

WORKING PAPER

Austrian Waste Sector



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1. Legal Framework

1.1 European Legal Framework

1.2 National Legal Framework

Constitutional law

Waste management is not declared a public task in Austrian constitutional law (*Bundesverfassungsgesetz* [B-VG]). The Austrian federal constitution does not contain any public task catalogue.¹ The numerous public tasks are carried out by the State or under its supervision without a general or specific constitutional mandate. Services of general interest belong to these tasks.

The term “services of general interest” (*Daseinsvorsorge*) has little meaning in Austrian positive law. There is no mention of it in federal law and only three references can be found in *Länder* laws. A definition of the term does not exist. Generally, the term “services of general interest” denotes traffic infrastructure (e.g., streets, railroads, bus lines, air lines, shipping routes), supply and disposal facilities (water and energy supply, waste water and waste removal), communication systems (postal services, broadcasting), hospitals, cultural and educational facilities. The term therefore primarily refers to the State’s responsibility for infrastructure.²

As mentioned earlier, services of general interest are provided by the State or the State attends to their provision in the absence of a constitutional mandate. The constitutional competence assignments (Art. 10 ff B-VG) in different fields (e.g., transport and the health sector, educational system) do not oblige the State to fulfil public tasks nor to see to their provision. They merely justify the competence of legislation and administration.

According to Art. 10, section 1, No. 12 B-VG the Federation is responsible for legislation and execution of waste management with respect to

¹ Nevertheless, Austrian constitutional law declares the comprehensive protection of the environment a national objective. National objectives (or constitutional mandates) are constitutional provisions with a programmatic content. These provisions contain principles serving as guidelines for state action. They are especially important for the interpretation of laws and appraisal of their conformity to the constitution.

² See Holoubek u. Segalla (2002), p. 199.

hazardous refuse. Legislation and execution in regard to non-hazardous waste fall within the competence of the *Länder*. This general competence of the *Länder*, however, is limited by a competence (*Bedarfskompetenz*) of the Federation to enact uniform provisions if need arises (Art. 10, section 1, No. 12 B-VG).

Federal and Länder Law

The most important regulations can be found in the waste management act (*Abfallwirtschaftsgesetz* [AWG]), past contamination redevelopment act (*Altlastensanierungsgesetz* [ALSG]), the respective laws of the *Länder* and numerous ordinances (e.g., waste site ordinance [*Deponieverordnung*], packaging ordinance [*Verpackungsverordnung*]). Regulations pertaining to waste management may therefore be found on two different levels of legislation: the federal AWG on the one hand and the various *Länder* laws on the other.

The Federation has made use of its abovementioned competence to enact uniform provisions in the AWG. The AWG contains not only regulations dealing with hazardous refuse, but also provisions with respect to non-hazardous waste (The *Länder* are usually responsible for non-hazardous waste). The Federation has purposefully enacted uniform provisions concerning the objectives and principles of waste management (§ 1), the definition of waste (§ 2), waste prevention (§§ 9 ff), the general obligations of waste owners (§§ 15 ff), waste collectors and waste treaters (§§ 24 ff), waste treatment facilities (§§ 38 ff) and waste transport (§§ 66 ff). If the Federation wishes to assert its competence to enact uniform provisions, it has to give impartial and justified reasons for doing so. (Coextensive) federal laws override existing *Länder* laws. If, however, the Federation does not use its competence under Art. 15, B-VG it is the *Länder* which are responsible.

As mentioned above, a definition of waste exists (§ 2 AWG). According to the AWG, “waste” refers to all moveable objects which fall under one of the categories of Annex 1 of the AWG and of which the owner wants to dispose (or has already disposed), or whose collection, transport and treatment are necessary in order not to harm the public interest.³

³ The AWG differentiates between a subjective and an objective definition of waste. The wording of § 2 section 1 no. 1 refers to the subjective definition, speaking of waste of which the owner wants to dispose or has disposed. What matters is the inner attitude of the waste owner. § 2 section 1 no. 2 refers to the

The AWG definition of waste is a broad one. Existing substances which can be recycled are also considered waste until recycling (e.g., paper, glass, metal, plastic). A large casuistic judicature exists. The question whether a certain object in a concrete case may or may not be considered waste by the district administrative authority (*Bezirksverwaltungsbehörde*) by means of notice. The Federal Minister of Agriculture, Forestry, Environment and Water Management may define the requirements for certain types of waste so that they are no longer considered waste.

To distinguish Federal from *Länder* law, a distinction must be drawn between hazardous and non-hazardous refuse. The AWG enables the Federal Minister of Agriculture, Forestry, Environment and Water Management to identify hazardous waste by means of an ordinance. For the identification of waste as hazardous, different criteria (explosive, accelerant, health-damaging, toxic and carcinogenic) are used. Problematic substances (*Problemstoffe*) constitute a subset of hazardous waste. Problematic substances are hazardous waste, usually produced by households (e.g., pharmaceuticals, batteries, waste electronic equipment, waste mineral oil).

