



Project Grant 2011

Project:

Principles, Practices and Applications of Waste Management Fees

Documentation of Workshops

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November 2011

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1 OBJECTIVES

The overall scope of the project – the central pillar of which is represented by two workshops performed in summer and autumn 2011 in Lithuania (Vilnius) and Bosnia and Herzegovina (Bijeljina) – was:

- to provide basic knowledge as well as practical, first-hand experiences in respect to the design & steering element “waste fee”
- to better understand practice as well as constraints of municipal fee management in post socialist countries, and
- to prepare a ISWA-guideline “How to design a proper waste fee ?” based on the workshop results. This guideline is presented in an extra document.

2 WORKSHOP PARTICIPANTS

Participants in *Bosnia and Herzegovina* have been mainly representatives of municipalities out of the catchment area of a recently implemented public MSW operator (“Eko-Dep”) who runs amongst other infrastructure a sanitary landfill according to EU standards. Main interest of this group was to learn about proven administrative and technical concepts how to transfer the cost of this infrastructure “down” to the waste generation level – by introducing a proper fee: “Proper” is anticipated with sufficient (i.e. covering the full cost occurred), easily to be administered, just, and “collectable” not only in a short term.

Participants in *Lithuania* are mainly from Regional Waste Management Centres (RWMC’s) across the country, with some participation of the National MoE. Interest of the participants were similar to BIH (however with a fee system already introduced), with some particular interest in respect to “modern” tariff concepts as well as anticipated higher cost to be covered (due to waste treatment standards exceeding pure landfilling).

3 WORKSHOP TOPICS

The workshop started with a general introduction, focussing on some institutional issues considered a prerequisite for a successful implementation of up-to-date tariff systems (“Who is doing what?” – i.e. the appropriate allocation of roles and functions to the various “players” in an up-to-date SWM system).

In a first session an overview of the most common fee types was given, such as

- Tariffs per household
- Tariffs per household, considering also number of persons
- Tariffs depending on floorspace
- Tariffs depending on volume
- Tariffs depending on weight
- Tariffs depending on value of property
- Tariffs depending on distance to disposal
- ...and combinations thereof.

In a next session particular topics and aspects have been discussed, such as

- Performance of 'technically advanced' tariff systems (with measurement of single emptyings, volume, or weight)
- To what extent should tariffs "reward" desired disposal behaviour?

Single tariff components vs. real cost structure

- Tariff 'administrability', and related cost
- Introduction and collection of tariffs in areas with social and economical difficulties: (Tariff "collectability" vs. (real) "affordability").

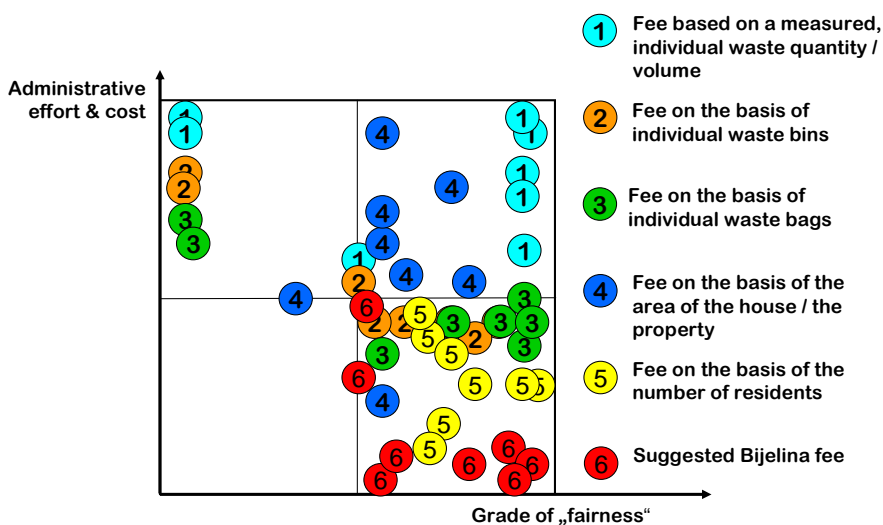
In parallel an overview was given on fees in countries having already introduced "fair" waste fees (examples have been presented from Austria, Germany and Switzerland).

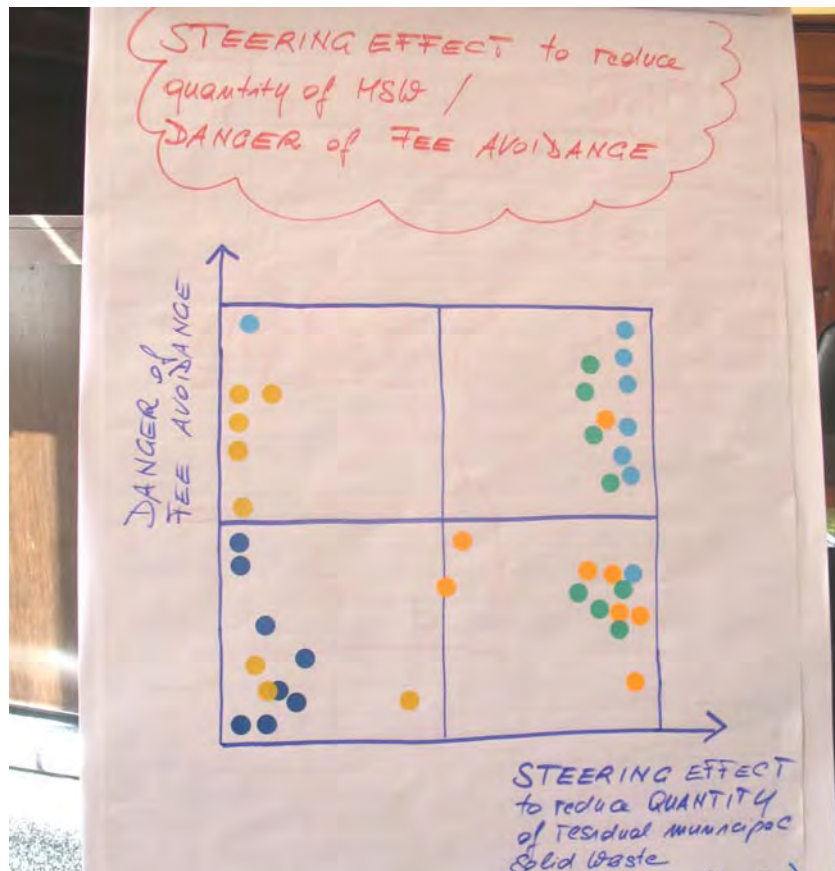
4 ESTIMATIONS OF THE PARTICIPANTS CONCERNING EFFECTS OF DIFFERENT WASTE MANAGEMENT FEES

4.1 Bijeljina – BiH

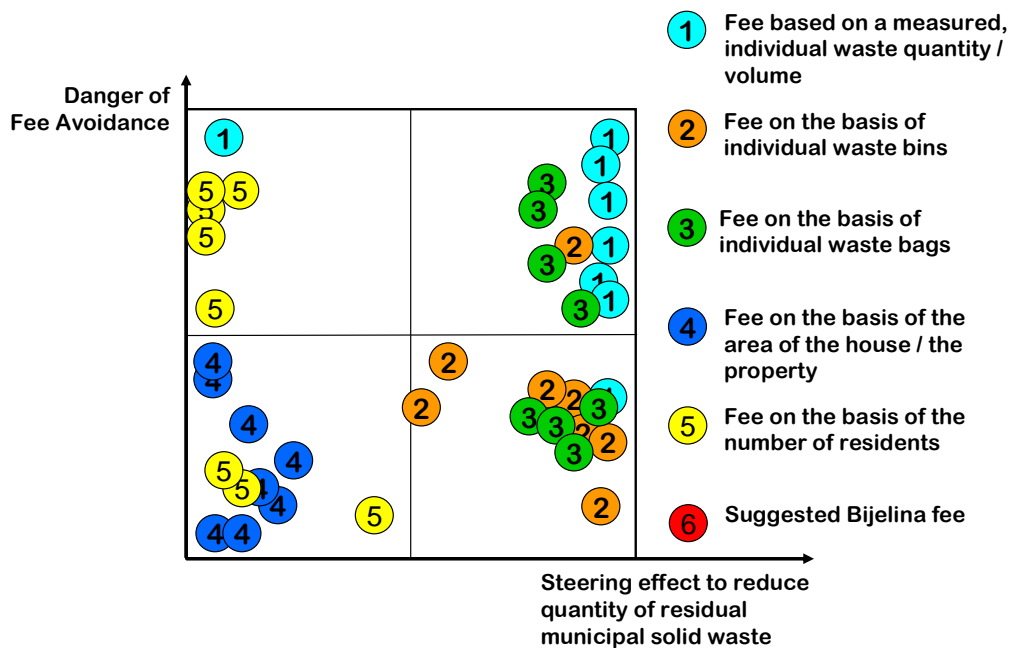


Portfolio for different Fee-Models Grade of Fairness and Administrative Effort

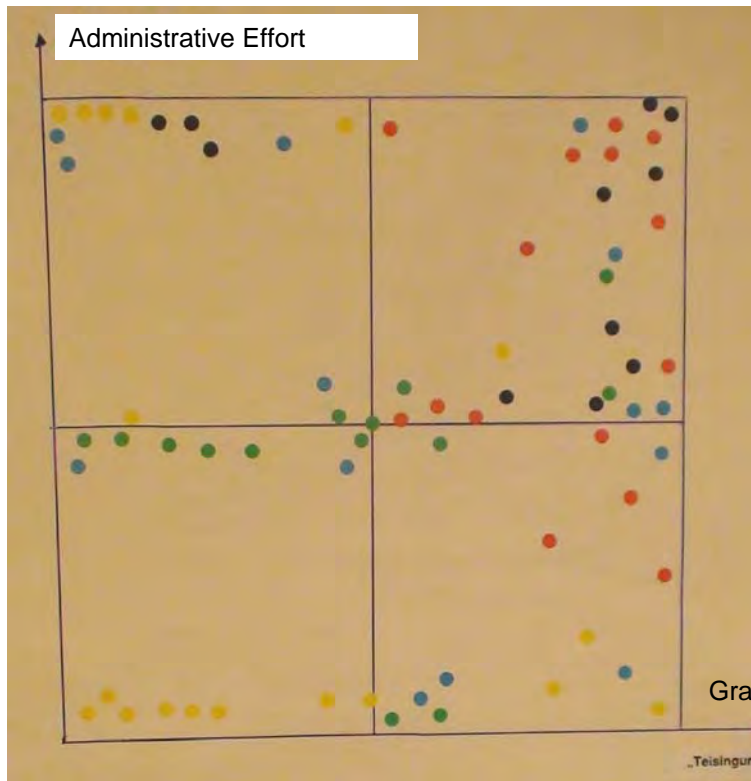




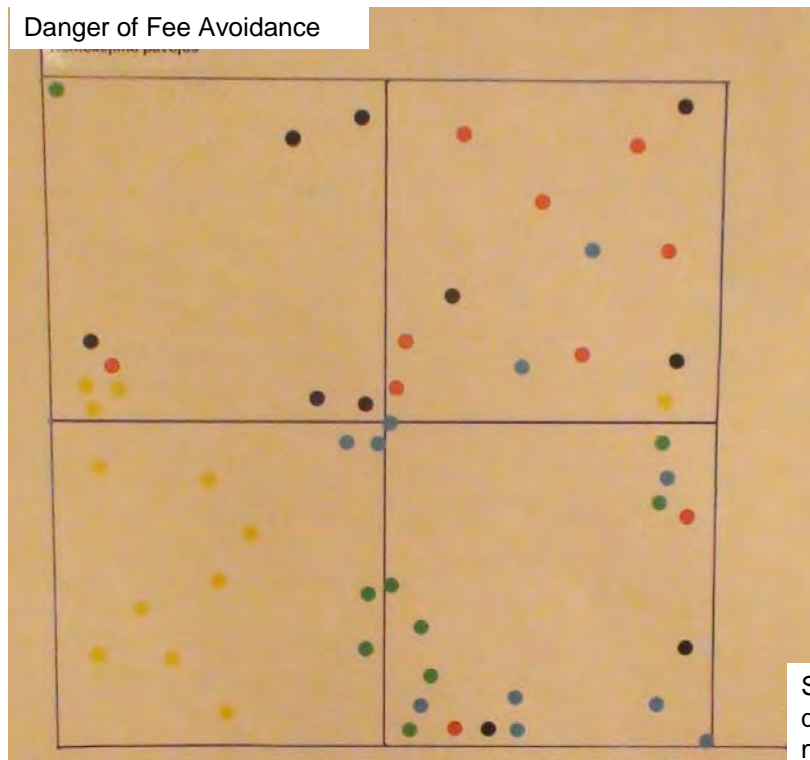
Portfolio for different Fee-Models Danger of Avoidance and Steering Effect



4.2 Vilnius – LT



- ① Fee concerning measured individual waste quantity
- ② Fee on the basis of individual waste bins
- ③ Fee on the basis of individual waste bags
- ④ Fee on the basis of the area of the house / the property
- ⑤ Fee on the basis of the number of residents



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- ② Fee on the basis of individual waste bins
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- ④ Fee on the basis of the area of the house / the property
- ⑤ Fee on the basis of the number of residents

5 CONTRIBUTIONS OF THE PARTICIPANTS

5.1 Bijeljina – BiH

5.1.1 ANSWERS TO THE GENERAL QUESTION:

What is in your opinion the main „driving force“ for a proper dealing with waste?

1. Environmental protection (this answer was received three times).
2. Well-established system, which ensures that all waste will be collected and the service will be charged.
3. Quality and cost-effective provision of service for collection, transport and disposal of waste.
4. Public Campaign - raising awareness of the importance of proper waste disposal.
5. The desire and a sense of the needs of citizens for healthy environment.
6. Proper clear actions of companies, in accordance with positive legislation, to fight for the preservation of the environment.
7. Guidelines of institutions in charge for the SWM activity, to develop and implement appropriate legislation.
8. From an economic point of view, the cost of the landfill (PERL "Eko-Dep").
9. The overall benefit for the municipality of Bijeljina.
10. Recycling.
11. The need for a clean environment.
12. The need for economic development.
13. Waste separation and recycling.
14. Environmental protection.
15. Enabling a complete solid waste management, from the costs of collection to the process of disposal of solid waste, all in accordance with environmental standards.
16. Problems
 - Lack of elementary education about waste management.
 - Poor heritage from period of communism.

- Specific types of waste (big amount of kitchen waste)
- Advices:
- Improve education in elementary school and local community.
 - Increase level of awareness about separate waste collection.
 - Change citizens opinion from „I don't want waste in my house, but if others have problems with waste, it's not my problem“ to „waste is my problem (in all city)“.
17. Awareness of citizens and desire for the need for a clean environment.
 18. Proper and clearly defined lines of action for companies involved in environmental protection.
 19. Feedback guidelines of the relevant institutions, which are in charge for communal services (whether we are on the right way or we need to make corrections).
 20. Strong and organized governmental institutions at national and local level.
 21. Well-organized entities for the collection and disposal of waste.
 22. Well-educated, informed and responsible citizens.
 23. In the first place, it is awareness of waste producers, who are in the chain of waste management; training of workers for waste collection, as well as their adequate equipment for waste collection.
 24. Investment in waste treatment plants and construction of modern sanitary landfills.
 25. The proper approach to this issue by the relevant ministries and heads of local communities in charge of municipal issues.
 26. Good management of companies.
 27. Education of the population about bad influence of waste to the environment.
 28. Fees.
 29. The knowledge and skills (of all participants in the process).
 30. Willingness and commitment of all social groups within the waste management at the local (regional / national) level.
 31. Awareness of population about the importance of SWM in the further development of the society.
 32. Involvement in European integration processes and compliance with EU regulations in the field of waste management.

5.1.2 ANSWERS TO QUESTION REGARDING THE SUBJECT OF THE WORKSHOP: What do you expect from a proper waste fee, how should it look like?

1. The proper model to charge fees for waste collection and disposal (higher percentage of chargeability).
2. Rising of public awareness about solid waste issues (to find a model for waste separation at source).
3. The appropriate fees for waste management should establish a sustainability of the process of collection and waste treatment.
4. The fee for waste management should be optimal, that is acceptable to citizens, to be stimulant for entities engaged in the collection and disposal of waste to ensure economic sustainability, development and business improvement.
5. The introduction of fees for waste management would contribute greatly for population to participate, as producers of waste, in financing costs for collection and disposal of waste.
6. Would provide funds to invest in better equipment for communal companies and landfills and regulation of public spaces in local communities. It is clear that waste producers have to pay full price for the adequate disposal of their waste.
7. It includes all the costs of waste management:
 - Separate waste collection.
 - Transport of waste.
 - Disposal of waste.
 - Construction and maintenance of SW facilities.
 - Remediation of polluted areas and closure of inappropriate old civil structures
8. Ensures implementation of sustainable waste management.
9. Encourages reducing of waste production.
10. Impact on reducing the amount of waste that end up on landfills.
11. The fee for individual producers of waste should depend on the amount of waste produced.
12. Fee should be adequate, collectible, stimulating, and as adjusted as much as possible to each individual waste generator.
13. Fee should enable complete waste management, from the cost of collection to disposal costs, all in compliance with environmental standards.

14. I think that citizens have to know reasons for paying fees. Exact explanation what is payed out of taxes.
15. Transparent explanation of problems about waste.
16. Connecting waste fees with other fees (for example: telephone fees, electrical energy, water,...)
17. I expect that an adequate fee for the waste management should be economically justified for service providers, as well as for the users of that service.
18. I expect the solution to the problem of waste management and environmental protection. The fee should be determined by the amount of waste produced by resident and whether the waste is separated or not. (Should encourage producer to separate the waste at source).
19. I expect a cleaner environment, recycling and production of useful components from waste, as well as the economic benefit of all of that.
20. The fee should solve the issue of economic sustainability of firms, in order to perform quality services.
21. Increased amounts of recyclable materials.
22. Quality solid waste management.

5.2 Vilnius – LT

5.2.1 ANSWERS TO THE GENERAL QUESTION:

What is in your opinion the main „driving force“ for a proper dealing with waste?

1. Two comments:
Reduce waste landfilling and increase separate collection and recycling !

Motivate waste producers to sort waste !
2. How to motivate waste collection companies to increase separate collection? By separate tenders for different waste flows: residual MSW, recyclables, biowaste, WEEE?
3. Clean and healthy environment to live.
4. Saving environment and nature resources.
5. To increase recycling.
6. To prevent environmental disasters.
7. To get alternative energy resources.

8. Reduce amount of waste going to landfills.
9. Clear service rules.
10. Strong control and accounting system.
11. Mixed (combined) taxes (with basic and variable parts).
12. Moral reasons.
13. Economical reasons (especially in the long time perspective).
14. Herd effect or fashion.
15. To provide waste management service for polluters (waste holders).
16. To ensure management with the lowest cost.
17. To cover all management costs.
18. To get acceptance of society.
19. Less complaints from waste holders.
20. All waste reaches waste management facilities.
21. Education is needed on waste management at the first place.
22. The fee has to be the same in all Lithuania.
23. Deposit is needed not only for glass waste but for all waste.
24. Proper communication is needed with waste holders.

5.2.2 ANSWERS TO QUESTION REGARDING THE SUBJECT OF THE WORKSHOP: What do you expect from a proper waste fee, how should it look like?

1. What is your opinion about fees from two parts: first a basic fee, second a fee based on volume?
2. How do Green Dot and municipality cooperate – common tender to choose collection company? How does money from Green Dot come to the municipal system?
3. If we apply a tariff depending on a floorspace – must a person pay a tariff if he/she does not use a household for a certain time?
4. Is the responsibility applied (e.g. in Austria) for a person who does not use the waste collection system? And how is it applied in practice?
5. Understanding of PAYT principle and possible implementation models (schemes).
6. Possible (realistic) waste management charging facilitating and motivating waste sorting at source.

7. Limits of PAYT systems.
8. Understanding how we can implement transfer from waste charging based on m² or inhabitants (number of flats or houses) to more flexible charging systems.
9. Is it very expensive to use system when tariffs are calculated from waste weights?
10. We expect willingness to pay from households, higher collection of fees, lower administration costs.
11. Charging systems have to be based on charging of products: you pay a fee when you buy goods. This helps to achieve social fairness, you do not need to look for persons who are not paying for waste management, it is easy to administrate. It should also be needed to have a system that motivates people to recycle (separate collection) by economic instruments (e.g. collection points where you get paid if you bring waste).
12. There should be fixed fees based on real estate size and number of inhabitants, employees + reward based on quantity of sorted materials (paper, glass, metals).
13. Simplicity and intelligibility of tax system.
14. Incentive to collect separately different fractions of waste.
15. Proper legislation. affordable service. simple to use.
16. Transparency.

6 WORKSHOP FACILITATORS

6.1 Walter Hauer

CURRICULUM VITAE



1. **Name:** Walter HAUER
2. **Date of birth:** March 20th 1960
3. **Nationality:** Austria

4. Education:

Institution	High School for Engineering Vienna University of Economics and Business Administration
Date: from (month/year) to (month/year)	1974 - 1979 1983 - 1988
Degree(s) or Diploma(s) obtained:	Engineer (Ing.) Master of Economics and Business Administration (Mag. rer. soc. oec.)

5. Membership of professional bodies:

Chamber of Commerce
ISWA International Solid Waste Association
Austrian Standard Institute
Austrian Association of state certified experts
Austrian Association of Mediators

6. Other skills: Mediator

7. Specific experience concerning fees:

Chambers of interest	<p><i>Costs for municipal solid waste management in Austria.</i> On behalf of the Austrian Chamber of Commerce and the Association of Austrian Industrials, 1996</p> <p><i>Total national costs for waste management in Austria.</i> On behalf of the Austrian Chamber for Employees, 1996</p> <p><i>Workshop with decision makers concerning Factors influencing Waste Management Fees.</i> On behalf of the Austrian Chamber for Employees, 2003</p> <p><i>Steering effects of the Alllastenbeitrag (fee for rehabilitation of waste dumps).</i> On behalf of the Chamber for Employees, 2000</p> <p><i>Factors influencing Waste Management Fees.</i> On behalf of the Austrian Chamber for Employees, 2003 - 2004</p>
Local Government	<p><i>Cost Calculation for Regional concepts for recycling measurements in Vorarlberg.</i> On behalf of the association of Vorarlberg Municipality for Waste Management and Environmental Protection, 1993</p> <p><i>Technical equipment of selected European MSW-plants and fees charged for waste incineration.</i> On behalf of the City of Vienna, (Vienna municipal department 48), 1996</p>

	<p><i>Comparison of fees for disposal/collection of municipal solid waste in selected European Cities.</i> On behalf of the City of Vienna, (Vienna municipal department 48), 1996, 2000 and 2004</p> <p><i>Market research for compost in Germany.</i> On behalf of the City of Vienna, (Vienna municipal department 48), 2001</p> <p><i>Comparison of fees for organic waste.</i> On behalf of the City of Vienna, (Vienna municipal department 48), 2005</p> <p><i>Comparison of fees for municipal solid waste-</i> On behalf of the City of Vienna, (Vienna municipal department 48), 2006</p> <p><i>Comparison of fees for the disposal of municipal solid waste in Austria.</i> On behalf of AEEG – Abfall-Entsorgungs- und Verwertungs GmbH, 2005 and 2007</p> <p><i>Comparison of fees for municipal solid waste and organic waste in Vienna, the capital Cities of Austria and county towns of Lower Austria.</i> On behalf of the City of Vienna, (Vienna municipal department 48), 2008, 2009</p>
<i>Publications, Speeches, Lectures</i>	<p><i>Hauer, W.: Cost Calculation in the Waste Management of Vienna,</i> in: Waste Magazin, 1/1991, p 9 f</p> <p><i>Hauer, W.: Comparison of fees for municipal solid waste in Vienna and 4 German cities,</i> in: Waste Magazin, 2/1998, p. 44 f</p> <p><i>Hauer, W.: Experiences with innovative Charging Modells, Referate at Forum Abfallwirtschaft der AEEG titeled: Costs and Fees in the minicipal Waste Management,</i> Graz, 20. November 2003</p>
<i>International</i>	<i>TWINNING project CZ02/IB/EN/04 „Financing tools to implement acquis in the environment sector“, 2003 – 2004</i>
<i>Mediation Interest Management</i>	<i>Implantation of the 100 % accountability according to the § 29c und § 29d of the amendment to the packaging waste regulation of 2009</i> On behalf of the Austrian Association of Towns, the Austrian Association of Municipalities and the Austrian Platform of Municipal Waste Associations and the Federal Ministry of Environment

- 8. Others:** State certified expert for waste management
Mediator, listed in the mediator-list of the ministry of justice

6.2 Martin Steiner



Position

Director,
Senior Engineer, Senior Consultant

Year of birth

1960

Nationality

Austrian

Language

German – mother tongue
English – 4, Italian – 3
(with 5 = mother tongue, 1 = poor)

Qualifications

Master of Science (Dipl.-Ing.) in
Environmental Engineering (special
field: Solid Waste Management),
Technical University Berlin (West).

