

WEEE Plastic Recycling – Data on WEEE Plastics in the EU



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Many types of WEEE plastics.....



SDA



Fridges



ICT



CRT Displays



Estimating the quantity of plastics in WEEE based on CWIT

European Market	Mio MT	in %
Placed on Market (POM) EEE	9,50	
Officially reported collections/recycling	3,30	35%
Informal collections/recycling	3,20	34%
Exports (of which 1,3 Mio MT not documented)	1,50	16%
"Scavenging" for parts	0,75	8%
Losses (such as through waste bin)	0,75	8%



**WEEE Plastics some
1,4 Mio MT**

Plastic Content in WEEE per category	
SDA	28%
LDA	15%
Temp Control Equipm.	17%
Screens	22%

WEEE and WEEE Plastics volumes in Europe based on Urban Mine Platform

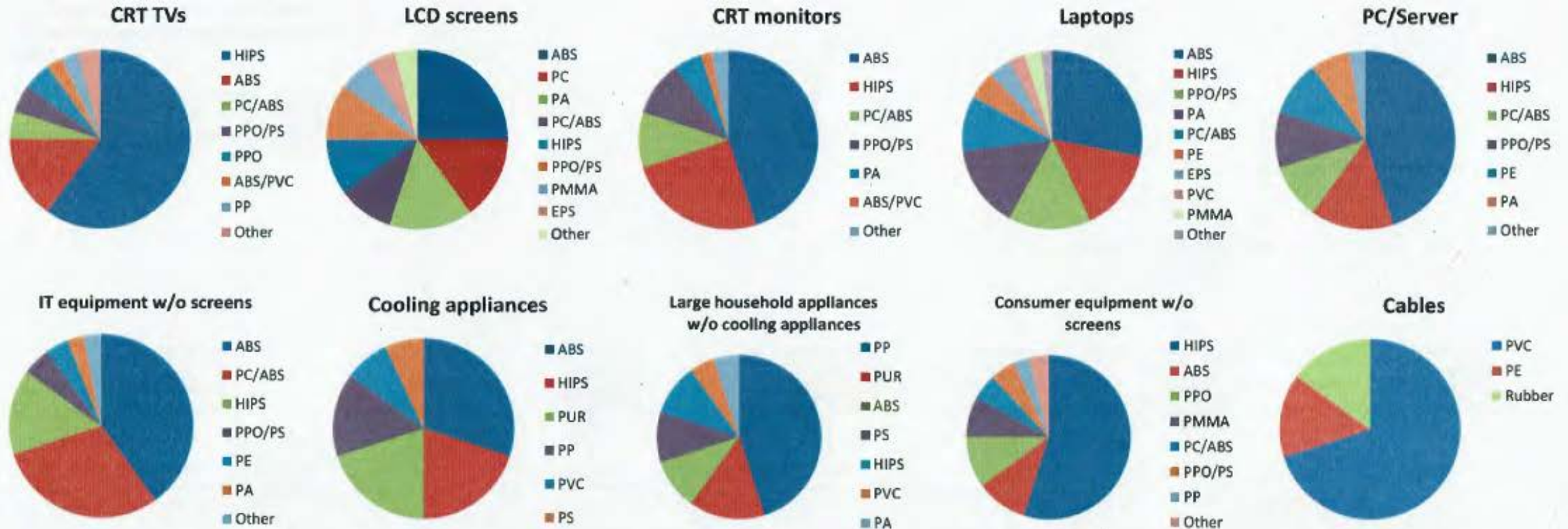


	Total WEEE** Volume			WEEE Plastics Volume in		
	New products placed on market	Waste generated	Collected and reported	New products placed on market	Waste generated	Collected and reported
Austria	230 270	184 127	80 289	39 146	31 302	13 649
Belgium	270 650	244 736	119 179	46 011	41 605	20 260
Bulgaria	80 557	82 896	68 674	13 695	14 092	11 675
Croatia	57 509	54 534	24 358	9 777	9 271	4 141
Cyprus	17 624	16 753	2 413	2 996	2 848	410
Czech Rep.	178 651	172 024	76 979	30 371	29 244	13 086
Denmark	140 121	140 579	71 226	23 821	23 898	12 108
Estonia	23 907	19 560	5 773	4 064	3 325	981
Finland	138 045	121 656	65 906	23 468	20 682	11 204
France	1 709 553	1 426 617	634 775	290 624	242 525	107 912
