

Key figures 2005

Key figures on amounts & costs for the year 2005

The WEEE Forum is an international association of collective WEEE systems in Europe. The WEEE Forum members are non-profit industry driven collective WEEE take-back systems. At this moment in 2006, WEEE Forum has 35 member systems from 23 countries in Europe of which 24 members in 15 countries (including Norway and Switzerland) are operational and 11 members in 8 countries are in preparation.

The WEEE Forum® (**see: www.weee-forum.org**) is running an 'annual project' to determine 'Key figures on amounts and costs'. These data are determined under the same structure since the year 2003 (Key figures for 2002). A continuous growing number of 'full' members of the WEEE Forum (WEEE systems being already operational in their country) are determining and providing these data. Hereafter an explanation to the figures shown.

The following figures for the reference period of 2005 are derived from data of only 16 WEEE Systems from 12 European countries out of 35 members. Those countries are Austria, Belgium, Czech Republic, Estonia, Hungary, Ireland, Norway, Sweden, Slovakia, Spain, Switzerland and The Netherlands.

1. AMOUNTS OF WEEE COLLECTED

Key figures 2005 on **amounts** of WEEE **collected** have shown that

- **16 WEEE Systems** of the in total 35 members have provided data on amounts collected,
- they serve about **130 million inhabitants**,
- and collect approximately **428.600 tons** of WEEE,
- there are **two groups** of systems involved in the figures:
 - systems operational since several years;
 - systems that just started in 2005,
- 9 WEEE systems are operative since **several years** (minimum since 2003) and are covering the full share of 'their' WEEE categories and all/most WEEE categories (data determined from 5 countries):
- some '**new**' WEEE Forum **members** started to be operational in 2005, so the collection network still has to be built up or improved, awareness of consumers has to be built up, some started to collect at specific sources (e.g. mainly at retailers) or covering only specific product groups or some have got specific targets for collection by their national authority. These circumstances have to be considered when looking at the 'range' of amounts collected (e.g. Chart 1 and 2).

Please note that all figures are relative.

Besides looking at 'figures' the main **influencing factors** for **amounts** of WEEE collected have to be considered as they are:

- ⇒ question of '**ownership**' of WEEE by e.g. legal framework and **value** of appliances,
- ⇒ **area coverage** and **convenience** for consumers or costumers like number of collection facilities, synergies for final users (e.g. collection of other wastes by municipal collection facilities, take back by retailers – even on delivery), minimum amounts for pick up service,
- ⇒ **awareness** of consumers and other stakeholders,
- ⇒ general **economic data** like equipment of households (purchasing power of last years), today's purchasing power,
- ⇒ general **basic data** like 'storage capacity' of households, disposal behaviour and
- ⇒ **legal framework** like take back obligations for all stakeholders, collection targets, export restrictions, control of other disposal paths

Legend: in the next figures:

- kg/inh.a = kilogramme per inhabitant
- lhha= large household appliances
- c&f-appl = cooling and freezing appliances
- shha = small household appliances
- it&t (ex) crt = IT and Telecommunication equipment with (without) CRT screens
- ce (ex) crt = consumer equipment with (without) CRT screens
- lighting = lighting equipment
- tools = electrical and electronics tool
- toys = toys, sport and leisure equipment
- med.dev. = medical devices
- m&c = measure and control equipment
- aut.disp. = automatic dispensers

WEEE collected [kg / inh.a] DATA 2005 - all systems		range			
		min.	max.	av.	#
1a	Large household appliances	0,001	5,4	1,8	12
1b	Cooling&freezing appliances	0,13	2,8	1,1	11
2	Small household appliances	0,001	1,4	0,5	12
3a	IT & T equipment (<i>excl. CRT's</i>)	0,001	2,1	0,6	11
3b	IT & T screens - CRT's	0,003	1,4	0,4	10
4a	Consumer equipment (<i>excl. CRT's</i>)	0,001	0,7	0,3	9
4b	TV sets - CRT's	0,01	1,6	0,7	11
5	Lighting equipment	0,01	0,7	0,2	7
6	Electrical and electronic tools	0,001	0,1	0,1	7
7	Toys, ...	0,00	0,04	0,02	5
8	Medical devices	0,0002	0,1	0,02	5
9	M&C instruments	0,00002	0,0015	0,001	3
10	Automatic dispensers	0,01	0,02	0,01	3

Chart 1: Amounts of WEEE collected 2005 – range: all active members (data)

WEEE collected [kg / inh.a] DATA 2005 - systems full operative and total share		range			
		min.	max.	av.	#
1a	Large household appliances	1,1	5,4	2,9	5
1b	Cooling&freezing appliances	1,1	2,8	1,6	5
2	Small household appliances	0,5	1,4	0,9	5
3a	IT & T equipment (<i>excl. CRT's</i>)	0,6	2,1	1,5	4
3b	IT & T screens - CRT's	0,4	1,4	0,9	4
4a	Consumer equipment (<i>excl. CRT's</i>)	0,4	0,7	0,6	5
4b	TV sets - CRT's	0,8	1,6	1,3	5
5	Lighting equipment	0,03	0,7	0,3	4
6	Electrical and electronic tools	0,04	0,12	0,1	4
7	Toys, ...	0,01	0,04	0,02	4
8	Medical devices	0,0002	0,06	0,02	4
9	M&C instruments		0,0002	0,0002	1
10	Automatic dispensers	0,01	0,02	0,02	2

