



ANAMET
RECYCLING INDUSTRY

WEEE RECYCLING: LEGISLATIVE FRAMEWORK, THREATS & OPPORTUNITIES



3,275 MIL.

EUR SALES IN 2015
FOR VIOHALCO
GROUP

100+

DESTINATION
COUNTRIES FOR THE
GROUP'S PRODUCTS



VIOHALCO REUTERS CODE	VIOH.BR
ATHEX / EURONEXT LISTED	1947 / 2013



REGIONAL SITES & SUBSIDIARIES

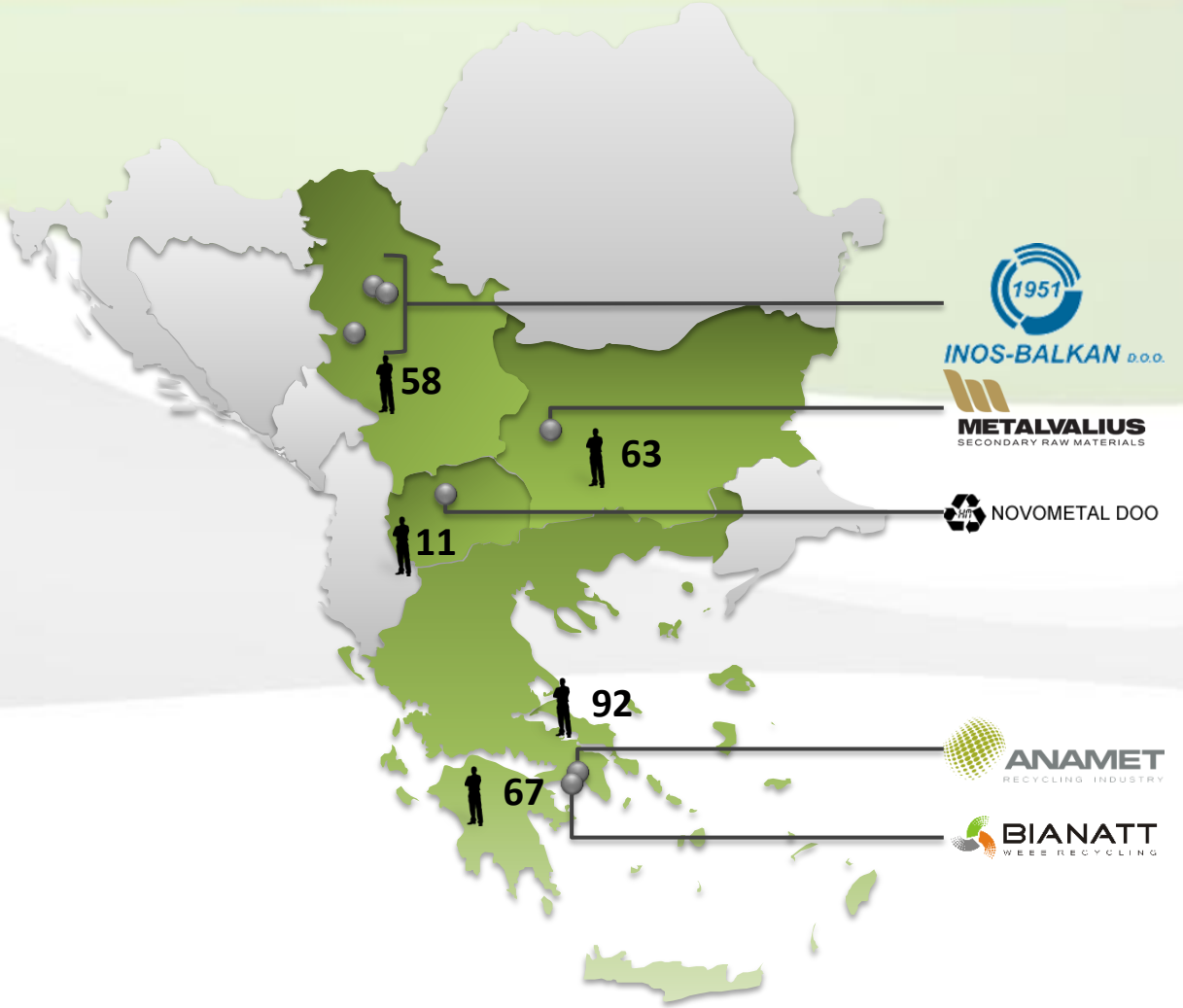


291

MANPOWER ON
DEC'15

4

MAJOR SUBSIDIARIES
ACROSS THE BALKANS



BIANATT (GREECE)

METALVALIUS (BULGARIA)

INOS BALKAN (SERBIA)

NOVOMETAL (FYROM)

TRADING OFFICE IN TURKEY



