[109] They should also be used as guidelines under competition laws for any revision of the VerpackV or for any Act on Recyclable Materials.[110]

4.2 Decoupled, Individual Sorting and Recovery

The three process steps of collection, sorting and recovery were awarded as a total package per fraction (LWP or glass) during the tender conducted by DSD in the year 2003. Starting with DSD's second tender as of 1 Jan. 2005, sorting and recovery were gradually decoupled from collection. In the practice, the individual award of sorting and recovery is enabled by dividing the collected quantities at the transfer point (cf. section 2.2). That does not constitute any additional effort, since the waste is usually reloaded from the collection vehicle to other containers to be transported to the sorting plant. In addition, the individual compliance schemes may, deviating from the relevant collection company, agree individually on making direct deliveries to the sorting plant engaged by the scheme operator.

The separate award of collection contracts serves several purposes under competition laws. On the one hand, the individual award prevents that the cooperation of the compliance schemes in the field of collection is also expanded to sorting and recovery which is unnecessary. The compliance schemes have, generally, only a need to cooperate in the field of collection, but not regarding any services downstream from collection (sorting, recovery and associated logistics). Any expansion of such cooperation to sorting / recovery, e.g. resulting in a joint award of the sorting service or any joint-use system also for sorting / recovery, would strongly restrict the competition

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109 Cf. Letter B4-5/09-34 of 21 July 2009, see Annex 3, p. 101, Letter B4-5/11-21 of 13 Oct. 2011, see Annex 3, p. 112, Letter B4-157/08-2 of 19 March 2012, see Annex 3, p. 113.

110 Mundt, Die Liberalisierung der deutschen Entsorgungswirtschaft (The Liberalisation of the German Disposal Sector), in: Ressource Abfall (Waste as Resource), Festschrift zum 50-jährigen Bestehen des BDE (Commemorative Publication for the 50th Anniversary of the BDE), 2011, p. 190-191.

between the compliance schemes. The demand-side competition for sorting and recovery services would be restricted directly, and the competition as provider of services for distributors would be restricted indirectly.[111]

Furthermore, such a decoupled award improves the competitive conditions for the offering disposal companies. The collection and sorting markets are both regional markets. Most of the locally active small and medium-sized disposal companies may offer either collection or sorting. That means that they suffered a significant competitive disadvantage compared to large disposal groups, at the time when the complete package was awarded. A separate award of contracts significantly expanded the number of bidders, since an increasing number of medium-sized companies took part and that inspired an essential stimulation of the competition both in the field of collection and in sorting and recovery.

Finally, the decoupling also serves the aim of protecting the demanding compliance scheme as "joint user" of the collection service. After the collection service is awarded by the tender organisation manager (that has always been DSD until 2011), the other compliance scheme relied on the conclusion of a collection contract with the collection company selected by the awarding body in the joint-use system which has been practised until now. In this situation, it was mainly the former competitors of the DSD which faced the problem that some collection companies made the conclusion of a collection contract depended on also being engaged with sorting and recovery. Concerns under competition laws have been raised regularly against such conduct. This forced combination has, in the meantime, been prevented for the fractions of LWP and glass by a clause in the collection contract obliging the collection company to offer a separate collection contract to other scheme operators (Art. 13 (5) of the tender agreement). Deficiencies under competitive laws still exist regarding the decoupling for the fraction of P&B (cf. section 5.4).

The lower shares of DSD on the offer market are reflected in the lower market shares as demander for sorting and recovery services. The costs for sorting and recovery which fell strongest by approx. 75 % (cf. section 3.5) are an indication for the good competitive situation. The Bundeskartellamt does, currently not perform any active

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111 This problem existed in the so-called "quantity transfer agreements". Bundeskartellamt, Decisions B4-32/08-1 and B4-32/08-2 of 18 Aug. 2008, WuW DE-V 1689-1690.

monitoring of these services due to the strongly improved competitive conditions. Apart from the decoupling of collection, special provisions under competition laws seem unnecessary in view of the individual sorting and recovery agreements. There is no longer an obligation to perform a formal tender procedure for sorting and recovery.[112] Furthermore, concrete terms for sorting and recovery agreements are - contrary to disbelieves which have been voiced here and there[113] - no longer mandatory under competition laws.

4.3 Tendering of the Collection Service and Cost Responsibility

Essential requirements under competition laws still apply with regard to the collection service. The collection costs are a cost of block of great importance. The share of collection costs in the total operating disposal costs has, in the meantime, risen to 63 % (cf. section 3.5).

Collection costs have, in the joint-use system practiced until 2011, been communitarised between the compliance schemes, in full. That resulted in the fact that this cost block was still not exposed to any competitive pressure - as was the case under monopoly conditions until 2003. While a cooperation of the compliance schemes is necessary to jointly organise the collection (cf. section 4.1), what is not necessary, however, is that compliance scheme communitarise the collection costs in the course of this process. One essential element to compensate for the competitive restriction is

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112 Cf. also Bundeskartellamt, Case Report B4-152/07 of 18 April 2011, www.bundeskartellamt.de

113 Cf. Dehoust/Christiani, Analyse und Fortentwicklung der Verwertungsquoten für Wertstoffe (Analysis and Further Development of the Recovery Quotas for Recyclable Material), May 2012, p. 55; Bünemann et al. (cyclos GmbH / HTP GmbH), Planspiel zur Fortentwicklung der Verpackungsverordnung Teilvorhaben 1 (Simulation Game to Further Develop the Packaging Ordinance, Partial Project 1): Bestimmung der Idealzusammensetzung der Wertstofftonne (Determination of the Ideal Composition of the Recycling Bin), February 2011, p. 45. Insofar as these studies claim that the terms of the agreements of one to three years which are common in the market, would hamper further investments in sorting plants, that is incorrect. Quite on the contrary, competition has led to high investments in sorting plants (cf. section 3.4). It is rather to be assumed that even the “short” contractual terms have contributed to these high investments: if operators of a new sorting plant conclude agreements with long terms, they have lower unbound customers at their hand. A new, more efficient sorting plant, might therefore, only be able to achieve a full utilisation after some years which might significantly impair the profitability of such an investment. The plants mentioned in Table 2 (page 39) have been fully utilised directly after their commissioning, despite their high capacities.

to tender the collection service. However, a tender process may only compensate for such competitive restrictions to some extent.[114]

The practical experience with such tenders has shown, in addition, that, in addition to the question of "whether" such a call for tenders is to be made, another decisive fact is how the service is tendered (tender procedure and general contractual terms) and which service is tendered (structure of the collection system, technical details).

The first round of tenders of the DSD in the year 2003, for instance, inspired no real competition among the bidders. If DSD had awarded the contract to the best bidder in all territories, the operating disposal costs would actually have gone up (see p. 42). It was only when DSD awarded the contract for the collection service separately in a new tender and excluded bidding consortiums consisting of bigger disposal companies from participation (cf. Art. 13 (3) of the tender agreement), that a real bidder competition started. The result was a reduction of the disposal costs by approx. 30 % compared to those of 2003. Price reductions of a similar scale also occurred in subsequent years in territories in which a direct award of contracts was stopped.[115]

While a (nationwide uniform) "subsequent control" of the tender process and of the general contract terms was possible, the technical details cannot be subjected to one general requirement in most parts. Local collection systems have strongly different structures so that a local system specification is prepared in agreement between the compliance scheme and the örE for each collection territory. Their contents have a very significant effect on the amount of the collection costs. For instance, the system specification for the city of Freiburg which had been agreed with the örE contained a requirement that low-floor vehicles needed to be used for the collection of LWP and that the disposal companies needed to hold a certain ISO certification - in addition to the normal specifications for emptying intervals, container types, etc. These are features which only few disposal companies are able to fulfil.[116] Such requirements

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114 Cf. Bundeskartellamt, Case Report B4-152/07 of 18 April 2011, page 4.

115 E.g. Hamburg and Leipzig on 1 Jan. 2010, cf. Activity Report of the Bundeskartellamt 2009/2010, BT-Drs. 17/6640, p. 106.

116 The municipal disposal company of the city of Freiburg met these requirements.

might result in a restriction of the bidding competition and thus in unnecessarily high collection costs. In the joint-use system practised until 2011, such additional fees were borne equally by all compliance schemes and thus ultimately charged on to the customers or consumers. The tender organisation manager (i.e. formerly DSD) had, therefore, no significant interest in avoiding unnecessarily high collection costs.

This is where the main cost responsibility introduced in 2011 comes into play. Insofar as each scheme operator responsible for a certain territory ("tender organisation manager") bears at least 50 % of the collection costs, they have an interest in an effective bidding competition or an efficient structure of the collection system. In the example of Freiburg mentioned above, the compliance scheme responsible for the territory declared in the call for tenders performed in 2011 in which it held the main cost responsibility for the first time that disposal companies not equipped with low-floor vehicles or not holding an ISO certificate would now be taken into consideration as well. Result of the tender was a significantly lower price for LWP collection.

That is not an isolated case, but that Germany has, when considered as a whole, a very high potential for rationalisation is revealed in Figure 12. It shows the LWP collection costs per collection quantity (specific collection costs) compared to the LWP collection quantity per inhabitant and year (specific collection quantity) for the year 2008. Each of the 400 collection territories is presented as one point in the diagram. The specific collection quantity (x axis) is the essential figure for the ecological capacity of a LWP collection. The price per collection quantity (y axis) indicates the efficiency of the LWP collection.

Both parameters show high fluctuations. In 2008, the LWP collection costs range from € 54/t in the most efficient territory to € 767 /t in the most expensive territory (territories with €>300/t are not shown). These LWP collection prices are the result of the calls for tenders conducted in the year 2006 and 2007 by DSD, i.e. they arose under mainly identical conditions (same tender process, same market conditions).[117] In contrast to common conceptions, the fluctuation of cost results only to an insignificant extent from the different settlement structures. The LWP collection costs do, in

[117] The LWP collection prices valid in the year 2008 were based only in few cases on a direct award by DSD.

particular, not differ significantly between urban and rural areas. This high fluctuation of the LWP collection costs rather results, almost exclusively, from the locally different design of the collection systems.