Chart 2: Amounts of WEEE collected 2005 – range: members being fully operative before 2005 and covering total share of 'their' WEEE categories covered (data)

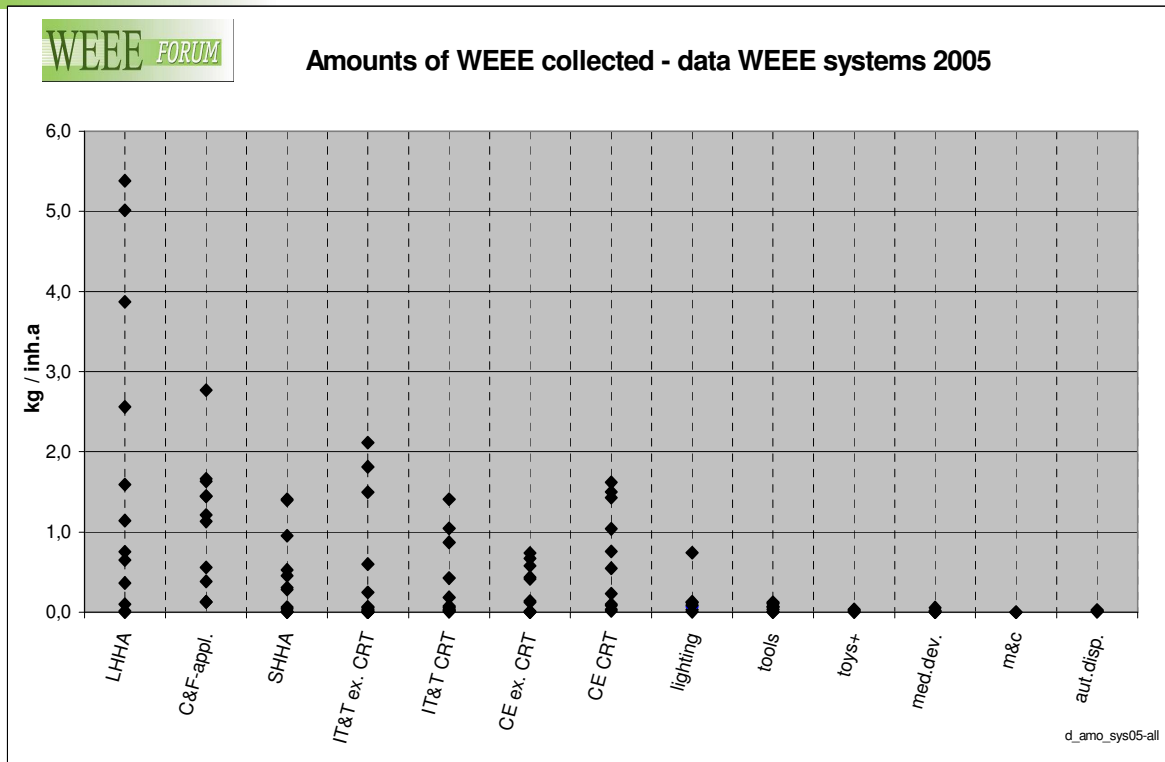


Fig. 1: Amounts of WEEE collected 2005 - all WEEE categories – all active members (data)
 OV KF 2005 amounts with DATA (2006-05-07).xls

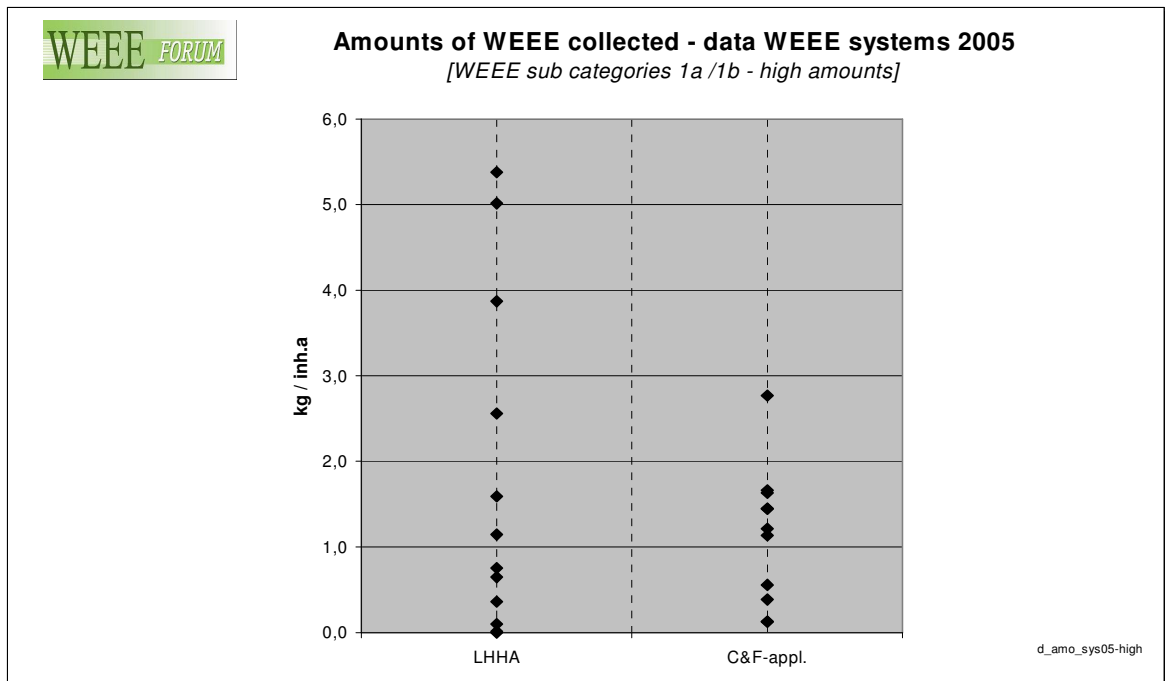


Fig. 2: Amounts of WEEE collected 2005 - WEEE category 1 – split to 'large household appliances' (1a) and 'cooling & freezing appliances' (1b) – all active members (data)