As mentioned earlier, the waste laws of the *Länder* regulate non-hazardous waste (e.g., residual, bulky and operational waste, existing substances), as far as the Federation has not made use of its competence. Above all, the *Länder* laws assign the task of collection and treatment of residual and bulky waste (domestic waste) to the municipalities. For the collection and treatment of operational⁴ waste the party producing it is responsible. “Residual waste” refers to those types of waste which are normally produced in households, or in organisations similar to households, as far as the type and composition of waste are concerned. “Bulky waste” refers to household refuse, or to refuse produced by organisations similar to households, which cannot be collected by the household waste collection system because of size, volume or shape.

For the collection of domestic waste a public refuse collection service and for bulky waste collection points have to be set up. Almost every *Land* has

objective term for waste, speaking of refuse whose collection, transport, treatment and disposal are necessary in order not to affect public interest. The objective definition is not dependent on the will of the waste owner. To qualify a moveable object as waste, it is enough that one of the two criteria is fulfilled.

⁴ According to the Supreme Administrative Court, the typ of waste, not its quantity is the relevant criterion for the distinction between domestic and operational waste.

made use of the possibility granted by the Federal Constitution to create municipal associations (*Gemeindeverbände*), as the quantity and quality of waste have reached dimensions a typical municipality can no longer handle. However, municipalities or municipal associations do not have to provide waste collection themselves, but may entrust the task to third parties. The governor usually has to be notified about the collection (and treatment) of non-hazardous waste.

A residential kerbside system is operated for the collection and transport of waste. Households are usually obliged to make use of the kerbside system (*Anschlusspflicht*). Exceptions for properties are possible only by means of an ordinance or notice.

Besides the collection of domestic waste the collection of problematic substances is also incumbent on the municipalities. This responsibility was placed on the municipalities by Federal law (rather than by *Länder* law). § 28 AWG obliges the municipalities or municipal associations to collect (or make arrangement for collection of) problematic substances if required, but in any case at least twice a year.

In addition to being responsible for the collection of waste, the municipalities also have responsibility for waste treatment. Waste treatment refers to recycling (material, energetic) and other forms of treatment (biological, heat, physico-chemical, landfill). The responsible body - usually a municipal association - has to ensure the creation of appropriate facilities. Here again, the municipality or the municipal association does not have to provide waste treatment itself, but may entrust such provision to third parties. The construction and operation of a (stationary) treatment plant require the governor's permission.

Part of the duties of the *Länder* is the creation of a waste management plan in order to implement the principles of waste management laid down in the AWG. These principles comprise waste avoidance, recycling and disposal.

Selected Ordinances

Mention will be made here of the ordinances governing waste management. The most important ordinance is the Packaging Ordinance (*Verpackungsverordnung*). The packaging ordinance is designed to induce companies to use less packaging, to recycle used packaging and to set up a collection and recycling system. The packaging ordinance obliges producers, importers and (final) distributors to take back their packaging, to

reuse or recycle it, or pass it down to their suppliers and to inform the authorities. Alternatively, producers, importers and (final) distributors may participate in a collection and recycling system. By concluding a contract (under private law) with a licensed collection and recycling provider, they are able to free themselves of the obligations stipulated by the packaging ordinance.

Other ordinances dealing with specific waste streams are the End-of-Life Vehicles Ordinance (*Altfahrzeugeverordnung*), the Batteries Ordinance (*Batterieverordnung*) and the Electrical Equipment Ordinance (*Elektroaltgeräteverordnung*). The Waste Site Ordinance (*Deponieverordnung*) has already been mentioned; it aims at preventing harmful impacts on the environment and health by controlling type and volume of waste which can be stored at waste sites.

2. Provision and Regulation of Waste Management Services

A brief summary of Austria and relevant information concerning the following analysis is given in table 1.

Table 1: Factsheet Austria

Population:	8,0 mio.
Density:	99/km ²
Geography:	largely mountainous due to its location in the Alps. Flattening towards the more densely populated east.
Number of Provinces:	9 (See map below)
Number of Municipalities:	2 375
State structure:	decentralised, federal system

Figure 1: Map of Austria
Source: Statistik Austria (2009a)



2.1 Prevailing Organisational Forms

As already mentioned, the responsibility for collection and treatment of household waste is assigned to the respective municipalities. In this respect, almost all provincial laws exercise the right to create municipal associations. The assignment of competence (to associations, municipalities or the *Land*) for each Austrian *Land* is shown in the following table 2:

Table 2: Responsibility for Collection and Treatment

	Collection	Treatment
Burgenland	Association	Association
Kärnten	Municipalities	Associations
Niederösterreich	Municipalities	Municipalities
Oberösterreich	Municipalities	Associations
Salzburg	Municipalities	Associations
Steiermark	Municipalities	Associations
Tirol	Municipalities	<i>Land</i>
Vorarlberg	Municipalities	<i>Land</i>
Wien	Municipality	Municipality

Source: Segalla (2006), p. 301.