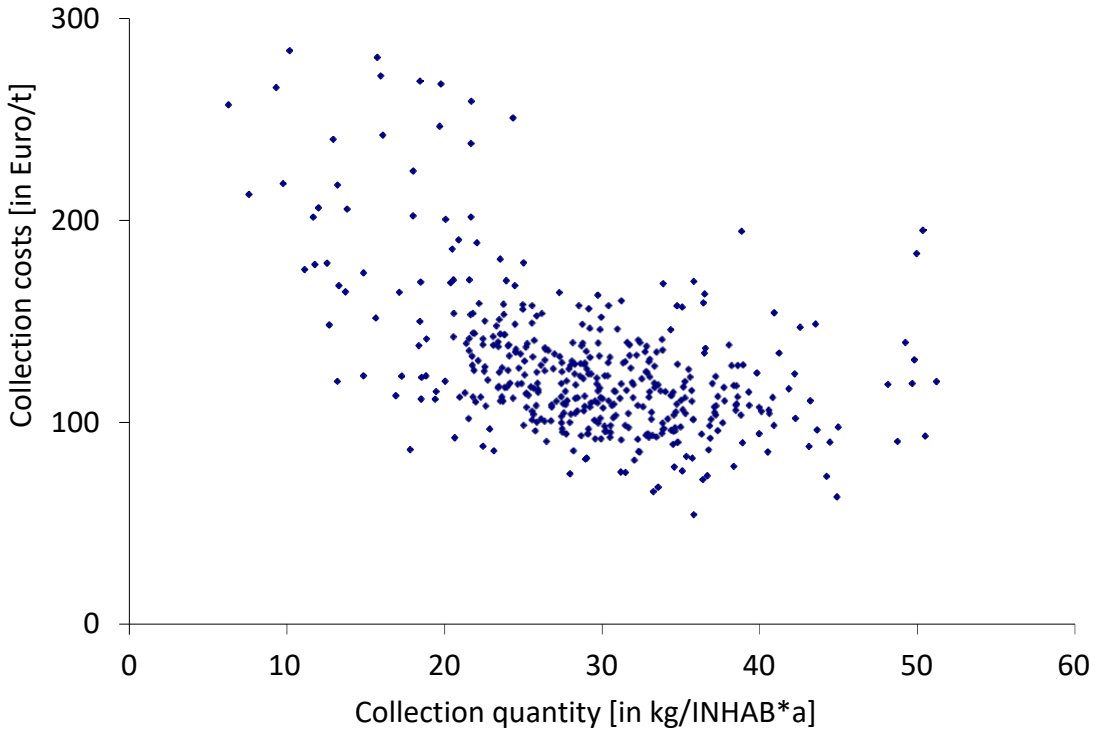

Figure 12: Fluctuation of the LWP collection costs and quantities in the year 2008

Source: own representation / calculation of territory data inquired from DSD in the year 2008. The number of inhabitants, the collection quantity (of all compliance schemes together) and the collection price (territory price agreed with DSD) were used out of all data which had been inquired.

The ecological efficiency of the LWP collection systems is also subject to strong fluctuations. In view of an average LWP collection quantity of approx. 27 kg/INHAB*a, the territory with the lowest LWP quantity has a value of only 4.6 kg/INHAB*a. The high fluctuation of the LWP collection quantities also results mostly from the heterogeneous structure of the collection systems. The locally different consumption of packaging is only to a very low degree responsible for the fluctuation. Insofar as the fluctuation is partly ascribed to differences in the separation behaviour, it must be considered that the separation behaviour depends to a significant degree from the structure of the

collection system. LWP drop-off systems achieve only very few collection quantities.[118] Collections in yellow bins achieve noticeably higher quantities than collections in yellow bags. Likewise, more frequent emptying intervals result in significantly higher collection quantities.[119]

High potentials for economic and ecological rationalisation exist in the field of LWP collection. Typical examples for still inefficient LWP collection systems are the recycling bins under municipal scheme management (usually referred to as “special collection systems”, cf. section 5.3.2), urban collection systems which require that the collection company has access to house keys (“cellar collection service”) and the LWP drop-off system already mentioned which is practised in rural districts in the south of Germany. The most efficient collection territory (€ 54/t) also achieved an above-average collection quantity of 36 kg/INHAB*a. If LWP was collected in Germany as a whole on the efficiency level of this territory, this would cut the LWP collection costs in half, and the LWP collection quantity would increase by approx. 30 %. While this level of efficiency cannot be achieved in all territories, a potential to reduce the LWP collection costs by up to 30 % still seems realistic. The tracks were set for that aim to be achieved with the introduction of the main cost responsibility. Rationalisation fails, however, often due to resistance by the relevant örE (cf. section 5.2).

Even if an essential restriction of competition was decreased upon introduction of the main cost responsibility of the tender organisation manager, the collection on a full-coverage basis will still be achieved by the compliance schemes based on a joint use. The downside of this main cost responsibility is that half of the collection costs are still communitarised through the joint-use agreements. Contrary to the field of sorting and recovery, it is still necessary to tender the collection.[120] Reason for ensuring that competitive awards are made according to the tender agreement is also the presence of vertically integrated scheme operators.

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118 On average approx. 11.4 kg/INHAB*a. Cf. Dehoust/Christiani, Analyse und Fortentwicklung der Verwertungsquoten für Wertstoffe (Analysis and Further Development of the Recovery Quotas for Recyclable Materials), May 2012, p. 11.

119 Cf. also Dehoust/Christiani, Analyse und Fortentwicklung der Verwertungsquoten für Wertstoffe (Analysis and Further Development of the Recovery Quotas for Recyclable Materials), May 2012, p. 9-12.

120 Cf. Bundeskartellamt, Case Report B4-152/07 of 18 April 2011, www.bundeskartellamt.de

5 Remaining Competitive Shortcomings and Perspectives

The opening up of the sector of compliance schemes for competition led to high benefits for welfare. But, this process has not yet been fully completed. Some of the competitive shortcomings which still exist will be explained below. They do not relate to the compliance scheme as a whole, but to some partial areas. In contrast to the restrictions which have already been eliminated, these are aspects which are of a relatively low economic importance. But, the Bundeskartellamt is still of the opinion that their reduction might result in further essential increases in efficiency of up to EUR 200 million (per year).

The legislator can make a decisive contribution to the continued opening up of the market for competition. It should, fundamentally, not fulfil the demands of the disposal sector requesting an abolishment of the competition among compliance schemes. Transferring the responsibility for the award of contracts for disposal services to a joint body or the municipalities means, in essence, a return to former DSD times (section 5.1). Furthermore, the requirement of coordination as defined in Sec. 6 (4) of the VerpackV should be restricted as part of a revision of the VerpackV or their replacement by an Act on Recyclable Materials. In its current version, this requirement of coordination hinders a further rationalisation of the collection systems (section 5.2).

Other competitive restrictions which still exist are of a purely private nature. Insofar as compliance schemes continue communitarising individual cost blocks, inefficient structures will be here to stay for ancillary fees and recycling bins under municipal scheme management (section 5.3). Finally, the development of competitive conditions for collection, sorting and recovery of P&B sales packaging is far behind that for the fractions of LWP and glass. One essential competitive deficiency exists, in particular, in that collecting companies for waste paper continue to make their services dependent on being engaged with other services (section 5.4).

5.1 Requests for an Elimination of the Compliance Schemes

Municipal disposal companies and even parts of the private disposal sector strongly criticise the compliance scheme. They claim that it took numerous “undesirable developments” (cf. section 3.7) and negate the positive effects of opening up the market for competition in order to convince the legislator to abolish the competition among the compliance schemes. For this purpose, they suggest that the duty to award contracts for operating disposal services should be transferred to a central body or the relevant örE.[121] This demand is supported, in particular, by the claim that the positive effects which can be observed were attributable only to “the” tendering of the disposal services, but not to the competition between the compliance schemes.

These two versions have in common that a new award body would be established which would not be subject to any competition. If contracts for disposal services were to be awarded by one central body, that would mean that it would take over the functions of the compliance schemes for the nationwide organisation and control of the numerous disposal services in Germany (section 2.3). And since the duties of the compliance schemes would not be eliminated, but only taken over by one central body, this would create an authority of a considerable size. In the year 2003, DSD employed approx. 400 employees. The central body itself would not be subject to any competitive pressure - as was the former DDS - so that significant inefficiencies are to be expected. Experience from former DSD times has shown of what extent such inefficiencies could be.

If the award was to be made by the örE, the impacts would be even worse. This award body would not only not be exposed to any competitive pressure, it would rather have incentives for cost increases - since third parties need to bear the costs. On the one hand, it would have the incentive to award the contract to the municipal disposal companies, even if the services could be rendered more efficiently by other companies. On the other hand, there would be an incentive to define excessive performance requirements ("golden bin”) since the higher service level would go to the benefit to their “own” citizens, but the additional costs arising therefrom would be borne by the

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121 Cf. e.g. Press Release of the VKU of 17 April 2012, www.vku.de; Press Release of the bvse of 9 March 2011, www.bvse.de; Coalition Agreement NRW 2012-2017, line 3085-3091.

citizens in all over Germany. The tendency to unnecessarily high costs is shown, for example, in five territories in which the recycling bin is currently still organised under municipal scheme management (cf. section 5.3.2).

The competition between the compliance scheme is, first and foremost, a competition between several “awarding bodies”. They constantly search for better solutions for the individual award of contracts for required disposal services, on account of the competitive pressure. That results in a constant further development of the award and, accordingly, to increases in efficiency or innovations among operating disposal companies. But to ascribe the positive effects of the opened market to “the” tender alone, does not do the matter justice. There is no longer “the” tender, but a variety of different agreements. “The” tender by DSD was, in retrospective, only a “bridge” leading to the competition between the compliance schemes. The DSD tender in the year 2003 in itself would have even increased the costs. DSD’s tender in 2004 with its essentially changed tender conditions was only able to achieve a part of the rationalisation gains. The strongly changed contents and forms of agreements initiated by the compliance schemes and the further cost reductions resulting therefrom are not the result of external tender requirements, but of the scheme operators’ individual self-initiative.

Therefore, essential competitive concerns exist against a (re-)monopolisation of the award which would exist if the award functions were to be transferred to one central body or the örE. This would essentially mean a return to former DSD times. It would result in higher disposal costs for the consumer and a loss of innovations.

5.2 Coordination of the Collection of LWP and Glass with the örE

Scheme operators argued against the introduction of a main cost responsibility at the time by saying that existing inefficiencies could not be decreased since a coordination was necessary with the relevant örE (Sec. 6 (4) of the VerpackV). The örE would reject such changes and thus prevent a “competition of the collection systems”. These were the reasons, they said, why these increases in efficiency were not realisable in the

practice. The Bundeskartellamt insisted on the introduction of a main cost responsibility for several reasons.[122] It could, inter alia, not be assumed that the örE would generally behave in the manner feared by the scheme operators.[123]

Against this backdrop, the Bundeskartellamt evaluated the award of agreements by the compliance schemes performed in the year 2011 (start of the agreements 1 Jan. 2012). This was the first round of the calls for tenders according to the tender agreement and related to more than 170 collection contracts. The Bundeskartellamt asked the scheme operators, in particular, to present their measures for achieving economic tender results, they were asked whether they had been successful and they were requested to present concrete individual cases. In addition, the results of the tender were obtained. In this Sector Inquiry (i.e. after the "second" round of tenders conducted in the year 2012), scheme operators and associations were asked to what extent the requirement of coordination posed an obstacle, in practice, to a rationalisation of the existing collection systems (cf. Annex 2, question d).