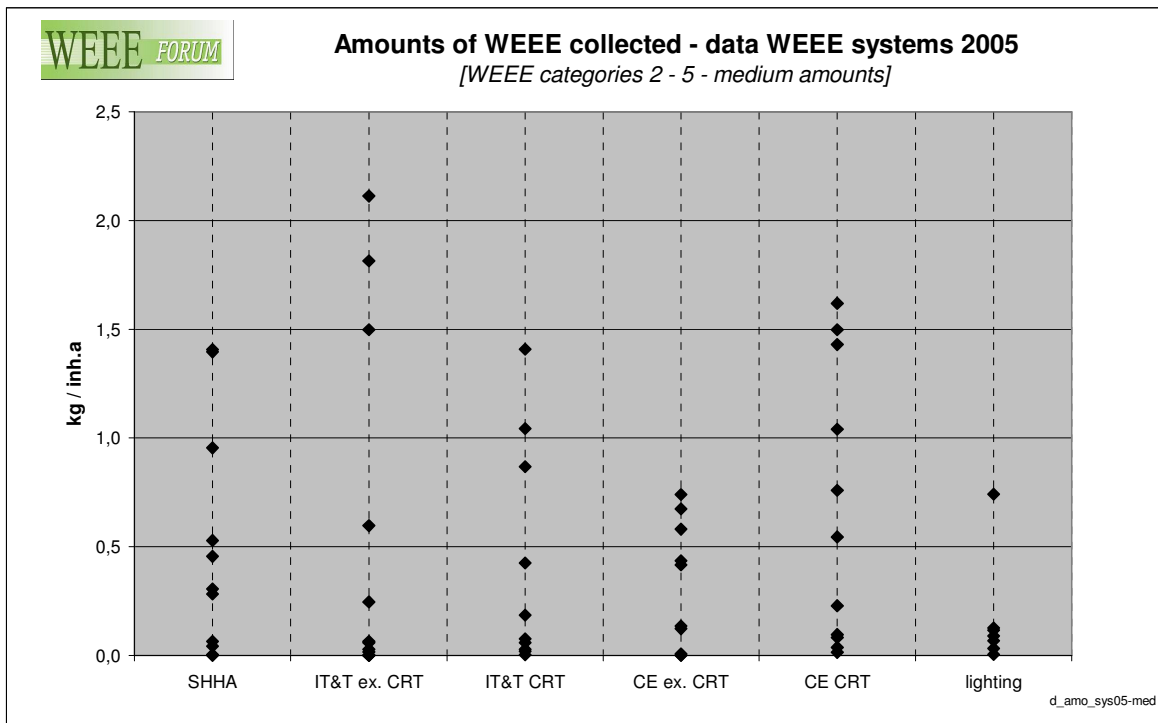


Fig. 3: Amounts of WEEE collected 2005 - WEEE categories 2-5 – all active members

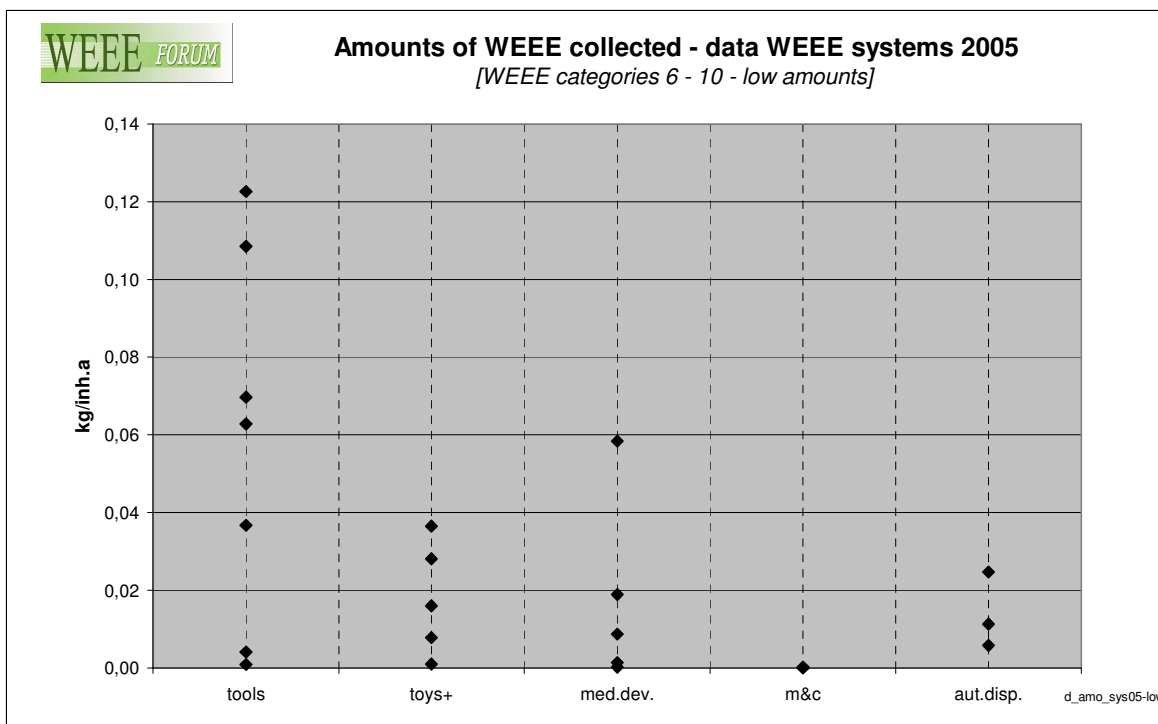


Fig. 4: Amounts of WEEE collected 2005 - WEEE categories 6-10 – all active members