Member of ISWA (International
Solid Waste Association).

Lecturer at MCI Management Center
Tyrol, Austria (area: Solid Waste
Management, course: Environmental
Technology & Process Engineering).

Author of „The Book of Rubbish“, a
standard reference of Municipal
Waste Management for low and
middle income economies
(www.sunnyarea.eu).

Driving licence for heavy vehicles.

Computer literacy: Standard PC soft-
ware (Word, Excel, Visio, Power
Point).

Profile

20 years foreign working experience as consulting engineer for all issues related to solid waste management. Extensive Consultancy experience – on Strategy, Conceptual Design, Build and Operation – in the Solid Waste Sector, both in ‘advanced’ countries in terms of solid waste management (as Austria, Germany) and ‘starting’ (low to middle income) countries throughout Europe, the Middle East and Australasia.

Martin is highly regarded as an engineer who looks beyond the technical issues having acquired profound experience in institutional and socio-economic issues.

24 years experience in design and up-
grading of collection schemes, recycling
programmes and final treatment (with
focus on MBT Mechanical & Biological
Waste Treatment Systems: optimisation
of existing, design of new facilities).

12 years experience with international
donorship / development programs (as
The World Bank, and various EC funds).

Career history

TBU Environmental Engineering Consultants, Associate and Director (1989 – present)

Various roles typically to be filled in an independent engineering consultancy firm, technical and/or institutional expert in complex development projects.

ITU Environmental Engineering Consultants Berlin (1986 – 1989)

Founding / starting up a branch office,
similar tasks as in current position.

Selected projects chronological

Syria: Aleppo City Development Strategy / Solid Waste Sector (2009):

Preparation of an overview assess-
ment and recommendations for the
improvement of the entire solid waste
management system of the city
(~ 2 mio. population).

Ireland: International Review of National Waste Management Policy (2009)

Within the project M. Steiner contributed to institutional issues (split-up of responsibilities, fee design and the like) and waste treatment aspects (performance and cost of MBT, and thermal treatment).

Abu Dhabi: Solid Waste Audit (2008)

Direction of a large solid waste audit (total sample amount ~ 25 tons) the results of which forms the contractual basis for building and operating a MRF (Material Recovery Facility, 1.500 tpd).

Austria: MSW treatment (2007)

Strategic consultancy for a provincial (Tyrol) government through undertaking an EU wide service tender: Intermediate (two years) treatment and disposal of 155.000 t/y MSW. Contract value 48m €.

Kosovo: Institutional Support (2006)

Beneficiary: WWRO Waste & Water Regulatory Office. Technical assessment of disposal infrastructure (landfills, transfer stations), determination whether an existing waste disposal tariff is plausible when applying common practices, development of a cost calculation model for four sanitary landfills backing WWRO in yearly tariff negotiations with Kosovo’s main landfill operator, preparing a study “Solid Waste Collection and Tariffing: Good Practice in Central Europe”, preparation and conduction of workshops.

Sydney: Due diligence MBT (2005)

Due diligence services in respect to the implementation of the “UR 3R” MSW processing technology (MBT with anaerobic biologic processing): Technology and risk assessment, preparation of commissioning and test run.

Austria: Lecturing on Solid Waste Management (since 1999)

MCI Management Center Innsbruck (course Environmental Technology & Process Engineering).

6.3 Erich Vogel

Erich Vogel

Profile



Position

Senior Consultant, Senior Engineer

Year of birth

1956

Nationality

Austrian

Language

German – mother tongue

English – 4,

(with 5 = mother tongue, 1 = poor)

Qualifications

Master of Science (M. Sc.) in biology, Leopold-Franzens-University, Innsbruck, Austria

More than 15 years foreign working experience as consulting engineer for issues related to solid waste management in national and international projects.

Computer literacy: Standard PC software (Word, Excel, Access, Visio, Power Point, Corel Draw, Adobe Photoshop, AutoCad, html, css) Performance of training courses.

Lecturer at MCI Management Center Tyrol, Austria (area: Solid Waste Treatment, course: Environmental Technology & Process Engineering).

As an expert for economic and ecological aspects in solid waste he has profound experience in

- Performance of Waste Audits, Assessment / Optimisation of Collection Schemes, Training Programs related to Waste Handling / Waste Management
 - Environmental Impact Assessments of all activities and processes related to solid waste including landfill gas monitoring
 - Cost Assessment, Evaluation, Optimisation of Solid Waste Treatment Systems
 - Design and upgrading of recycling programmes and final treatment (MBT, Anaerobic digestion)
 - Physical characterization of MSW (e. g. calorific value), mass balances
- He has more than 15 years consultancy experience in countries throughout Europe, the Middle East, Asia and experience with international development programs (as The World Bank, Asean development bank and various EC funds).

Career history

TBU Environmental Engineering Consultants, Project manager, senior engineer (1995 – present)

Various roles typically to be filled in an independent engineering consultancy firm (engaged exclusively and mainly internationally in solid waste related issues), project management.

Recent projects selected, chronological

Lithuania / BiH: Workshops “How to design a proper waste fee?” (2011)
Workshop facilitator of an ISWA project.

Austria: SWM concept for Tyrolean government administration (2009)

The Tyrolean provincial government assigned TBU to update the waste management concept for the 54 administration departments. The project parameters are to analyze the status quo, to create a balance of waste streams, to identify weaknesses

and to make suggestions to improve the waste management situation as a whole. Integrative parts of the concept are a solid waste audit and a workshop to synchronize the results and suggestions and measures with the janitors and the cleaning staff.

Bulgaria: Solid Waste Audits (2006 and 2009):

2006 performance of a study “Quantity & Quality Assessment of household waste in Bulgaria 2005 with particular emphasis on the biodegradable fraction”, development of a waste forecast model. 2009 analysis and characterization of samples of baled MSW (> 3 years stored).

Abu Dhabi: Solid Waste Audit (2008)

As a project manager performing a solid waste audit. The results will form the contractual basis for building and operating a MRF (Material Recovery Facility, 1.500 tpd).

Germany: Optimization of the MBT Hanover (2006, 2007)

Evaluation of determining parameters relevant to the optimisation of the MBT (mechanical-biological waste treatment plant) Hanover (200.000 t/a). Test work resulted in the increment of the calorific value of screen overflow and reduction of abrasive materials of the anaerobic digestion input material.

Austria: Higher utilization of the infrastructure for solid waste treatment, City of Vienna (2007)

Various consultancy work in respect to a higher utilization of Vienna’s infrastructure for solid waste treatment:

- Preparation of a desk study on intermediate storage of MSW for levelling out seasonal differences in demand/supply of Vienna’s W to E (Waste to Energy) plants Calculation and prognosis of quantity (amount, composition) and quality (moisture content, gross and net calorific value) of the input material (MSW).

6.4 Rasa Uselytė Ekoconsultacijos



Education:

1996 - BSc in Economics at Vilnius University.

1998 - MSc in Business Administration and Management at Vilnius University.

1998 - M.Sc. in Environmental Management and Policy at International Institute of Industrial Environmental Economics, Lund University, Sweden.

2004 - Accomplished PhD studies in Kaunas University of Technology, Institute of Environmental Engineering.

MSc Rasa Uselytė has been working in the field of environmental protection since 1996. During 1996 - 1997 she has worked as an accountant and manager at Lithuanian Fund for Nature, during 1999 - 2005 she has worked as a senior analyst in the Institute of Environmental Engineering at Kaunas University of Technology (APINI), and during 2004 - 2005 she has worked as an economist at the Centre for Sustainable Industrial. Rasa took part in preparing the Secondary Raw Material Recycling Programme for 2003/2004, the Draft Sustainable Industrial Development Programme, the POPs National Implementation Plan under the Stockholm Convention, drafting legislation in waste management area, she coordinated international projects financed by the Nordic Council of Ministers (Institutional Capacity Building for Integrated Product Policy in Latvia, Lithuania, Estonia), EU Interreg IIIB (Regional Co-operation in Waste Management (RECO) and Leonardo da Vinci programmes (Transfer of knowledge in Eco-design), prepared business plans for waste management companies (e.g. in project "Technical assistance to Vilnius Regional Waste Management Centre"), organized seminars and trainings, performed research in management of municipal and specific waste streams (packaging, batteries and accumulators, etc).

Main areas of competence: project management, EU and Lithuanian waste management legislation, drafting legal acts and strategic programmes, economic-social evaluation), analysis of specific waste management, business plans, organization of seminars and trainings.

7 WORKSHOP PROGRAMME

7.1 Bijeljina – BiH

"HOW TO DESIGN A PROPER WASTE FEE?"

8 SEPTEMBER 2011

Name:

Occupation:

Organization:

.....

.....

Tel. Office:

Mobile:

Background and Previous Experience:

.....

.....

Particular interest in /
proposed topics to be highlighted:

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Please send this form to:
EKO-DEP
Attn. Mr. Dragan Lazić
Email: ekodep@spinter.net
Fax: +387 55 202 085

Course materials and refreshments
will be provided.

Location:

Bijeljina Municipality
Symposium Room
BiH. 73300 Bijeljina

Date, Duration & Time:

8 September 2011
(8:30 to 16:00)

Information

For further information please contact
Mr. Dragan Lazić at
JP REGIONALNA DEPONIJJA "EKO-DEP"

Participation in the workshop is free of cost.

*Participants intending in attending the workshop
are requested to send completed applications to
JP REGIONALNA DEPONIJJA "EKO-DEP" no later
than 1 September 2011.*

**CUSTOMIZING WASTE
MANAGEMENT FEES IN EASTERN
& SOUTH EASTERN EUROPE:**

– The BIJELJINA Workshop –

8 September 2011

Organized and supported by



REGIONALNA DEPONIJJA
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Co-financed by



ISWA
International Solid Waste Association

CUSTOMIZING WASTE MANAGEMENT FEES IN EASTERN & SOUTH EASTERN EUROPE

1. BACKGROUND AND SCOPE

In any up-to-date solid waste management system fees represent an important component. However sometimes fees are not given the attention they deserve (hard technical elements usually do much better in this respect), and sometimes fees are not applied in a way which helps create the desired effects – not only to finance the entire system, but also to provide an overall steering function, encouraging the waste generator to take full advantage of the whole system, particularly opportunities to feed suitable waste streams into separate collection sub-systems provided by the overall system operator.

Municipalities from East and South East Europe often adopt – if “The User Pays” principle is introduced at all, and any fee is collected at waste generation level – a SWM tariff based upon floor space¹. There is a noticeable tendency to introduce a more “fair” waste fee (be it based on generated waste weight, or volume) – with the positive steering effects envisaged above, however sometimes also with certain practical problems (starting e.g. with a limited preparedness of some waste generators to pay any fee).

Project scope is to perform workshops on the topic “How to design a proper waste fee?” in two selected entities, and to prepare hands-on guidelines on fee design based upon the workshop findings. The project is co-financed by a grant (supplied by Vienna Municipality) recently issued by ISWA.

2. OBJECTIVES

The overall scope of the project – the central pillar of which is represented by two workshops performed in summer 2011 in Bosnia / Herzegovina (Bijeljina) and Lithuania (Vilnius) – is:

- to provide basic knowledge as well as practical, first-hand experiences in respect to the design & steering element “waste fee”

¹ In countries which were part of the Austro-Hungarian Empire it seems to be a rule (note that waste tariffs in the various successor states of Yugoslavia do not differ at all from those Austrian tariffs based upon floor space as in practice until a decade or so) and Eastern Europe very often applies space-related waste tariffs as well.

- to better understand practice as well as constraints of municipal fee management in post socialist countries, and
- to prepare a ISWA-guideline “How to design a proper waste fee?” based on the workshop results.

3. PARTICIPANTS

Participants in BiH will be mainly representatives of municipalities of a recently implemented SWM Council which runs amongst other infrastructure a modern sanitary landfill. Main interest of this group is to learn about proven administrative and technical concepts how to transfer the cost of this infrastructure “down” to the waste generation level – by introducing a proper fee: “Proper” is anticipated with sufficient (i.e. covering the full cost), easily to be administered, just, and “collectable” not only in a short term.

Lithuanian participants will be from Regional Waste Management Centres (RWMC’s) across the country, with some participation of the MoE. Interest of the participants is similar to BiH (however with a fee system already introduced), with some particular interest in respect to “modern” tariffs as well as higher cost to be covered (due to waste treatment standards exceeding pure landfilling).

4. WORKSHOP TOPICS

The workshop will start with a general introduction, focussing on some institutional issues considered a prerequisite for a successful implementation of up-to-date tariff systems *Who is doing what?* – i.e. the appropriate allocation of roles and functions to the various “players” in an up-to-date waste management system:

- Who should be given the overall responsibility for collecting (and disposing of) the waste, and who should be responsible for collecting (and calculating) the fee?

In a first unit an overview of common fee types is given, such as

- Tariffs per household, with and without considering also number of persons
- Tariffs depending on floor space
- Tariffs depending on volume
- Tariffs depending on weight
- Other tariffs
- ...and combinations thereof

In a central session particular aspects will be discussed, such as:

- Performance of “technically advanced” tariff systems (with measurement of single emptyings, volume, or weight)
- To what extent should fees “reward” proper disposal behaviour?

- Single tariff components vs. real cost structure
- Tariff “administrability”, and related cost
- Introduction and collection of tariffs in areas with social and economical difficulties: “Collectability” vs. (real) “affordability”
- Which activities have to be financed with the fee?
- Interdependencies between available data, infrastructure and fee model.

5. WORKSHOP FACILITATORS

WALTER HAUER



graduated in business administration and mechanical engineering. Starting his Waste Management career at Vienna Wirtschaftsuniversität he is now for 20 years independent consultant in waste management & environmental economy. The topic “Waste fees” is bread and butter for Walter who also is acting as mediator in cases of public issues.

MARTIN STEINER



graduated in Solid Waste & Water Management at the Technical University Berlin (West). Over the 25 years of his career he gained international experience in a wide range of waste management projects. Having conducted several projects in East and South East Europe (Czech Republic, Bulgaria, Belarus, most successor states of former Yugoslavia, Slovakia, Turkey) he is familiar with the regions in question.

ERICH VOGEL



graduated at Innsbruck University in Biology and has more than 15 years foreign working experience as consultant for issues related to solid waste management in national and international projects. A main focus of his work is on finance issues. Same as Martin he is teaching Environmental Technology at the MCI Institute of Applied Sciences (Tyrol).

7.2 Vilnius – LT

7.2.1 Announcement

7.2.2 Programme

ORGANISER AND SPONSOR:  SPONSOR:  **ISWA**
International Solid Waste Association PARTNERS:  **Technisches Büro HAUER**
Umweltwirtschaft GmbH 

**HOW TO DESIGN A PROPER WASTE FEE:
Experiences in Lithuania and EU countries**

International workshop

20 October, 2011
Lithuanian Ministry of Environment, Jakšto 4/9, Vilnius

Draft programme:

9.30 – 10.00	<i>Registration</i>
10.00 – 10.20	Introduction
	Proper waste fee: a tool to promote waste sorting and recycling <i>Raminta Radavičienė, Lithuanian MoE</i>
10.20 – 10.40	Overview of municipal waste charging practise in Lithuania <i>Rasa Uselytė, UAB „Ekokonsultacijos“</i>
10.40 – 11.00	Legal court cases of municipal waste charging in Lithuania: existing practice <i>Emė Butėnienė, Advokatų kontora Šliogėnis, Butėnienė ir partneriai</i>
11.00 – 11.20	Feasibility of waste per unit charging in Klaipėda city <i>dr. Jonas Stravinskas, UAB „Jostra“</i>
11.20 – 11.40	Questions, discussions
11.40 – 12.00	<i>Coffee break</i>
12.00 – 12.50	Overview of common types of waste fees. Existing practices in EU countries. <i>Walter Hauer, TBH Technisches Büro HAUER Umweltwirtschaft GmbH</i> <i>Martin Steiner, TBU Technisches Büro für Umweltschutz GmbH</i>
13.00 – 14.00	<i>Lunch</i>
14.00 – 15.00	Elements and performance of 'technically advanced' tariff systems. <i>Walter Hauer, TBH Technisches Büro HAUER Umweltwirtschaft GmbH</i> <i>Martin Steiner, TBU Technisches Büro für Umweltschutz GmbH</i>
15.10 – 15.30	<i>Coffee break</i>
15.30 – 16.30	About real cost structure, tariff "administrability", "collectability" vs. "affordability", interdependencies between available data, infrastructure and fee model. <i>Walter Hauer, TBH Technisches Büro HAUER Umweltwirtschaft GmbH</i> <i>Martin Steiner, TBU Technisches Büro für Umweltschutz GmbH</i>
16.30 – 16.50	Questions, discussions
16.50 – 17.00	Summary, conclusions



A-2000 Harmsburg, Bräckenstraße 6
C-432 0262/02 203 www.tbhauer.at

EKO KONSULTACIJOS

Tarptautinis seminaras

KAIP NUSTATYTI TINKAMĄ ĮMOKĄ UŽ KOMUNALINIŲ ATLIEKŲ TVARKYMĄ; EUROPOS SĄJUNGOS ŠALIŲ IR LIETUVOS PATIRTIS

2011 m. spalio 20 d., Aplinkos ministerija,
Jakšto 4/9, 506 (didžioji salė), Vilnius

9.30 – 10.00	<i>Registracija</i>
10.00 – 10.20	Tinkamas apmokestinimas – priemonė komunalinių atliekų rūšiavimui skatinti <i>Vilma Karosienė, LR aplinkos ministerija</i>
10.20 – 10.40	Apmokestinimo už komunalinių atliekų tvarkymą praktikos Lietuvoje apžvalga <i>Rasa Uselytė, UAB „Ekokonsultacijos“</i>
10.40 – 11.00	Teismų praktika vietinės rinkliavos už komunalinių atliekų surinkimą iš atliekų turėtojų ir jų tvarkymą bylose Lietuvoje <i>Emė Butėnienė, Advokatų kontora Šliogeris, Butėnienė ir partneriai</i>
11.00 – 11.20	Skirtingų rinkliavos administravimo parametru analizė ir optimalaus sprendimo paieška Lietuvos savivaldybėse <i>dr. Jonas Stravinskas, UAB „Jostra“</i>
11.20 – 11.40	Klausimai, diskusijos
11.40 – 12.00	<i>Kavos pertraukėlė</i>
12.00 – 13.00	Įmokų už komunalinių atliekų tvarkymą nustatymo būdai ir jų paplitimas ES šalyse <i>Walter Hauer, TBH Technisches Büro HAUER Umweltwirtschaft GmbH</i> <i>Martin Steiner, TBU Technisches Büro für Umweltschutz GmbH</i>
13.00 – 14.00	<i>Pietų pertrauka</i>
14.00 – 15.00	Pagrindiniai kintamų įmokų nustatymo tikslai, principai ir diegimo elementai. Komunalinių atliekų tvarkymo sąnaudų struktūra. <i>Walter Hauer, TBH Technisches Büro HAUER Umweltwirtschaft GmbH</i> <i>Martin Steiner, TBU Technisches Büro für Umweltschutz GmbH</i>
15.10 – 15.30	<i>Kavos pertraukėlė</i>
15.30 – 16.30	Įmokų administravimas, surinkimas ir atliekų turėtojų mokumas. Priklausomybė nuo turimų duomenų, infrastruktūros ir apmokestinimo modelio. <i>Walter Hauer, TBH Technisches Büro HAUER Umweltwirtschaft GmbH</i> <i>Martin Steiner, TBU Technisches Büro für Umweltschutz GmbH</i>
16.30 – 16.50	Klausimai, diskusijos
16.50 – 17.00	Seminaro išvadų apibendrinimas, pabaiga

SEMINARO DATA IR TRUKMĖ:

Seminaras vyks 5.m. spalio 20 d.,
ketvirtadieni, 10.00 – 17.00.
Registracija pradėdama nuo 9.30.

SEMINARO KALBA:

Seminaras vyks lietuvių ir anglų kalbomis su
sinchroniniu vertimu.

**DALYVAVIMAS SEMINARE
NEMOKAMAS**

Dalyviai pertraukėlių metu bus vaišinami
kava, arbata, tačiau pietūs nenumatyti.

SEMINARO MEDŽIAGA:

Pranešimų medžiaga bus skelbiama Lietuvos
Respublikos aplinkos ministerijos tinklalapyje

TIKSLAI:

Apmokestinant atliekų turėtojus už komunalinių
atliekų tvarkymą, galima siekti ne tik padengti
komunalinių atliekų tvarkymo sąnaudas, bet ir skatinti
atliekų turėtojus mažinti komunalinių atliekų
susidarymą, rūšiuoti antrines žaliavas, kompostuoti
atliekas namų sąlygomis.

Šio tarptautinio seminaro tikslai:

- įvertinti esamą apmokestinimo už
komunalinių atliekų tvarkymą praktiką
Lietuvoje;
- susipažinti su teismų praktika vietinės
rinkliavos už komunalinių atliekų surinkimą
iš atliekų turėtojų ir jų tvarkymą bylose
Lietuvoje;
- susipažinti su praktine Europos Sąjungos
šalių patirtimi, taikant diferencijuotas
įmokas už komunalinių atliekų tvarkymą.

DALYVIAI:

Seminaras skirtas savivaldybių, regioninių
atliekų tvarkymo centrų ir kitų organizacijų,
administruojančių vietines rinkliavas už komunalinių
atliekų tvarkymą, bei komunalines atliekas tvarkančių
įmonių atstovams.

DARBOTVARKĖ

9.30 – 10.00 Registracija

10.00 – 10.20 Tinkamas apmokestinimas–
priemonė komunalinių atliekų rūšiavimui skatinti
V. Karostene, LR aplinkos ministerija

10.20 – 10.40 Apmokestinimo už komunalinių
atliekų tvarkymą praktikos Lietuvoje aptvarga
Rasa Useitytė, UAB „Ekokonsultacijos“

10.40 – 11.00 Teismų praktika vietinės rinkliavos
už komunalinių atliekų surinkimą iš atliekų
turėtojų ir jų tvarkymą bylose Lietuvoje
*Emė Būtenienė, Advokatų kontora Šliogeris,
Būtenienė ir partneriai*

11.00 – 11.20 Skirtingų rinkliavos administravimo
parametrų analizė ir optimalaus sprendimo
paieška Lietuvos savivaldybėse
dr. Jonas Stravinskas, UAB „Jostra“

11.20 – 11.40 Klausimai, diskusijos

11.40 – 12.00 Kavos pertraukėlė

12.00 – 12.50 Įmokų už komunalinių atliekų
tvarkymą nustatymo būdai ir jų paplitimas ES
šalyse

*Walter Hauer, TBH Technisches Büro
HAUER Umweltwirtschaft GmbH Martin Steiner,
TBU Technisches Büro für Umweltschutz GmbH*

13.00 – 14.00 Pietų pertrauka

14.00 – 15.00 Pagrindiniai kintamų įmokų
nustatymo tikslai, principai ir diegimo elementai.
Komunalinių atliekų tvarkymo sąnaudų struktūra

**KAIP NUSTATYTI TINKAMĄ
ĮMOKĄ UŽ KOMUNALINIŲ
ATLIEKŲ TVARKYMĄ:
EUROPOS SĄJUNGOS ŠALIŲ
IR LIETUVOS PATIRTIS**

Tarptautinis seminaras

2011 m. spalio 20 d.