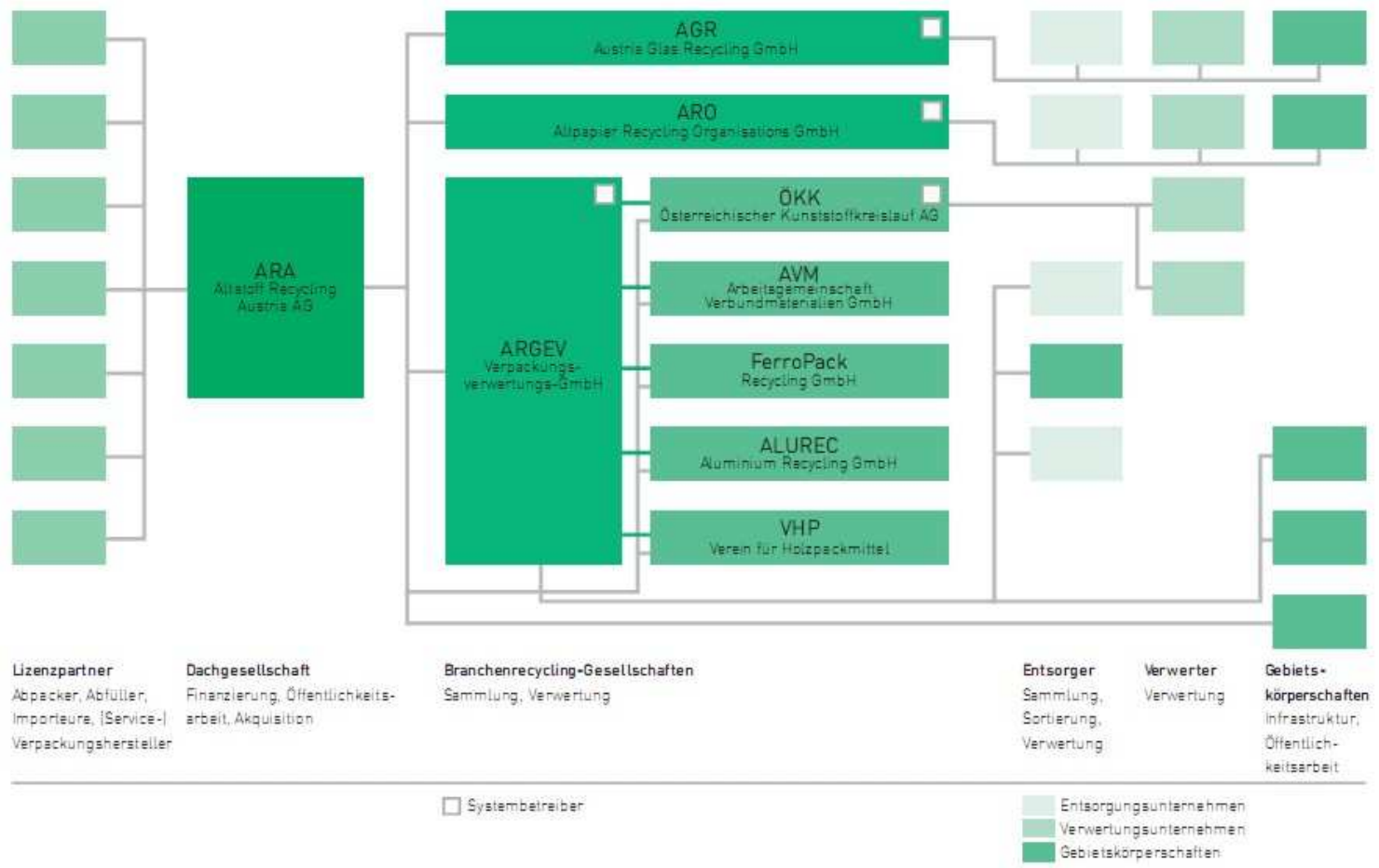
In Burgenland all municipalities are covered by the association “Burgenländischer Müllverband”. Although there is no mandatory creation of associations in Lower Austria, municipal associations cover the whole area. As a particularity of Tirol and Vorarlberg, the creation of facilities for waste treatment is a sole competence of the *Länder*. As is shown in the above table, the cost intensive waste treatment is almost never assigned to the municipalities. Usually the municipalities are only responsible for the waste collection.⁵

With respect to the organisational execution of disposal services, it is necessary to differentiate household waste in package and non-package waste. “Non-package waste” comprises, for instance, residual waste, bulky waste, organic waste and others. This waste is normally collected by the municipality or a company to which the task has been assigned by the municipality. Financing of these services is effected through the collection of fees at municipal level.

In contrast to that package waste, which accounts for a substantial part of existing substances, is primarily collected and recycled through the ARA-System. The ARA-System (Altstoff Recycling Austria) was created in the course of the packaging ordinance (*Verpackungsverordnung*) by the industry to enable a cost efficient and cost-by-cause disposal of packaging waste. Pivotal to the system are the municipal container collection sites, where domestic waste is sorted by the citizen himself and disposed into the container. The ARA has a monopoly-like position, which is why the case has already been dealt with by the Austrian and European regulators. The organisational structure of the ARA is outlined in figure 2.