BUSINESS ACTIVITIES



30%+

GREEK METAL WASTE
MARKET SHARE IN
2014

- **WHOLESALE & RETAIL SCRAP TRADING**
- **INTERNATIONAL TRADING**
- **SHREDDERS**
- **DEMOLITION**
- **INDUSTRIAL & ENVIRONMENTAL SERVICES**
- **WASTE ELECTRICAL & ELECTRONIC EQUIPMENT (WEEE) & DATA DESTRUCTION**
- **END OF LIFE VEHICLES (ELVs)**



CONSOLIDATED KEY FIGURES



~200 MIL.

EUR REVENUE IN
2015

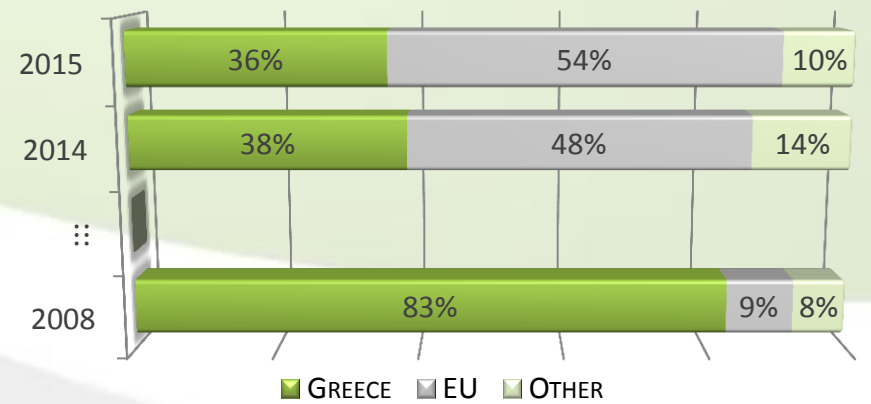
262,000

TONS OF MATERIAL
SOLD IN 2015

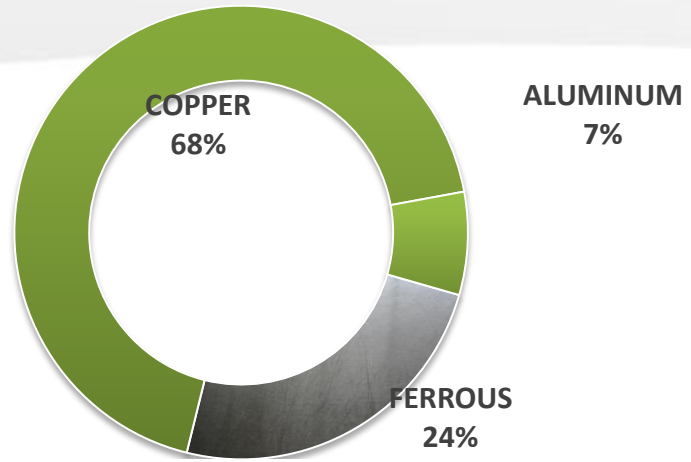
GRADUAL SHIFT TO A MORE EXTROVERT PROFILE