ORGANIZORIUS IR RĖMĖJAS:



REMĖJAS:



PARTNERIAI:

EKO KONSULTACIJOS



*Walter Hauer, TBH Technisches Büro HAUER
Umweltwirtschaft GmbH Martin Steiner, TBU
Technisches Büro für Umweltschutz GmbH*

15.10 – 15.30 Kavos pertraukėlė

15.30 – 16.30 Įmokų administravimas, surinkimas
ir atliekų turėtojų mokumas. Priklausomybė nuo
turingų duomenų, infrastruktūros ir
apmokestinimo modelio

*Walter Hauer, TBH Technisches Büro HAUER
Umweltwirtschaft GmbH Martin Steiner, TBU
Technisches Büro für Umweltschutz GmbH*

16.30 – 16.50 Klausimai, diskusijos

16.50 – 17.00 Seminaro išvadų apibendrinimas,
pabaiga

8 WORKSHOP DOCUMENTATION

8.1 Bijeljina – BiH

8.2 Vilnius – LT

The presentations shown at the workshop are published by the Ministry of Environment at its Homepage.

http://www.am.lt/VI/article.php3?article_id=11200

The screenshot shows the website of the Lithuanian Ministry of Environment. The main content area is titled 'Kita informacija' and features a seminar announcement: 'Seminaras „Kaip nustatyti tinkamą įmoką už komunalinių atliekų tvarkymą: Europos Sąjungos šalių ir Lietuvos patirtis“' held on 2011-10-25. Under the heading 'Priedai:' (Attachments), a list of documents is provided. The second item in the list, 'Pranešimas „Kaip nustatyti tinkamą įmoką už komunalinių atliekų tvarkymą Rytu ir Pietryčiu Europoje“', is circled in red. Other items include a work schedule, a report on waste management practices in Lithuania, a model for waste management in rural areas, a report on waste management in the Baltics, a report on waste management in the EU, a report on waste management in the Baltics, and a report on waste management in the EU.

9 LIST OF PARTICIPANTS

9.1 Bijeljina – BiH

	IME I PREZIME UČESNIKA	KONTAKT	POTVRDA UČEŠĆA
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	Opština Bijeljina:		
3	Simo Božić, Načelnik stambeno-komunalnog odjeljena u opštini Bijeljina	055 233 118	POTVRDIO (telefonom)
4	Sreten Maksimović, Šef u stambeno-komunalnom odjeljenju	055 233 175	POTVRDIO (telefonom)
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5	Mladen Petrović, Direkcija		POTVRDIO
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7	Milorad Zekić, direktor AD „Komunalac“	055 203 423	POTVRDIO (telefonom)
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	Dule Trgotrans		
9	Dule Perić, Direktor	065 526 213	POTVRDIO (telefonom)
	Ekologija SPROS		
10	Petar Simojlović, direktor		POTVRDIO (telefonom)
	OPERATIVA Janja		
11	Sead Mulasalihović, direktor	065 057 686	POTVRDIO (telefonom)
	Opština Lopare		
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13	Vojislav Đukić, Eko-Kom. Lopare	065 547 588	POTVRDIO
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	Opština Ugljevik		
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	Opština Čelić		
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18	Arif Salkić, dipl. ing. ZNR i zašt. Ž.S.	061 656 461	POTVRDIO
	JP „Eko-Dep“		
19	Duško Milovanović, Predsjednik NO		POTVRDIO (telefonom)
20	Dragiša Marjanović		POTVRDIO
21	Velimir Slijepčević		POTVRDIO
22	Darko Mitrić		POTVRDIO
23	Mirko Stajić		POTVRDIO
24	Dragan Lazić		POTVRDIO

9.2 Vilnius – LT

Tarptautinis seminaras

KAIP NUSTATYTI TINKAMĄ ĮMOKĄ UŽ KOMUNALINIŲ ATLIEKŲ TVARKYMĄ: EUROPOS SĄJUNGOS ŠALIŲ IR LIETUVOS PATIRTIS

2011 m. spalio 20 d., Vilnius

Nr.	Pavardė, vardas	Institucija, įmonė	Pareigos	Telefonas	Mob. telefonas	E-paštas
1.	Balčiūnaitis Algimutis	Pasvalio savivaldybės administracija	Investicijų ir turto valdymo skyriaus vyr. specialistas (ekologas)	<u>8 451 54116</u>	<u>8 686 42106</u>	a.balciunaitis@pasvalys.lt
2.	Brazas Alfonsas	UAB Atliekų tvarkymo konsultantai	<u>Direktorius</u>	<u>8 521 02178</u>	<u>8 687 7663</u>	a.brazas@zebra.lt
3.	Gražys Aleksandras	Ukmergės rajono savivaldybė	Mokesčių skyriaus vyr. <u>specialistas</u>	<u>8 340 60335</u>	<u>8 656 53120</u>	a.grazys@ukmerge.lt
4.	Jocys Aloyzas	Rokiškio rajono savivaldybės administracija	<u>Direktorius</u>	<u>8 458 71442</u>	<u>8 656 60660</u>	a.jocys@post.rokis.kis.lt
5.	Žiulpa Alfonsas	Mažeikių rajono savivaldybė	Vietinio ūkio skyriaus <u>vedėjas</u>	<u>8 443 98201</u>	<u>8686 45436</u>	a.ziulpa@mazeikai.lt
6.	Beliavičius Aleksandras	Kauno miesto savivaldybė	Aplinkos apsaugos skyriaus vyr. <u>specialistas</u>	<u>8 542 2722</u>	<u>8 611 49525</u>	aleksandras.beliavicius@kaunas.lt
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8.	Reipas Algirdas	UAB "Alytaus regiono atliekų tvarkymo centras"	<u>Direktorius</u>	<u>8 315 72843</u>	<u>8 698 45035</u>	algirdas.reipas@alytausratc.lt
9.	Romeika Algirdas	Valstybinė vartotojų teisių apsaugos tarnyba	Energetikos ir vartojimo prekių bei paslaugų departamento <u>direktorius</u>	<u>8 526 26772</u>	-	algirdas.romeika@vvtat.lt
10.	Pampuškienė Alvyda	UAB "Utenos regiono atliekų tvarkymo centras"	<u>Vyr. buhalterė</u>	<u>8 389 50954</u>	-	alvyda@uratc.lt

Nr.	Pavardė, vardas	Institucija, įmonė	Pareigos	Telefonas	Mob. telefonas	E-paštas
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12.	Makauskas Arūnas	VšĮ "Žalioji taškas"	Komercijos direktorius	-	8 614 37709	arunas.makauskas@ztl.it
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15.	Kulbienė Dovilė	UAB Panevėžio regiono atliekų tvarkymo centras	Vyr. buhalterė	8 455 32199	8 614 61408	buhalterija@pratc.lt
16.	Dovydienė Daiva	Kėdainių rajono savivaldybės administracija	Aplinkosaugos ir civilinės saugos skyriaus vedėja	8 347 69571	8 612 71921	daiva.dovydiene@kedainiai.lt
17.	Ausėnaitė Daiva	Žurnalas "Green'as"	Žurnalistė	-	8 687 73537	daiva@ievosnuomone.lt
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19.	Ramonas Dalius	Kėdainių rajono savivaldybės administracija	Teisės ir personalo skyriaus vedėjas	8 347 69569	8 614 33683	dalius.ramonas@kedainiai.lt
20.	Šlapikas Darius	Kauno rajono savivaldybės administracija	Aplinkos skyriaus vedėjo pavaduotojas aplinkos apsaugai	8 373 05566	8 612 83056	darius@krs.lt
21.	Adomaitis Rimantas	UAB "Telšių regiono atliekų tvarkymo centras"	Direktorius	8 448 50043	8 652 72560	direktorius@tratc.lt
22.	Suchodolski Aleksander	UAB "Eco Solutions"	Vadybininkas	-	8 699 62864	e.suchodolski@vp.pl
23.	Vengrienė Elena	UAB "Algoritimų sistemos"	Komercijos direktorė	8 527 34181	8 659 57618	e.vengriene@algoritmusistemas.lt

Nr.	Pavardė, vardas	Institucija, įmonė	Pareigos	Telefonas	Mob. telefonas	E-paštas
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26.	Bitarytė Jūratė	Rietavo savivaldybės administracija	Vietos ūkio skyriaus specialistė (ekologė)	<u>8 448 73235</u>	<u>8 662 37435</u>	ekologe@rietavas.lt
27.	Ruseckienė Rasa	UAB "TRATC"	<u>Ekonomistė</u>	<u>8 446 52500</u>	-	ekonomistas@zebra.lt
28.	Andriulaitytė Ieva	Lietuvos savivaldybių asociacija	Patarėja aplinkos ir energetikos klausimais	<u>8 521 23614</u>	-	ieva.andriulaityte@lsa.lt
29.	Kubilius Ignas	Individuali veikla	<u>Konsultantas</u>	-	<u>8 659 24471</u>	ignas.kubilius@yahoo.com
30.	Asakavičiūtė Iлона	Druskininkų savivaldybės administracija	Architektūros ir urbanistikos skyriaus vyr. specialistė	<u>8 313 52365</u>	<u>8 616 74642</u>	ilona.a@druskininkai.lt
31.	Ramanauskienė Iлона	Prienų rajono savivaldybės administracija	Statybos ir ekonominės plėtros skyriaus vyr. specialistė	<u>8 319 61128</u>	<u>8 612 07630</u>	ilona@prienai.lt
32.	Bobelis Mindaugas	UAB "Utenos regiono atliekų tvarkymo centras"	<u>Direktorius</u>	<u>8 389 50440</u>	-	info@uradc.lt
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34.	Labutytė Inga	<u>grynas.lt</u>	<u>Žurnalistė</u>	-	<u>8 652 20295</u>	inga.labutyte@delfi.lt
35.	Kriaučiūnas Jonas	Trakų rajono savivaldybės administracija	Vyr. specialistas	<u>8 528 55775</u>	<u>8 650 26558</u>	j.kriauciunas@trakai.lt
36.	Blaževičiūtė Janina	UAB "Gelvita"	<u>Ekonomistė</u>	<u>8 528 26719</u>	<u>8 672 35307</u>	janina.blazeviciute@zebra.lt
37.	Jankevičius Juozas	Regionų atliekų tvarkymo centrų asociacija	<u>Prezidentas</u>	-	-	Juozas.Jankevicius@Sweco.lt

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38.	Čaplia Jaroslavas	Vilniaus miesto savivaldybė	Aplinkos apsaugos skyriaus poskyrio <u>vedėjas</u>	<u>8 521 12821</u>	<u>8 615 15429</u>	Juroslav.caplia@vilnius.lt
39.	Žurinskaitė Justina	UAB "Eko Rivi"	Atliekų tvarkymo <u>ekspertė</u>	<u>8 526 36161</u>	<u>8 615 42318</u>	juste@ekorivi.lt
40.	Jazbutienė Sigutė	SI "Kretingos komunalininkas"	Direktoriaus <u>pavadootoja</u>	<u>8 445 78608</u>	<u>8 699 03724</u>	kretkom@zebra.lt
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42.	Bakas Algimantas	Lietuvos komunalininkų ir atliekų tvarkytojų asociacija	<u>Prezidentas</u>	<u>8 526 10902</u>	<u>8 615 10602</u>	lkata@takas.lt
43.	Jakinevičienė Loreta	Prienų rajono savivaldybė	<u>Mero pavadootoja</u>	<u>8 319 61101</u>	-	loreta.jakinevicienė@gmail.com
44.	Čelka Marius	Kauno rajono savivaldybės administracija	Aplinkos skyriaus <u>darbuotojas</u>	<u>8 373 05547</u>	<u>8 686 48140</u>	marius.celka@krs.lt
45.	Vasiliauskas Martynas	Seimo kontrolierių įstaiga	<u>Vyresn. Patarėjas</u>	<u>8 706 65124</u>	-	martynas.vasiliauskas@lrs.lt
46.	Romanovskis Miroslavas	Vilniaus rajono savivaldybės administracija	Vietinio ūkio skyriaus <u>vedėjo pavadootojas</u>	<u>8 527 30402</u>	-	miroslav.romanovski@vrsa.lt
47.	Notkus Robertas	UAB "Dzutra"	-	<u>8 527 00402</u>	<u>8 698 85550</u>	notkus@dzutra.lt
48.	Kazėnas Povilas	Jurbarko rajono savivaldybės administracija	Ūkio ir turto skyriaus vyr. <u>specialistas</u>	<u>8 447 70171</u>	<u>8 614 11736</u>	p.kazenas@jurbarkas.lt
49.	Turčinavičius Povilas	UAB "Alytaus regiono atliekų tvarkymo centras"	Rinkliavos grupės <u>vadovas</u>	<u>8 315 72843</u>	<u>8 674 90110</u>	povilas.turcinavicius@alytausratc.lt
50.	Petrulaitis Marius	VšĮ Kauno regiono atliekų tvarkymo centras	<u>Projektų vadovas</u>	<u>8 374 90735</u>	<u>8 615 48184</u>	projektas@kaunoratc.lt
51.	Lecka Ričardas	UAB "Elektrėnų komunalinis ūkis"	<u>Direktorius</u>	-	<u>8 698 86360</u>	r.leckas@eku.lt
52.	Šemeta Romaldas	Šiaulių miesto savivaldybė	Aplinkos skyriaus <u>vedėjas</u>	-	<u>8 686 41289</u>	r.semeta@siauliai.lt

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55.	Pajarskienė Rasa	UAB "VAATC"	Projekto vadovė	<u>8 521 30397</u>	<u>8 618 35225</u>	rasap@vaatc.lt
56.	Kairienė Reda	Komunalinio ūkio skyriaus vyr. specialistė	-	<u>8 460 48714</u>	-	reda.kairiene@palanga.lt
57.	Reikalas šarūnas	UAB "Klaipėdos regiono atliekų tvarkymo centras"	Direktorius	<u>8 463 00106</u>	-	reikalas@kratc.lt
58.	Viščinis Renaldas	Druskininkų savivaldybės administracija	Teisės ir civilinės metrikacijos skyriaus vedėjo pavaduotojas	<u>8 313 51244</u>	<u>8 620 65436</u>	renaldas.v@druskininkai.lt
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60.	Servienė Rita	Panevėžio miesto savivaldybės administracija	-	<u>8 455 01331</u>	<u>8 652 59050</u>	rita.serviene@panevezys.lt
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65.	Tamulis Jonas Šarūnas	UAB "Klaipėdos regiono atliekų tvarkymo centras"	Vietinės rinkliavos skyriaus viršininkas	<u>8 463 14989</u>	-	sarunas.tamulis@ktrac.lt
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67.	Kaupelis Saulius	UAB "BiCenter"	Direktorius	-	<u>8 601 89891</u>	saulius@bicenter.lt
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69.	Švagždis Stasys	UAB "Ekonominės konsultacijos ir tyrimai"	Konsultantas	<u>8 525 26225</u>	<u>8 618 67598</u>	stasys@ekt.lt
70.	Miknevičius Svajūnas	Pakruojo rajono savivaldybės administracija	Pakruojo rajono savivaldybės administracijos komunalinio ūkio vyr. specialistas	-	<u>8 611 14094</u>	svajunas.miknevičius@pakruojis.lt
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73.	Noreikienė Daiva	UAB "Panevėžio regiono atliekų tvarkymo centras"	Teisininkė	<u>8 454 32199</u>	<u>8 614 45618</u>	teisininke@pratc.lt
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77.	Gražytė Vijoleta	VšĮ "Šiaulių regiono atliekų tvarkymo centras"	Vyr. buhalterė	<u>8 415 20763</u>	<u>8 699 19925</u>	v.grazyte@sratc.lt
78.	Mačernienė Vida	Alytaus miesto savivaldybės administracija	Aplinkos apsaugos skyriaus vedėja	<u>8 315 55116</u>	<u>8 620 24026</u>	v.macerniene@ams.lt
79.	Raudonius Virginijus	Mažeikių rajono savivaldybė	Vietinio ūkio skyriaus vyr. specialistas	<u>8 443 98236</u>	<u>8 656 59842</u>	v.raudonius@mazeikiai.lt
80.	Volkovienė Vilma	VšĮ "Šiaulių regiono atliekų tvarkymo centras"	Atvokato padėjėja	<u>8 415 03247</u>	<u>8 655 01607</u>	v.volkoviene@sratc.lt
81.	Pavilonis Vaidas	Šilutės rajono savivaldybė	Mero pavaduotojas	<u>8 441 79231</u>	<u>8 652 84515</u>	vaidas.pavilonis@pamarys.lt
82.	Plečkaitis Vidmantas	VšĮ "Anabazis"	Direktorius	<u>8 462 11688</u>	-	vidmantas.pleckaitis@klaipeda.lt
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84.	Gylienė Vilija	Panevėžio miesto savivaldybės administracija	-	<u>8 455 01308</u>	<u>8 620 90045</u>	vilija.gyliene@panevezys.lt
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87.	Marma Albertas	Švenčionių rajono savivaldybės administracija	Žemės ūkio skyriaus vedėjas	<u>8 387 66366</u>	<u>8 610 83810</u>	zemes.ukis@svencionys.lt
88.	Medzveckas Romas	Pakruojo rajono savivaldybės administracija	Pakruojo rajono savivaldybės mero pavaduotojas			

Nr.	Pavardė, vardas	Institucija, įmonė	Pareigos	Telefonas	Mob. telefonas	E-paštas
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90.	Stankevič Anžela	Vilniaus rajono savivaldybės administracija	Vietinio ūkio skyriaus vyr. specialistė			
91.	Varnas Gintaras	VŠĮ "Žalioji taškas"	Generalinis direktorius			
92.	Poškys Alvydas	Kretingos rajono savivaldybė	Kretingos r. sav. administracijos Vietinio ūkio skyriaus pavaduotojas			
93.	Simė Saulius	Palangos miesto savivaldybės administracija	Mero pavaduotojas			
94.	Žukevičius Gintaras	Palangos miesto savivaldybės administracija	Palangos miesto rinkliavų centro direktorius			

10 PRESENTATIONS FROM THE WORKSHOPS



CUSTOMIZING WASTE MANAGEMENT FEES IN EASTERN & SOUTH EASTERN EUROPE:

– The BIJELJINA Workshop –

8 September 2011

Organized and supported by



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*Martin Steiner, Erich Vogel & **TBU**
European Environmental Engineers at a glance:*



Why is this workshop done, what should be achieved in the entire project?

The overall scope of this project is:

- to provide basic knowledge as well as practical, first-hand experiences in respect to the design & steering element “waste fee”
- to better understand practice and constraints of municipal fee management in post socialist countries, and
- to prepare a ISWA-guideline “How to design a proper waste fee?” based on the workshop results.

Two questions to every participant beforehand:

1. *General question:*

What is in your opinion the main „driving force“ for a proper dealing with waste?

- please give up to three answers on the white paper
- the most important „driver“ on top

2. *Question on the workshop topic:*

What do you expect from a proper waste fee, how should it look like?

- please note down also particular questions, or concerns if any
- please use the yellow paper
- No need to indicate your name (applies to both questions)

'Driving forces' for proper management of solid waste...

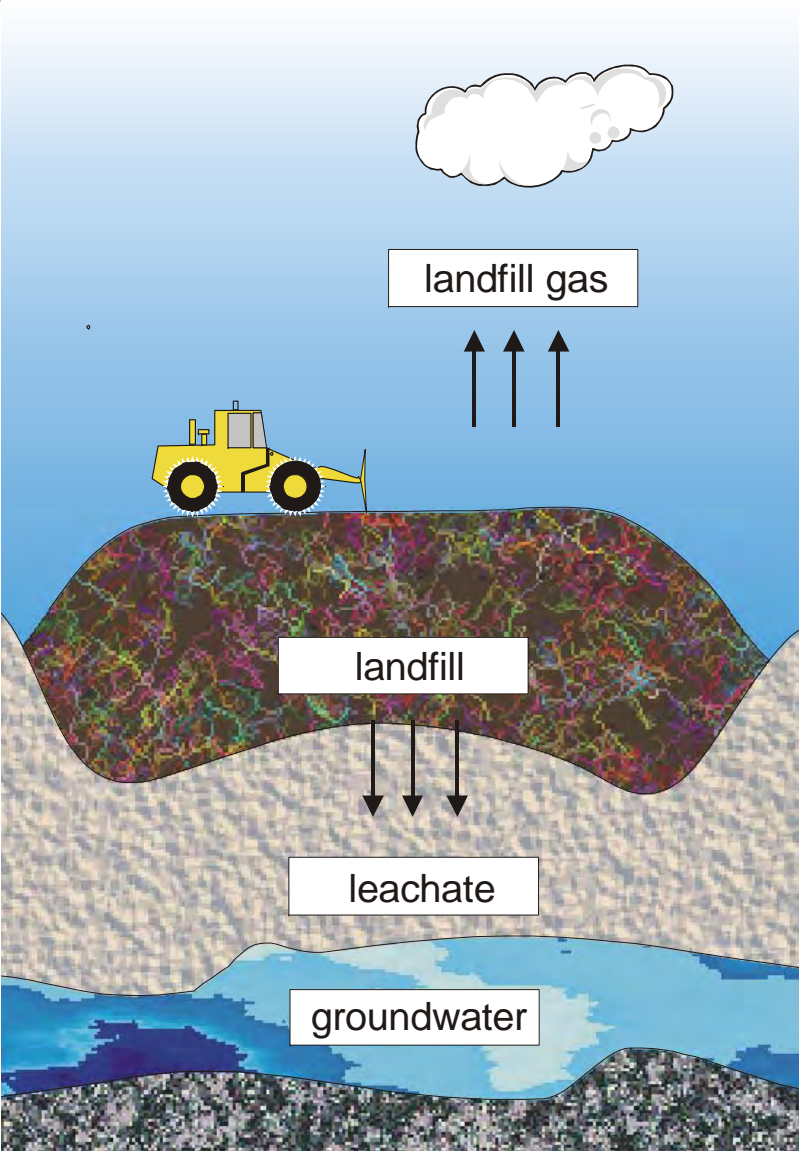
Porto 2004, answers by students (on chemistry, biology) in a course on Solid Waste Management

- to create a revenue
- health protection
- to reduce waste amounts
- environmental aspects
(clean air & water, soil protection)
- to reduce greenhouse gas emissions
- to save resources (material, energy)

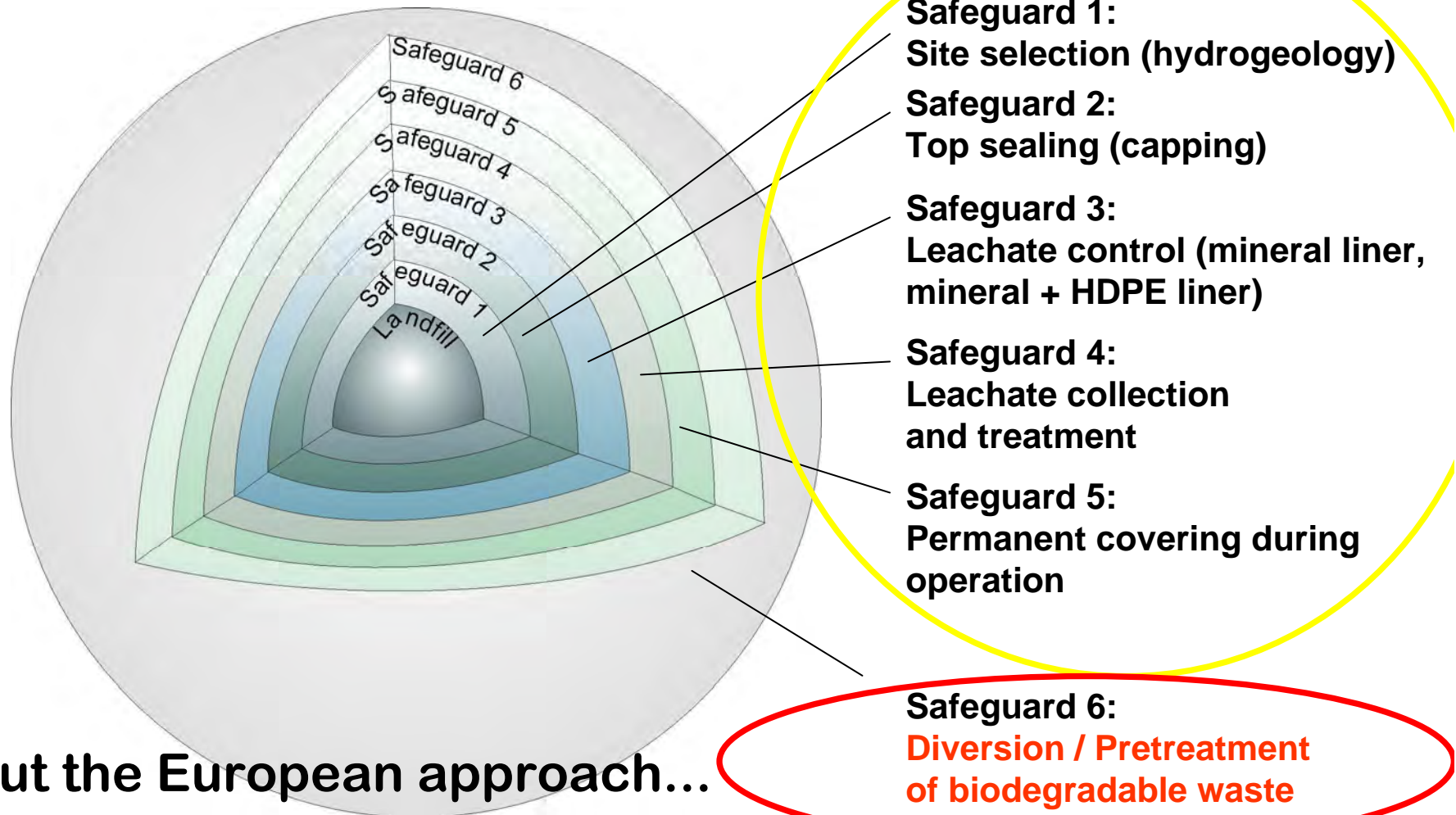
Driving Forces for MSW Treatment

- ***Utilization***
of certain waste components
- ***Minimization***
of amounts to be landfilled
- ***Stabilization***
of residuals to be landfilled

About the current European approach...