Scheme operators unanimously stated that suggestions for rationalisation in collection had regularly been rejected by the örE. They reported numerous individual cases. Cases which have been reported for several concrete territories related to the fact that a parallel LWP drop-off system was preserved in collection territories with a LWP kerbside system[124] and that the change-over from a mixed glass collection or 2-colour separation to the usual separate collection of the 3 glass colours was rejected. Some system operators said that increases in efficiency were made additionally harder by the requirement that the other scheme operators (not the tender organisation manager) needed to give their approval. The inquired associations of disposal companies were predominantly of the opinion that the requirement for coordination did not constitute

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122 Cf. in detail: Bundeskartellamt, Case Report B4-152/07 of 18 April 2011, www.bundeskartellamt.de

123 Furthermore, the rationalisation incentives associated with the main cost responsibility also relate to aspects which do not need to be coordinated with the örE. The tender organisation manager may, e.g. also work towards an improvement of the bidder competition (e.g. provision of additional information on the territory, such as tour plans, container registers).

124 That means that tinplate containers, the delivery to the recycling centre, and the like, were there to stay, despite the fact that the collection was organised in yellow bins or yellow bags.

an impediment for an increase in efficiency of the collection systems. VKU and bvse stated that the coordination requirement was rather an important instrument for rationalisation. VKU underlined a benefit in the coordination, in particular for the fraction of P&B so that an understanding be reached for the establishment of a collection system by way of a joint use. The BDE explained that cost-reducing measures would be rejected be the örE regardless of their meaningfulness, insofar as such measures were connected with a loss of comfort for the citizen.

The evaluation of the results of the tenders for collection contracts in 2011 predominantly confirmed the view of the scheme operators. Until now, the potential for rationalisation of up to 30 % has not been exhausted by far, but, the new award system has not been completely ineffective. The rationalisation effect which actually occurred can be estimated to amount to approx. 5 % to 8 % for the territories awarded in 2001: the territory prices for collecting lightweight packaging remained constant, on average, during the award in 2011, while price increases approximately at the level of the inflation occurred during the tenders in 2009 and 2010 (5% to 8% over a period of three years). In addition to the cases where inefficient collection systems were kept in operation, the Bundeskartellamt is also aware of cases in which the coordination agreement impaired - contrary to the explicit regulation in Sec. 6 (5) sentence 9 of the VerpackV - an award of the contract under competitive conditions.[125]

During a revision of the VerpackV or if such were to be replaced by an Act on Recyclable Materials, the requirement of coordination as set forth in Sec. 6 (4) of the VerpackV should be restricted, at least, for the fractions of LWP and glass. Alternatively, it could be considered to defined a minimum service level (in particular a minimum collection quantity) which would result in a complete elimination of the requirement for coordination. An increase of the efficiency of the collection systems could not only result in significant cost reductions. The ecological effect of increasing the LWP collection quantities (cf. section 4.3) to be achieved in addition, is significantly higher than the possible increases in quantity arising from expanding the yellow bin to a recycling bin.[126]

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125 For the example of Freiburg, see section 4.3, for the example of the rural district of Calw, see section 5.3.2.

126 In the practice, an expansion of the yellow bin to a recycling bin resulted in an increase in the quantity, for example in Hamburg, of approx. 10 %. The BMU estimates that the possible increase in quantity might amount to up to 25 %.

5.3 Still Communitarised Costs of the Compliance Schemes

5.3.1 Ancillary Fees

In contrast to the other disposal services, the cost block of ancillary fees has not been exposed to any competitive pressure even after the year of 2003. These are payments made by the compliance schemes to the örE for costs which they incur for giving waste management advice and for setting up, allocating, maintaining and cleaning areas for the setting up of large collection containers (Sec. 6 (4) sentence 8 of the VerpackV). The amount of such ancillary fees is determined in agreements concluded between compliance schemes and the relevant örE. The fees are agreed as flat-rates per collection territory, without any distinction between the three fractions LWP, glass and P&B. The Bundesfinanzhof (German Federal Tax Court) clarified in a recent judgement that scheme operators do not need to engage the örE for these service, but may also render them personally or have them rendered by third parties.[127] The contracts have, however, not been awarded under competitive conditions so far, the compliance scheme still award the contracts directly to the örE. The costs are borne by all compliance schemes on a pro-rata basis according to the ancillary fee clearing agreement and are thus fully communitarised. In addition, even costs of the "joint use" of individual municipal "recycling centres" (usually LWP drop-off systems in the south of Germany) are allocated on the basis of the ancillary fee clearing agreement.

Accordingly, the amount of the ancillary fees remained almost at the same level even after the market was opened up. Upon introduction of the compliance scheme, DSD agreed with the municipalities from 1 Jan. 1993 and without time-restrictions, on ancillary fees in the amount of DM 3 per inhabitant and year for the container places (i.e. a total of approx. EUR 126 million per year for Germany as a whole), and on other payments for waste management advise for a limited period of 18 months. On 1 Jan. 2004, DSD concluded new ancillary fee agreements with the municipalities. In the year 2004, the ancillary fees, including joint-use of the recycling centre, amounted to EUR 143 million. Normally, the agreed amounts have not been changed since 2004,

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Cf. Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit (Federal Ministry for the Environment, Nature Conversation and Nuclear Safety), Thesenpapier zur Fortentwicklung der haushaltsnahen Wertstofferfassung vom (Position Paper on the Further Development of the Collection of Recyclable Materials near the Households of) 18 July 2012.

127 Cf. BFH (German Federal Tax Court), Judgement of 3 April 2012, I R 22/11.

cost reductions occurred only in individual cases (or cost increases in even rarer cases).[128] The share of the ancillary fees in the total costs has, thus, gone strongly up and now totals 16 % (cf. section 3.5).

The payments which were communitarised to the municipalities according to the ancillary fee clearing agreement amounted to approx. EUR 133 million in the year 2011, EUR 115 million of which were ancillary fees as defined in Sec 6 (4) sentence 8 of the VerpackV and EUR 18 million were payments for the joint use of recycling centres. The actual ancillary fees of approx. EUR 115 million consist of approx. EUR 21 million for waste management advice and approx. EUR 94 million for renting container places and their cleaning.[129] Ancillary fees are thus caused mainly by the collection of waste glass. According to the cost allocation key specified in the clearing agreement, ancillary fees will, however, be allocated mainly to the fraction of LWP. The total of the ancillary fees of EUR 133 million resulted in an allocation of EUR 105 million in the year 2011 to the LWP fraction and EUR 12 or 16 million to glass or P&B. The total amount of fees for renting and cleaning container places (EUR 94 million) almost comes up to the cost of glass collection (EUR 101 million). In view of the high fees for the container places, a kerbside system for glass would, in many territories, even be more cost-effective than its collection in containers.

The complete communitarisation of this cost block noticeable restricts the competition (cf. section 4.3). The arguments raised in the Sector Inquiry against an inclusion of these services in the main cost responsibility of the relevant tender organisation manager for LWP or glass (cf. Annex 2, questions e) are not convincing. Separating the costs which have so far been agreed as flat-rate services, according to fractions, in the future, would be possible without greater efforts, at least for the items of container places and joint use of recycling centres. Even if scheme operators often need the municipality for renting container places, at least one part of the containers could be placed on private areas (e.g. the area of supermarket parking spaces). Likewise, contracts for cleaning the places could be awarded under competitive conditions. Alternatively, even the change to a kerbside system would be possible.

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128 The total ancillary fees paid by all compliance schemes (incl. joint use of recycling centres) amounted to the following figures, according to information received from DSD: 2004: € 143 million, 2005: € 148 million, 2006: € 148 million, 2007: € 140 million, 2008: € 139 million, 2009: € 139 million, 2010: € 135 million.

129 Information provided by DSD for the Sector Inquiry.

If such services were included in the main cost responsibility, essential increases in efficiency are to be expected.

5.32 Recycling Bins under Municipal Scheme Management

In addition, compliance schemes still communitarise costs which arise in five territories with a "recycling bin" which is subject to municipal scheme management (often also referred to as "special collection systems"). In these and some other territories, the collection of LWP and glass by compliance schemes has not been tendered even after 2004. Scheme operators rather award the contract directly to the collection company selected by the örE on a pro-rata basis. The tender agreement concluded in the year 2010 initially provided that these and some other territories will not be subject to the main cost responsibility (Sec. 8 of the tender agreement). In September 2011, the Bundeskartellamt objected to this exemption rule.[130] Subsequently, scheme operators included some other territories in the main cost responsibility in October 2011,[131] but initially only "mandates" were raffled for negotiations with the relevant municipality for the five territories in which the recycling bin is under municipal scheme management. The necessary allocation of a main cost responsibility has not yet been implemented.

In these five territories, LWP is collected mixed with P&B and other wastes. Citizens in the district of Enzkreis and the rural district of Ludwisgburg separate their waste according to "flat" and "round". "Flat" means P&B, foils and polystyrene, "round" means LWP and glass. In the district Rhein-Neckar-Kreis, citizens collected P&B, LWP and other plastics / metals in the "Grüne Tonne plus"; and inhabitants in the city of Karlsruhe and in the rural district of Karlsruhe may additionally also put wood in their recycling bins. Since normal LWP sorting plants are not designed for such special

130 Cf. Letter B4 77/11 of 27 Sep. 2011, Annex 3, p. 110.

131 In one of these territories (in the rural district of Calw), the administration of the district or its disposal company disobeyed with the regulation to perform the calls for tender for glass collection which had been planned to start in May 2012. In this case, the Bundeskartellamt is investigating the suspicion of a violation of Sections 19, 20 of the GWB.

mixtures, the compliance schemes use special plants. In these plants, a large part of the mixture is sorted manually.[132]

In the context of the Sector Inquiry, the Bundeskartellamt recorded the (LWP) recycling quantities achieved in these territories in the year 2011 on behalf of the scheme operators (cf. Table 10, p. 99). In addition, the costs incurred by scheme operators for collecting waste in these recycling bins and the subsequent sorting and recovery in the year 2011, were inquired as well. These costs totalled EUR 28 million in the five years for all compliance schemes. In the territories of the district Enzkreis, the rural district of Ludwigsburg and the rural district of Karlsruhe, the costs per inhabitant were approx. 100 % above the nationwide German average, and in the city of Karslruhe and the district of Rhein-Neckar-Kreis they were by approx. 40%-50% above the German average.[133] These higher costs were not the result of higher LWP recycling quantities. The German average was reached in the areas of Enzkreis, the rural district of Ludwigsburg and the district Rhein-Neckar-Kreis in the year 2011, which is 10.8 kg per inhabitant and year.[134] The territories of the city of Karlsruhe and the rural district of Karlsruhe achieved 8.7 or 6.9 kg/INHAB*a which is a figure even below the German average (cf. Table 10, p. 99).