CONTINUOUS EXPANSION OF ACTIVITIES / MATERIALS PORTFOLIO

REGIONAL SALES MIX



MATERIAL € SALES MIX 2015



INTEGRATED MANAGEMENT SYSTEMS & COMPLIANCE



30

DIFFERENT LICENSES
HELD BY ANAMET
ALONE



● **ISO 9001:2008 – QUALITY**

● **ISO 18001:2007 - HEALTH & SAFETY**

● **ISO 14001:2004 – ENVIRONMENT**

● **EMAS - ENVIRONMENT**

	ISO 9001:2008	ISO 18001:2007	ISO 14001:2004	EMAS
ANAMET	✓	✓	✓	✓
BIANATT	✓	✓	✓	✓
METALVALIUS	✓	✓	✓	✓
INOS BALKAN	✓	✓	✓	
NOVOMETAL	✓	✓	✓	



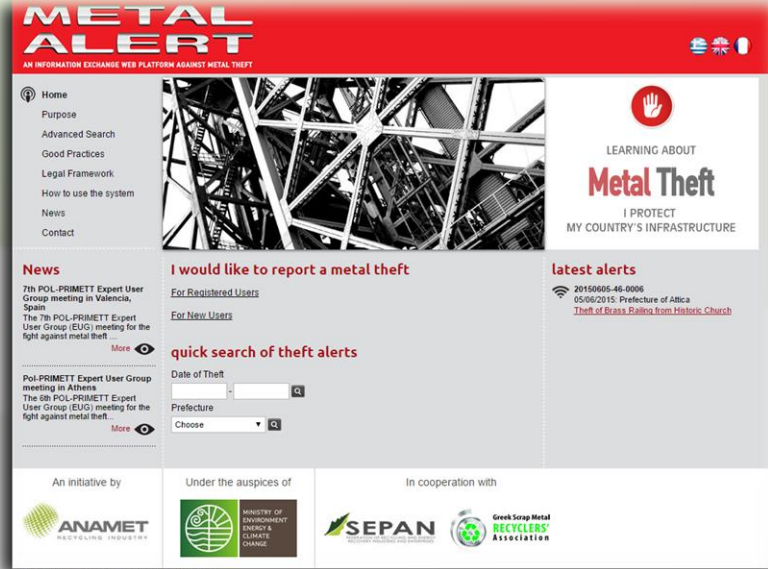
1ST

GREEK WEBSITE
DEDICATED TO METAL
THEFT REPORTING

50

EUR PER CAR TO
CHARITY THROUGH
CAR4CARE

www.metalalert.gr



ABOVE AND BEYOND CONVENTIONAL CSR

www.car4care.gr



CAR4CARE

COORDINATING EFFORTS TO PROTECT INFRASTRUCTURE

LINKING RECYCLING TO CHARITY



Bureau of
International
Recycling

THE BUREAU OF INTERNATIONAL RECYCLING (BIR) IS THE ONLY GLOBAL RECYCLING INDUSTRY ASSOCIATION REPRESENTING AROUND 800 COMPANIES AND 35 AFFILIATED NATIONAL RECYCLING FEDERATIONS FROM 70 DIFFERENT COUNTRIES. ITS MEMBERS ARE WORLD LEADERS IN THE SUPPLY OF RAW MATERIALS AND A KEY PILLAR FOR SUSTAINABLE ECONOMIC DEVELOPMENT.