⁵ See Segalla (2006), p. 300 f.

Figure 2: Organisational Structure ARA
Source: ARGEV (2008)



The companies which join the ARA system and are thus allowed to mark their products with the so-called “Green Point” (Grüner Punkt) transfer the redemption and disposal responsibility as well as the realisation rights to the ARA AG. On this basis, the ARA takes over financing of collection, sorting and recycling of packaging waste.

2.2 The Structure of Supply

In the Austrian waste disposal sector there are approximately 1 100 companies with approximately 20 000 employees.⁶ Only a few municipalities still take care of the collection of household waste for their own account through so-called Eigenunternehmen or Regiebetriebe as part of the public administration.⁷ The most important case in this respect is Vienna: the Magistratsabteilung 48 (MA 48; a department of the public administration in Vienna) carries out the task of waste collection.⁸

More important than “internal” provision through Eigenunternehmen is the collection through so-called corporisation of publicly owned companies. Since the 1980’s there has been a tendency to transfer public tasks to companies under private law (especially AG (plc) or GmbH (ltd)); however, ownership of these companies remained in the hands of the public sectors. For example, the household waste collection in Linz is effected by the Linz Service GmbH, which is owned 100% by Linz Holding AG, itself owned 100% by the municipality of Linz.⁹ In Graz, it is the waste disposal and recycling GmbH that provides the waste collection. Through a complex holding structure the municipality of Graz is its exclusive owner.¹⁰ A similar structure applies to Innsbruck, where the ownership of the company providing the service (Innsbrucker Kommunalbetriebe AG) is split between the municipality of Innsbruck and the *Land* of Tirol.¹¹ Apart from the above ownership schemes, there are

⁶ See Hochreiter (2005), p. 73.

⁷ Eigenunternehmen do not possess legal identity separated from the carrier (in this case the municipality); however, their property has to be administered separately.

⁸ The municipality of Vienna does not however provide the service exclusively through its own administration, but a small part (approx. 13%) is effected through employed private companies. (See Hemmer u. a. (2003), p. 24).

⁹ <http://www.linzag.at>, accessed 08.08.2008.

¹⁰ <http://www.gvb.at>, accessed 08.08.2008.

¹¹ <http://www2.ikb.at>, accessed 08.08.2008; and <http://www.tiwag.at>, accessed 08.08.2008.

also cases in which waste disposal companies are owned by waste disposal associations, such as the Umweltdienst Burgenland GmbH, which is 100% owned by the Burgenländischen Müllverband (waste association).¹²

Many companies in the Austrian waste disposal sector display private-public or fully private ownership structures. In Austria cooperation between the municipalities and private companies has been in place for years. In Styria, for example, 475 municipalities have employed private companies for collection of household waste; only 68 providing the service for own account.¹³

The major consortiums in the waste disposal sector in Austria are Saubermacher AG, Energie Oberösterreich AG, Voararlberger Kraftwerke AG and A.S.A. Abfall Service AG. The most prominent example for a private company is the Saubermacher AG, which works for about 1 600 municipalities throughout Central and Eastern Europe.¹⁴ It is striking that energy providers have for years been pushing into the disposal market. Foreign companies are also active in Austria through participations. The Austrian nationwide sector survey conducted by the VÖEB in 1999 yields the industry structure given in Table 3. The table shows the high concentration of the sector in companies with 50 or more employees. In addition, the greater the number of employees the sharper the focus on waste disposal services, which accounts for more than 70% when a company has more than 50 employees. With respect to customer structure, regardless of company size, around 60% of the customers are private and around 40% are municipalities and associations.

¹² <http://www.udb.at>, accessed 08.08.2008.

¹³ See Hemmer u. a. (2003), p. 24.

¹⁴ <http://saubermacher.at>, accessed 08.08.2008.

Table 3: Structure of the Private Waste Disposal Sector

	Company	Employees	Treated quantity	Revenues	Trucks	Containers	Other containers
50 and more	9%	65%	34%	53%	42%	47%	59%
10-49	21%	25%	27%	28%	27%	41%	31%
2-9	40%	9%	33%	13%	23%	11%	10%
0-1	30%	1%	6%	7%	7%	2%	1%
TOTAL	100%	100%	100%	100%	100%	100%	100%
Absolute	1 100	20 000	30 m. t.	2.9 bn euro	8 000	77 000	400 000

Municipalities and associations are not included

Source: VÖEB (1999).

The business areas may be roughly divided into four broad segments. The following overview shows the share of companies (in % of total companies), which are active in the respective segment:¹⁵

Collection and Transport 78%

Sorting and Preparation 65%

Disposal 18%

Others 49%¹⁶

With respect to production efficiency of public and private waste companies, no clear conclusions can be drawn, because no systematic evaluation of production efficiency in the Austrian waste disposal sector has been conducted yet. Due to the variety of existing forms of provision - the possibilities of organisational setup, the various provincial regulations and the different types of waste - there is a severe lack of the collected or publicly available data necessary for such analysis.