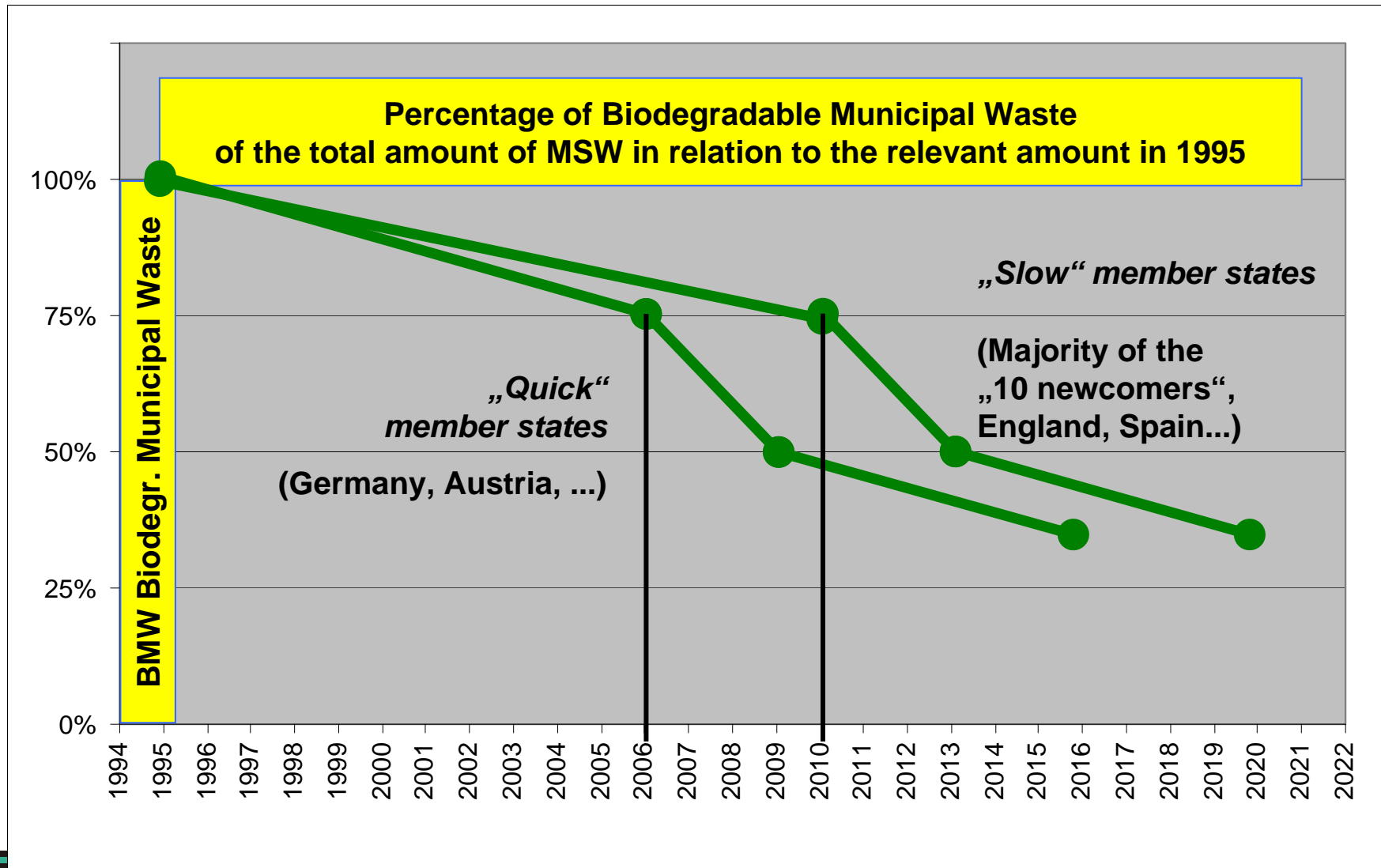


Sanitary landfill: The Multi-Barrier-System



About the European approach...

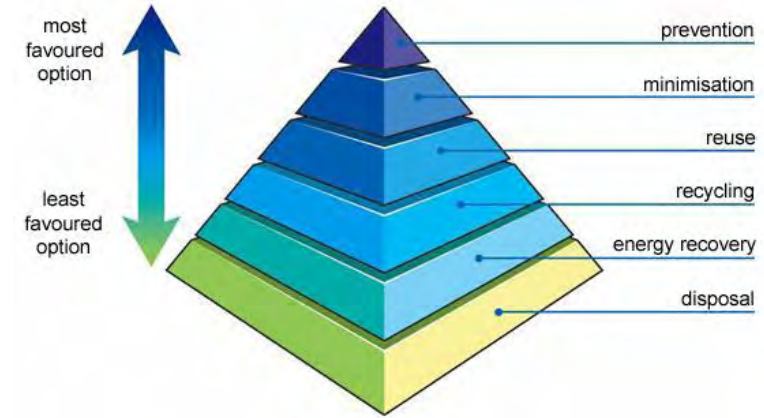
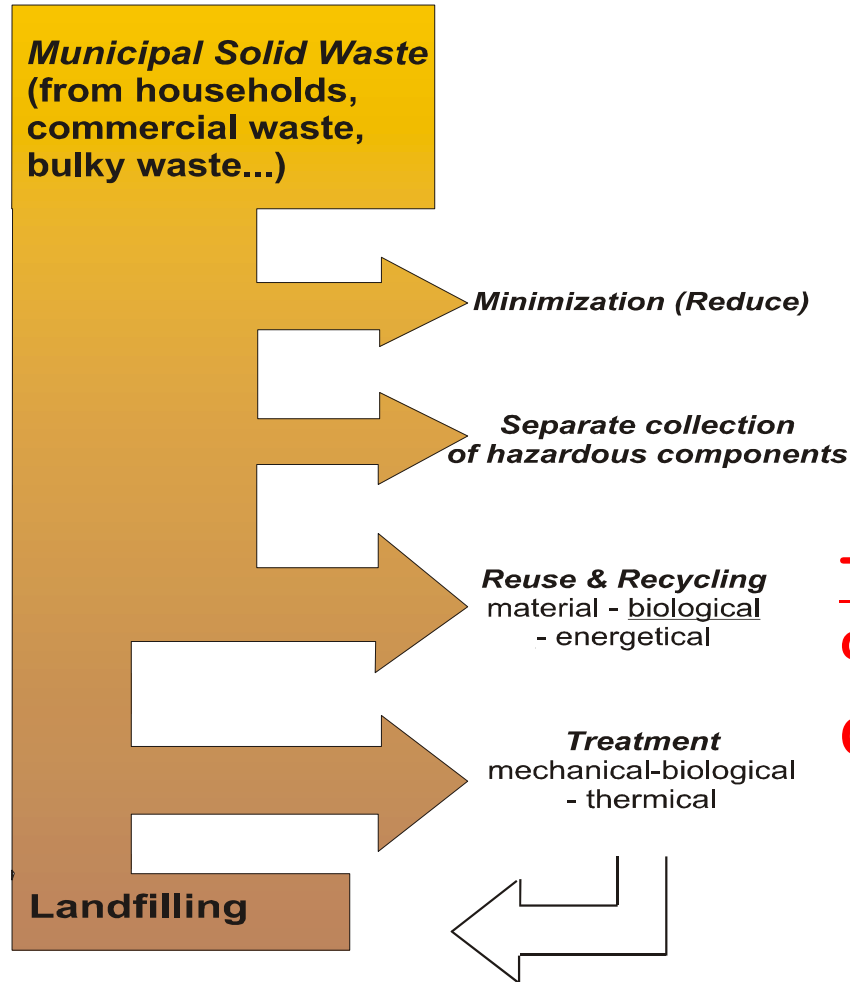
Targets given by EC Directive N° 1999/31 („EU Landfill Directive“)



Principles of Modern Waste Management

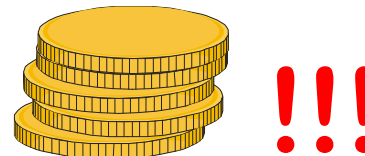
in any European country

Avoidance - Recycling - Treatment



Two reasons for separate collection & treatment:

QUALITY aspects !



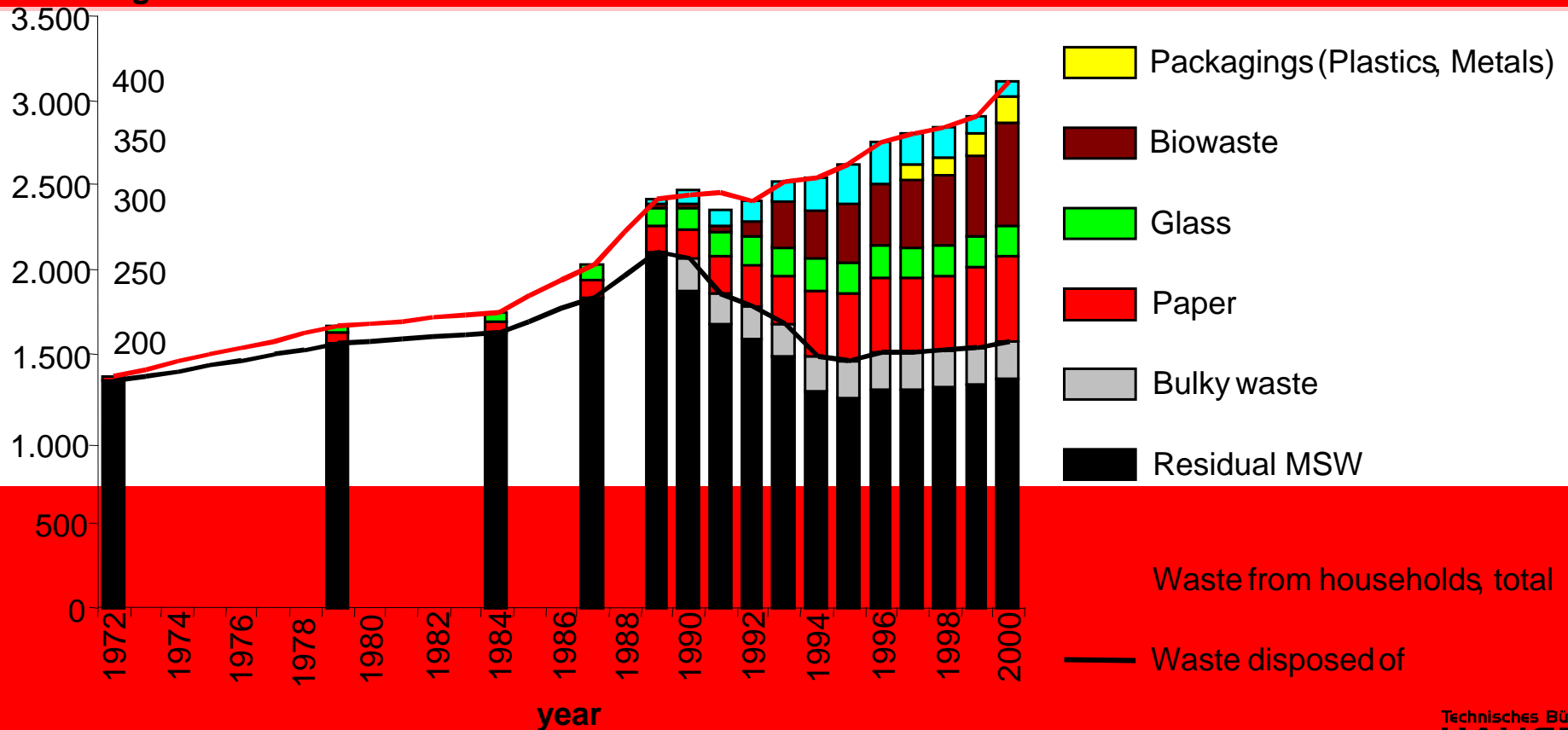
Case study Austria

Fees
in Austrian waste management
represented an important tool
ever since.

Fees
are commonly applied
to finance the efforts politically perceived as desirable.

1.000 t/a

kg/inh.a



How to finance the system?

Principles embodied in most Central European countries:

1. The User Pays

2. The responsibility for *municipal* waste issues – collection, disposal – is generally with the Municipality.

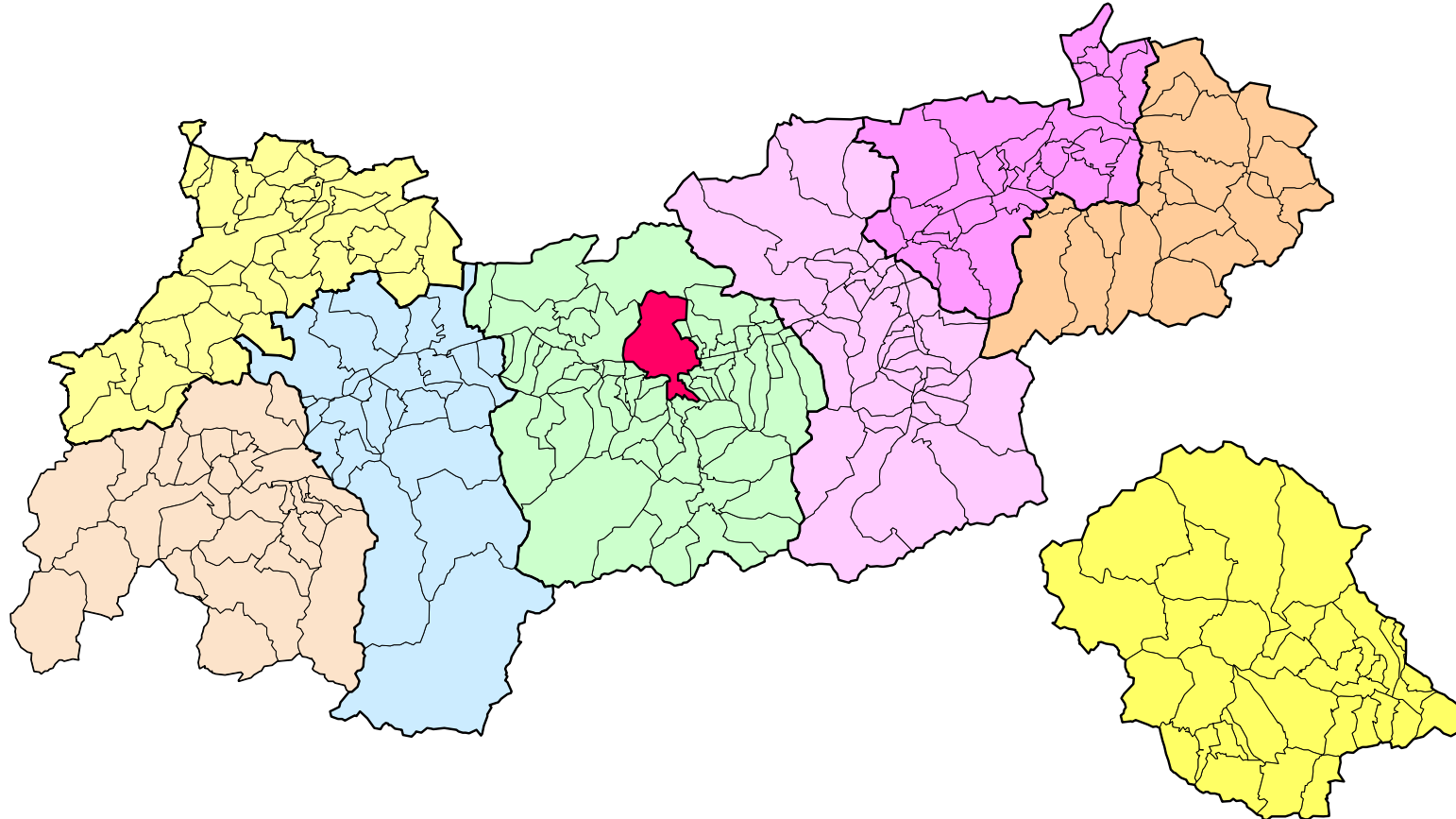
3. It is up to the Municipality






- to provide the relevant services on its own, or
- to contract it out.

4. The user of the service (household, commercial premise, ...) owes the cost for the service (as a fee) to the Municipality.

Example Tyrol:

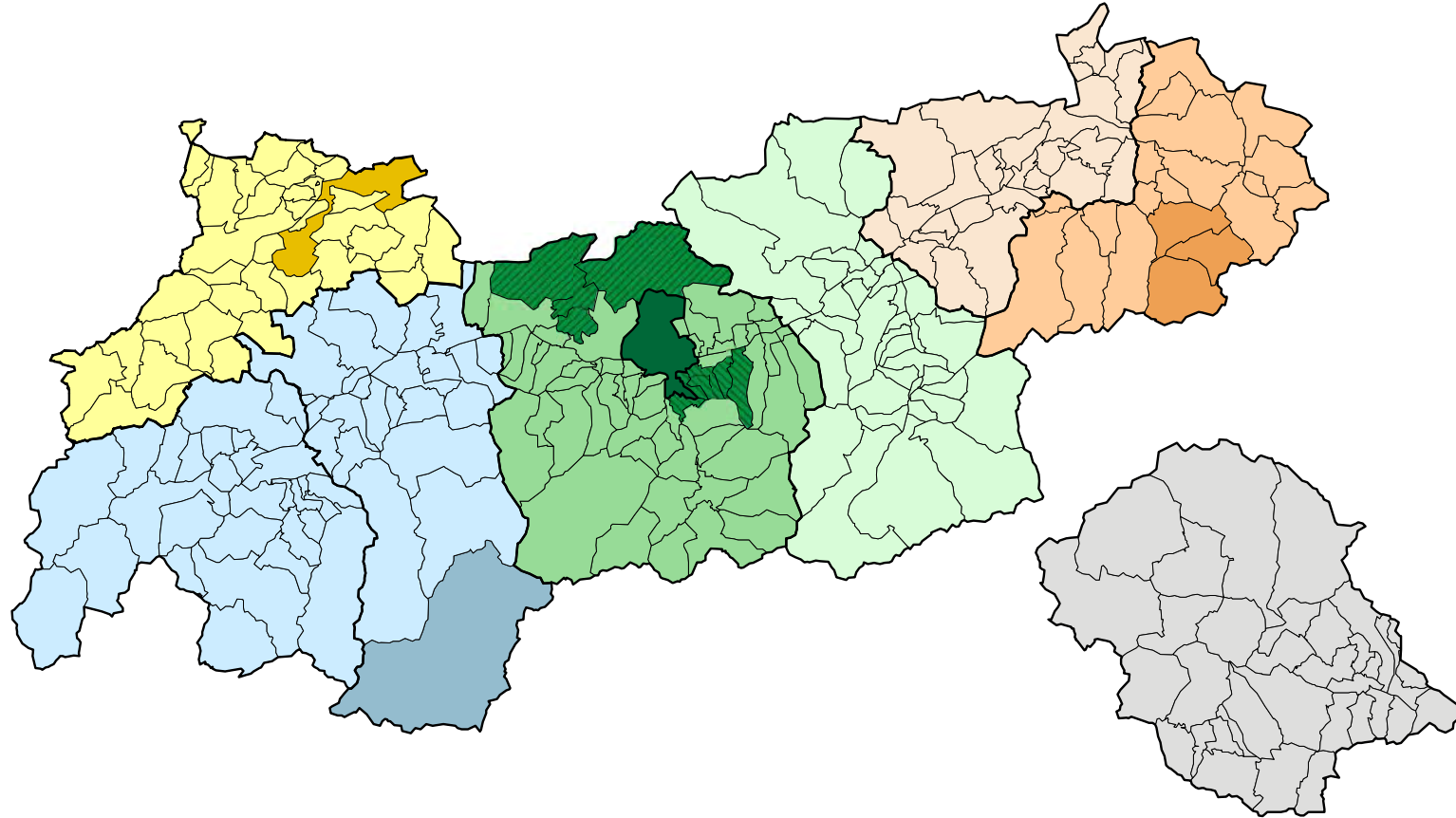
700.000 population, 9 political districts...



-  Innsbruck-Stadt
-  Bezirk Imst
-  Bezirk Innsbruck-Land
-  Bezirk Kitzbühel
-  Bezirk Kufstein

-  Bezirk Landeck
-  Bezirk Lienz
-  Bezirk Reutte
-  Bezirk Schwaz

...14 waste management districts



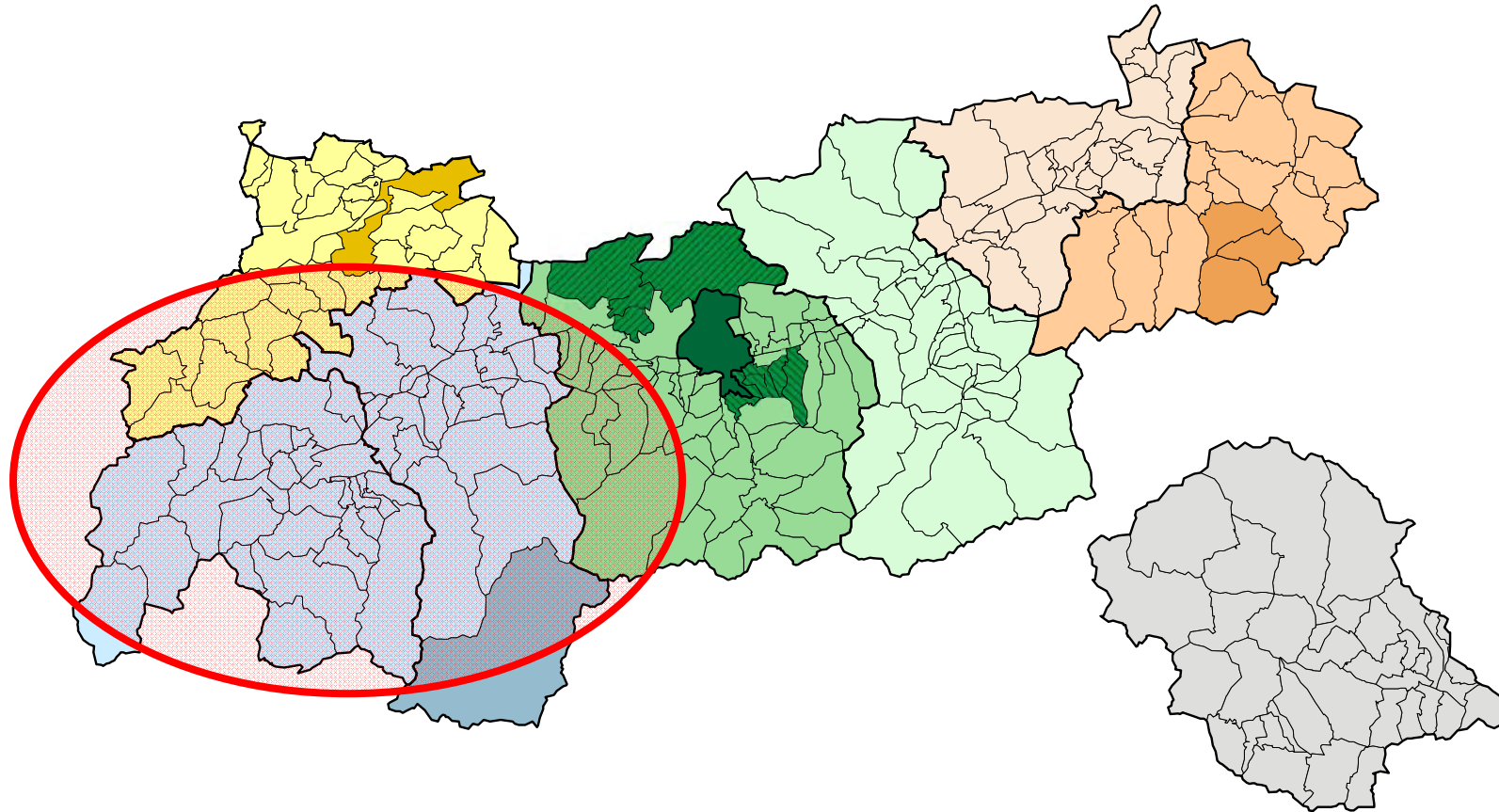
- AWW Reutte
- Gemeinde Reutte
- ABV Westtirol
- Gemeinde Sölden