BIR E-Scrap Steering Committee Chairman

Dr. Thomas Papageorgiou

Anamet Recycling Industry SA (GRE)

WEEE DIRECTIVE (2012/19/EC)

ARTICLE 7

COLLECTION RATE

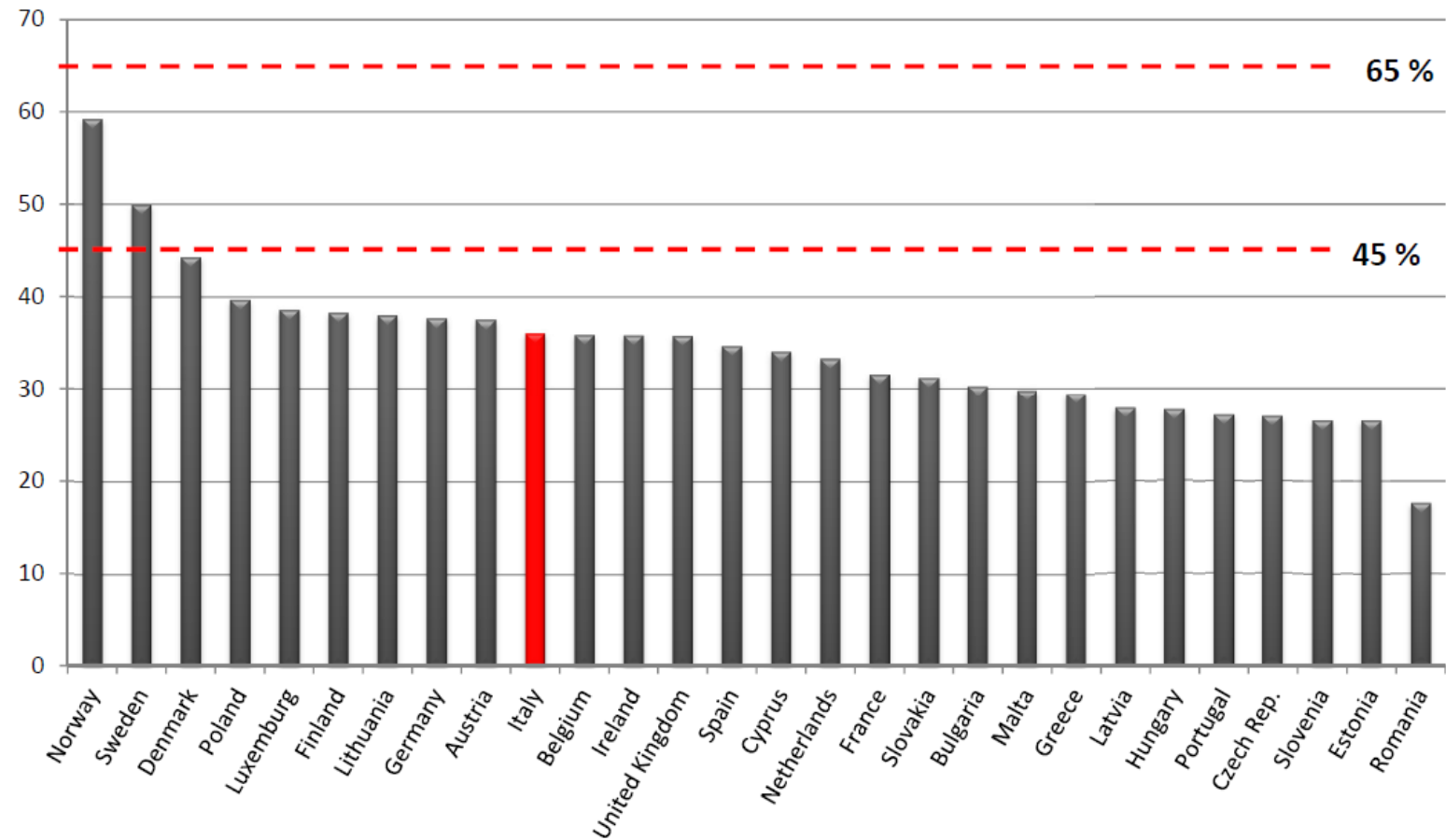
1. WITHOUT PREJUDICE TO ARTICLE 5(1), EACH MEMBER STATE SHALL ENSURE THE IMPLEMENTATION OF THE 'PRODUCER RESPONSIBILITY' PRINCIPLE AND, ON THAT BASIS, THAT A MINIMUM COLLECTION RATE IS ACHIEVED ANNUALLY. **FROM 2016, THE MINIMUM COLLECTION RATE SHALL BE 45 % CALCULATED ON THE BASIS OF THE TOTAL WEIGHT OF WEEE COLLECTED IN ACCORDANCE WITH ARTICLES 5 AND 6 IN A GIVEN YEAR IN THE MEMBER STATE CONCERNED, EXPRESSED AS A PERCENTAGE OF THE AVERAGE WEIGHT OF EEE PLACED ON THE MARKET IN THE THREE PRECEDING YEARS** IN THAT MEMBER STATE. MEMBER STATES SHALL ENSURE THAT THE VOLUME OF WEEE COLLECTED EVOLVES GRADUALLY DURING THE PERIOD FROM 2016 TO 2019, UNLESS THE COLLECTION RATE LAID DOWN IN THE SECOND SUBPARAGRAPH HAS ALREADY BEEN ACHIEVED.