The waste management market is an attractive market. Several big multinationals have surfaced in the wake of liberalisation and privatisation in Europe. In particular, *Suez Lyonnaise des Eaux* (“Sita”), *Vivendi Environnement* (“Onyx”) or *RWE Umwelt*, to name but a few. American multinationals were originally active on the European waste management market, too, but all later pulled out. The aforementioned European multinationals took their place.¹⁷

It is interesting to note that, throughout, Europe big utility companies are now penetrating national waste management markets. These big utility companies are active in Austria as well. For example, RWE and Energie Oberösterreich AG are joint shareholders of the AVE group whose turnover amounts to approximately 70 million euros.¹⁸ It is to be expected that the waste management market concentration will increase in the future (because of national austerity policies, amongst other reasons).

¹⁵ See VÖEB (1999), p. 11.

¹⁶ Such as consulting/waste concepts, trade/export/import, laboratories/analytics, wastewater and effluent treatment, technology.

¹⁷ See Hemmer u. a. (2003), p. 6.

¹⁸ See Hochreiter (2005), p. 74.

2.3 Output

In 2004 the amount of primary waste produced was 52 mio tons.¹⁹ Household waste accounts for approximately 3.42 mio tons, which is roughly 6% of total waste.

Household waste can be divided into residual, bulky, existing substances, organic and problematic waste. Household waste is generated by households, administration facilities of businesses, agriculture and other places, which are connected to the local waste disposal. Crucial for the composition of household waste is the settlement structure, population density, percentage of gardens, prevailing energy supply for heating, buying behaviour, tourism and the respective season.

Compared to 1999 the total generation of household waste increased by 10.4% (residual waste +5.1%, bulky waste +8.2%). Waste from the waste separation schemes increased by 15.2% (existing substances +14.2%, organic waste +14.3%, problematic waste +78%). The reasons for this development are the further increase in population, a reduction in the average household size and an increase in single households.

Table 4: Types of Household Waste generated 2004

Types	in tons	in kg/citizen
Residual waste	1 382 600	169
Bulky waste	236 400	29
Existing substances, separately collected	1 212 100	148
Organic waste, separately collected	546 300	67
Problem waste, separately collected	41 300	5
Total	3 418 700	418

Source: BMLFUW (2007).

¹⁹ The overall waste amounted to 54 mio tons. In contrast to primary waste, total waste includes secondary waste, which is a byproduct of treatment of primary waste (e.g., slags and ashes from the heat treatment of residual waste).

Table 5: Austrian Household Waste per Land 2004

<i>Land</i>	in tons	in kg/citizen
Burgenland	81 500	294
Kärnten	195 600	350
Niederösterreich	640 400	410
Oberösterreich	543 700	390
Salzburg	231 500	441
Steiermark	425 500	356
Tirol	311 500	453
Vorarlberg	93 400	260
Wien	895 500	555
Total	3 418 700	418

Source: BMLFUW (2007).

The recycling and disposal of the 3.42 mio tons household waste was effected in the following treatment facilities:

Table 6: Proportions of Household Waste Disposal with Respect to Treatment 2004

main treatment steps	in percent
mechanical-biological pre-treatment of residual waste	11.2%
heat treatment of residual and bulky waste	28.3%
treatment of separately collected problem waste	1.2%
material utilisation of separately collected existing substances	35.6%
biotechnical utilisation of separately collected organic waste	16.0%
untreated landfill	7.7%

Source: BMLFUW (2007).

The percentage of untreated landfill was 39% down on 1999. The share of direct and untreated landfill is expected to decrease further as a result of the landfill ordinance. In total more than 2 500 facilities for the treatment and disposal of waste were operational in Austria in 2004.

Table 7: Waste Treatment and Disposal Facilities in Austria 2004

Type of facility	Number
Heat treatment (without incineration for household waste)	180
Incineration of household waste	9
Physico-chemical treatment	37
Conditioning for special waste (old cars, electronics etc.)	199
Shredder	6
Conditioning for building waste	293
Biotechnical treatment of residual and other waste	16
Aerob biotechnical treatment of collected organic waste (compost)	539
Sorting of separately collected existing substances and other waste	123
Reuse of separately collected existing substances	43
Aerob biotechnical treatment (biogas)	403
Disposal sites	666

Source: BMLFUW (2007).

Distinctions with respect to landfill, incineration and reuse/recycling are given in table 8, as is the evolution of total household waste between 1995 and 2006. The table reveals some relevant and sustainable developments. In general, we observe an increase in the total amount of household waste since 1995. However, this trend has come to stagnate in recent years and is now much flatter. Concerning the different types of disposal it is most conspicuous that the percentage of untreated waste has decreased, not only in relative but also in absolute terms, to bottom out at roughly 10%. This is all the more remarkable against the backdrop of an increasing amount of total household waste. A substantial percentage of the formerly landfilled waste is now incinerated. This development mirrors the European trend, which is mostly traceable to the stricter regulations concerning untreated landfill of residual waste.²⁰ In 2006, in addition to the 10 existing incineration facilities, six more were planned or already approved.²¹ Besides waste incineration, the share of reuse and recycling also sustainably increased over the last 10 years and now covers more than 60% of total household waste.