- Stadt Innsbruck
- AWW Innsbruck-Land
- ABV der Region 10
- ABV SÖ Mittelgebirge
- AWW Unterland

- AEV Kufstein
- AWW Kitzbühel
- AAV Großsache Süd
- ABV Osttirol

Case study:

Waste Management Council Western Tyrol



- AWW Reutte
- Gemeinde Reutte
- ABV Westtirol
- Gemeinde Sölden

- Stadt Innsbruck
- AWW Innsbruck-Land
- ABV der Region 10
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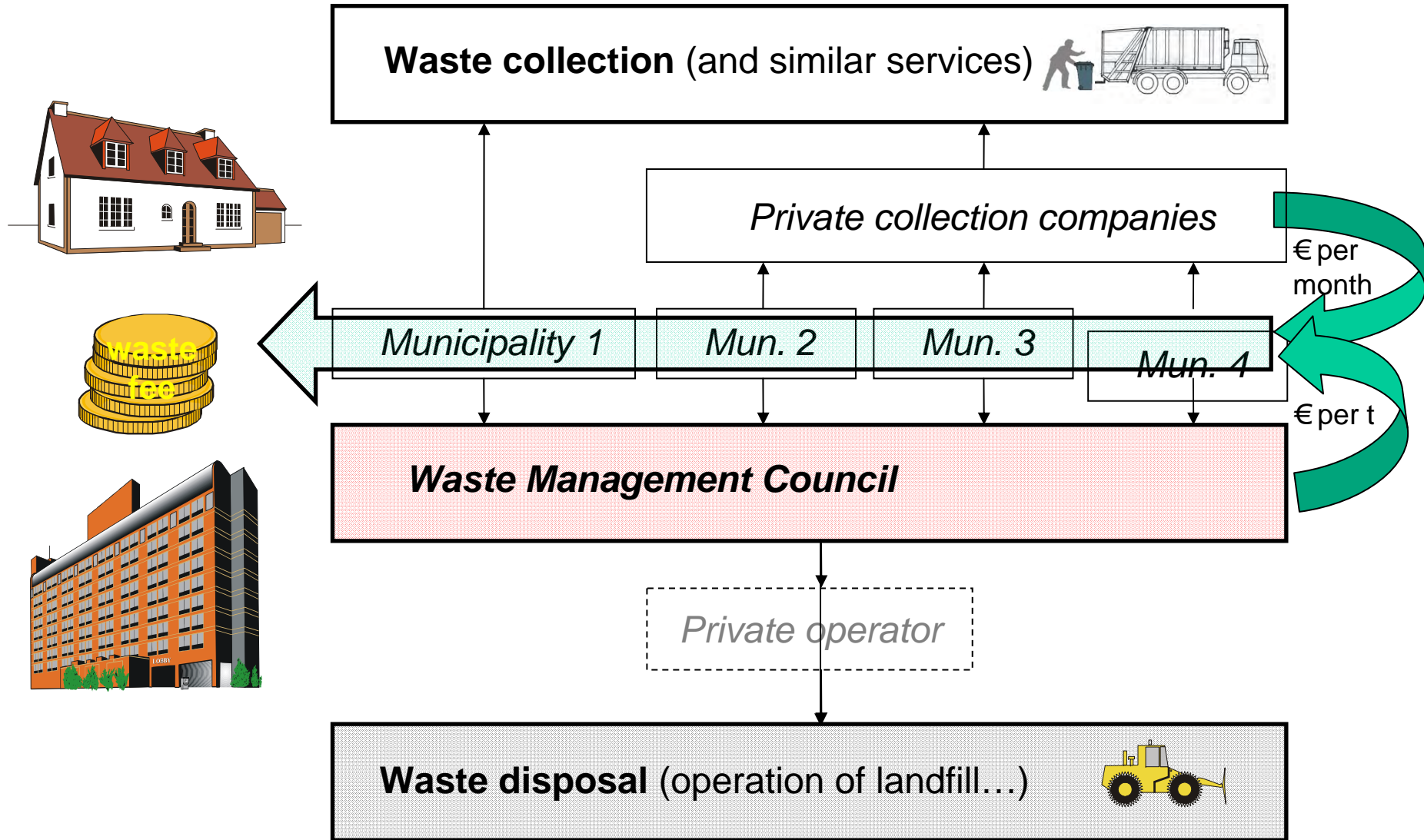
- AEV Kufstein
- AWW Kitzbühel
- AAV Großsache Süd
- ABV Osttirol

Case study:

Waste Management Council Western Tyrol

- 70.000 inhabitants
- 54 municipalities (2 district capitals @ ca. 10.000 inhabitants)
- District capitals run waste collection service by own means
- All other municipalities have contracted waste collection services out; 5-year contracts + yearly extension are typical
- 4 private waste collection companies are active in the area
- The municipalities are organized in a Waste Management Council, founded in 1984
- The Council owns and – until 2009 – operated a central landfill.

How does the whole thing work there ?



Workshop Program / topics to be dealt with

- General introduction
- Overview on common types of waste fees
- *Should fees “reward” proper disposal behaviour?*
- *Performance of ‘technically advanced’ systems* (with measurement of single emptyings, volume, or weight)
- Single *tariff* components ↔ real *cost* structure
- *Tariff ‘administrability’*, and related cost
- Introduction & collection of tariffs in areas with social / economical difficulties: *“Collectability”* ↔ *“affordability”*.
- *Which activities have to be financed* with the fee?
- *Interdependencies*: Available data ↔ infrastructure ↔ fee

Waste management charging: Principles and practice

1. The User Pays

2. KISS – Keep It Simple Stupid

- It reduces administration efforts
- It reduces regulatory requirements
- Transparency counts in the long turn.

3. Tariff should incorporate / represent an incentive to support the system's policy (in Europe the „3 R's“)

4. Tariffs are due on a regular (monthly to yearly) basis

5. No differentiation between collection and disposal cost.

Who should collect the Fee?

As a general rule the Municipality.

- Why not the private sector (private companies) ?
 - For people it is much more easy to dispose of illegally than getting goods illegally (water, electricity, telephone)
 - Securing, that each facility has a waste management contract, is difficult
 - Securing, that each facility gets an affordable contract, is difficult
 - Public sector loses the influence in the manner how waste management will be done

Who should collect the Fee? II

The public sector (municipality, or entity on regional level).

Reasons:

- Fewer default of payment
- Financing of public unpayed sidework can be secured
- Securing waste collection from each facility
- Securing the same price for everybody, even for remote waste generators
- Securing a *uniform waste management system* in the area

Tariff types for Municipal Waste Management

0. **No tariff** – necessary efforts are paid out of a not waste related source
1. **Tariffs per household**
2. **Tariffs per household, considering also number of persons**
3. **Tariffs depending on floorspace**
4. **Tariffs depending on volume**
5. **Tariffs depending on weight**
6. **Tariffs depending on value of property**
7. **Tariffs depending on distance to disposal**
8. **...and combinations thereof (usually 1/2/3 combined with 4/5):**

Tariff types



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DIVIZIJA ZA SNABDEVANJE

Prishtinë

DPR-90028043
Ylber Feriz Fetaj
Dardani Su 7/1 A 25, Prishtinë

Fatura - Bill - Račun

6/2007/R 5005546 11.07.2007

Afati i pagesës / Due date / Rok plaçanja
26.07.2007

...give no incentive

	Gjendja e tanišme Current reading Sadašnje stanje	Gjendja paraprake Previous reading Prethodno stanje	Diferenca Difference Razlika	Konstanta e nj. Meter constant Konstanta brojila	Handshiri Consumption Petrošnja	Çmimi Price (Eurocent) Cena	Vlera Amount Iznosi (€)	Detajlet tjere / Other details / Ostali detalji
A1 M	11,315	11,229	86	1	86			Muaji / Month / Mesec 6 / 2007
A2 M	12,455	12,366	89	1	89			Sezoni / Season / Sezona 2 Verë/Summer/Leto
A1B1	A1: 49.14 %				86	3.17	2.73	Njehsorët / Meters / Brojila Akt 32781327/5
A2B1	A2: 50.86 %				89	1.58	1.41	Reak
A1B2					0	4.28	0.00	Mixg
A2B2					0	2.14	0.00	Grupi tarifor / Tariff group / Tarifna grupa 4/02 5
A1B3					0	6.21	0.00	Kategoria/Category 926208/27
A2B3					0	3.11	0.00	9262/1005
Pa matje / Unmetered / Nemereni								
Tarifa fikse / Standing Charge / Fiksna naknada							2.00	Detajet shikoni prapa For details see overleaf Upustva na poledjini
Neto / Nett / Neto							6.14	50.50
TVSH / VAT / PDV							0.92	
Taksa për emituesin publik / Public broadcasting fee / Taksa za javno emitovanje							3.50	
Totali i Faturës / Bill Amount / Ukupno Račun							10.56	

Gjithsejt borgji-Ukupn dug-Total Due:

50.50

2. Tariffs per hour considering also

and

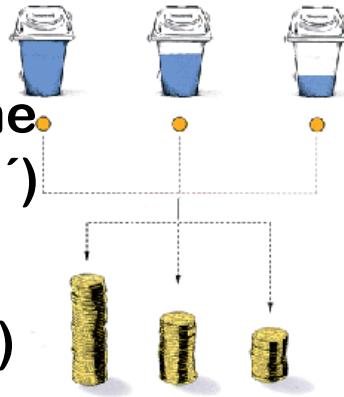
3. Tariffs depending

are usually both difficult being administered (quality of data !)

Tariff types for Municipal Waste Management IV

4. Tariffs depending on volume

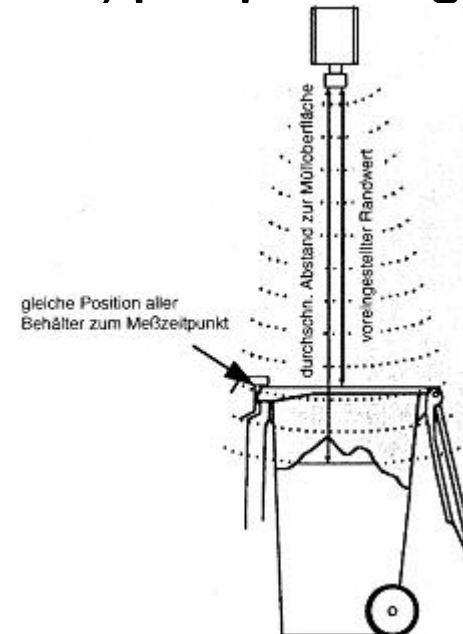
a) Measuring the produced waste volume ('real volume metering')



b) Counting the emptying of bins ('identification')



c) pre-paid bags (CH, A)



Tariff types for Municipal Waste Management V

5. Tariffs depending on weight



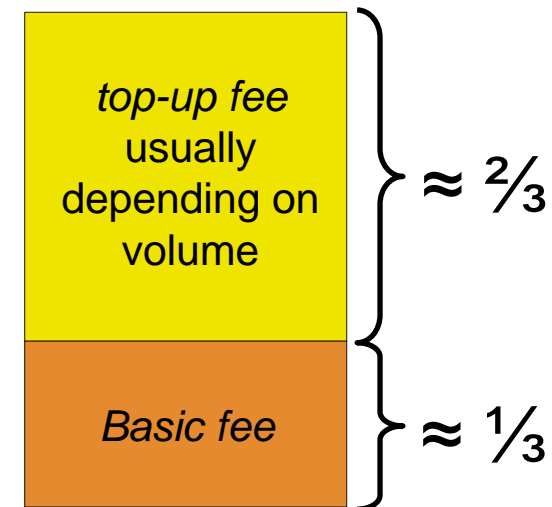
...sophisticated systems
with a few practical problems...



however, where the weight
of a single waste load can be taken easily
(commercial !), weight should be taken as tariff basis !

Tariff types for Municipal Waste Management VI

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3. Tariffs depending on floorspace
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6. Tariffs depending on value of property
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8. ...and combinations thereof (usually 1/2/3 combined with 4/5):



Tariff types 4 + 5 fulfil the request of providing an incentive to support the system's policy (i.e. to use recycling opportunities...) but: A split-up of the fee in "basic (fixed)" & „top-up (variable) fee" is recommended.

Municipal waste fee – „simple“ tariff types

koledar ravnanja z odpadki

ABFALLKALENDER 2007

GEMEINDE KILCHBERG

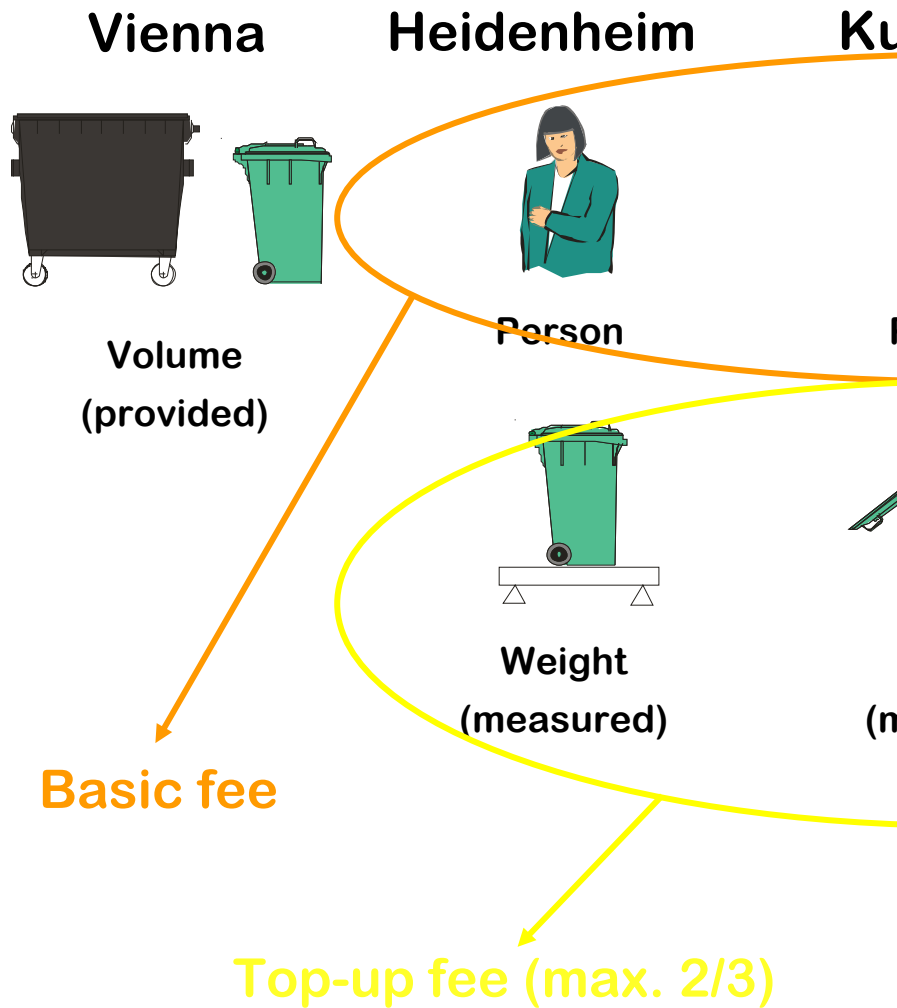
Gebührenansätze (inkl. MwSt.)

Grundgebühr	osnovna uporabnina	pro Jahr	SFr.	100.00	1 Sfr = 0,6 €
Privathaushalt		pro Jahr	SFr.	100.00	
Betrieb					
Kehricht	vreče za odpadke	{ 10er-Rolle 10er-Rolle 10er-Rolle 5er-Rolle	SFr.	14.50	volumske tarife
17 Liter-Sack			SFr.	23.00	
35 Liter-Sack			SFr.	36.00	
60 Liter-Sack			SFr.	31.00	
110 Liter-Sack					
Betriebskehricht					
Sperrgutmarke	označevalne nalepke za kosovne odpadke	1 Stk.	SFr.	3.60	
Sperrgutmarke					

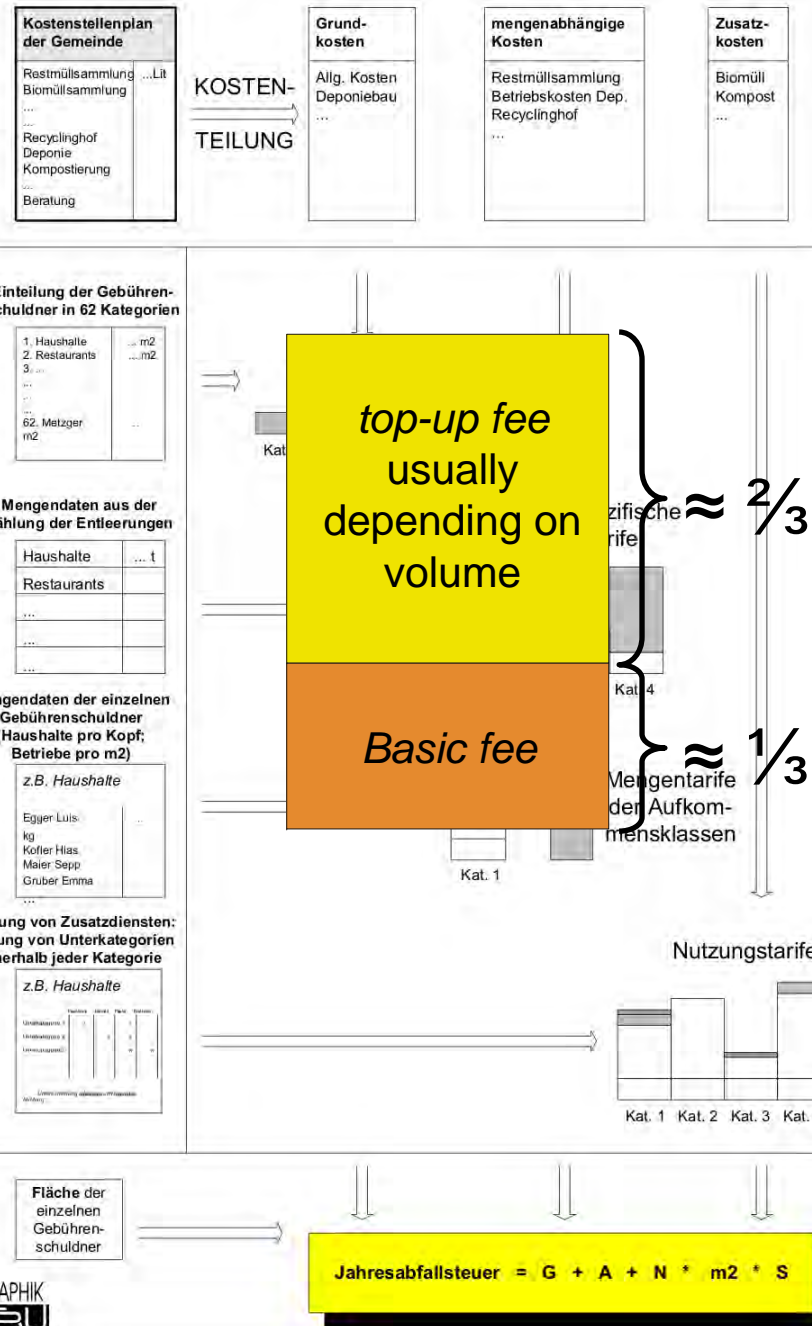
nach Gewicht



Tariff types for Munic

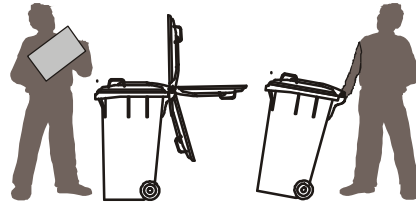


Abfallgebührenmodell "MAC GANS"

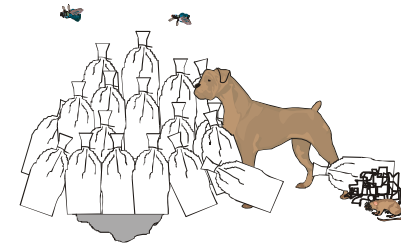
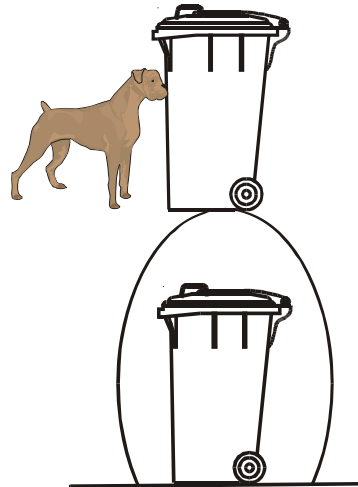


Bins against Bags: Usually perceived advantages

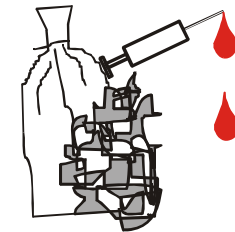
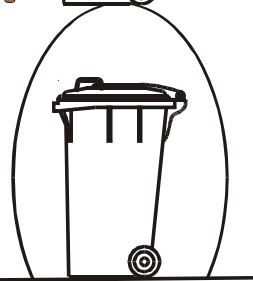
➤ **Comfort** for both users and collecting workers



➤ **Hygiene!**



➤ **Safety!**

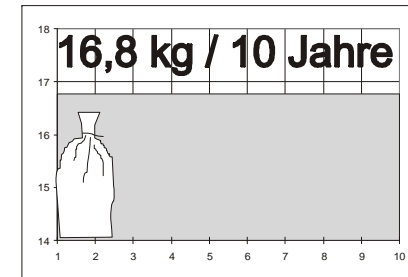
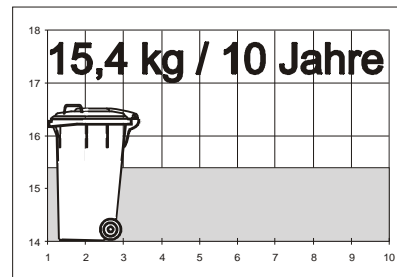


➤ **Cost**

16 € (120 l MB)

22 € (260 bags)

➤ **Ecological aspects** (usage of material)



What has to be financed? (with a waste fee, or even without...)