Germany	2 226 236	1 932 101	639 632	378 460	328 457	108 737
Greece	199 578	189 340	49 950	33 928	32 188	8 492
Hungary	153 556	140 667	54 871	26 105	23 913	9 328
Ireland	167 513	100 216	52 945	28 477	17 037	9 001
Italy	1 223 665	1 168 549	244 673	208 023	198 653	41 594
Latvia	23 764	22 017	5 038	4 040	3 743	856
Lithuania	35 297	37 760	16 333	6 000	6 419	2 777
Luxembourg	16 373	12 842	6 303	2 783	2 183	1 071
Malta	7 353	6 853	1 694	1 250	1 165	288
Netherlands	502 578	411 566	149 028	85 438	69 966	25 335
Norway	186 887	159 931	113 336	31 771	27 188	19 267
Poland	680 491	499 099	230 849	115 683	84 847	39 244
Portugal	158 948	177 228	64 100	27 021	30 129	10 897
Romania	269 045	244 640	35 632	45 738	41 589	6 057
Slovakia	76 843	70 858	25 402	13 063	12 046	4 318
Slovenia	34 912	34 160	10 804	5 935	5 807	1 837
Spain	983 771	954 425	202 278	167 241	162 252	34 387
Sweden	277 898	227 039	153 759	47 243	38 597	26 139
Switzerland	240 428	195 891	143 610	40 873	33 301	24 414
UK	2 104 300	1 718 135	712 696	357 731	292 083	121 158
	12 416 323	10 766 799	4 062 505	2 110 775	1 830 356	690 626

Plastic content of the WEEE categories **	
Small Equipment	28%
Large Equipment	15%
Screens (CRT and Flat mix)	22%
Cooling and Freezing	17%

- Datasources MGG Polymers & Urban Mine Platform - estimation 2019 „collection and reported“ based on data relations of 2015

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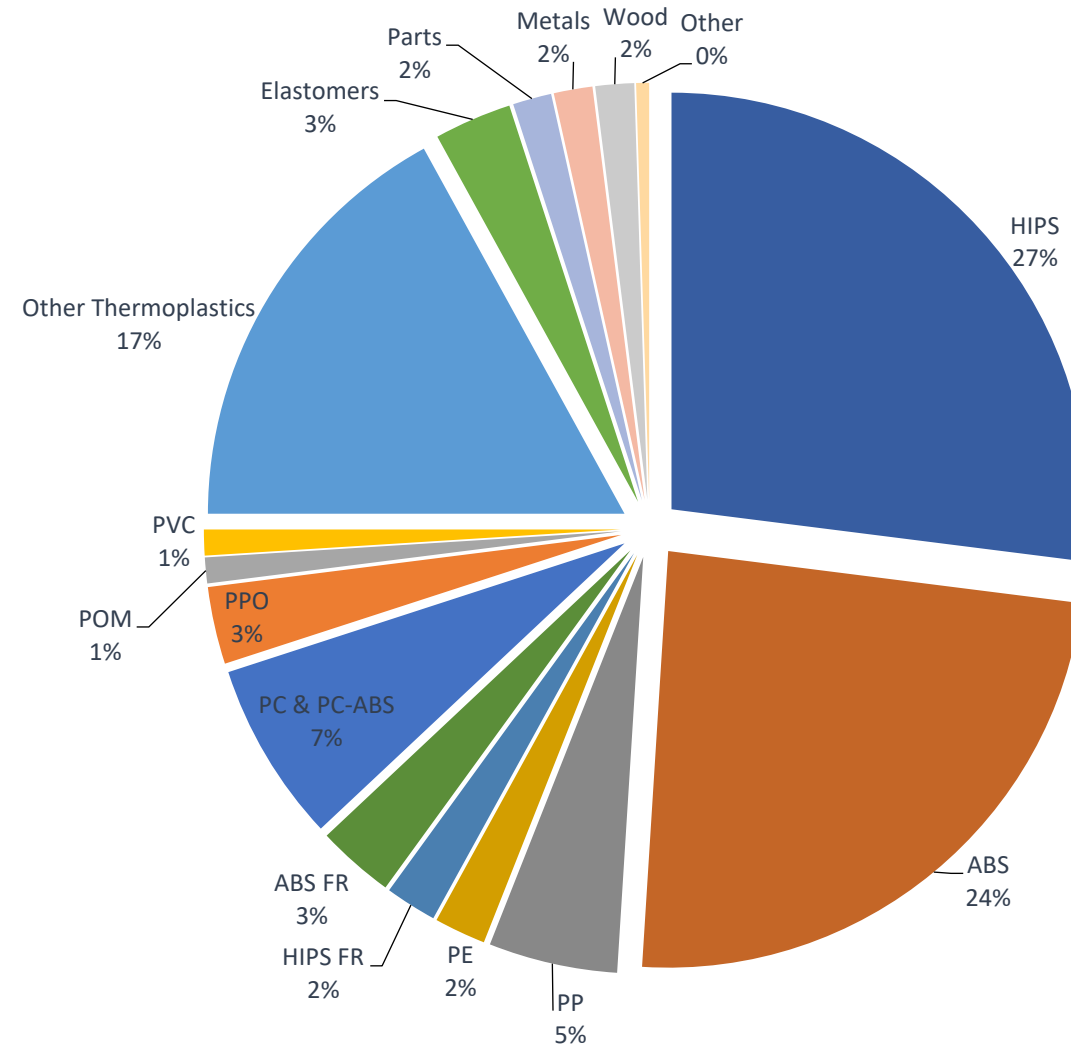