²⁰ The landfill ordinance is not effective yet, but it has to be implemented at latest by 2009.

²¹ See Umweltbundesamt, (Hg.) (2007).

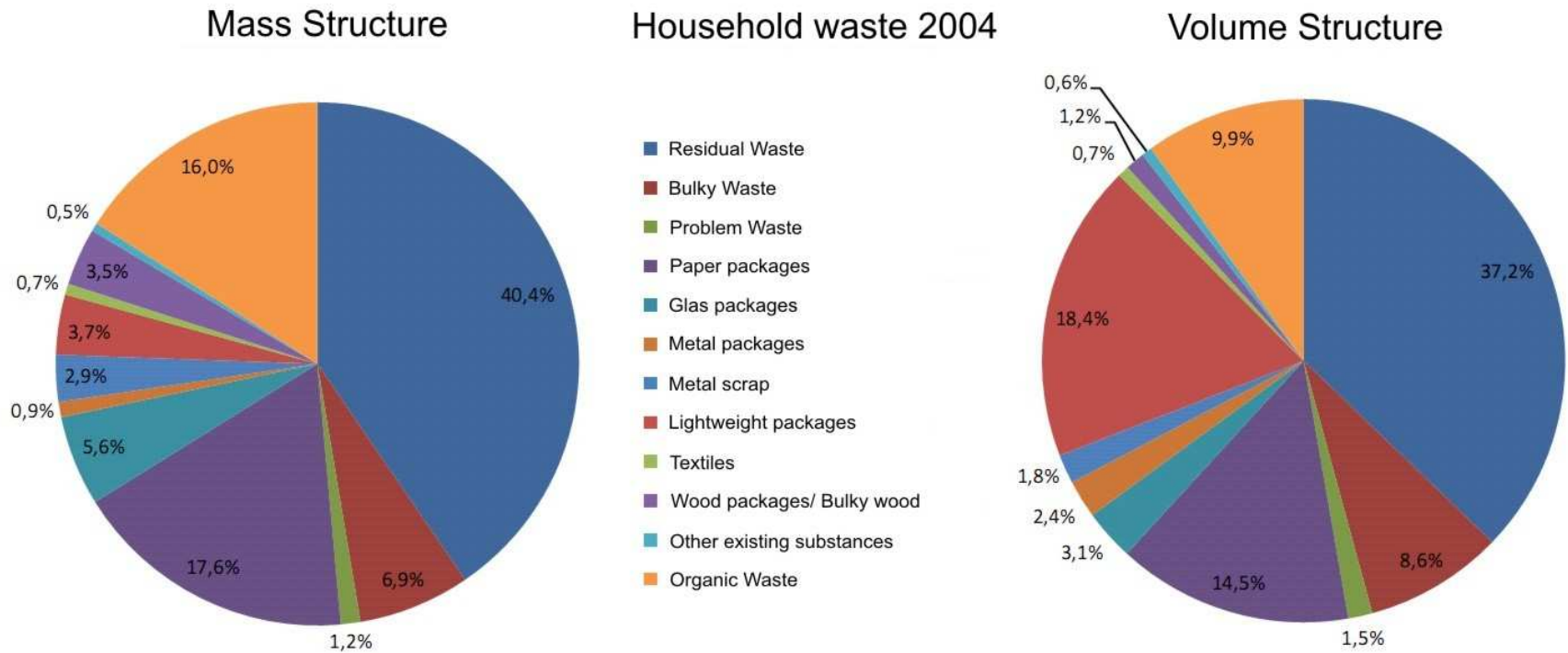
Table 8: Household Waste 1995-2006

in %	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Landfill	0.47	0.36	0.36	0.35	0.35	0.34	0.33	0.31	0.30	0.20	0.13	0.10
Incineration	0.12	0.10	0.11	0.10	0.10	0.11	0.11	0.11	0.12	0.22	0.27	0.29
Reuse recycling	0.41	0.54	0.54	0.55	0.55	0.55	0.56	0.58	0.58	0.58	0.60	0.61
TOTAL	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Waste kg/capita	438	517	532	532	563	581	578	609	609	620	619	617

Note: The values for reuse and recycling are obtained from the difference between total volume minus landfill and incineration. Source: Eurostat (2008).

The structure of household waste for 2004 is shown in figure 3. Besides the waste amount in tons a measure for volume is given, which is relevant for various disposal processes such as collection. The amount of waste crucial for the ARA system is roughly 30 mass and 40 volume percent respectively. Residual waste accounts for a further 40% and 37% respectively. Additional mass and volume-relevant types of waste are organic waste with 16% and 10%, and bulky waste with 7% and 9% respectively.