The competitive restrictions which continue to exist in these five territories are thus associated with essential losses in efficiency. The Bundeskartellamt is of the opinion that even these five territories are to be included in the main cost responsibility.[135]
The relevant tender organisation manager would then also be given the incentive to enforce the tender of the affected collection service.

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132 Sorting in “normal” LWP sorting plants is today performed largely on an automated basis (cf. section 3.4).

133 These percentage rates include rounded values to protect any trade secrets. The German-wide comparison value of the costs for collection, sorting and recovery of LWP and P&B amounts to € 7.5/INHAB and to € 8.4 /INHAB for LWP, P&B (each values of 2011). These comparison values can be calculated by using the cost data disclosed in section 3.5.

134 Territories which collect waste in bins have usually higher LWP recycling quantities due to the higher LWP collection quantities, so that above-average values should have been expected for the five territories.

135 Cf. Letter B4 77/11 of 27 Sep. 2011, Annex 3, page 110.

5.3.3 Increase of the Cost Responsibility of the Tender Organisation Manager

The competitive conditions were further improved thanks to the coordination of the tender for collection of the compliance schemes in October 2010.[136] The downside of the main cost responsibility associated therewith is, however, that still little less than half of the collection costs are communitarised for the fractions of LWP and glass through the joint-use agreements (cf. Art. 4.3).

This partial communitarisation of collection costs seems unnecessary. For instance, the calculation mode for the "variable cost share" according to Art. 6 of the tender agreement could be changed, without problems, in the manner that even the variable share will be allocated to the relevant tender organisation manager, as far as possible. In the practise, this would regularly result in the fact that the tender organisation manager will hold a share of the contracts to be awarded of significantly above 50 %, in individual cases of up to 100 %. In return, the shares of the contracts to be awarded of the other compliance schemes ("joint user" or "tender participant") would be limited in their amount which is necessary to compensate for the quantity shares determined in the current quarter. The collection companies which are engaged would then not be affected by such a change of the calculation mode, since the total of the engagement shares would still be 100 % (cf. also Art. 13 (4) of the tender agreement). By limiting the communitarisation of the costs to a minimum, the incentives of the compliance schemes to structure the collection systems in an efficient manner would be improved (cf. section 4.3). Another advantage would be that the economic importance of the "joint use agreements" would largely decline which would eliminate their potential for conflicts to a large extent.[137] More alternatives, in addition to those explained above, exist to increase the cost responsibility of the tender organisation manager. For instance, a so-called "additive full-coverage basis" could be applied in which joint-use agreements are no longer necessary.[138]

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136 Cf. Bundeskartellamt, Case Report B4-152/07 of 18 April 2011, www.bundeskartellamt.de

137 For an extreme case of a discrimination of a participant in the tender by a municipal disposal company, cf. Landgericht (Regional Court of) Hanover, Judgement 18 O 217/08 of 16 June 2009.

138 In this scenario, one scheme operator would be the body placing the orders, and the work on a full-coverage basis in Germany would be achieved jointly by the scheme operators ("patchwork system"). For this purpose, the territory responsibilities would be raffled according to licence quantity shares - like in the tender agreement which has been in effect since 2010. Cf. Activity Report of the Bundeskartellamt 2005/2006, BT-Drs. 16/5710, page 176.

During the Sector Inquiry (cf. Annex 2, question g), participants mainly raised arguments against an increase of the former "fixed cost share"[139] of 50% or against the concept of the main cost responsibility in itself[140] but not against an increase of the variable share. Such a change seems realisable within a relatively short period of time. In the long term, one might consider allocating the collected quantities mainly to the tender organisation manager.

5.4 Collection and Recovery of P&B

As regards the collection, sorting and recovery of P&B sales packaging, the development of the competitive conditions has remained far behind compared to that for the fractions of LWP and glass.[141] P&B sales packaging are predominantly collected as part of the P&B collection organised by the relevant örE. Scheme operators engage, for that purpose, the P&B collection company selected by the relevant örE, in parallel and on a pro-rated basis (also referred to as "joint use agreements"). The compliance schemes have, so far, not tendered the P&B collection service. The operating P&B collection company might be the municipal collection company, or another company engaged by the örE. In these P&B collections, the share of the sales packaging is typically a little less than 20 % of the collected quantity, while a little more than 80 % of the quantity are under the responsibility of the relevant örE. In some cases, scheme

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139 It was, insofar, stated - correctly - that an increase of the "fixed cost share" would increase the probability that the fixed cost responsibility pursuant to Art. 7 of the tender agreement be "returned", in some territories, based on the fluctuations in the licence quantity share. This problem would, however, not arise in the version outlined above, in which the variable share attributable to the tender organisation manager would be increased.

140 In this regard, it was explained that problems associated with the main cost responsibility (in particular "bad luck in the drawing of the lot"), would rise if the 50 % share were to be increased. From the Bundeskartellamt's perspective, however, "back luck in the drawing of the lot" is avoided by the mechanisms of the tender agreement - regardless of the amount of the main cost share. Cf. Case Report B4-152/07 of 18 April 2011, www.bundeskartellamt.de.

141 Since the fraction of P&B accounts for only approx. 10 % of the costs or revenue of the compliance schemes, the special characteristics of the fraction of P&B has only been discussed marginally in the above paragraphs.

operators engage also other P&B collection companies working near the households (Sec. 17 (2) sentence 1 no. 4 of the KrWG), on a pro-rated basis with the collection of the P&B sales packaging.

Additional questions under competition laws arise for the fraction of P&B - beyond the general requirements under competition laws (cf. Art. 4) - due to the former "scheme leadership" of the örE. Originally, örE even wanted to prevent that operating P&B collection companies are engaged, in parallel, by the individual compliance schemes so that proceedings needed to be conducted by the Bundeskartellamt.[142] Subsequent attempts of some örE to prevent this ruling through civil proceedings and by negotiorum gestio, failed.[143]

Another essential competitive shortcoming still exists in the coupling practices of P&B collection companies. In contrast to the collection of PWG and glass, compliance schemes engage the local waste paper collection companies in parallel with the recovery of the waste paper. In October 2011, the Bundeskartellamt took a position on the plans of some compliance schemes to award the contracts for the recovery of waste paper in future, separately, from the collection of waste paper.[144] Any compliance scheme is free to sell the share of waste paper to which they are entitled to a company of their choice or to engage a company with the recovery of the waste paper, as is the case for the fractions of LWP and glass. If a market-dominating or strong waste paper collection company makes the conclusion of a collection contract dependent on the condition to also receive the order for recovering such waste paper, without having a factual justification to do so, that constitutes an inadmissible coupling under Sections 19, 20 of the GWB. Stakeholders of the municipality hold against that argument that a reproach under competition laws was excluded, since the compliance schemes were not entitled or in certain constellations be entitled to a pro-rated ownership in the collected mix, despite the Judgement of the Oberlandesgericht (Higher Regional Court of) [145] Düsseldorf concepts saying

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142 Bundeskartellamt, Decision B10-97/02-1 of 6 May 2004; confirmed by the OLG Düsseldorf, Decision VI-Kart 17/04 (V) of 29 Dec. 2004, WuW DE-R 1453-1460.

143 Cf. LG Köln (Regional Court of Cologne), Judgement of 23 April 2008, 20 O 377/06; BGH, Judgement of 27 Nov. 2008, III ZR 196/07; OLG Köln (Higher Regional Court of Cologne), Judgement of 12 June 2007, 24 U 4/06.

144 Cf. Letter B4-5/11-21 of 13 Oct. 2011, Annex 3, page 112.

145 Cf. OLG Düsseldorf, Decision VI-Kart 17/04 (V) of 29 Dec. 2004, WuW DE-R 1453-1460.

otherwise.[146] The Bundeskartellamt still is of the same opinion as taken by the Oberlandesgericht Düsseldorf (Higher Regional Court of Düsseldorf) under property laws. The opposite interpretation would not be compatible with the systematics of the VerpackV and would generally raise questions on the functioning of the compliance scheme. The decisive factor for the coupling problem under competition laws is, however, not the issue under property laws, since the scheme operators must have the option to award the sorting / recovery separately, regardless of the "original" property conditions prevailing during collection. During the Sector Inquiry (cf. Annex 2, question f), scheme operators said that it were, in particular, the municipal P&B collection companies which continued to fail meeting the requirement for the hand-over of the P&B quantity share allocable to the relevant scheme operator in most cases. In one case, a compliance scheme has, in the meantime, raised an action against the municipal disposal company.[147]

Another field of problems under competition laws is the fee for collecting P&B. Compliance schemes regularly need to conclude a collection contract with the collection company selected by the örE. While the collection costs for "blue bins" of commercial collection companies are typically covered by the proceeds for the waste paper, the compliance schemes bore P&B collection costs of approx. EUR 88 million and received P&B recovery proceeds of approx. EUR 32 million in the year 2011 (cf. p. 44). Most of the scheme operators said during the Sector Inquiry that the P&B collection fees often exceeded a competitive price (cf. Annex 2, question f). Furthermore, attempts are currently made to convince the administrative courts to interpret the joint use regulations of Sec. 6 (4) of the VerpackV in a manner restricting the competition in favour of the örE,[148] which would result in a further increase of the P&B collection fees. While (strongly) excessive P&B collection fees could, in individual cases, be counteracted by civil proceedings (Sec. 315 of the BGB, Sections 19, 20 of the GWB), but, from the perspective of competition laws, the solution should, in future, be

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146 Cf. Scharnewski, Eigentum am Altpapier - Eigentumserwerb der Systembetreiber bei der Mitbenutzung des kommunalen PPK-Sammelsystems? (Ownership in the waste paper acquired by the Scheme Operators when they jointly use the municipal P&B collation systems?), in: AbfallR, 3/2012, p. 102-111.

147 Cf. EUWID, 39/2012, page 9.

148 Cf. VGH Baden-Württemberg (Administrative Court of Baden-Wuerttemberg), Judgement of 24 July 2012, 10 S 2554/10.

to award separate competitive contracts for the (pro-rata) P&B collection by compliance schemes. It would, for instance, be conceivable to divide the territories in analogy to the models developed by the municipalities for the recycling bin.[149]

5.5 Further Procedure

The Bundeskartelamt continues striving for a competitive design of the conditions and will counteract opposing market developments even in individual proceedings - if such become necessary.

During its case practice of the past years, the Bundeskartellamt did not tolerate any setbacks threatening the competitive conditions which had already been achieved and will decisively fight such new competitive restrictions in the future. On the other hand, the Bundeskartellamt is aware that the reduction of any remaining competitive restrictions will take time. The competitive restrictions identified in this Sector Inquiry will need to be reduced step by step. The above discussion of these competitive restrictions indicates that future proceedings under competition laws might be necessary and that practical changes will probably be the result of such.