FROM 2019, THE MINIMUM COLLECTION RATE TO BE ACHIEVED ANNUALLY SHALL BE 65 % OF THE AVERAGE WEIGHT OF EEE PLACED ON THE MARKET IN THE THREE PRECEDING YEARS IN THE MEMBER STATE CONCERNED, OR ALTERNATIVELY 85 % OF WEEE GENERATED ON THE TERRITORY OF THAT MEMBER STATE.

COLLECTED WEEE QUANTITIES SHOULD INCREASE

Collected as % of POM

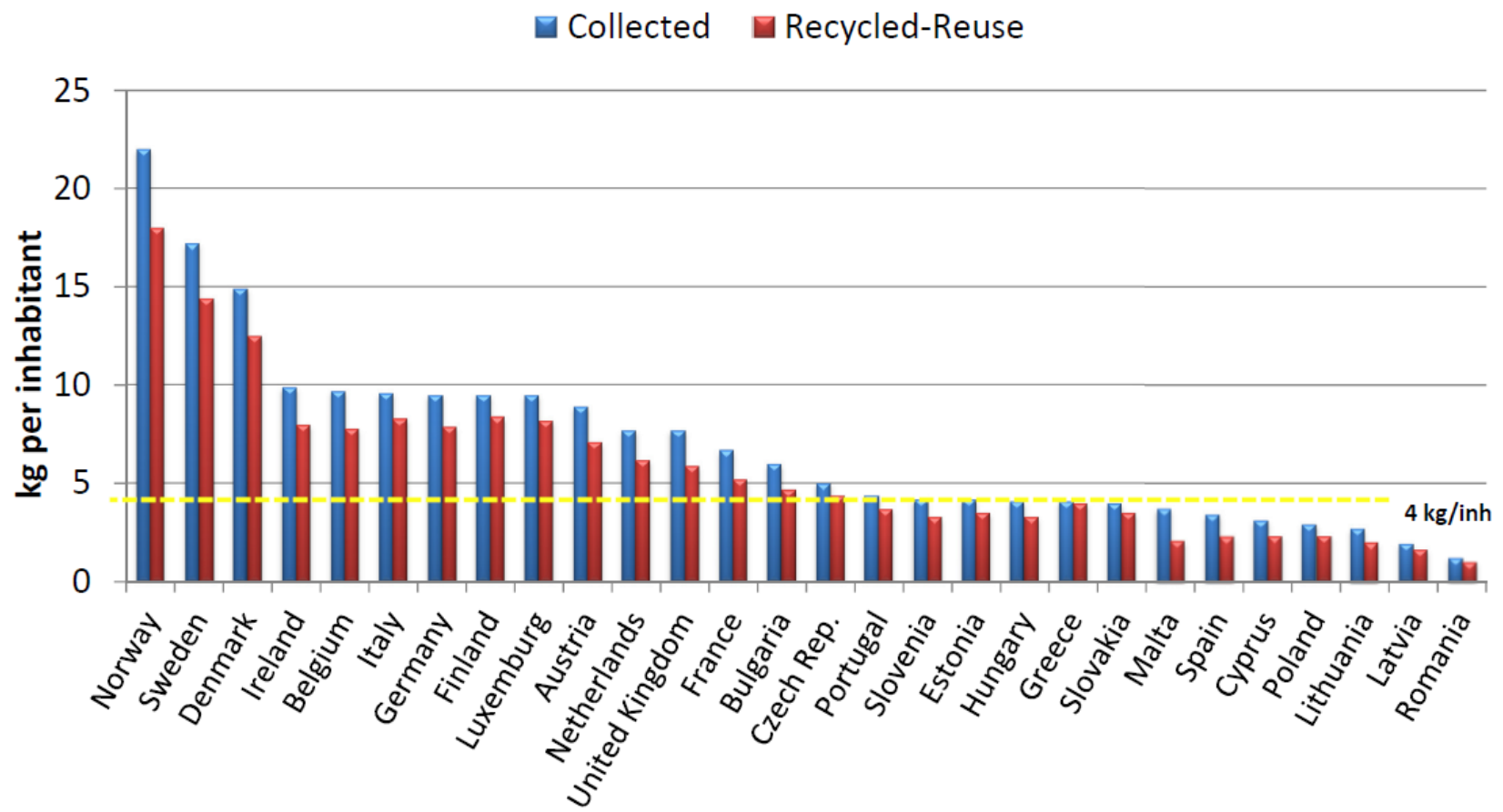
source Eurostat



... BUT MORE THAN 10 MS STILL REPORT COLLECTION RATES < 4 KG / INHABITANT

Collected and treated – 2010

source Eurostat



APPEAL TO GOVERNMENT (END THE COMMISSION) TO TAKE ACTION

30%

ILLEGAL SECTOR OR TREATED AS WASTE

- Unauthorized facilities.
- Municipalities offering no separate collection

32%

PRODUCER COMPLIANCE SCHEMES

- This is what actually appears in the statistics.
- Facilities co-operating with collective take back (EPR) schemes

38%

FREE MARKET PARTIES

- Legal facilities.