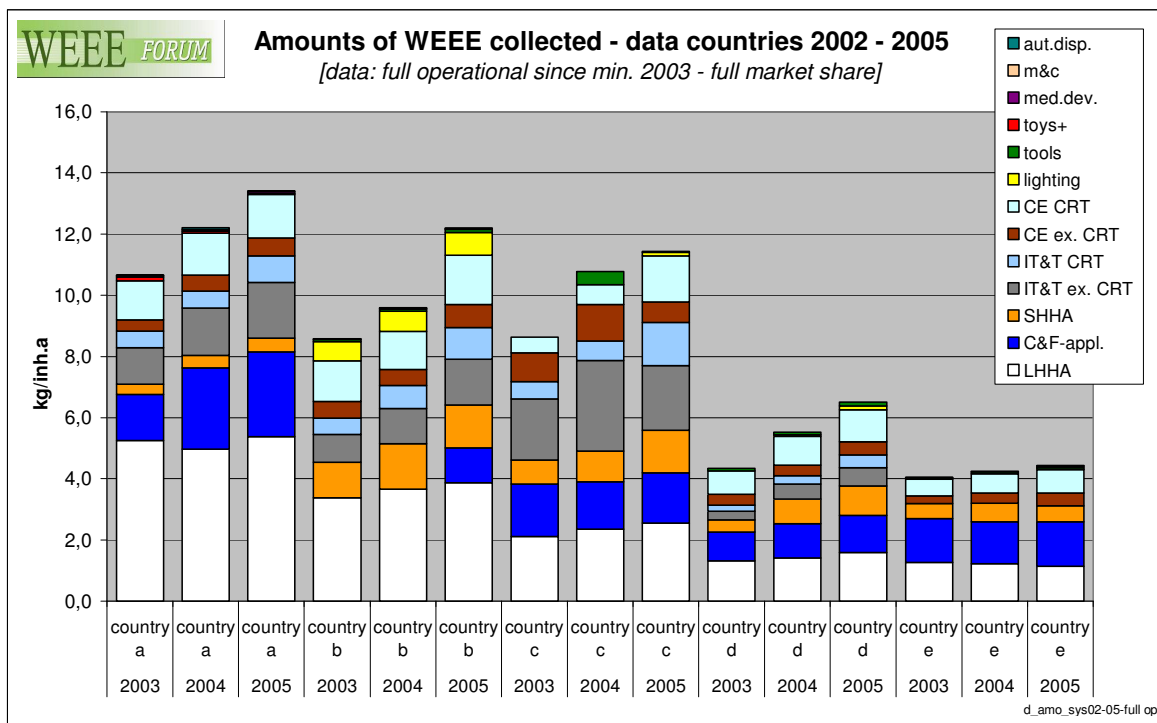


Fig. 5: Amounts of WEEE collected 2003-2005 – data countries with WEEE systems operational since 2003 (minimum) and covering the full market share of categories covered (sorted to total amounts collected)