(Wäger, P., Schluep, M., Müller, E., 2010a. RoHS substances in mixed plastics from Waste Electrical and Electronic Equipment)

Depending on the type and category of WEEE

Average composition of WEEE plastics for recycling (2012)

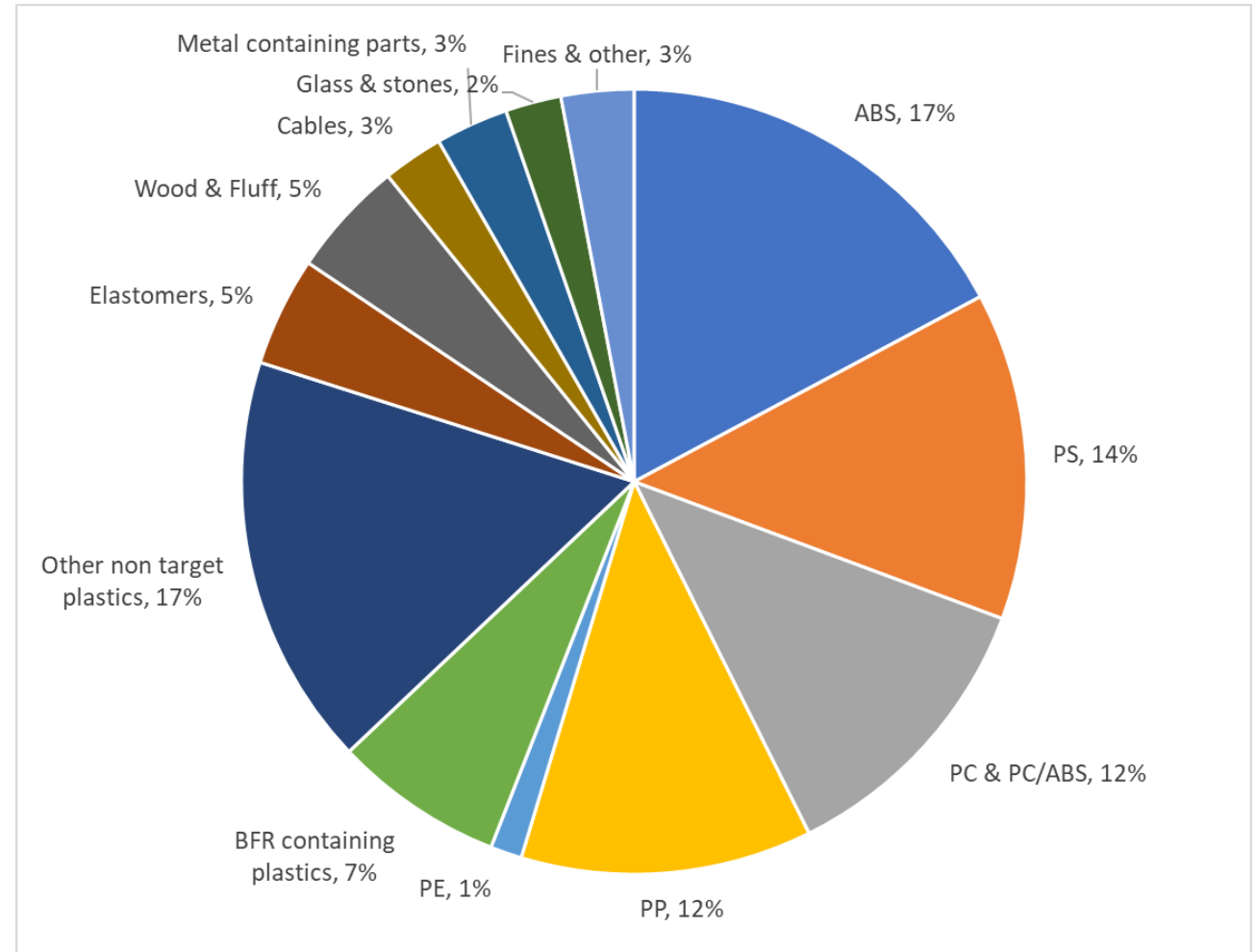
WEEE Plastics Mix	
ABS	24%
HIPS	27%
Polyolefines	7%
PC and PC-ABS	7%
Other plastics incl. BFR	29%
Parts and metals	4%
Other (mainly wood)	2%