- Do not wish to co-operate with registries or EPR schemes.

EPR SCHEMES. OPPORTUNITY OR THREAT?

GENERAL ADVANTAGES

- **EPR PROGRAMS REQUIRE THOSE WHO DESIGN, PRODUCE, SELL EEE TO TAKE RESPONSIBILITY AFTER THE PRODUCT IS DISCARDED BY THE CONSUMER**
- **PRODUCERS PAY INTO THE PROGRAM, AND FUNDS ARE USED TO MANAGE THE PRODUCT'S END OF LIFE**
- **ENCOURAGES DESIGN OF ENVIRONMENTALLY FRIENDLY EEE**

... AND SOME DISADVANTAGES

- **EPR SCHEMES ARE OFTEN REPORTED TO BE VERY “INTRUSIVE”**
- **SOME USE THEIR RESOURCES TO COMPETE AGAINST ESTABLISHED RECYCLERS**

ARTICLE 8

PROPER TREATMENT

5. FOR THE PURPOSES OF ENVIRONMENTAL PROTECTION, MEMBER STATES MAY SET UP MINIMUM QUALITY STANDARDS FOR THE TREATMENT OF THE WEEE THAT HAS BEEN COLLECTED.

MEMBER STATES WHICH OPT FOR SUCH QUALITY STANDARDS SHALL INFORM THE COMMISSION THEREOF, WHICH SHALL PUBLISH THESE STANDARDS.