[149] Cf. letter B4-157/08-2 of 19 March 2012, Annex 3, page 113.

Glossary

Processing: see sorting

Tender agreement: means an agreement between compliance schemes on the basis of inviting tenders for contracts for the collection of glass and lightweight packaging (contained in Annex 4).

Industry solution: take-back and recovery of sales packaging in accordance with Sec. 6 (2) of the VerpackV.

Compliance scheme: a compliance scheme = operator of a scheme in accordance with Sec. 6 (3) of the VerpackV; the compliance scheme = overall system of the close-to-home collection and recovery of packaging consisting in the cooperation of the individual scheme operators and the disposal companies engaged by them.

Collection: collecting and transporting (waste).

Distributor: manufacturers or distributors who put sales packaging filled with product and typically arising at the private final consumer into circulation for the first time (in Germany) (Sec. 6 (1) sentence 1 of the VerpackV).

Licence agreement, licence quantity: contract or contractual quantity in accordance with Sec. 6 (1) sentence 1 of the VerpackV, i.e. a distributor engages a compliance scheme with the take-back and recovery of these packaging quantities on a full-coverage basis.

Lightweight packaging: packaging which is usually collected in the yellow bin or in yellow bags, sales packaging which is neither made of glass nor paper (in particular plastics, metals, composite materials).

Quantity take-off agreement: agreement between compliance schemes on the take-off of licence quantity shares and contract quantity shares; two separate agreements are in place: one for LWP / glass, one for P&B (contained in Annex 4).

Ancillary fees: payments made by compliance schemes to örE for costs which the latter incurs for giving waste management advice to their compliance

schemes and of setting up, provisioning, maintaining and cleaning areas on which large collection containers are placed (Sec. 6 (4) sentence 8 of the VerpackV).

Ancillary fee clearing agreement: agreement between compliance schemes on the clearing of ancillary fees and joint use fees in waste management of used sales packaging (contained in Annex 4).

örE (public body responsible for waste management): municipal waste management companies; defined in the KrWG as the legal persons obliged under the laws of the respective German federal state to manage waste arising in private households (Sections 17, 20 of the KrWG).

Recycling: recovery operation by which waste is reprocessed into products, materials or substances, whether for the original or other purposes; it shall include the reprocessing of organic material but shall not include energetic recovery and reprocessing into materials that are to be used as fuels or for backfilling operations (Sec. 3 (25) of the KrWG).

Sorting: separation of the collected mix according to material properties. Collected waste is separated (and cleaned, if necessary) in a sorting or treatment plant according to material properties, before it is provided to another plant for recovery in a next step.

Scheme operator: operator of a compliance scheme as defined in Sec. 6 (3) of the VerpackV.

Free-rider: distributors who fail to comply with or only partially comply with their obligation to take-back and recover sales packaging pursuant to Sec. 6 of the VerpackV.

Recovery: recovery is any operation, the principal result of which is waste within the plant or in the wider economy serving a useful purpose, either by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function (Sec. 3 (23) of the KrWG). A distinction is usually made between energetic recovery (the waste is used as fuel or for energy generation) and material recovery (use of the material properties of the waste). The most important sub-case of material recovery is mechanical recycling in which the chemical properties of the

substances remain unchanged. Mechanical plastic recycling is defined in the VerpackV as a process in which new material of the same substance is replaced or the plastic remains available for further use as a material (Annex I no. 1 (2) sentence 5 of the VerpackV). In case of packaging waste, the definitions of the terms “mechanical recycling” and “recycling” (see above) are mostly identical.

List of Abbreviations

Technical terms

TFEU	Treaty on the Functioning of the European Union
GWB	Gesetz gegen Wettbewerbsbeschränkungen (German Act against Restraints of Competition)
KrWG	German Act to Promote Circular Economy and to Safeguard the Environmentally Compatible Management of Waste (Kreislaufwirtschaftsgesetz)
LWP	Lightweight packaging (see Glossary)
örE	Public body responsible for waste management (see Glossary)
P&B	Paper and board = waste paper
VerpackV	German Ordinance on the Avoidance and Recovery of Packaging Waste (Verpackungsverordnung - Packaging Ordinance)

Operators of a compliance scheme

BellandVision	BellandVision GmbH
DSD	Der Grüne Punkt – Duales System Deutschland GmbH
Eko-Punkt	EKO-PUNKT GmbH
Interseroh	INTERSEROH Dienstleistungs GmbH
Landbell	Landbell AG für Rückhol-Systeme
Redual	Redual GmbH
RKD	RKD Recycling Kontor Dual GmbH & Co. KG
Veolia	Veolia Umweltservice Dual GmbH
Vfw	Vfw GmbH
Zentek	Zentek GmbH & Co. KG

Inquired associations

AGVU	Arbeitsgemeinschaft Verpackung + Umwelt e.V.
BDE	Bundesverband der Deutschen Entsorgungs-, Wasser- und Rohstoffwirtschaft e.V.
BVE	Bundesvereinigung der Deutschen Ernährungsindustrie e.V.
bvse	Bundesverband Sekundärrohstoffe und Entsorgung e.V.
HDE	Handelsverband Deutschland - HDE e.V.
Markenverband	Markenverband e.V.
VKU	Verband kommunaler Unternehmen e.V.

Annexes

Annex 1: Data Tables

The data presented below have been collected from compliance schemes in the context of the Sector Inquiry based on the formal decision requesting information dated 26 July 2012. All of these data are aggregated figures that apply to all compliance schemes as a whole (i.e. total values).

Table 6: Collected quantities of the compliance schemes in the period from 1993 to 2011

All values in megagrams = tonnes (mg = t), excluding ordering quantities P&B

	1993	1994	1995	1996	1997
LWP	712,129	1,284,218	1,824,320	1,823,033	2,198,906
Glass	2,455,030	2,473,461	2,572,128	2,686,639	2,668,360

	1998	1999	2000	2001	2002
LWP	2,292,610	2,397,601	2,414,149	2,483,379	2,581,648
Glass	2,690,062	2,761,437	2,704,044	2,499,662	2,462,001

	2003	2004	2005	2006	2007
LWP	2,431,352	2,460,152	2,247,796	2,252,501	2,243,727
Glass	2,297,277	2,114,120	2,015,972	2,006,115	1,967,592

	2008	2009	2010	2011
LWP	2,250,034	2,273,382	2,317,760	2,360,769
Glass	1,946,749	1,921,681	1,921,707	1,967,928

Table 7: (Mechanical) material recycling quantities of the compliance schemes 1998-2011

All value in megagrams = tonnes (Mg = t). The values for plastic are only quantities of mechanical recycling (excluding any other material recovery processes). All values pursuant to evidence of the quantities consigned to recycling by compliance schemes as defined in (evidence in accordance with Annex I no. 2 (3) of the VerpackV) Values have been available since the introduction of recovery quotas upon introduction of the VerpackV-Novelle (revision of the Packaging Ordinance) of 1998. The category "Total LWP" are totals from adding the recycling quantities plastic, tinplate, composites and aluminium.

	1998	1999	2000	2001	2002
Plastic	260,672	278,853	269,924	297,941	314,321
Tinplate	374,873	322,314	318,086	281,438	279,286
Composites	344,962	390,538	375,711	354,474	364,736
Aluminium	43,343	37,144	41,306	42,621	40,866
Total LWP	1,023,850	1,028,849	1,005,027	976,474	999,209
Glass	2,704,859	2,708,585	2,664,014	2,499,450	2,510,433
P&B	1,415,502	1,484,786	1,505,956	1,483,941	1,436,746

	2003	2004	2005	2006	2007
Plastic	322,966	275,410	304,595	390,039	384,153
Tinplate	274,123	258,992	252,779	250,663	241,405
Composites	288,859	273,740	234,356	247,211	236,877
Aluminium	35,820	43,151	37,219	36,049	35,524
Total LWP	921,768	851,293	828,949	923,962	897,959
Glass	2,266,432	2,095,260	1,973,065	1,973,262	1,905,020
P&B	1,411,482	950,943	1,011,873	1,007,202	1,071,508

	2008	2009	2010	2011
Plastic	394,811	408,117	363,703	394,073
Tinplate	244,612	252,716	253,062	254,163
Composites	228,950	222,928	204,035	188,877
Aluminium	39,202	41,896	43,643	41,900
Total LWP	907,575	925,657	864,443	879,013
Glass	1,844,595	1,922,641	1,859,959	1,900,564
P&B	823,977	889,383	834,793	897,110

Table 8: Licence quantities of the compliance schemes 1998-2011

All values in megagrams = tonne (Mg = t). These are the quantities "fed" to a compliance scheme in accordance with the evidence of the quantities consigned to recycling as defined in Annex I no. 3 (3) of the VerpackV (actual quantities), less the quantities of their own packaging taken back by the operators themselves (Sec. 6 (1) sentences 5-7 of the VerpackV). Values have been available since the introduction of recovery quotas upon introduction of the VerpackV-Novelle (revision of the Packaging Ordinance) of 1998.

	1998	1999	2000	2001	2002
LWP	1,454,771	1,505,691	1,503,810	1,558,712	1,606,168
Glass	2,965,595	3,080,068	2,934,341	2,677,638	2,611,703
P&B	843,059	879,194	902,812	891,723	876,402

	2003	2004	2005	2006	2007
LWP	1,322,194	1,321,403	1,303,168	1,279,457	1,177,064
Glass	2,297,081	2,147,361	2,054,771	2,005,136	1,942,594
P&B	876,417	859,207	871,440	850,202	812,387

	2008	2009	2010	2011
LWP	1,088,659	1,281,586	1,164,707	1,198,949
Glass	1,825,652	2,140,082	2,038,755	2,079,367
P&B	705,065	937,516	864,120	920,736

Table 9: Revenue of the compliance schemes under licence agreements 1993-2011

All values in Euro and excl. VAT. Values for periods until 2001 which were originally quoted in DM were translated to Euro using the official exchange rate. Revenue from licence agreements is identical to the fees paid by manufacturers and distributors for participating in a compliance scheme (Sec. 6 (1) sentence 1 of the VerpackV), less reimbursement of fees if manufacturers or distributors take back the waste they put into circulation (Sec. 6 (1) sentence 5 of the VerpackV). A revenue division has been in place from the year 2002 according to the three licence fractions.