Source: MGG Polymers

Average composition of WEEE plastics for recycling (2020)

WEEE Plastics Mix	
ABS	17%
HIPS	14%
PC & PC/ABS	12%
Polyolefins	13%
Plastics containing BFRs	7%
Other Polymers and Elastomers	22%
Metal containing parts & materials	6%
Other organic contaminants	8%
Other inorganic contaminants	2%



Scientific Approach

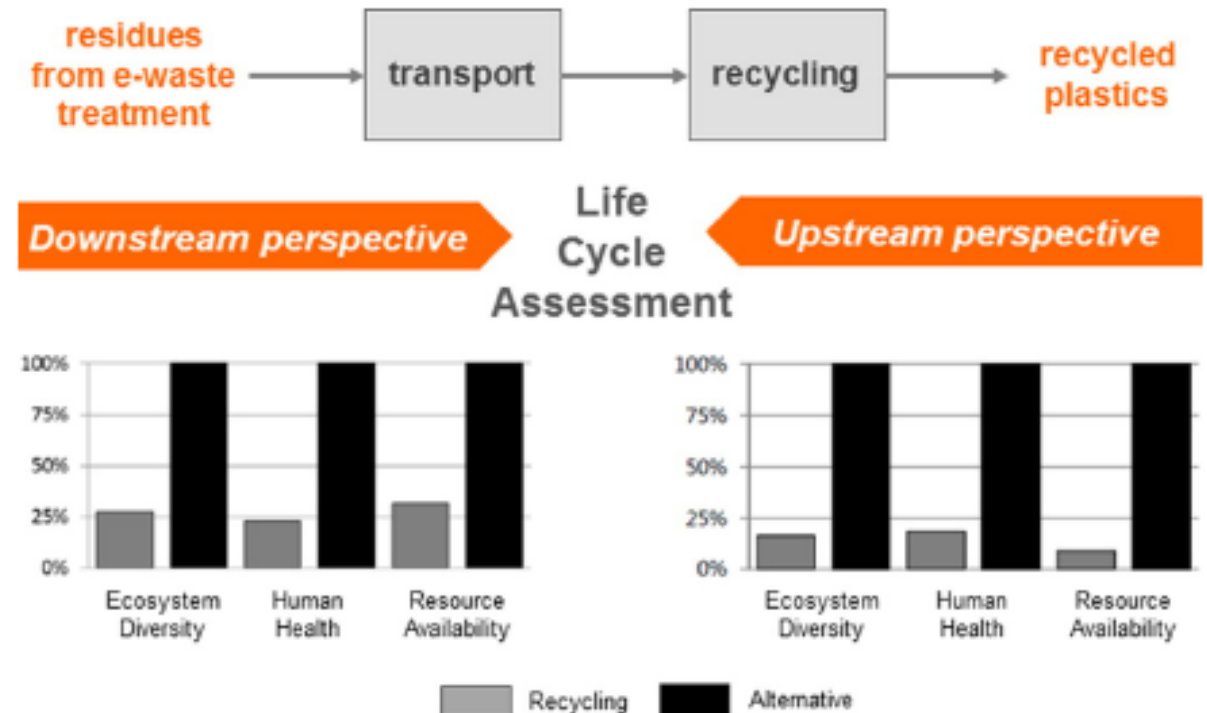
LCA PCR WEEE Plastic versus

1. Incineration of WEEE plastic and

Recycling PCR WEEE plastics 4 times better than Municipal Solid Waste Incineration

2. Production virgin plastics

Recycling PCR WEEE recycling option 6-10 times better than producing virgin plastics



THANK YOU

GRACIAS

ARIGATO

SHUKURIA

JUSPAXAR

DANKSCHEEN

TASHAKKUR ATU

YAQHANYELAY

SUKSAMA

EKHMET

BIYAN

SHUKRIA

TINGKI

MAAKE

GRAZIE

MEHRBANI

PALDIES

BOLZİN

MERCI

GOZAIMASHITA

EFCHARISTO

KOMAPSUMNIDA

LAH

MINMONCHAR

MAKETAI

SIKOMO

EKOJU

HATUR

GUI

UNALCHEESH

HUI

YUSPAGARATAM

MAITEKA

WABEEJA

DHANYABAAD

ATTO

ANHA

SPASIBO

DENKAUJA

NENACHALHYA

MERSI

CHALTU

NUHUN

SNACHALHUYA

SPASSIBO

TAVTAPUCH

MEDAWAGSE

BAINA

MERASTAWHY

GAEJTHO

AGUYJE

FAKAAUE