THE COMMISSION SHALL, NOT LATER THAN 14 FEBRUARY 2013, REQUEST THE EUROPEAN STANDARDISATION ORGANISATIONS TO DEVELOP EUROPEAN STANDARDS FOR THE TREATMENT, INCLUDING RECOVERY, RECYCLING AND PREPARING FOR RE-USE, OF WEEE. THOSE STANDARDS SHALL REFLECT THE STATE OF THE ART.

Standard	Number	Document title	Planned publication
50574 series	EN 50574-1	Collection, logistics & treatment requirements for end-of-life household appliances containing volatile fluorocarbons or volatile hydrocarbons	Published 2012
	TS 50574-2	Collection, logistics & treatment requirements for end-of-life household appliances containing volatile fluorocarbons or volatile hydrocarbons – Part 2: specification for de-pollution	Published 2014

Standard	Number	Document title	Planned publication
50625 series	EN 50625-1	Collection, logistics & treatment requirements for WEEE – Part 1: General treatment requirements	Published 2014
	EN 50625-2-1	Collection, logistics & treatment requirements for WEEE -- Part 2-1: Treatment requirements for lamps	Published 2015
	EN 50625-2-2	Collection, logistics & treatment requirements for WEEE -- Part 2-2: Treatment requirements for WEEE containing CRTs and flat panel displays	Published 2015
	EN 50625-2-3	Collection, logistics & Treatment requirements for WEEE – Part 2-3: Treatment requirements for temperature exchange equipment	Not before 2016
	EN 50625-2-4	Collection, logistics & treatment requirements for WEEE -- Part 2-4: Treatment requirements for photovoltaic panels	Not before 2016

Standard	Number	Document title	Planned publication
50625 series	TS 50625-3-1	Collection, logistics & treatment requirements for WEEE - - Part 3-1: Specification for de-pollution - General	Published 2015
	TS 50625-3-2	Collection, logistics & treatment requirements for WEEE - - Part 3-2: Specification for de-pollution - Lamps	Not before 2016
	TS 50625-3-3	Collection, logistics & treatment requirements for WEEE - - Part 3-3: Specification for de-pollution - WEEE containing CRTs and flat panel displays	Not before 2016
	TS 50625-3-4	Collection, logistics & treatment requirements for WEEE - - Part 3-4: Specification for de-pollution - temperature exchange equipment	Not before 2016
	TS 50625-3-5	Collection, logistics & treatment requirements for WEEE - - Part 3-5: Specification for de-pollution - photovoltaic panels	Not before 2016
	TS 50625-4	Collection, logistics & treatment requirements for WEEE - - Part 4: Specification for the collection and logistics associated with WEEE	Not before 2016
	TS 50625-5 *	Collection, logistics & treatment requirements for WEEE - - Part 5: Specification for the end-processing of WEEE fractions - copper and precious metals	Not before 2016
	TR 50625-6	Collection, logistics & treatment requirements for WEEE - - Part 6: Report on the alignment between Directive 2012/19/EU and EN 50625 series standards	Not before 2016

WHERE DOES THIS END AND HOW MUCH DOES IT COST?

Standard	Number	Document title	Planned publication
EN 50614		Requirements for the preparation for re-use of waste electrical and electronic equipment	Not before 2016

- **STANDARDIZATION IS NECESSARY TO ACHIEVE LEVEL PLAYING FIELD FOR ALL ACTORS**
- **IT CAN TURN OUT TO BE EXPENSIVE ...**
- **... BUT ALLOWS BENCHMARKING AND TRANSPARENT ALLOCATION OF RESOURCES**

ARTICLE 11 RECOVERY TARGETS

	Category	by August 2015	Aug 2015 – Aug 2018
1	Large household appliances	80	85
2	Small household appliances	70	75
3	IT and telecommunication equipment	75	80
4	Consument equipment and PV panels	75	80
5	Lighting equipement	70	80
5a	Gas discharge lamps	n.a.	n.a.
6	Tools	70	75
8	Medical devices	(70)*	75
9	Monitoring and control instruments	70	75
10	Automatic dispensers	80	85

* Target of 13 August 2012

CONSUMER ELECTRONICS IS A VERY FAST DECLINING PART OF MUNICIPAL SOLID WASTE BECAUSE OF MINIATURIZATION / DEMATERIALIZATION.