- *Waste containers*
- Possibly *street cleaning*
- *Emptying of containers & transport* to treatment sites
 - Trucks
 - Staff
- *Treatment* of residual solid waste
 - Investments
 - Operative expenditures
- Separate collection of *recyclables*
- *Information* (of residents and companies)
- *Administration and Overheads*

General requirements on a waste fee

- Financing the entire waste management system
- Avoiding the avoiding of paying the fee
- Directing waste producers into the preferred direction

Principles

- **Each facility has to be connected to public waste collection**
 - Residential objects
 - Companies
 - Exceptions (to be documented transparently) for „self disposers“ (remote objects)
- **Each facility has to pay the waste management fee**
- **Large companies may have additional collection services for specific wastes**

Advantages and disadvantages of different fee types

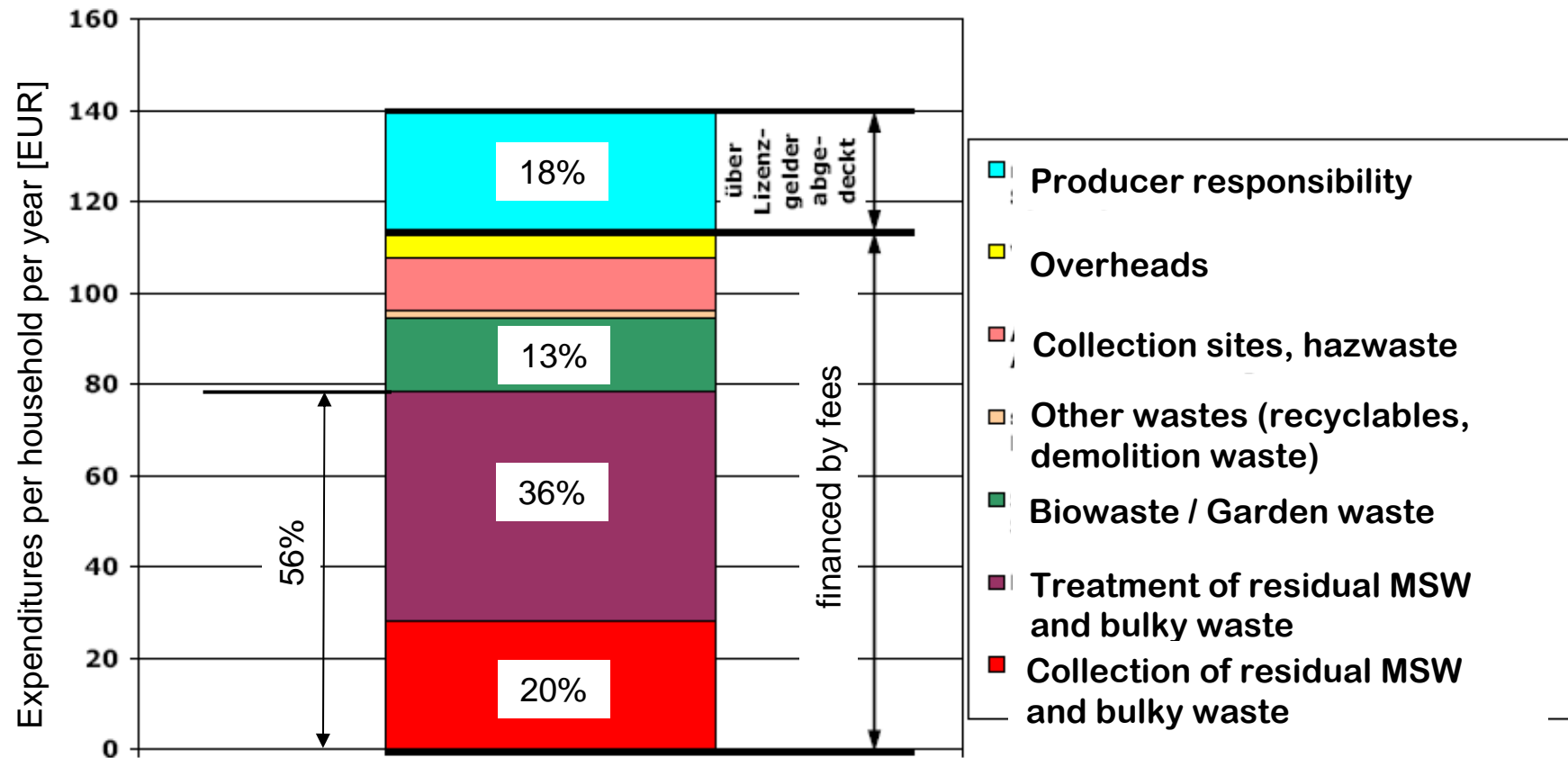
➤ Fees concerning waste quantity

- + fair system – the more waste generated, the more to pay.
„Polluter Pays Principle“
- People can try to avoid paying by illegal dumping
- Size of container and frequency of emptying have to be known
- Each house has to have its own container to be used only by residents of this house

➤ „Flat rate“ fees

- + No incentive for illegal dumping, but synchronous no incentive for reducing waste quantity i.e. by separate collection
- + Easy to administrate if the fee is part of another tax on buildings
- + Easy to administrate if the fee is linked to known data like area of the house, number of floors, number of inhabitants...
- Difficult to administrate if no data is available, or numbers are changing often (number of residents)
- Polluter pays principle not realised

Solid Waste Management: Cost Factors

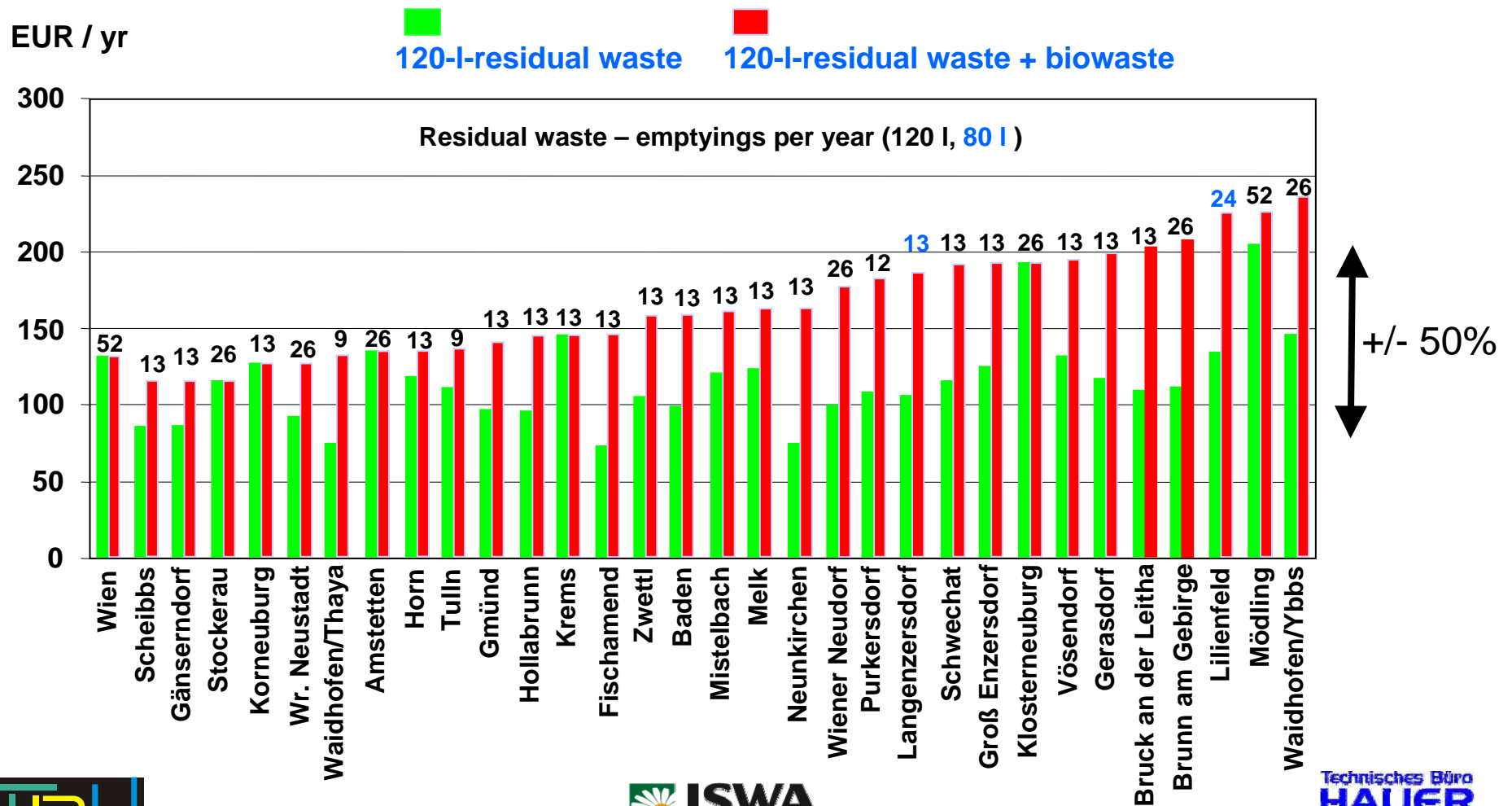


General requirements on Waste Fees



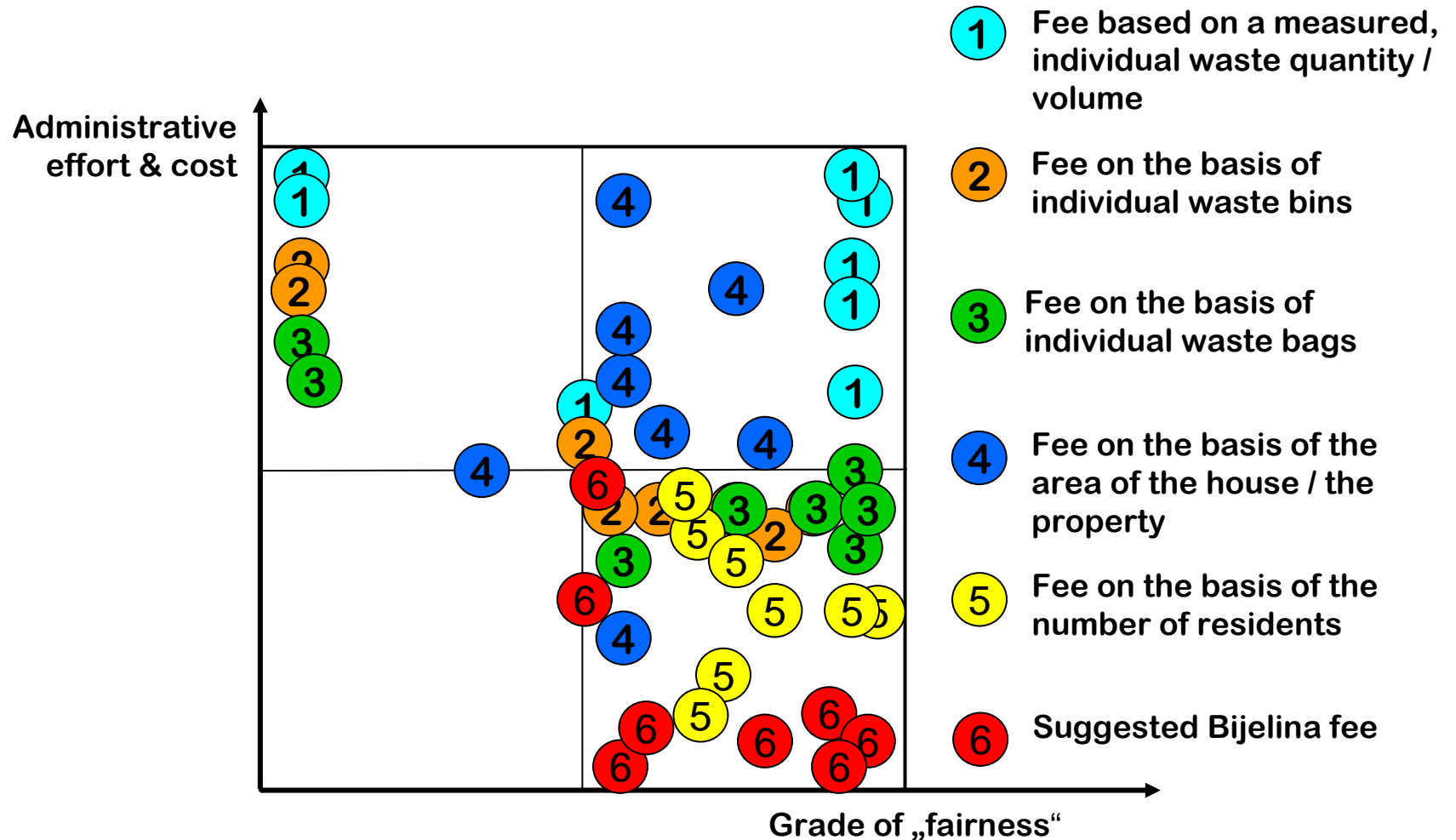
Examples for waste tariffs in Austria

Tariff for a one family house



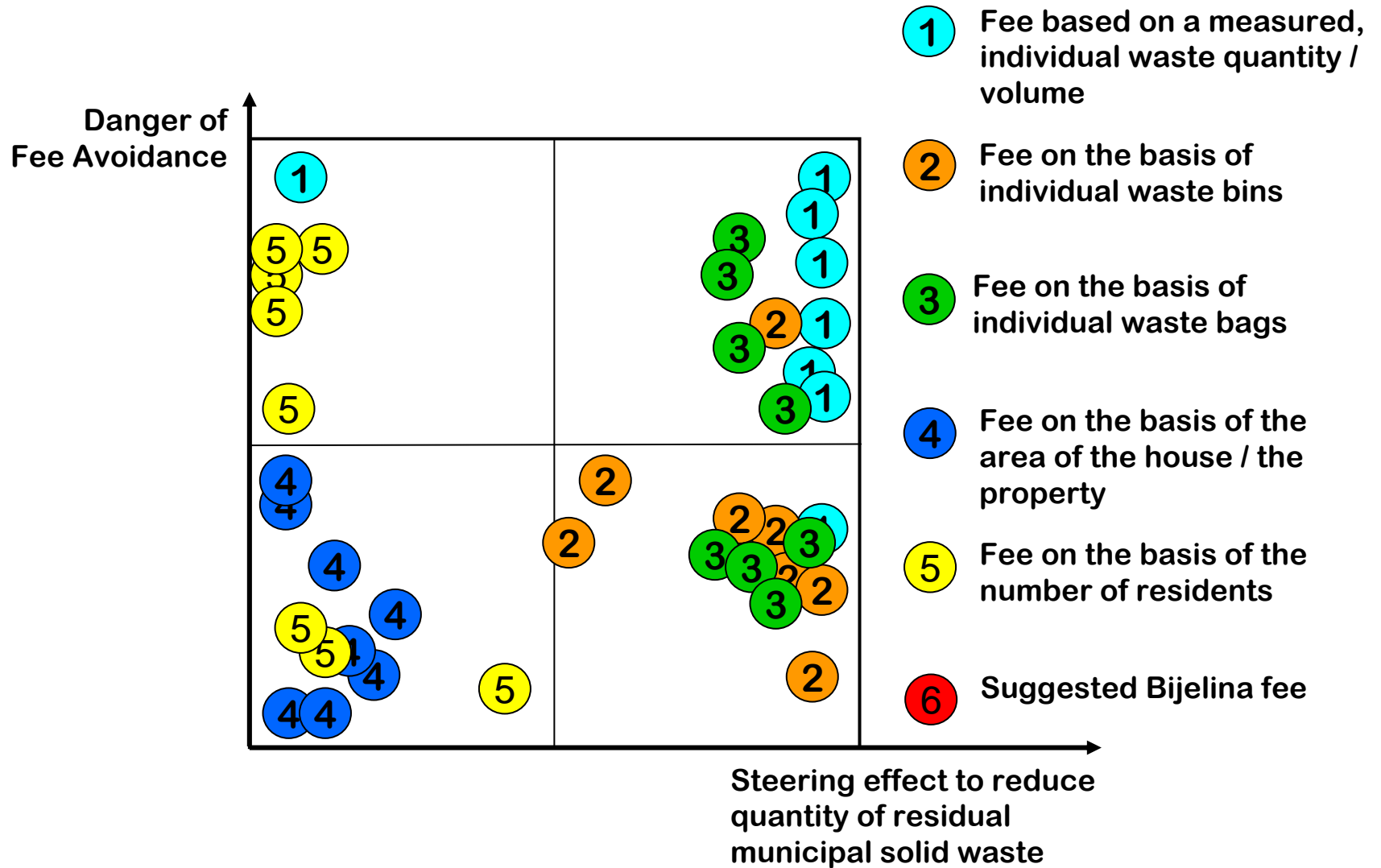
Portfolio for different Fee-Models

Grade of Fairness and Administrative Effort



Portfolio for different Fee-Models

Danger of Avoidance and Steering Effect





***KAIP NUSTATYTI TINKAMĄ ĮMOKĄ UŽ
KOMUNALINIŲ ATLIEKŲ TVARKYMĄ RYTŲ IR
PIETRYČIŲ EUROPOJE***

– VILNIUS –

2011 m. spalio 20 d.



Environmental Engineering
CONSULTANTS

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Martin Steiner **TBU**

Walter Hauer **Technisches Büro
HAUER
Umweltwirtschaft GmbH**

ir jų inžinieriai konsultantai vienu žvilgsniu:

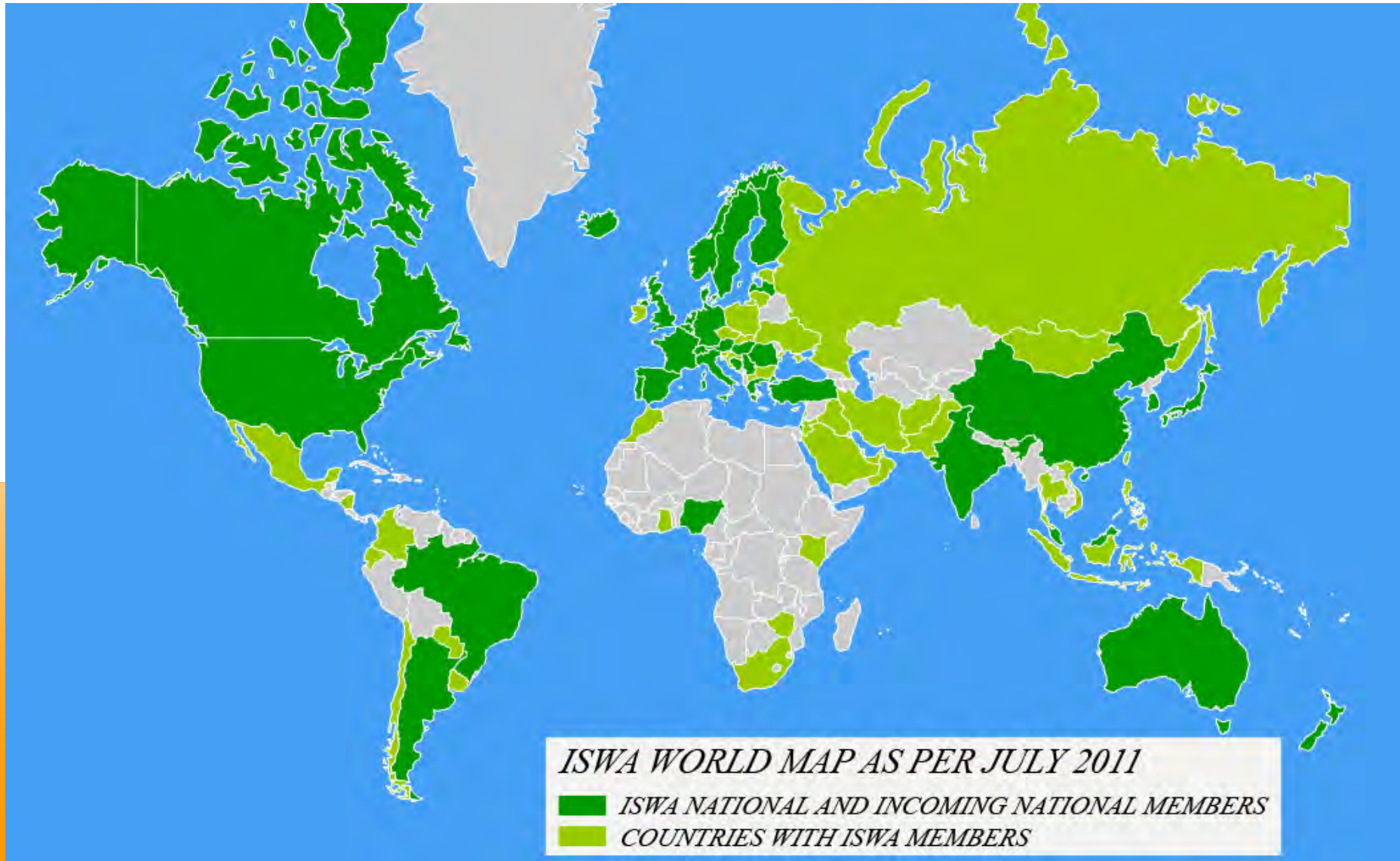


ISWA Main Sponsors:



ISWA
International Solid Waste Association

ISWA Members all over the world



ISWA Mission

- ISWA is the leading International Association representing all aspects and partners within the waste industry. It collaborates with National and International Organizations in research, studies and proposals to fulfil its declared mission:

“To Promote Sustainable Waste Management Worldwide “

- With more than 1,000 Members in more than 70 Countries ISWA has a unique worldwide network in waste management matters.

Why is this workshop done, what should be achieved in the entire project?

The overall scope of this project is:

- to provide basic knowledge as well as practical, first-hand experiences in respect to the design & steering element “waste fee”
- to better understand practice and constraints of municipal fee management in post socialist countries, and
- to prepare a ISWA-guideline “How to design a proper waste fee?” based on the workshop results.

Du klausimai kiekvienam dalyviui:

1. *Bendras klausimas:*

Kokia Jūsų nuomone pagrindinė tinkamo atliekų tvarkymo priežastis?

- prašome pateikti tris atsakymus (ant balto popieriaus lapo)
- pirma nurodykite pagrindinę priežastį

2. *Klausimas šio seminaro tema:*

Ko Jūs tikėtės iš „tinkamos“ įmokos už atliekas, kaip ši įmoka turėtų atrodyti?

- prašome pateikti ir specifinius klausimus šiam seminarui/diskusijai
- prašome užrašyti ant geltono lapo
- savo pavardės nurodyti nereikia (kaip ir pirmo klausimo atveju)

Workshop Program / topics to be dealt with

- General introduction
- Overview on common types of waste fees
- *Should fees “reward” proper disposal behaviour?*
- *Performance of ‘technically advanced’ systems* (with measurement of single emptyings, volume, or weight)
- Single *tariff* components \Leftrightarrow real cost structure
- *Tariff ‘administrability’*, and related cost
- Introduction & collection of tariffs in areas with social / economical difficulties: *“Collectability”* \Leftrightarrow *“affordability”*.
- *Which activities have to be financed* with the fee?
- *Interdependencies*: Available data \Leftrightarrow infrastructure \Leftrightarrow fee

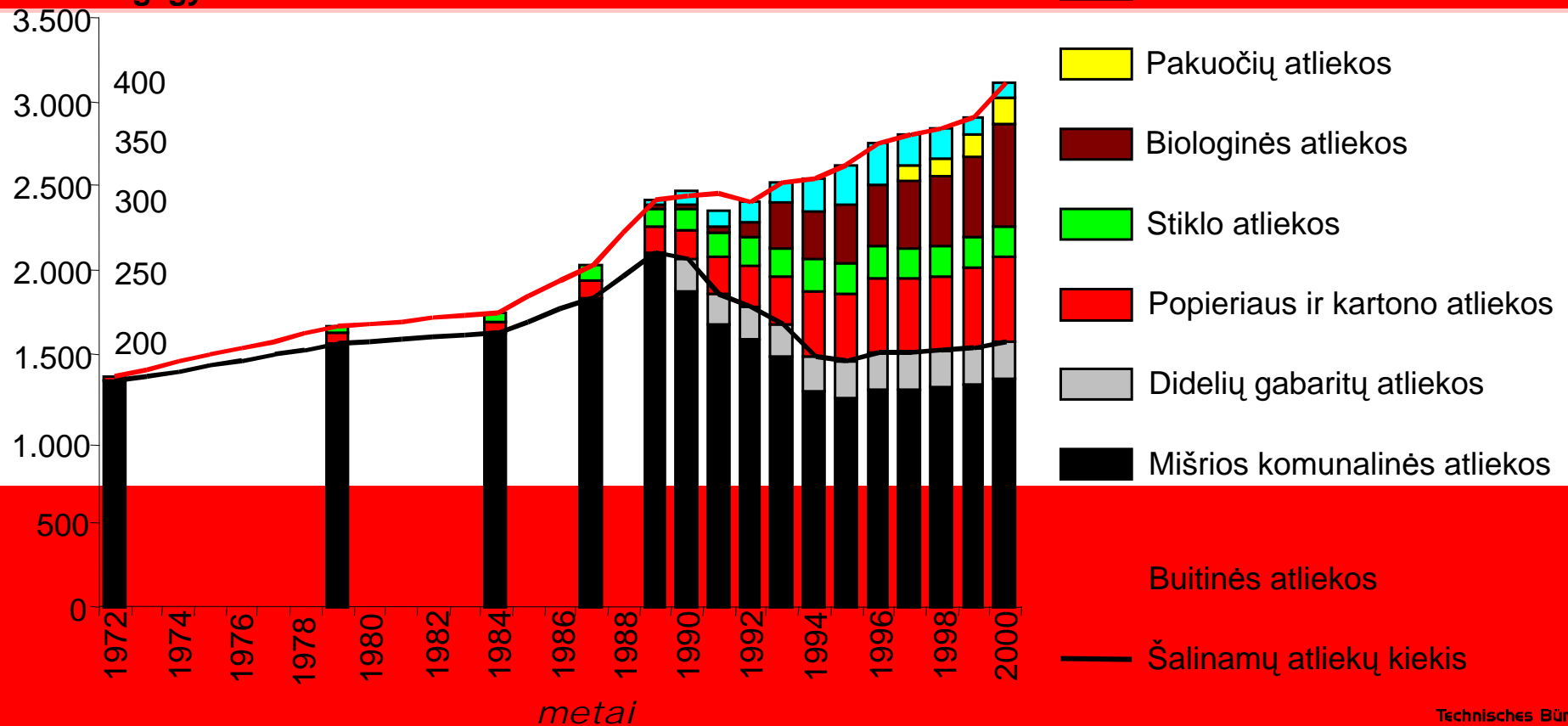
Apmokestinimas Austrijos atliekų tvarkymo sistemoje yra svarbi priemonė.