	1993	1994	1995	1996	1997
TOTAL	1,060,835,462	1,730,984,591	2,082,255,981	2,081,980,540	2,124,417,766

	1998	1999	2000	2001	
TOTAL	2,092,717,670	1,997,106,088	2,029,726,510	1,878,740,056	

	2002	2003	2004	2005	2006
LWP	1,517,471,449	1,351,091,866	1,281,053,047	1,196,274,320	1,072,638,300
Glass	192,154,615	173,297,393	151,651,400	147,758,196	135,151,874
P&B	164,414,017	172,121,886	158,919,749	170,105,975	134,199,296
TOTAL	1,874,040,081	1,696,511,145	1,591,624,196	1,514,138,491	1,341,989,470

	2007	2008	2009	2010	2011
LWP	933,099,535	768,406,986	791,715,623	763,528,818	748,853,342
Glass	123,783,322	93,668,280	83,588,510	88,328,637	87,288,617
P&B	123,568,111	94,170,519	113,086,258	110,088,379	105,199,963
TOTAL	1,180,450,968	956,245,785	988,390,391	961,945,834	941,341,922

Table 10: (Mechanical) material recovery quantities of the compliance schemes in the year 2011 in five territories where recycling bins are under municipal scheme management

All values in megagrams = tonnes (Mg = t). The values provided for plastic are only quantities of mechanical recycling (excluding other material recovery processes). All values according to the quantity reports provided by the compliance schemes (evidence in accordance with Annex I no. 2 (3) of the VerpackV).

	Enzkreis	Rural district of Ludwigsburg	City of Karlsruhe	Rural district of Karlsruhe	Rhein-Neckar-Kreis District
Plastic	1,216	2,936	1,141	1,347	2,072
Tinplate	412	1,307	782	968	1,695
Composites	432	1,049	480	413	1,153
Aluminium	138	251	160	273	697
Total LWP	2,199	5,543	2,563	3,001	5,617

Number of inhabitants on 1 Jan. 2011 (Source: Statistisches Landesamt Baden-Württemberg (Statistical Office of the German federal state of Baden-Wuerttemberg), statistical reports, population and gainful employment, 18 Aug. 2012):

	Enzkreis	Rural district of Ludwigsburg	City of Karlsruhe	Rural district of Karlsruhe	Rhein-Neckar-Kreis District
Inhabitants	193,913	517,985	294,761	432,271	537,625

(Mechanical) material recovery quantities of LWP per inhabitant in the year 2011 (calculated from the above “Total LWP” of 2011, divided by the number of inhabitants in 2011):

	Enzkreis	Rural district of Ludwigsburg	City of Karlsruhe	Rural district of Karlsruhe	Rhein-Neckar-Kreis District
[kg/INHAB*a]	11.3	10.7	8.7	6.9	10.4

Annex 2: Qualitative Questions

In a letter dated 26 July 2012, ten scheme operators and seven associations were posed the following qualitative questions:

“Please provide concrete responses and provide examples and records - where possible.

a) Before competitors of DSD entered the market, some concerns were raised that numerous negative effects might be associated with a competition between compliance schemes. Which of these concerns have come true in practice, and which have not?

b) Which positive effects occurred as a consequence of opening up the market to competition?

c) In which cases have operational disruptions occurred since 2008 (non-compliance with removal deadlines, strikes, or the like) in the collection of lightweight packaging and glass? In which of these cases had the work to be done by the örE? Did such operational disruptions occur more often or more seldom when compared to the household waste collections organised by the municipalities?

d) To what extent does the duty of coordination specified in Sec. 6 (4) of the VerpackV constitute an obstacle to a rationalisation of the existing collection systems?

e) Which potentials for rationalisation exist regarding the municipal ancillary fees? What reasons speak for or against the inclusion of the so-called ancillary fees in the main cost responsibility of the relevant tender organisation manager? Are the ancillary fees distributed to the different fractions according to the key specified in the clearing agreement and fairly according to the persons causing the waste.

f) Do the fees which compliance schemes pay for the joint use of P&B collection correspond to the fees which would arise under competitive conditions? Do P&B collection companies meet the requirements of compliance schemes for transfer of the P&B quantity share allocable to the relevant scheme operator?

g) The tender agreement of compliance schemes provides that the tender organisation managers bears the main cost responsibility for the collection (“50%+X”), while the collected quantities are still allocated or transferred to the compliance scheme uniformly all over Germany (according to licence quantity shares). Which aspects speak for or against an increase of the 50 % share of the tender organisation manager? Which advantages or disadvantages would arise if the collected quantities were mainly allocated/transferred to the tender organisation manager?

h) Which competitive shortcomings exist in addition to the issues mentioned in your answer under d) - g)?“

Annex 3: Information Letters

Below is a documentation of the seven Information Letters sent by the 4th Beschlussabteilung (Decision-Making Department) of the Bundeskartellamt. The letters were each sent to several addressees (partly associations) and were further distributed by them. Therefore, these letters are widely known in the sector.

Letter B4-5/09-35 of 21 July 2009

Award of Contracts for the Sorting Service of "Special Collection Systems"

[Title]

With reference to an inquiry issued by a municipality regarding the award of contracts for the sorting service under a so-called "special collection system", the Decision-Making Department hereby informs you about the following assessments made under competition laws.

According to settled practice, the Decision-Making Department recognises the necessity that compliance schemes cooperate among each other and with the public bodies responsible for waste management, if appropriate, in the context of the Packaging Ordinance, to ensure waste collection (avoidance of a double collection infrastructure). However, such need for a cooperation does generally not apply to any services downstream from collection, such as sorting and recovery. Therefore, contracts for collection on the one hand and sorting on the other hand must be awarded separately. That applies also to special collection systems. Please note, in addition, that the contractual conditions need to be agreed upon individually, if the same operating collection company or sorting company is to be engaged in parallel (BKartA, Decision of 6 May 2004, B10 97/02 1, "Neu-Ulm"). Contractual conditions which aim at awarding a joint contract for the sorting service or at hindering compliance schemes from an independent award of the contract for the sorting service, will generally raise concerns under Sections 1, 21 of the GWB, even in case of special collection systems.

As a supplement, please refer to the explanations in the current Activity Report of the Bundeskartellamt (BT-Drs. 16/13500, in particular p. 155).

Letter B4-5/09-48 of 9 Oct. 2009

On questions of a joint use of the collection organised by DSD

[Title]

Thank you very much for your inquiry in which you explain that several compliance schemes (competitors of DSD) request the collection companies to accept a contractual clause according to which the territory price agreed with DSD for the collection of glass and LWP would become part of the collection contract. The compliance schemes rely, in this request, on the Judgement 18 O 217/08 of the Landgericht (Regional Court of) Hanover of 16 June 2009. Another scheme operator requested, in addition, a most-favoured clause according to which the lowest price which the collection company had agreed upon with other compliance schemes - possibly even competitors of DSD - should apply.

The clauses you complain about imply the request to disclose the territory price agreed with the DSD (or the territory price agreed with all compliance schemes) to the competitors of DSD. But, the compliance schemes have no independent claim for a disclosure of these prices. On the contrary, any exchange of information between the compliance schemes on the prices agreed with their collection companies raises concerns pursuant to Sec. 1 of the GWB. Therefore, no compliance scheme must threaten to impose or impose disadvantages on collection companies nor must they promise or grant benefits in order to convince the collection company to disclose the price they have agreed upon with any other compliance schemes (Sections 21 (2), (1) of the GWB). The compliance schemes have already been informed thereof in the letter of 10 Dec. 2007. Insofar as any compliance scheme makes the conclusion of the collection contract dependent on the fact that the collection company discloses the price agreed with one or several other compliance schemes, that would fulfil the offence of threatening of disadvantages.

Furthermore, you state that the chairman of the Decision-Making Department responsible back then had told the former managing director of the BDE that a surcharge of 5 - 10 % on DSD's price were generally harmless under competition laws.

That is incorrect. A market-dominating or strong collection company must not reject the conclusion of a collection contract or make it dependent on the procurement of other services (e.g. sorting, processing, recovery) and must not request fees or other conditions which are more unfavourable compared to the conditions agreed with DSD,

unless that can factually be justified (Sections 19, 20 of the GWB). General statements such as that surcharges of 5 - 10 % were always factually justified are not included in Sections 19, 20 of the GWB. A factual justification would rather need to be decided on for each individual case. Several disposal companies and associations have already been informed of this fact in discussions with members of the Decision-Making Department which had been competent then. DSD's competitors agree, in many cases, on a scope of services which deviates from that in a DSD agreement. Such differences in the services often constitute a factual justification for a territory price which deviates from the one specified in the DSD agreement. The fact alone that the current system of joint use causes bureaucratic efforts for the collection companies, does not, however, provide any factual justification for surcharges, which are to be borne unilaterally by the competitors of DSD.

The legal opinions of the Decision-Making Department explained above are of a preliminary nature and will not bind the Bundeskartellamt in future proceedings. The explanations relate, in particular, only to the system of joint collection which is still practised by the compliance schemes.

A copy of this letter will be sent to the associations BDE, bvse and VKS in VKU and the compliance schemes.

Letter B4-5/09-55 of 18 Dec. 2009

RE “verpackVkonkret”

[Title]

Thank you very much for your letter of 9 Dec. 2009 in which you ask for an assessment of the permissibility of the agreements contained in the “verpackVkonkret” under competition laws. Besides your letter, the Decision-Making Department has received other complaints and inquiries by phone on verpackVkonkret.

The so-called system of the legal exemption was introduced with the Regulation 1/2003 and the 7th revision of the GWB. Since the former registration system has been eliminated, the competition authorities usually no longer comment on the admissibility of cartel agreements. It is in the interest of the persons involved in agreements which might restrict competition to perform or have performed a self-assessment pursuant to Art. 101 of the TFEU (former Art. 81 of the EC) or Sec. 1 of the GWB to minimise their liability risks, in particular those under Sections 33, 81 of the GWB. The contractual stipulations of the verpackVkonkret according to which the agreements relate to the latest contents of the website, pose extremely high requirements to the parties involved. All contents of the website verpackVkonrekt need to undergo a verification under competition laws on a constant basis. Since the contents of the website can change constantly, the parties involved must ultimately perform such verifications daily.

The Decision-Making Department has not verified the material regulations of verpackVkonkret and only provides some information below for a self-assessment under competition laws.

Initially, please allow us to state that the companies involved in the agreements of verpackVkonkret do not hold the function of an enforcement authority. Naturally, scheme operators, distributors and other affected companies need to comply with the requirements set forth in the Packaging Ordinance (VerpackV). It is, however, the duty of the competent enforcement authority to rectify any violations of the VerpackV and to bring outstanding issues relating to an interpretation of the VerpackV before the courts for their clarification.