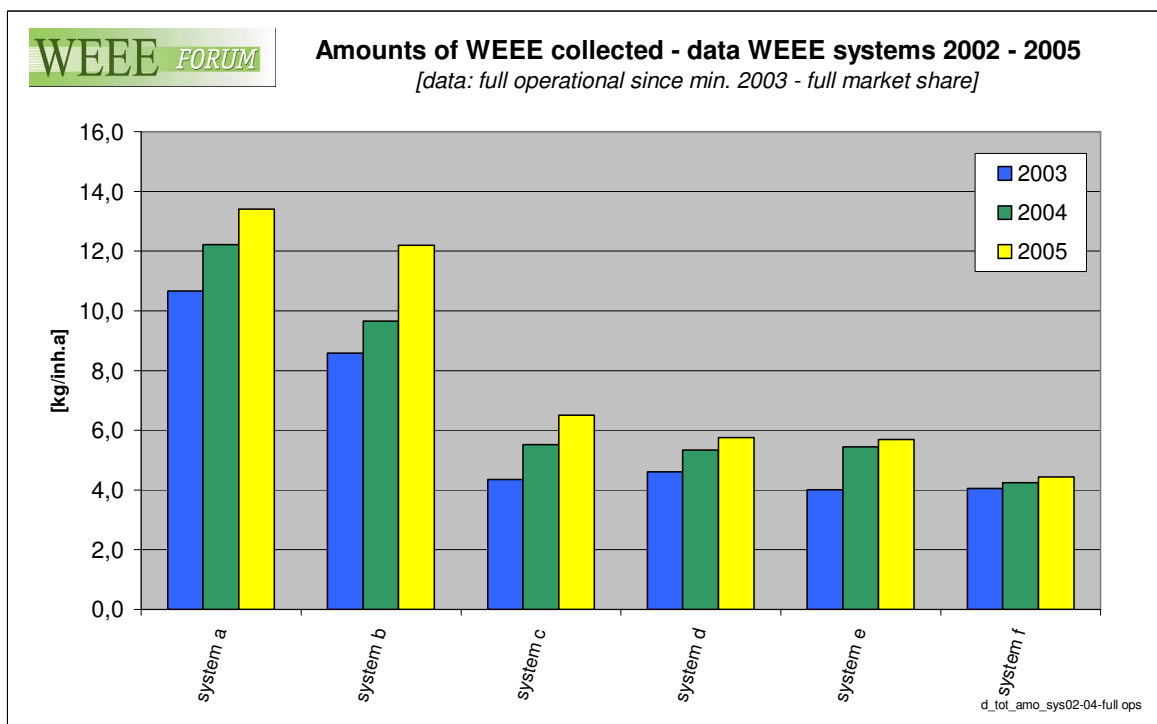


Fig. 6: Amounts of WEEE collected 2003-2005 – data WEEE systems operational since 2003 (minimum) and covering the full market share of categories covered

II. COSTS

The structure of cost determination used by the WEEE Forum distinguishes between **operational costs** to be spent by the WEEE systems which are costs for collection, containers, transport and treatment.

NOTE: Apart from the operational costs there are all kinds of additional costs depending on the base the WEEE systems have taken over the responsibilities of the producers. Further costs will arise for various stakeholders (including member states and companies) that add on to the cost figures given in this paper, such as:

- o costs for registration and/or clearing,
- o costs for free rider control,
- o costs for (internal) guarantees or
- o costs for internal data generation.

For 'Key figures 2005' 15 WEEE Forum members from 12 countries (including Norway and Switzerland) provided information on operational costs. They have spent on operational costs a **total amount** of €173.000.000 for WEEE of 428.000 kg. But comparing costs should always be done on the level of **WEEE categories** or **WEEE sub categories** as different needs on collection and transport and/or treatment are given and are causing different specific costs.

13 WEEE Forum members from 12 countries (including Norway and Switzerland) could already provide data on specific costs per WEEE categories or WEEE sub categories covered as they have created internal cost allocation models based on the structure agreed. The most interesting data to be compared are the '**operational costs**' (i.e. costs to be paid for collection at collection facilities, costs for receptacles, containers and transport costs (logistic costs) and treatment costs).

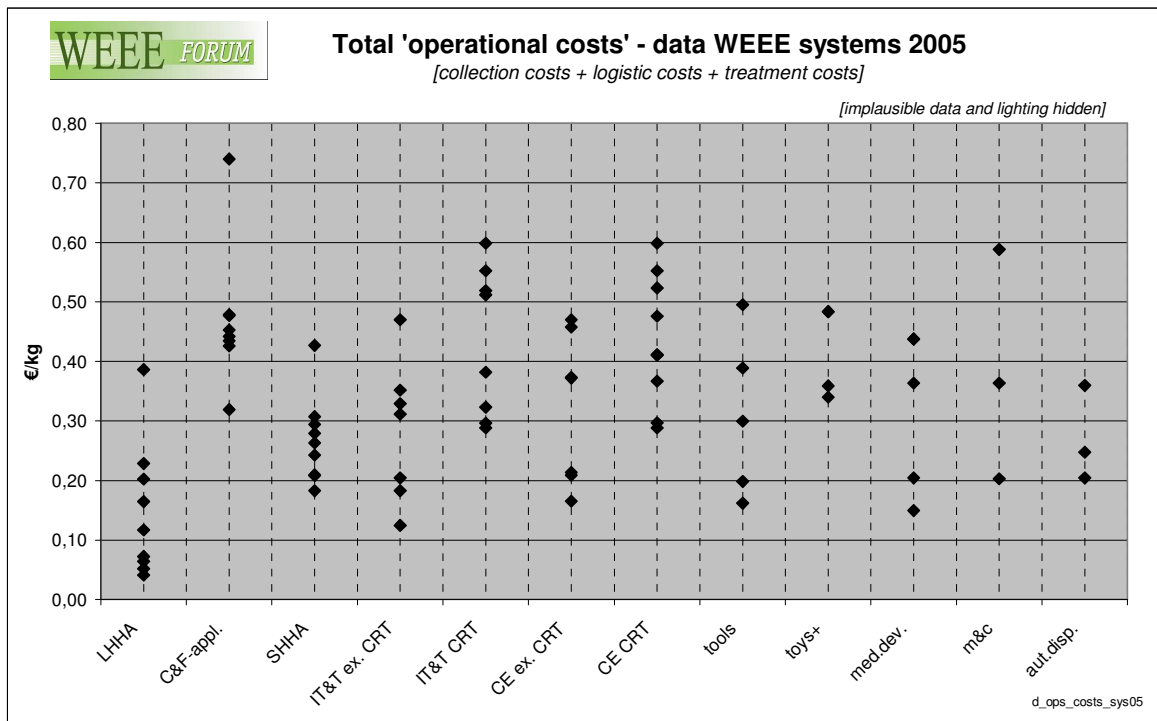


Fig.7: Total 'operational costs' = collection costs, container & transport costs (logistic costs) and treatment costs – all active members (data for lighting omitted for figure)

In general operational costs are **influenced** by

- ⇒ whether or not there is an obligation to **pay for collection** at collection facilities (see e.g. obligation to collect by legal framework, question of ownership of WEEE, value of appliances),
- ⇒ the **area coverage** asked from WEEE systems (influences collection costs and logistic costs),
- ⇒ the **amount of WEEE** collected and treated on behalf of the WEEE systems (economies of scale, options to negotiate prices) and
- ⇒ the **treatment standards** set by national authorities and therefore by the WEEE systems.