Figure 3: Mass and Volume Structure of Household Waste 2004
 Source: BMLFUW (2007)



2.4 Wage Bargaining System

A distinction must be made between private and public employment and within public employment. Within public employment the distinction must be made between public appointees (Beamte) and Vertragsbedienstete. While public appointees are appointed by notice (Bescheid), Vertragsbedienstete are employed under private law (private law contracts) by the State.²²

The legal status of the public employees is codified in several (public) laws. In the field of federal administration the Federal Public Appointees Act (Beamten-Dienstrechtsgesetz [BDG]) might be mentioned. The federal public appointees' payment scheme is regulated by the Federal Salary Act (Gehaltsgesetz [GehG]). As far as the public appointees of the Länder and municipalities are concerned, similar Länder laws exist. Employment as Vertragsbediensteter in federal administration is regulated by the federal Vertragsbedienstetengesetz (VBG). Again, similar Länder laws exist for the Vertragsbedienstete of the Länder and municipalities.

Private employment is governed by civil law (especially the Salaried Employees Act [Angestelltengesetz AngG]), where collective agreements (Kollektivverträge) - written contracts negotiated between representatives of the employees and employers - play a vital role.²³ Collective agreements are legally based on the Labour Relations Constitutional Act (Arbeitsverfassungsgesetz [ArbVG]). They are concluded by corporations legally entitled to conclude such collective agreements. Entities legally authorised to conclude collective agreements are the Chamber of Labour (Arbeiterkammer) [on behalf of employees] and the Chamber of Commerce (Wirtschaftskammer) [on behalf of employers]. However, certain other associations (e.g., the Industrialists' Association [Industriellenvereinigung] and the federation of trade unions [Gewerkschaftsbund]) are also legally able to conclude collective agreements. The Chamber of Labour, for example, has never asserted its legal right; in its stead the Federation of Trade Unions concludes collective agreements on behalf of the employees.

²² For the distinction between public appointees and Vertragsbedienstete only their employment status is relevant. Whether they perform sovereign functions or private economic administration tasks (Privatwirtschaftsverwaltung) is not decisive.

²³ Public employment may be regulated by collective agreements, too, provided that certain Vertragsbedienstete are exempt from the application of the respective federal and Länder laws.

3. Financing of Waste Management

The total costs of waste disposal amounted to roughly 1.1 billion euro. Household waste accounts for three-quarters of total costs, the collection of existing substances accounts for the remaining quarter.²⁴ Collection and treatment of household waste are financed through municipal waste collection and disposal fees; the collection of existing substances is primarily financed via the ARA system (chiefly via product price surcharges). The average Austrian household pays around 250 euro each year for the collection, recycling and treatment of household refuse.²⁵

Table 9: Revenues from Waste Collection and Disposal Fees 1995-2006

in %	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Waste collection and disposal fees	223	227	332	325	334	426	446	448	479	468	506	660
Waste kg/capita	438	517	532	532	563	581	578	609	609	620	619	617

Source: Statistik Austria (2007a).

As a general rule, the municipalities are authorised to levy a fee in order to cover expenses arising from the collection and treatment of waste produced in the respective municipalities. Persons liable to payment of that fee are the property owners who are normally obliged to make use of the kerbside system. The level of the waste collection and disposal fee is determined by the number and volume of the refuse bins and the times of their emptying. In most cases municipalities or municipal associations are even entitled to levy fees for waste related services not performed by themselves but by entities entrusted with the provision. Hence, costs arising from the entrustment of third parties may very well be included in the waste collection and disposal fee.²⁶

Table 9 shows the development of municipal revenues from waste collection and disposal fees between 1995 and 2006. The rising revenues can be only partially attributed to waste accumulation. Another reason for the upswing may be found in more rigorous requirements concerning landfilling and switching to waste combustion. Municipalities usually enter

²⁴ See Hemmer u. a. (2003), p. 23.

²⁵ See Hochreiter (2005), p. 73.

²⁶ See Segalla (2006), p. 305.

into contracts with combustion operators. The extra costs arising from waste combustion are passed on to the citizens. These extra costs are reflected in the rise of revenue from waste collection and disposal fees. However, it cannot be ruled out that the increase in collection charges is solely cost-driven. Cross-subsidising patterns are a further possible determinant.

Basically, municipalities are not restricted by legal regulations; they are free to decide the level of waste collection fees. Waste collection and disposal fees are politically determined at municipal level. The tariff structure in residual waste disposal for each *Land* is shown in table 10. As far as the tariffs are concerned, a distinction is necessary between a) garbage bags and refuse bins and b) different volumes. Apart from the average tariffs of the respective *Länder* the minimum and maximum tariffs are also indicated.

4. Monitoring (and Regulation) of Provision, Quality and Development of Accessibility to/of Services

4.1 Development of Quality of Services

When gauging the quality of waste management services, the question arises as to which indicators are suitable. Indicators might be certain (objective) characteristics of the waste management services rendered or the (subjective) satisfaction of citizens. As the quality of municipal services has not played an important role thus far, there has not been a compilation of quality indicators. Surveys exist for particular cities (e.g., an IFES survey on Vienna in 2003, finding that 90% of the population of Vienna rate the municipal waste management services as good to very good), but a comparison throughout Austria or the European Union is impossible.