Art. 101 of the TFEUR or Sec. 1 of the GWB prohibit agreements between companies which noticeably restrict competition. verpackVkonrket is obviously based on a number

of agreements in which the companies ARGE verpackVkonrekt (i.e. Cyclos GmbH and GVM Gesellschaft für Verpackungsmarktforschung mbH), scheme operators and their customers and auditors as well as engaged third parties participate. The set of agreements must, from a competition law perspective, also be assessed as an agreement among the scheme operators (so-called parallel trading agreement). A decisive factor for an assessment under competition laws here is whether individual contents of verpackVkonkret restrict the competition. A restriction of competition is deemed to apply if the competitive parameters available to a scheme operator are suspended or restricted by the requirement contained in verpackVkonkret at issue (e.g. regarding the stipulations of industry solutions). Given the high market shares of the scheme operators involved in the agreements and the high degree of the agreement's binding character, even a minor restriction of a competitive parameter will have palpable effects. Besides the effects on the licence market, even impacts on service providers active in third-party markets are to be considered, e.g. experts of the VerpackV, providers of packaging market studies and mediators of licence agreements.

Prohibitions of abuse (Art. 102 of the TFEU (formerly Art. 82 of the EC), Sections 19, 20 of the GWB) and the supplementary prohibitions contained in Sec. 21 of the GWB (prohibition of boycotts, prohibition to exert pressure) must be observed as well. Sec. 21 (3) of the GWB provides, in particular, that companies must not be forced to enter any agreement, even if the agreement at issue meets the preconditions for an exemption from the ban on cartels.

A copy of the letter will be sent to the nine compliance schemes and to cyclos and GVM.

Letter B4-152/07 of 19 Jan. 2011

On the deposit of securities by compliance schemes pursuant to the VerpackV

[Title]

Thank you very much for your letter of 26 July 2010 in which Ms. [...] in her former function as Chairwoman of the Ausschuss für Produktverantwortung (Committee for Product Responsibility - APV) of the Bund/Länder-Arbeitsgemeinschaft Abfall (Waste Work Group of the Federal Government / German Federal States - LAGA) explained details on the federal state's considerations that compliance schemes are to deposit a security and asks for a further assessment under competition laws. In order to further clarify the matter, the Decision-Making Department asked nine compliance schemes in a letter of 23 August 2010 to comment on the matter. I hereby ask for your understanding that the matter could not be answered earlier since matters which need to be executed by a deadline needed to be handled with preference.

Two alternatives for making such a deposit are outlined in the Annex to the letter of 26 July 2010. According to alternative I, scheme operators would deposit their security - as has been the case to date - individually with the relevant enforcement body. Alternative II, however, provides for the compliance schemes to jointly deposit the security with a joint body. Alternative II is conceivable in different forms. It could, in particular, avoid the communitarisation of the costs of the guarantee, since a joint and several liability is excluded. A deposit according to alternative II would decrease the administrative efforts, both for the 16 enforcement authorities and for the currently nine compliance schemes.

Subsequently, the Decision-Making Department asked the nine compliance schemes to comment, under which model they wish to deposit their security. Furthermore, information was requested on the amount of the guarantees and the associated costs for obtaining such guarantee in the years 2008 and 2009. Moreover, scheme operators were asked to explain why they consider that the requirements for an exemption as set out in Sec. 2 of the GWB or Art. 101(3) of the TFEUR were fulfilled.

The inquiry resulted, inter alia, in the finding, that the scheme operators have no uniform understanding of a joint depositing of securities. Their interest in a joint depositing seems to be very different. Some of the compliance schemes name different conditions under which they would be willing to participate in a joint depositing of securities. For example, one compliance scheme requests that the contents of group

guarantees or of comfort letters ought to be comparable, in future, with bank guarantees (e.g. freedom from defences, first request), and would also be subject to the same costs as bank guarantees, while another compliance scheme asks that letters of comfort issued by the parent of the group be accepted as has been the case to date. It seems questionable against this backdrop whether all compliance schemes would take part in a joint depositing of securities - regardless of its form. Two statements underline that the discussions of the compliance schemes in their "Arbeitskreis Sicherheitsleistungen (Work Group for Securities)" have been stopped after the representative of the Decision-Making Department had raised concerns under competition laws against a security fund to be established in the joint body during a meeting on 31 March 2010.

In the letter of 26 July 2010, Ms. [...] also asked for approaches to find a solution that was both "practicable" and unobjectionable under competition laws. For this matter, I would like to point out initially that it was the duty of the scheme operators which are involved in a potential agreement to ensure that the latter is compliant with the competition laws. The role of the competition authorities is, however, to rectify any breaches of the competition laws and to issue a punishment for such, if appropriate. The assessments made by the Decision-Making Department outlined below might, however, help the scheme operators and the members of the APV.

As we informed in the letter of 18 June 2010, no concerns under competition laws exist against "Alternative I". Regarding "Alternative II", the Decision-Making Department considers a joint depositing of securities in compliance with competitive laws to be possible, insofar as that is done on a voluntary basis and outside of the joint body and insofar as an individual conclusion of guarantee agreements is ensured which will not establish a joint and several liability.

1. No depositing of securities with a joint body

The duties of the joint body are set out in Sec. 6 (7) of the VerpackV. While the three duties are not an exhaustive list which is indicated by the additional word of "in particular" set out in Sec. 6 (7) of the VerpackV, a restriction of the activities of the joint body to the scope of a necessary cooperation is already necessary under the standards set out in the constitution. The government's justification for the revision of the Packaging Ordinance (VerpackV-Novelle) explains, in detail, that the interference in the

so-called “negative freedom of associations” (Art. 9 (1) of the German Constitution) which is associated with an obligatory membership in the joint body is only justified insofar as it refers to the scope of the necessary cooperation. No cooperation among the scheme operators is necessary for depositing a security - beyond the determination of the quantity shares. Scheme operators are still able to individually deposit the security. The competition law contains equivalent assessments in this regard. Insofar as agreements contain restrictions which are not indispensable for achieving the objectives of efficiency, one of the four cumulative preconditions for an exemption from the ban on cartels will be deemed to be not fulfilled (Sec. 2 of the GWB, Art. 101(3) of the TFEU). Even if an agreement meets the requirements for an exemption from the ban on cartels, companies must not be forced to enter the agreement (Sec. 21 (3) no. 1 of the GWB). The voluntary character of a participation in a joint depositing would not be ensured if it were managed by using a joint body.

The mentioned administrative advantages of a joint depositing of securities are unable to justify the fact that a joint body becomes active for that purpose - beyond its duty to determine the quantity share. It can easily be understood why the administrative efforts for depositing the securities with a central body would be lower than depositing them directly with the 16 authorities of the German federal states. The regulator decided, however, on a decentralised enforcement by the German federal states. Insofar as the administrative efforts to be borne by the federal states are considered to be unnecessarily high when it comes to the securities, a central authority might be engaged to perform such duty. Even insofar as compliance schemes wish to deploy a central “mediator for guarantees” on a private-law basis with the aim of simplifying the administrative process, it still is not understandable why the joint body would need to accept this role. This could also be organised on a purely contractual basis (by engaging third parties, such as e.g. a bank).

2. Individual conclusion of guarantees without establishing a joint and several liability

In their statements, the majority of the scheme operators underlined that they do not plan to conclude a guarantee within the meaning of a security fund. They rather said that each compliance scheme should individually conclude guarantee agreements and

that they would not be restricted in the selection of a guarantor by a joint depositing. A recourse to the securities of the other compliance schemes should be excluded both in their internal relationship (compliance schemes among each other) and in their external relationship (toward any enforcement authorities), so that no joint and several liability would be established. This contractual structure would not result in any communitarisation of costs (Sec. 1 of the GWB, Art. 101(1) of the TFEU).

I understand the statement insofar that the role of a joint "mediator for guarantees" would be restricted to combining the individual and separately agreed guarantees to one joint guarantee, without the mediator becoming a guarantor themselves or without restricting the scheme operator's options for selecting them. A communitarisation of the costs of the guarantee would actually not to be expected if these preconditions were met. For such agreements, it would be necessary to ensure that they are also otherwise free of any restrictions of competition.

The assessments under competition laws are of a preliminary nature and will not bind the Decision-Making Department in any future proceedings. A copy of this letter will be sent to the Gemeinsame Stelle dualer Systeme Deutschlands GmbH.

Letter B4-77/11 of 27 Sep. 2011

to the eight parties of the tender agreement

[Title]

Soon, the “tender organisation management” specified in more detail in the tender agreement will be raffled between the contract parties in accordance with the tender agreement (hereinafter referred to as “TA”). The Decision-Making Department informed that the TA needs to be refined on a continuous basis based on the experience made in the practice and on the requirements under competition laws (cf. also the Case Report B4-152/07, available at www.bundeskartellamt.de). In addition, the Decision-Making Department performed a cursory verification of the draft of the tender agreement of 5 Nov. 2010, at the request of the compliance schemes involved, and explained possible requirements for amendments under cartel laws in a meeting with six compliance schemes on 18 Nov. 2010. Against this backdrop, I hereby ask you for a notification until 11 Oct. 2011, which changes of the TA the contract parties intend to make prior to the pending raffle.

Regardless of other amendments of the TA, the Decision-Making Department considers it necessary to include the so-called “special collection systems” in the TA. According to Art. 8 of the TA, no tender organisation management has been raffled for these territories so far, no calls for tender have been performed for the LWP collection by the compliance schemes and the LWP collection costs are being communitarised. This constitutes a noticeable competitive restriction under Sec. 1 of the GWB, without the requirements for an exemption set forth in Sec. 3 of the GWB being met (cf. Case Report B4-152/07, p. 5-6).

As far as we know, the contract parties have agreed on the special regulation in Art. 8 of the TA based on objections against a call for tender which they expect to receive from the public body responsible for waste management (örE). But, Art. 6 (4) sentence 9 of the VerpackV needs to be observed in this respect. In addition, please note that any inadmissible combination of an activity under public laws with a profit-making activity is a recognised case group of discrimination under Sections 19, 20 of the GWB (cf. BGH (Supreme Federal Court), Judgement of 21 July 2005, “Friedhofsruhe” (Peace of the Graveyard)) which might apply here in individual cases.

Insofar as compliance schemes fear that objections of individual örE result in delays of the implementation of the call for tenders for collection services regarding special collection systems, that might be addressed by a transitional regulation. The call for

tenders might, for example, be included only as a target provision for the ten affected contract territories in the next service period (10 Jan. 2013 - 31 Dec. 2015) - deviating from the other contract territories -, while the allocation of the main cost responsibility to the “tender organisation manager” applies regardless of the actual performance of a call for tenders. Such a regulation would, on the one hand, create an incentive to conduct a tender for the collection and this would, on the other hand, take into account possible delays caused by the opposition of individual örE.

Letter B4-5/11-21 of 13 Oct. 2011

Re the individual P&B recovery when compliance schemes jointly use the P&B collection

[Title]

The Decision-Making Department has received inquiries regarding the conditions of the P&B recovery if the P&B collection organised by the municipality is jointly used. The inquiries revealed that the collection companies had not been sufficiently aware of a possible coupling problems.