Most of the WEEE Forum members (from 6 countries) who run a WEEE system for longer time have succeeded in lowering especially their treatment costs for nearly all WEEE categories covered the last years based on the experience they gained on competition in the market and the revision of contracts at the end of their term. Some do already achieve 'positive' treatment costs for some WEEE categories or sub categories (e.g. large household appliances, partly for consumer electronics excl. CRT's or others). **Many** WEEE systems could also **lower** their specific **transport costs** based on new contracts and/or the optimisation of their logistic services.

However it is important to realise, that even if positive treatment costs are achieved, the total of 'operational costs' are 'negative' (see figure), so operational costs have to be paid anyhow.

total 'operational' costs 2005 [€/kg] <i>(plausible data)</i>	min.	max.	av.	# data
Large household appliances	0,04	0,39	0,15	9
Cooling & freezing appliances	0,32	0,74	0,47	8
Small household appliances	0,18	0,43	0,27	9
IT and telecommunications equipment (excl. CRT's)	0,12	0,47	0,28	7
IT&T - CRT's	0,29	0,60	0,43	8
Consumer equipment (excl. CRT's)	0,17	0,47	0,32	7
CE - CRT's	0,29	0,60	0,44	9
Lighting equipment	0,51	1,71	0,97	6
Electrical and electronic tools	0,16	0,50	0,31	5
Toys, leisure and sports equipment	0,34	0,48	0,42	4
Medical devices	0,15	0,44	0,32	5
Monitoring and controll instruments	0,20	0,59	0,38	3
Automatic dispensers	0,20	0,36	0,27	3

Chart 3: Range of total operational costs' (collection costs, container & transport costs (logistic costs) and treatment costs)

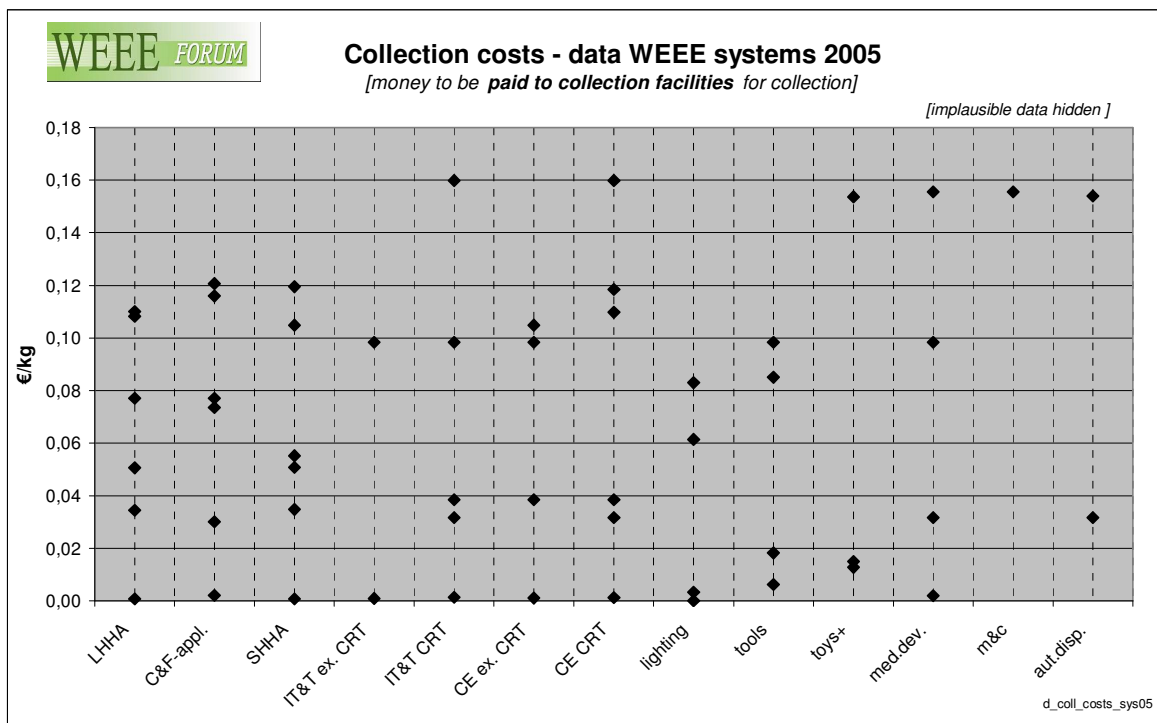


Fig. 8: Collection costs (money to be paid to collection facilities for collection of WEEE) – all active members who have to pay.