Austrijos pavyzdys

Įmokos plačiai taikomos finansuoti pastangas aplinkosaugos tikslams pasiekti.

1.000 t/metus

kg/gyv._metus





Collection systems must be attractive ...

and offer a certain user-friendliness

Kaip finansuoti komunalinių atliekų tvarkymo sistemą?

Pagrindiniai principai daugumoje Centrinės Europos šalių:

1. Teršėjas moka

2. Už komunalinių atliekų tvarkymo veiklas – surinkimą, šalinimą – paprastai atsako savivaldybės.

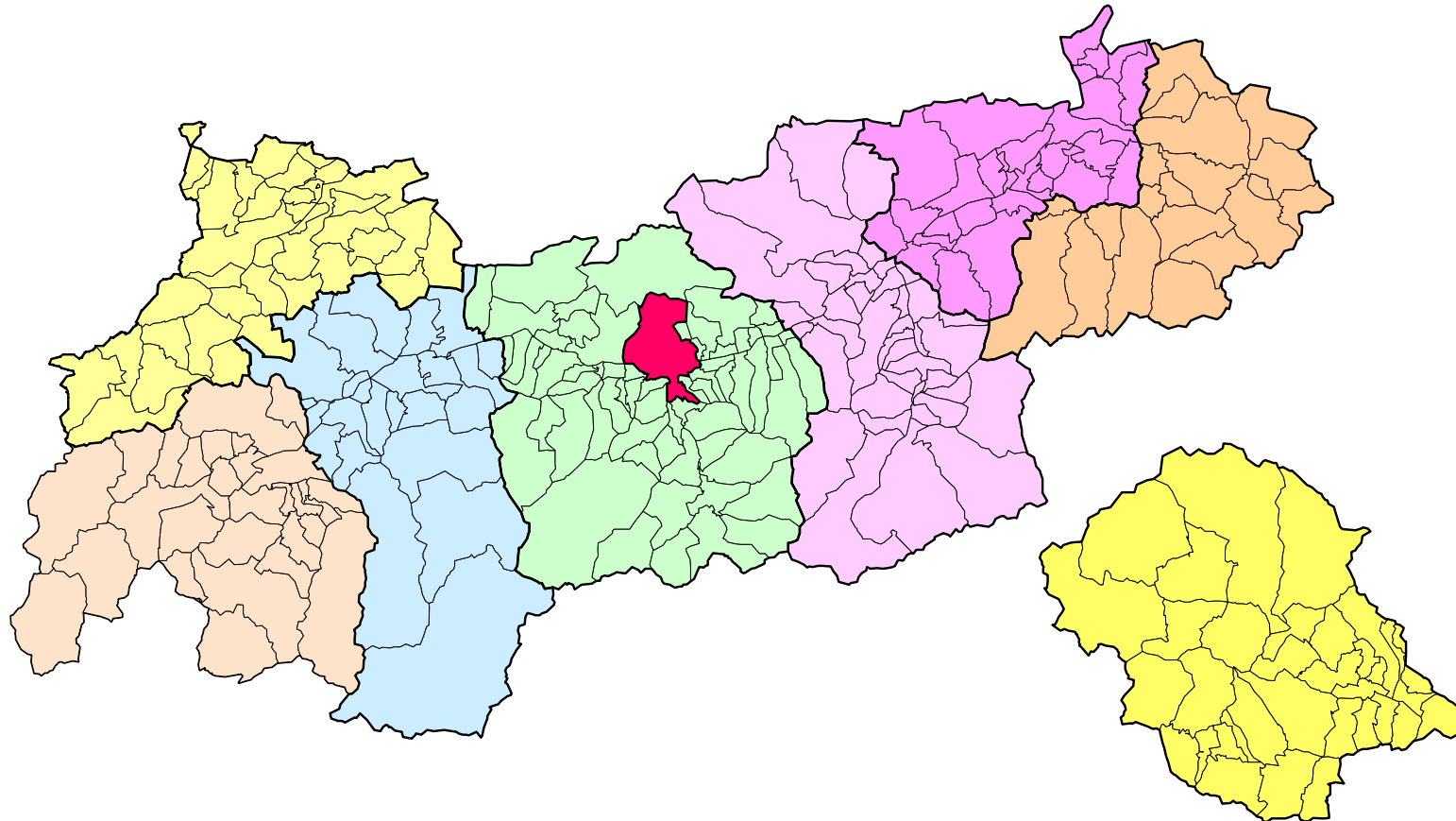
3. Savivaldybė sprendžia






- Ar pačiai teikti atliekų tvarkymo paslaugas
- Ar šias paslaugas pirkti

4. Už paslaugas atliekų turėtojai (namų ūkiai, juridiniai asmenys...) moka savivaldybei.

Example Tyrol:

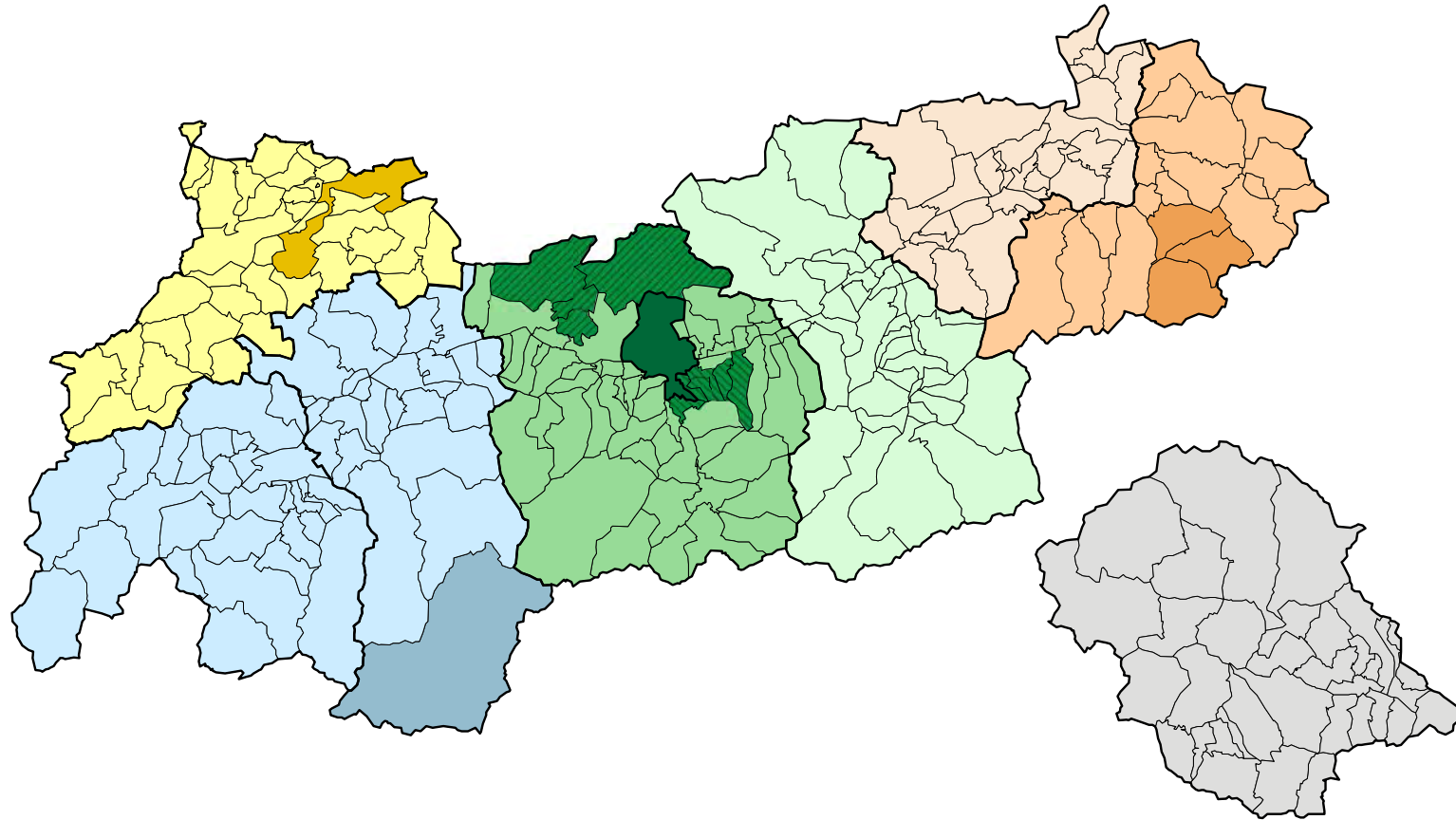
700.000 population, 9 political districts...



-  Innsbruck-Stadt
-  Bezirk Imst
-  Bezirk Innsbruck-Land
-  Bezirk Kitzbühel
-  Bezirk Kufstein

-  Bezirk Landeck
-  Bezirk Lienz
-  Bezirk Reutte
-  Bezirk Schwaz

...14 waste management districts



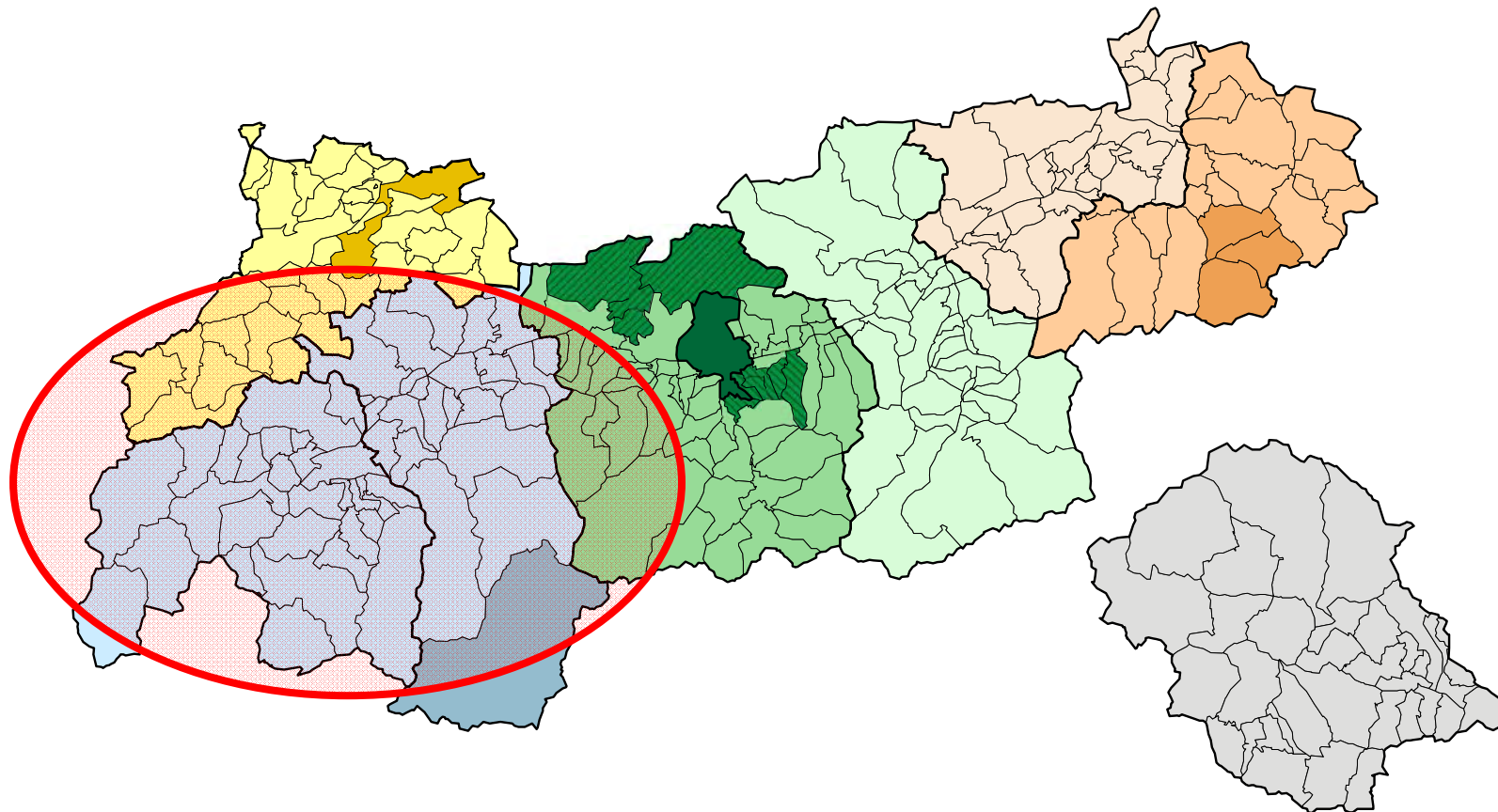
- AWW Reutte
- Gemeinde Reutte
- ABV Westtirol
- Gemeinde Sölden

- Stadt Innsbruck
- AWW Innsbruck-Land
- ABV der Region 10
- ABV SÖ Mittelgebirge
- AWW Unterland

- AEV Kufstein
- AWW Kitzbühel
- AAV Großsache Süd
- ABV Osttirol

Case study:

Waste Management Council Western Tyrol



- AWV Reutte
- Gemeinde Reutte
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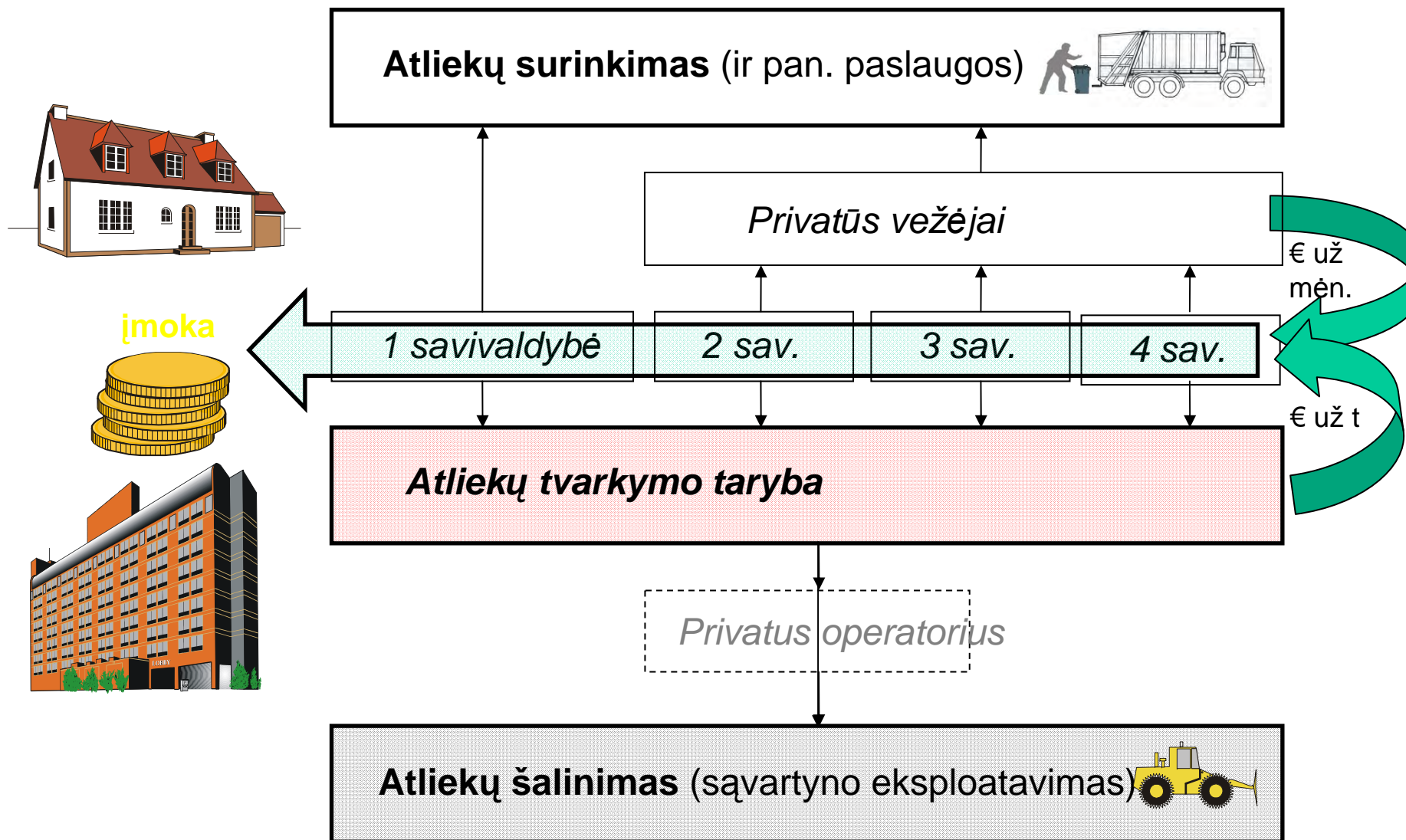
- AEV Kufstein
- AWV Kitzbühel
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Pavyzdys:

Rytų Tirolio atliekų tvarkymo taryba

- 70 000 gyventojų
- 54 savivaldybės (2 apskrities centrai po 10 000 gyventojų)
- Apskrities centrai teikia atliekų surinkimo paslaugas savo pajėgumais
- Visos kitos savivaldybės perka atliekų surinkimo paslaugas; 5 m. trukmės sutartis + įprastas pratęsimas metams
- 4 privačios atliekų surinkimo įmonės, veikiančios šiame regione
- Savivaldybės apsijungusios į Atliekų tvarkymo tarybą, įsteigtą 1984 m.
- Tarybai priklauso centrinis sąvartynas, kurį taryba eksploatuoja nuo 2009 m.

Kaip veikia ši sistema?



Tirol

Pertraukèlè?



Waste management charging: Principles and practice

1. The User Pays

2. Each facility has to be connected to public waste collection

3. **KISS** – **K**ep **I**t **S**imple **S**tupid

- It reduces administration efforts
- It reduces regulatory requirements
- Transparency counts in the long turn.

4. Tariff should incorporate / represent an incentive to support the system's policy (in Europe the „3 R's“)

5. Tariffs are due on a regular (monthly to yearly) basis

Waste management charging: Principles and practice II

Principles... continued:

6. No differentiation between collection and disposal cost.
7. Certain commercial and institutional waste generators may take back the responsibility for collection and disposal from the Municipality. They turn into "self-disposers".
8. The differentiation between

„household waste“ (which remains under the Municipality’s responsibility in any case) and

„commercial waste“ (which might be disposed of under the self-responsibility of the relevant generator, eg. a supermarket chain)

usually is done according to quality and/or amount.

Tariff types for Municipal Waste Management

0. **No tariff** – necessary efforts are paid out of a not waste related source
1. Tariffs per **household**
2. Tariffs per **household**, considering also **number of persons**
3. Tariffs depending on **floorspace**
4. Tariffs depending on **volume**
5. Tariffs depending on **weight**
6. Tariffs depending on **value of property**
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8. ...and combinations thereof (usually 1/2/3 combined with 4/5):

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Tariff types for Municipal Waste Management III

1. Tariffs per household...

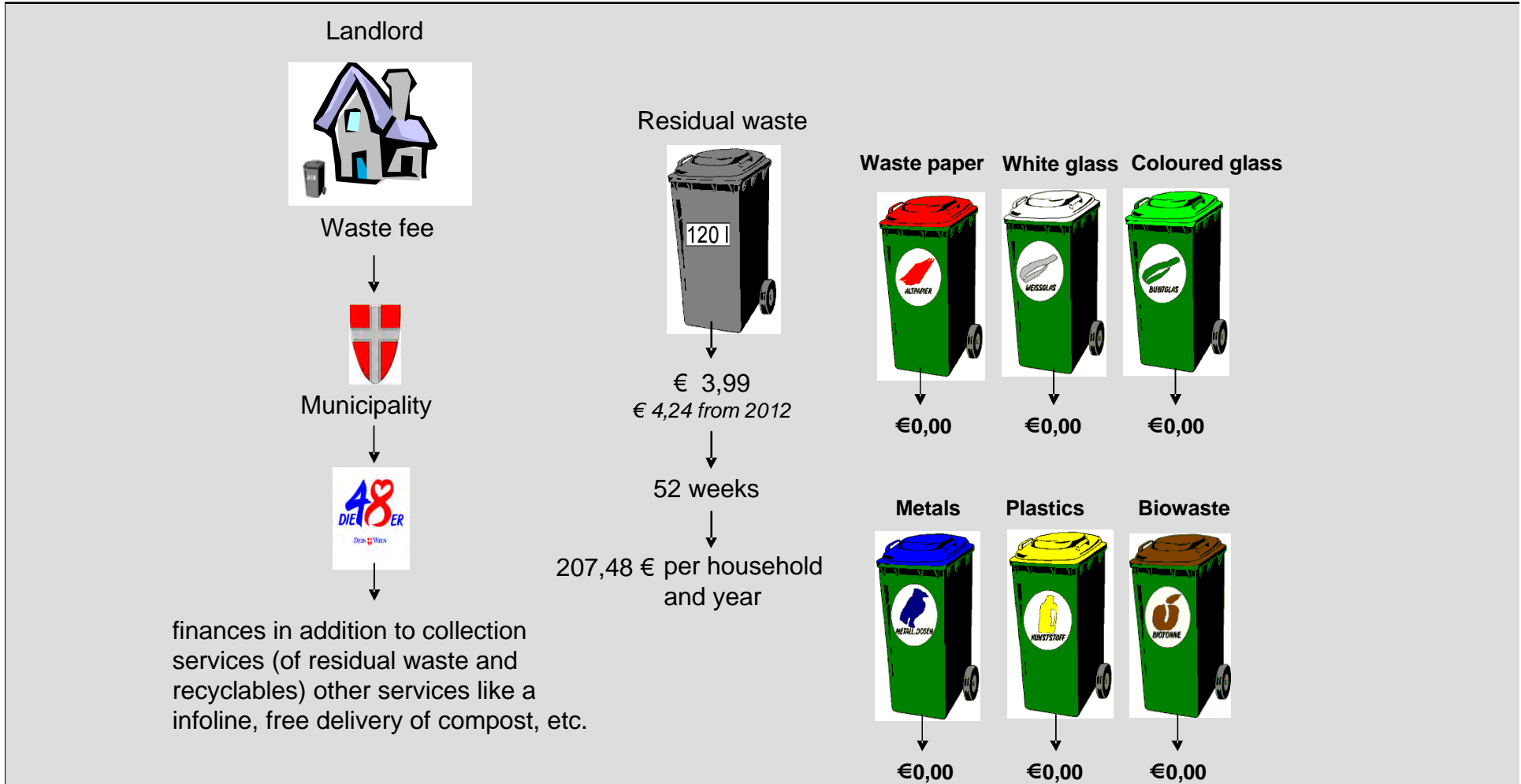
...give no incentive eg. to recycle

2. Tariffs per household, considering also number of persons, and

3. Tariffs depending on floorspace

are usually both difficult being administered (quality of data !)