The Decision-Making Department has already in its former letters pointed out that making the conclusion of a collection contract dependant on being engaged with other services - such as e.g. sorting, processing, recovery - might give rise to concerns under competition laws (cf. Letter B4-5/09-48 of 9 Oct. 2009). That also applies to the fraction of P&B.

Collection is a service separated from sorting and recovery. A compliance scheme is generally free to sell the P&B share to which it is entitled to a company of their choice or to engage a company of their choice with the P&B sorting and/or P&B recovery. However, if a market dominating or strong P&B collection company makes the conclusion of a P&B collection contract dependant on the condition to be engaged with the P&B sorting / recovery, without having a factual justification, that constitutes an inadmissible coupling under Sections 19, 20 of the GWB. Such coupling restricts the compliance schemes' freedom of selection; the P&B collection company expands their market dominating or strong position in relation to the compliance schemes to P&B sorting / recovery. If a compliance scheme decides to request the physical hand-over of the P&B share attributable to them, a rejection to hand it over by the collection company implies that the service(s) "P&B sorting / recovery" are coupled with the collection service.

The assessments under competition laws are of a preliminary nature and will not bind the Decision-Making Department in any future proceedings.

Letter B4-157/08-2 of 19 March 2012

On the introduction of a “joint” recycling bin in the federal state of Berlin (“Climate Bin”)

[Title]

Thank you very much for your above-mentioned letters in which you asked for an assessment under competition laws of the contract on the introduction of a “joint” recycling bin which the federal state of Berlin plans to use.

1. Subject matter

I understand your explanation of the matter as follows:

In accordance with the so-called “tender agreement”, the LWP collection will be newly tendered for a term of three years by four different compliance schemes (BellandVision, DSD, Interseroh, Landbell) for the four territories in Berlin on 1 Jan. 2013. The tender agreement states that the relevant “tender organisation manager” would also accept the main cost responsibility for LWP collection from 1 Jan. 2013. The former LWP collection company in all four territories has been Alba until 31 Dec. 2012.

In addition, Alba has been operating a commercial collection against a fee (Sec. 13 (3) sentence 1 no. 4 of the KrW/AbfG) for non-packaging of the same substance (sNVP) as well as wood and small electrical devices (“Yellow Bin Plus”) since 2004 in currently approx. 400,000 households. For that purpose, Alba uses the yellow bins of the LWP collection, i.e. LWP, sNVP, wood and small electrical devices are collected in one container from these residencies. The company Berliner Stadtreinigungsbetriebe AdöR (BSR) - a company of the federal state of Berlin which performs the waste removal duties of the federal state of Berlin under Sec. 5 (1) of the KrW-/AbfG Bln - has been offering a bin (“Orange Box”) from 2009 which is provided free of charge and separately from the LWP collection, in which it collects sNVP, wood, small electrical devices and old textiles. Approx. 37,000 Orange Box containers are being used at the moment.

The federal state of Berlin and BSR suggested to the compliance schemes to amend the applicable coordination agreement on 01 Jan. 2013 insofar that the yellow bin be “combined” with the Orange Box. The new coordination agreement should apply until 31 Dec. 2015 and should not contain any legal obligation of Alba to stop its commercial collection in the “Yellow Bin Plus”. The federal state of Berlin and BSR intend to use the following contract:

LWP, sNVP and small electrical devices will, in future, be collected in one recycling bin (i.e. no wood, no old textiles). This recycling bin will be provided free of charge for the citizens. Each of the four contract territories of Berlin will be divided in two partial territories of a variable size ("scheme operator territory" and "örE territory") for the purpose of collection, where the size of the territories should approximately correspond to the collected quantities of LWP on the one hand and sNVP and small electrical devices on the other hand. The sizes of the territories will not be determined based on sorting analyses, but based on the actual trend of the collected quantities. The size of the territories will be newly calculated on a semi-annual basis and adapted accordingly. The size of the "scheme operator territory" will be calculated according to the following formula: [LWP collected quantity in the first half year of 2011] divided by [totally collected quantity in the new recycling bin in the previous half-year]. Initially, a size share of the relevant "scheme operator territory" of approx. 88 % (71,000 t / 81,000 t) and a size share of the "örE territory" of approx. 12 % (10,000 t / 81,000 t) will initially be used for the first half year. The exact delimitation of the two partial territories should be agreed upon amicably by the two operating collecting companies and be adapted on a semi-annual basis. The "partnership of convenience" mentioned in Art. 5 no. 8 of the Senate Administration's draft of a coordination agreement comprises exclusively this delimitation of the relevant collection territories. In these territories, the containers will be provided by the operating collection company (i.e. the containers will be provided by BSR in BSR's partial territory). If the "joint" recycling bin is not continued beyond 31 Dec. 2015 and if this results, again, in a "separate" collection, BSR will remove its containers.

The compliance schemes will tender the LWP collection pursuant to the service so determined, i.e. an approximate quantity to be collected of the collected mix will ultimately be tendered (a total of approx. 71,000 t for the four territories). The compliance schemes will place orders for the sorting and recovery of these quantities (in proportion to their joint usage quotas). The federal state of Berlin engages BSR with emptying the number of containers which corresponds to the "additional" quantities to be collected (expectation of approx. 10,000 t). Furthermore, the federal state of Berlin will place the orders for sorting and recovery of these quantities collected by BSR. Neither will a pro-rata quantity be handed over to the örE (or vice versa), nor will mutual orders be placed for collection against a fee. In particular, BSR will not be engaged (on a pro-rata basis) by the compliance schemes without the conduct of a call for tenders. Furthermore, no cost equalisation will be made between the örE on the

one hand and the compliance schemes on the other hand. Each will thus bear "their own costs" both regarding collection and regarding sorting and recovery.

According to the opinion of the Senatsverwaltung für Stadtentwicklung Umwelt (Senate Administration for Urban Development and the Environment) - which is also the competent determination authority according to the VerpackV - this contract is in conformity with the requirement to ensure a collection on a full coverage basis pursuant to Sec. 6 (1) sentences 1 and 3 of the VerpackV. The stipulations of the contract have not been the subject matter of discussions or resolutions in the Ausschuss für Produktverantwortung (Committee for Product Responsibility) of the LAGA.

The federal state of Berlin does not plan to transfer this "interpolation model" in analogy to the P&B collection, since P&B collection is subject to competitive conditions in Berlin (as a commercial collection).

2. Opinions of the scheme operators

The Decision-Making Department has not asked the compliance schemes regarding their conceptions on a coordination agreement for the affected period or regarding their assessment under competition laws. The DSD sent a letter of 14 Feb. 2012 which had been addressed to the Senatsverwaltung für Stadtentwicklung und Umwelt (Senate Administration for Urban Development and the Environment). This letter says that the DSD rejected the concept of the federal state and of the BSR. In addition to other issues (BSR share assumed to be too high, quota relevancy of the liquid boards, ability to sort out small electrical devices, ...), the DSD criticises, inter alia, that the variable division of the territories will result in calculation insecurities among the bidders. Interseroh informed over the telephone that they consented to the concept of the federal state. The Decision-Making Department is not aware of the position taken by other compliance schemes.

3. Assessment under competition laws

The Decision-Making Department only has a rough concept of the project. Furthermore, it is to be expected that the concept submitted will still be subject to several amendments during negotiations with the scheme operators, even if a fundamental agreement is achieved on the introduction of a "joint" recycling bin. In addition, the Decision-Making Department has not determined any potential concerns of the compliance schemes or other market participants. Against this backdrop, the following notes are limited to some central aspects and relate exclusively to the above explanation of the matter.

The most important requirements to the award of LWP collection contracts under competition laws are (i) the award of collection contracts separately from other disposal services, (ii) a call for tenders for the collection service and (iii) avoidance of a (too strong) communitarisation of the collection costs (Art. 101 of the TFEU, Sections 1, 2 of the GWB, cf. Case Report B4-152/07, available at www.bundeskartellamt.de).

The submitted concept will not change the main cost responsibility of the relevant tender organisation manager for the LWP collection, so that no concerns are recognisable regarding an (additional) communitarisation of the collection costs. The concept submitted also obviously meets the requirements that the collection contract be separated from other disposal services.

I therefore assume that your inquiry aims at determining primarily whether the submitted concept of a division of the territories fully ensures the call for tenders for the LWP collection service. In accordance with the contractual stipulations intended by the federal state of Berlin, compliance schemes should ultimately tender the collection of a (pro-rata) quantity of the collected mix which corresponds to the (former) LWP collected quantity (a total of approx. 71,000 t for the four territories), where the BSR will not be engaged (on a pro-rata basis) by the compliance schemes without a call for tenders or where no other cost compensation applies. This constitutes a model of an additive full coverage basis. According to the Decision-Making Department's assessment, no general concerns exist against such a call for tenders.

But, it needs to be observed that the coordination agreement (and the associated system specification) contain no (not even indirect) restrictions of competition so that the number of bidders is not unnecessarily restricted (Sec. 6 (4) sentence 9 of the VerpackV; BGH (Supreme Federal Court), Judgement of 21 July 2005, "Friedhofsruhe" (Silence of the Graveyard)). Insofar as the estimate of additional collected quantity expected for the first half year (i.e. the BSR share) should prove to be too high, this might result in the additional calculation risk explained by the DSD which might keep bidders from participating in a call for tenders. In this context, please note that in the call for tenders already conducted in the territories of Berlin, the number of participating bidders was below the average in Germany. This might also be due to the relatively large territories and the key problem associated with a "full service". Therefore, the coordination agreement should not simply be opposed to any potential further division of the collection service by the tender organisation manager, and the service feature of "full-service" should be considered critically or the necessity of an access to the

relevant keys resulting from the “full-service” should at least be addressed.

Furthermore, allow me to point out that, according to the opinion of the Decision-Making Department, such territory division models can generally be transferred to the P&C collection and thus might have effects on the former practice of a joint use of the P&C collection. It is unclear in this connection which regulatory contents should be allocated to Art. 3 No. 1 of the draft of a coordination agreement issued by the Senate Administration (“The parties continue striving for a uniform collection of the P&B fraction”).

The assessments under competition laws are of a preliminary nature and will not bind the Decision-Making Department in any future proceedings. I expect that you forward a copy of this letter to the compliance schemes. Otherwise, please inform me.

Annex 4: Agreements between compliance schemes

During this Sector Inquiry, the Gemeinsame Stelle dualer Systeme Deutschlands GmbH was asked to submit a version intended for publication of (i) the tender agreement, the (ii) quantity take-off agreement for LWP and glass, the (iii) quantity take-off agreement for P&B and of the (iv) ancillary fees clearing agreement. The versions of these four agreements between the compliance schemes will be published as Annex 4 to the Sector Inquiry.