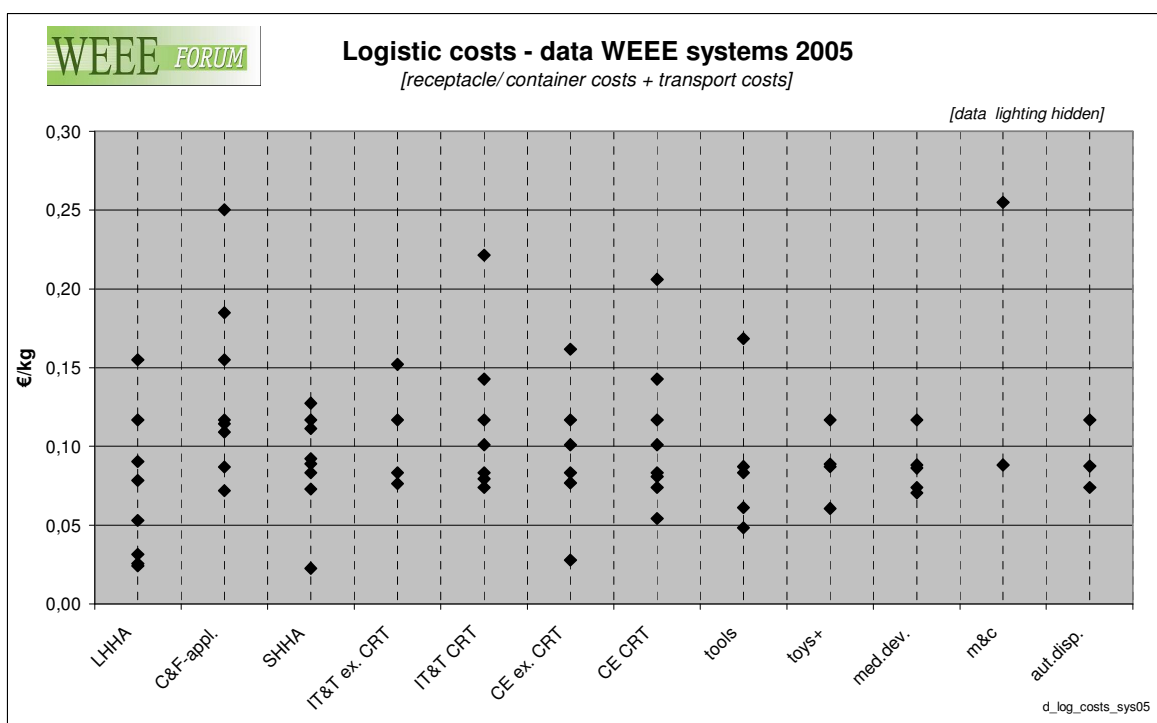


Fig. 9: Logistic costs (costs for receptacles and containers plus transport costs) – all active members (data for lighting omitted for figure)

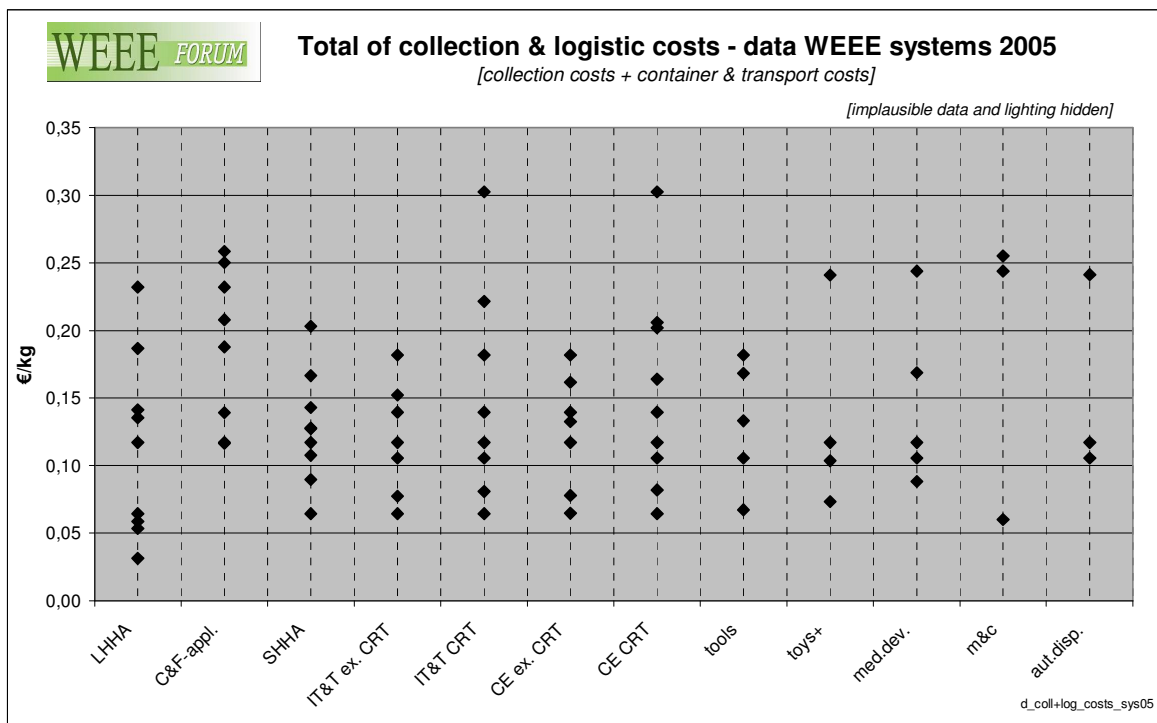


Fig. 10: 'Total' of collection and logistic costs (see remarks at Fig. and Fig.) – all active members (data for lighting omitted for figure)