Table 10: Tariff Structure in Waste Disposal 2006 - Residual Waste

	Garbage Bags			Refuse Bins			
	10-20	40-70	90-120	60-80	90-120	240-360	660-1100
BURGENLAND¹							
mean					7.45	14.85	
minimum					7.45	14.85	
maximum					7.45	14.85	
KÄRNTEN							
mean		4.52	4.85	5.95	6.69	12.20	53.24
minimum		2.20	3.00	3.30	2.70	7.10	32.75
maximum		7.65	6.40	8.60	11.40	17.10	79.10
NIEDERÖSTERREICH							
mean		6.69	4.19	5.25	7.41	13.12	60.36
minimum		3.30	1.60	3.26	1.44	2.88	13.31
maximum		13.88	6.05	7.33	11.02	21.18	101.00
OBERÖSTERREICH							
mean		4.38	4.35	5.90	7.82	21.13	76.43
minimum		3.41	4.30	4.70	4.76	6.24	42.28
maximum		5.80	4.40	7.11	14.64	66.07	128.11
SALZBURG							
mean		6.25		5.27	5.78	13.13	51.53
minimum		6.25		3.30	3.78	7.51	32.35
maximum		6.25		6.53	9.80	19.60	67.32
STEIERMARK							
mean		5.37		4.71	5.79	13.01	56.47
minimum		3.07		2.88	3.35	5.25	22.68
maximum		9.07		7.30	7.27	19.50	88.72
TIROL							
mean		2.64		3.33	4.45	8.22	32.40
minimum		1.98		1.76	2.40	4.64	12.60
maximum		3.50		4.90	6.95	12.50	53.00
VORARLBERG							
mean	1.83		3.84	4.10	8.40	16.80	54.05
minimum	1.55		2.95	4.10	8.40	16.80	53.40
maximum	2.10		4.20	4.10	8.40	16.80	54.70
WIEN							
mean					3.78	7.56	
minimum					3.78	7.56	
maximum					3.78	7.56	

¹Calculation based on annual fee and four-week collection cycle (= 13 pick-ups); data refer to Eisen-stadt only
own calculation based on Statistik Austria (2007b).

Citizen satisfaction as a subjective indicator of quality is available at European level in the “Eurobarometer”. Its surveys are conducted in the Member States at constant intervals. The results for the indicator “Complaints about Waste Disposal” are given in table 11. In line with the continental European trend, the number of complaints has declined (rapidly since 1995). However, the reasons for this decline are not clear.

Table 11: Eurobarometer - Complain About Waste Disposal

Countries	1992	1995	1999	2002
AT		35	20.4	18.6
BE	32.4	32.1	41.4	27.1
DK	5.6	6.8	9.8	9.2
FI		16.6	16.3	18.1
FR	34.3	32.9	39.5	29.6
DE	40.2	33.1	25.5	23.1
EL	46.9	46.6	54.5	45.2
IE	28.4	30.6	36.7	47.2
IT	53.9	59.6	52.5	43.7
LU	32.4	31.8	33.1	21.6
NL	20.6	17.2	19.5	13.9
PT	36.7	39.8	30.9	52.3
ES	36.1	43.7	42.3	39
SE		29	23.8	16.9
UK	28.6	20.7	28.3	28.9
EU-15		35.4	34.9	30.7

Percentage of persons aged 15 and over having serious reason or good reason to complain about waste disposal in their local environment.

Source: Eurofound (2007).

5. Conclusion

In Austria, the territorial corporate bodies are responsible for waste collection and treatment. Legislation and execution with regard to non-hazardous waste fall within the competence of the Länder, while the federal State has responsibility hazardous waste. Länder laws assign the task of collection and treatment of residual and bulky waste (domestic waste) to the municipalities.

Recently there has been a shift away from direct provision by the Gemeinde to third-party assignment. Many municipalities now avail

themselves of the legal opportunity to create municipal associations, where several municipalities jointly collect and treat residual waste. Private firms or publicly owned private firms are also active in the market. It is also interesting to note that transnational companies (especially utility companies) are now entering the Austrian waste market in increasing numbers.

Regarding packaging waste, which accounts for almost one third of total waste, the ARA system was established and enjoys a monopoly-like position. The ARA system takes over collection and treatment of the packaging waste on behalf of the producers, who pay a fee to ARA.

In 2004 household waste per capita amounted to 418 kg/person. As in most developed countries, waste per capita has since been growing - albeit at a decreasing rate.

Collection and treatment of household waste are financed through municipal waste collection and disposal fees. The ARA system is primarily financed by its member companies. There has been a huge rise in waste collection and disposal fees over the past decades. Fees have almost tripled. This development was especially driven by the EU waste site ordinance, which prohibits landfill using untreated residual waste.

The performance of the Austrian waste sector is altogether satisfactory. The heavy reliance on use of fees and implementation of EU standards have secured the functioning of the waste sector. Incineration may be expected to become more important at the expense of landfill. As a result of plummeting commodity prices, existing substance collection generates less revenue to subsidise fees. Household fees will therefore most probably rise in the near future.

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