Municipal waste fee – „simple“ tariff types



Municipal waste fee – „simple“ tariff types

koledar ravnanja z odpadki

ABFALLKALENDER 2007

GEMEINDE KILCHBERG

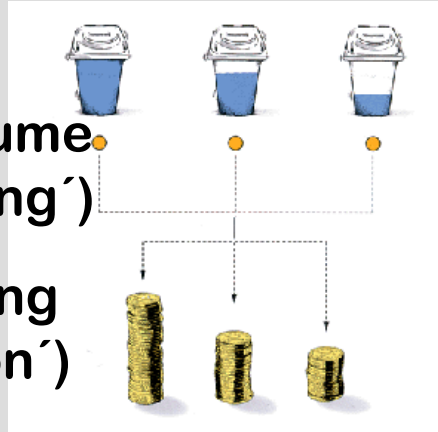
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Sperrgutmarke		1 Stk.	SFr.	3.60	

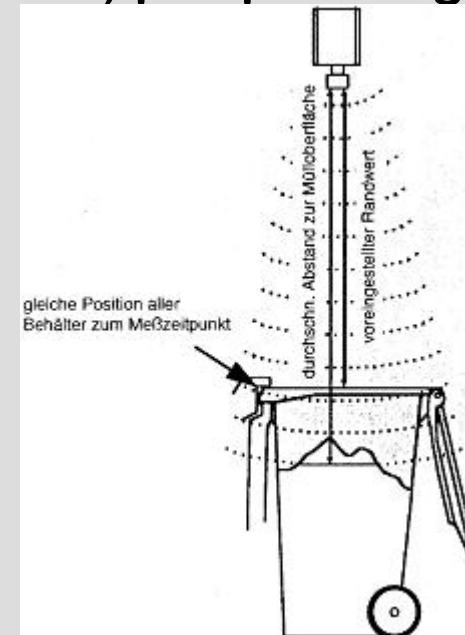
Tariff types for Municipal Waste Management IV

4. Tariffs depending on volume

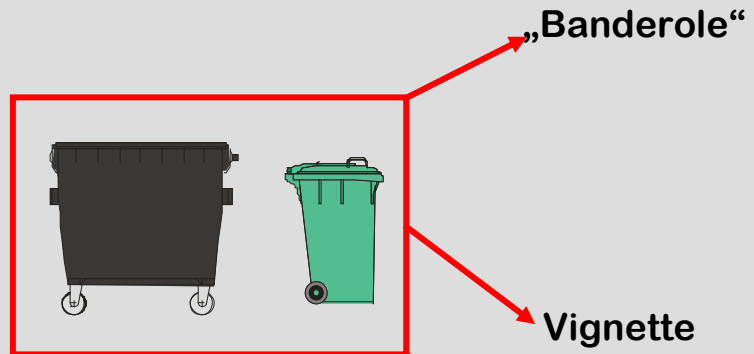
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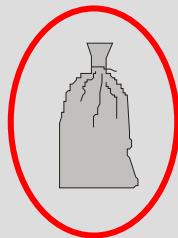
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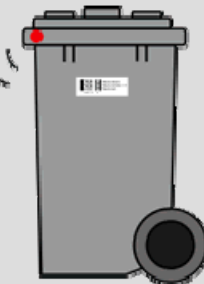
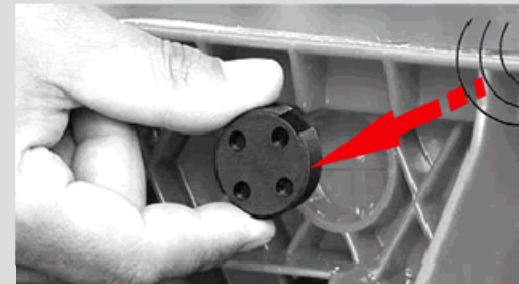
Tariff types for Municipal Waste Management IV



Volume (provided)

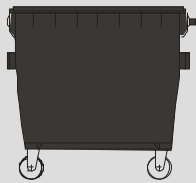


Transponder



Volume (Number of bags provided)

Tariff types for Municipal Waste Management IV



„Waste Fee
Distribution Devices“

for splitting up the fee
in large buildings with
many flats
to single households



Tariff types for Municipal Waste Management V

4. Tariffs depending on volume

Tariff types for Municipal Waste Management V

5. Tariffs depending on weight



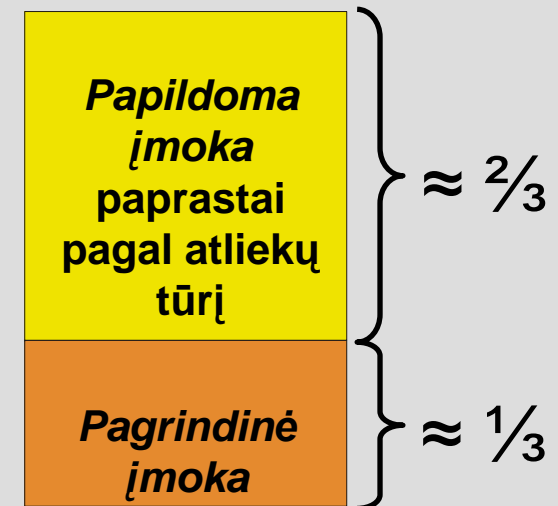
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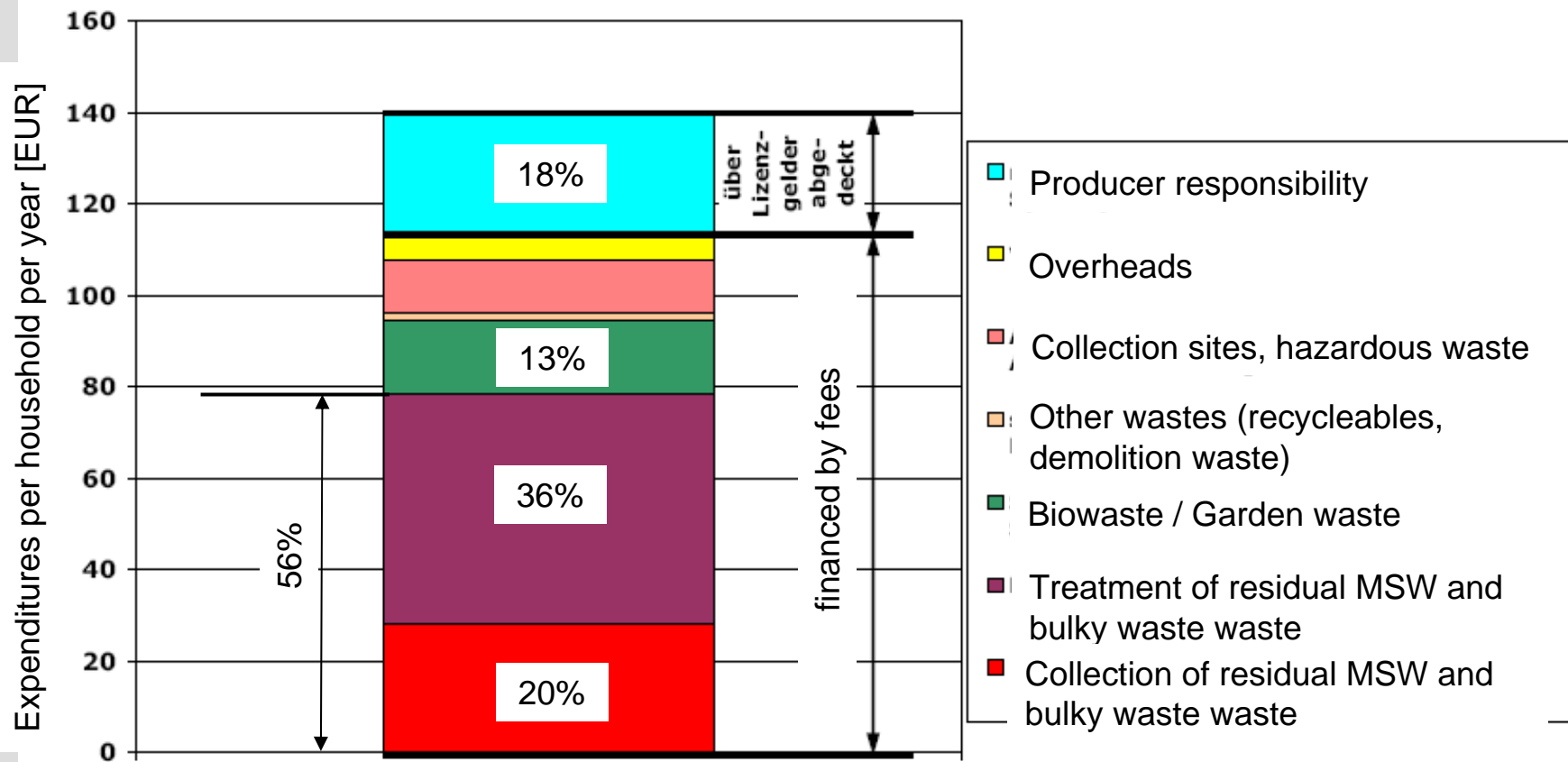


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What has to be financed

- Waste Containers
- Possibly street cleaning
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 - Trucks
 - Staff
- Treatment of the residual MSW
 - Investments
 - Operative expenditures
- Separate collection of recycleables
- Recycling of recyclables if material cannot be sold
- Information of residents and companies
- Administration and Overheads

Cost Factors for Waste Management - Exemplary



Advantages and disadvantages of different fee types

➤ Fees concerning waste quantity

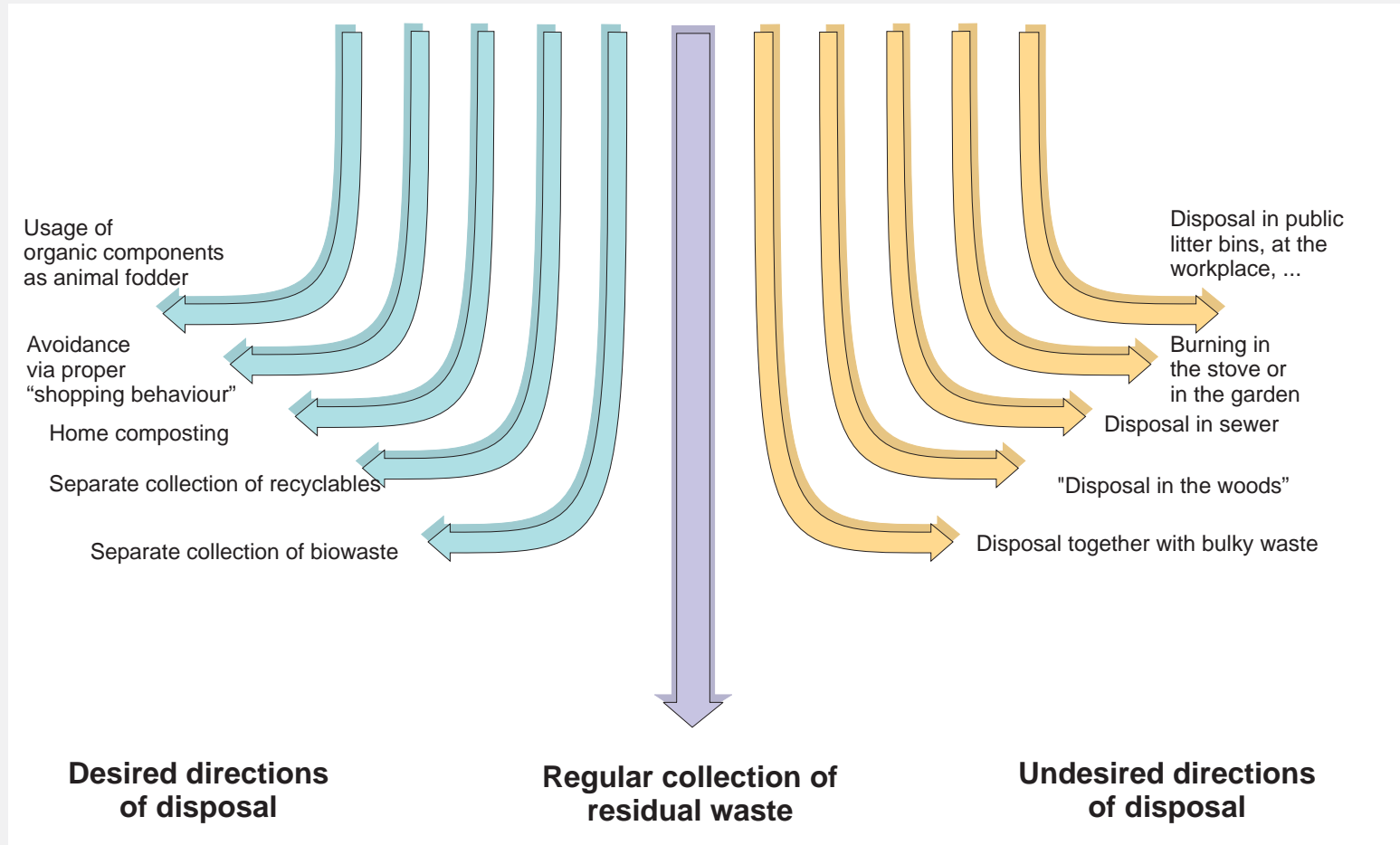
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- Each house has to have its own container to be used only by residents of this house

➤ „Flat rate“ fees

- + No incentive for illegal dumping, but synchronous no incentive for reducing waste quantity i.e. by separate collection
- + Easy to administrate if the fee is part of another tax on buildings
- + Easy to administrate if the fee is linked to known data like area of the house, number of floors, number of inhabitants...
- Difficult to administrate if no data is available, or numbers are changing often (number of residents)
- Polluter pays principle not realised

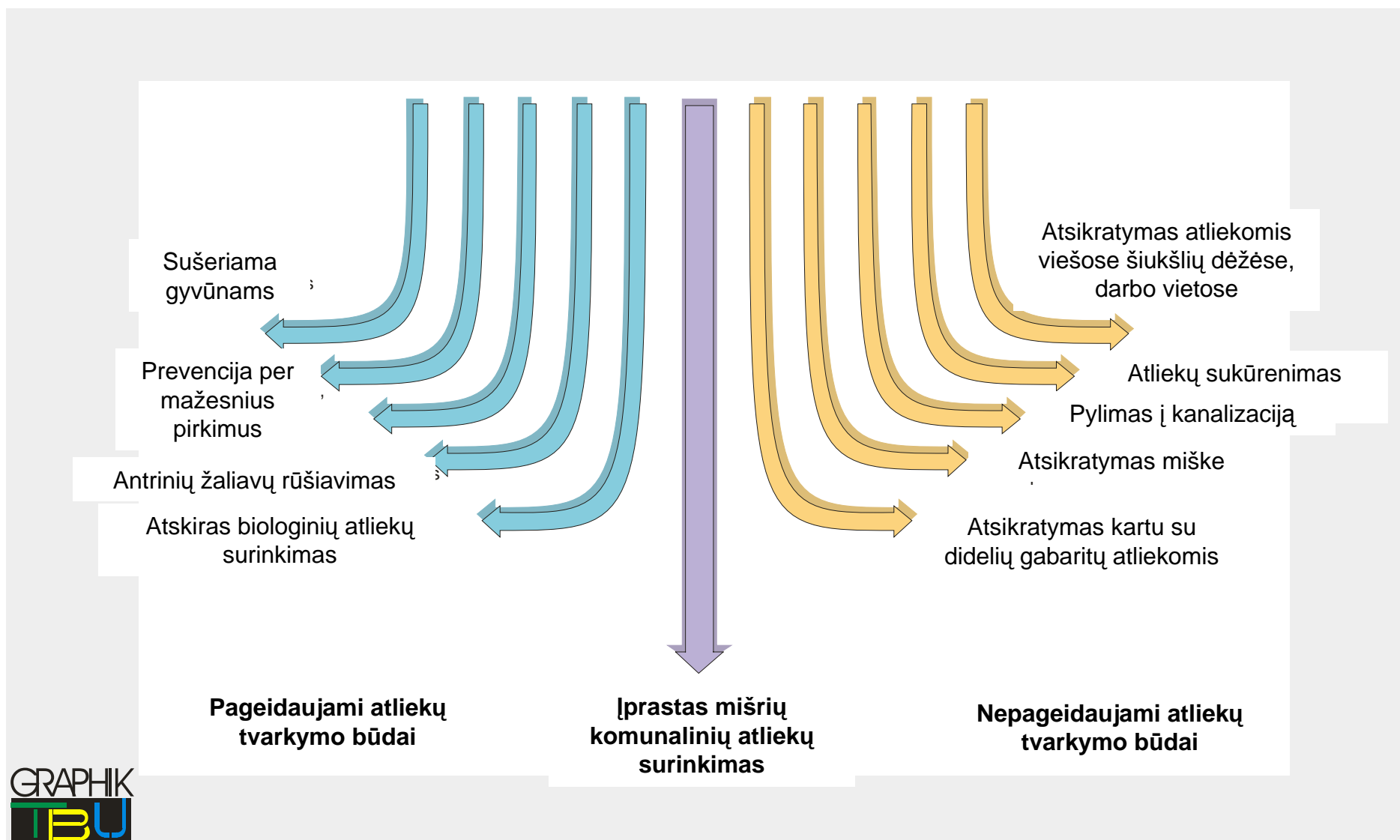
It happens down at source...

...desired and undesired disposal paths for urban waste



Tai atsitinka susidarymo šaltinyje...

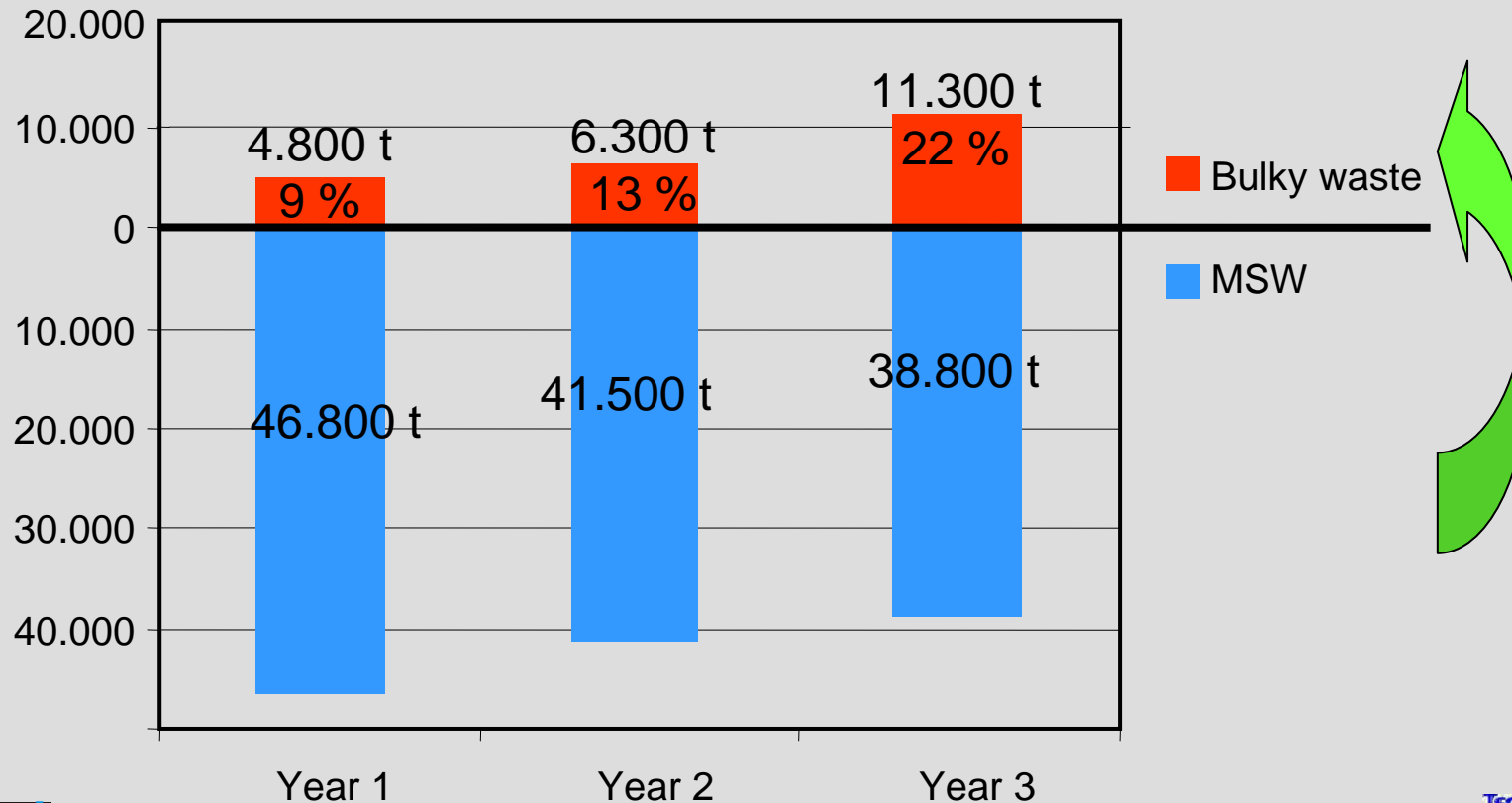
...pageidaujami ir nepageidaujami būdai atsikratyti miesto atliekų



Steering effect of Fees

Example:

Possibility of delivering bags with MSW as bulky waste – without fee



Steering effect of Fees

Wrong direction

Example of one community:

- 2-times per year collection of bulky waste from the streets – without fee
Delivering bulky waste to a collection site – fee of EUR 8,- per m³

Effect:

- „Mountains“ of bulky waste to be handled by the municipality
- High costs for the municipality



Who should collect the Fees

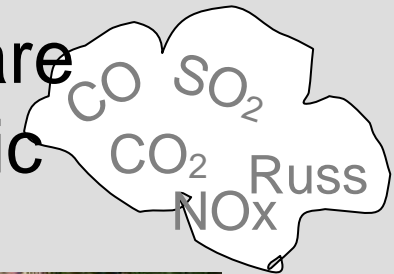
- The public sector (municipality or region)
 - Fewer default of payment
 - Financing of public unpayd sidework can be secured
 - Securing a waste collection from each facility
 - Securing the same price for everybody, even for facilities out of the way
 - Securing a uniform waste management system in an area

Who should collect the Fees

- Why not the private sector (private companies) ?
 - For people it is much more easy to dispose illegal than getting goods illegal (water, electricity, telephone)
 - Securing, that each facility has a waste management contract, is difficult
 - Securing, that each facility gets an affordable contract, is difficult
 - Public sector loses the influence in the manner how waste management will be done
- A more of legislation and a more of execution is needed, especially for target-based legislation, e.g. EU landfill ordinance

Experiences with complete privatized Waste Collection

- Payment losses are higher in case of private fee-collection than with a municipal fee
- Some trucks from different companies are collecting in one street – increased traffic
- How can special offers be financed



Requirements for „privatized“ fees

- Securing a minimum standard
- Securing of services without fee, e.g. collection of hazardous waste, of recyclables, ...
- Finance of public administration



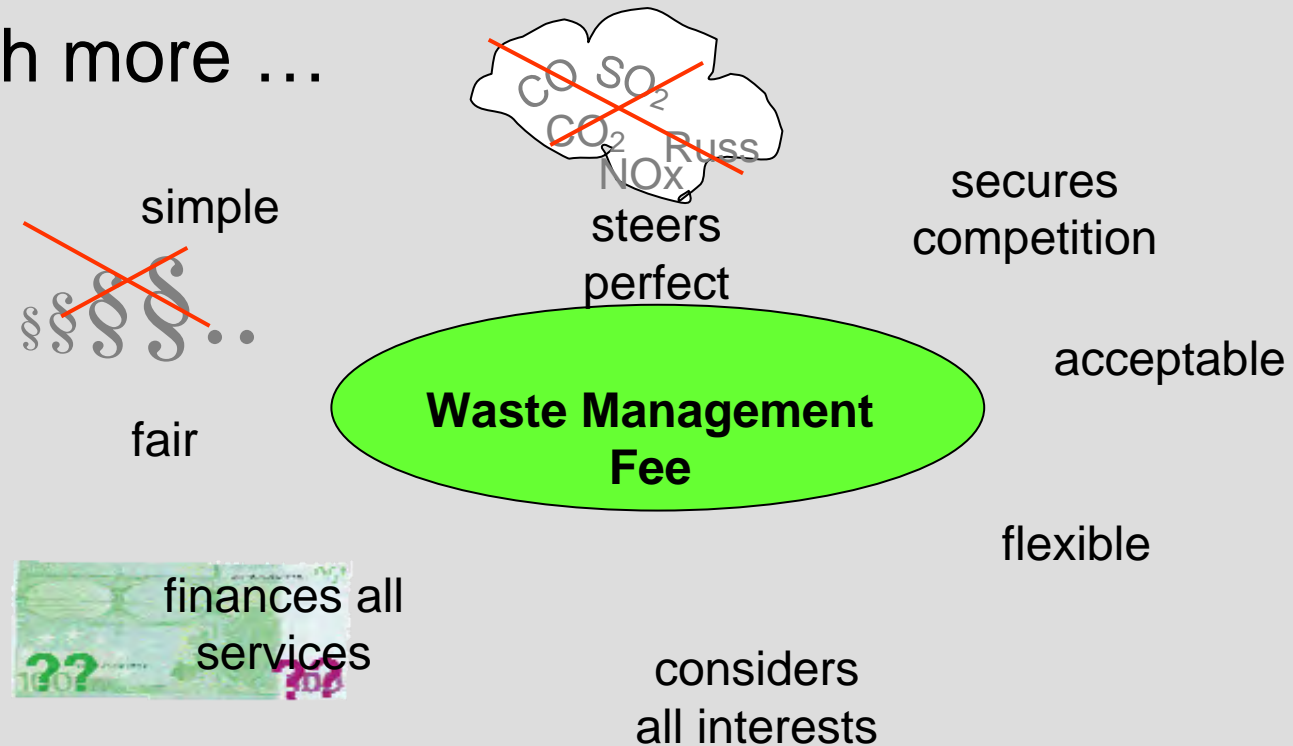
Pay Attention

Compared with supply of water, electricity,
telekommunication:

„Littering and illegal waste dumping is much
more easy than getting services“

General Requirements on Fees

- Financing the whole Waste Management
- Avoiding the avoiding of paying fees
- Directing people in the preferred direction
- And much more ...



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