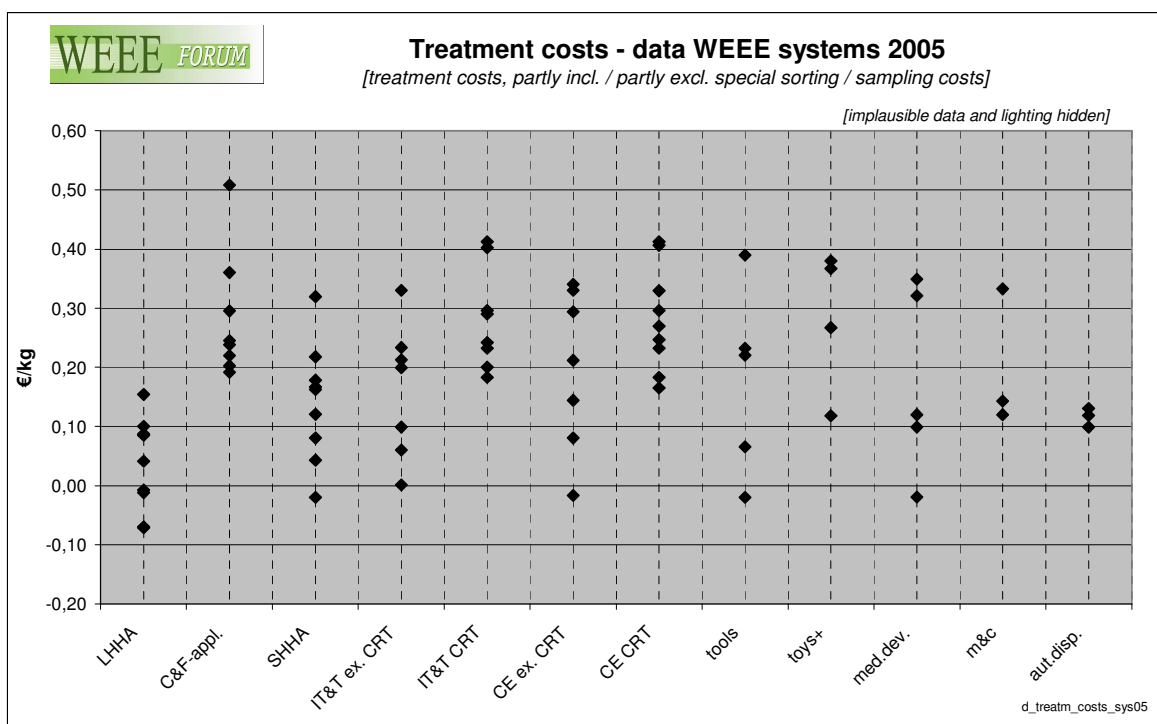


Fig. 11: Treatment costs – all active members (data for lighting omitted for figure)

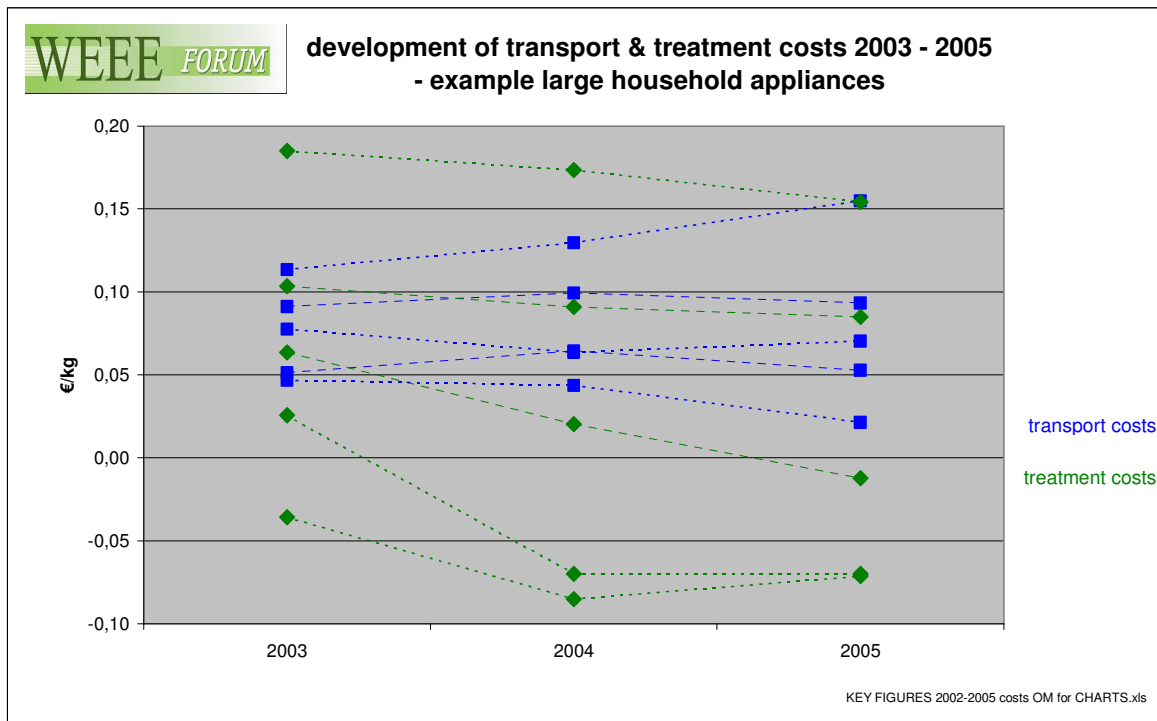


Fig. 12: Development of transport & treatment costs 2003 – 2005 – example large household appliances – data ‘old’ members of the WEEE Forum (min. since 2003 covering LHHA)

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