2000



Weight: approx. 35kg
Metal content: approx. 10-15 kg
Precious metal content: high
REE: 2,5g Neodymium
Gross value of precious metals: > 40\$

2015



Weight: approx. 6 kg
Metal content: approx. 1.5 kg
Precious metal content: medium/low
REE: 0.003g Neodymium
Gross value of precious metals: ~10\$

ARTICLE 15

INFORMATION FOR TREATMENT FACILITIES

- 1. IN ORDER TO FACILITATE THE PREPARATION FOR RE-USE AND THE CORRECT AND ENVIRONMENTALLY SOUND TREATMENT OF WEEE, INCLUDING MAINTENANCE, UPGRADE, REFURBISHMENT AND RECYCLING, MEMBER STATES SHALL TAKE THE NECESSARY MEASURES TO ENSURE THAT PRODUCERS PROVIDE INFORMATION FREE OF CHARGE ABOUT PREPARATION FOR RE-USE AND TREATMENT IN RESPECT OF EACH TYPE OF NEW EEE PLACED FOR THE FIRST TIME ON THE UNION MARKET WITHIN ONE YEAR AFTER THE EQUIPMENT IS PLACED ON THE MARKET. THIS INFORMATION SHALL IDENTIFY, AS FAR AS IT IS NEEDED BY CENTRES WHICH PREPARE FOR RE-USE AND TREATMENT AND RECYCLING FACILITIES IN ORDER TO COMPLY WITH THE PROVISIONS OF THIS DIRECTIVE, THE DIFFERENT EEE COMPONENTS AND MATERIALS, AS WELL AS THE LOCATION OF DANGEROUS SUBSTANCES AND MIXTURES IN EEE. IT SHALL BE MADE AVAILABLE TO CENTRES WHICH PREPARE FOR RE-USE AND TREATMENT AND RECYCLING FACILITIES BY PRODUCERS OF EEE IN THE FORM OF MANUALS OR BY MEANS OF ELECTRONIC MEDIA (E.G. CD-ROM, ONLINE SERVICES).**
- 2. IN ORDER TO ENABLE THE DATE UPON WHICH THE EEE WAS PLACED ON THE MARKET TO BE DETERMINED UNEQUIVOCALLY, MEMBER STATES SHALL ENSURE THAT A MARK ON THE EEE SPECIFIES THAT THE LATTER WAS PLACED ON THE MARKET AFTER 13 AUGUST 2005. PREFERABLY, THE EUROPEAN STANDARD EN 50419 SHALL BE APPLIED FOR THIS PURPOSE.**

ALTERNATIVES

- **PLASTICS ... ALWAYS HAVE PLASTICS IN MIND!**
- **MOST DESIRABLE IT EQUIPMENT COMES FROM COMPANIES AND NOT INDIVIDUALS (EXCEPT FROM MOBILE DEVICES).**
- **72% OF US EMPLOYEES HAVE COMPANY OWNED COMPUTERS (SMART PHONES AND OTHER EQUIPMENT COME ON TOP OF THIS FIGURE).**
- **ASSET MANAGEMENT AND PREPARATION FOR REUSE?**
- **DATA MANAGEMENT, RECOVERY AND DESTRUCTION?**

ENTREPRENEURSHIP

THE CAPACITY AND WILLINGNESS TO DEVELOP, ORGANIZE AND MANAGE A BUSINESS VENTURE ALONG WITH ANY OF ITS RISKS IN ORDER TO MAKE A PROFIT.

THANK YOU!

THANK YOU!