www.oeko.de

Öko-Institut e.V.
Institut für angewandte Ökologie
Institute for Applied Ecology

Evaluation of the Directive 2006/66/EC

Initial results of the evaluation study

No 1: Collection rate

Trinomics/Oeko-Institut/E&Y

Brussels, 14 March 2018




Agenda

1. Compliance with target
2. Mass flows
3. Waste batteries in municipal waste and other losses
4. Difficulties in reporting on collection
    1. Distinction of portable and industrial Pb-acid batteries
    2. Online sales, hoarding, reporting deadline
5. Collection rate: calculation method

1. Collection rate - 45% target

	Collection rate in %				
MS	2012	2013	2014	2015	2016
BE	52,0	53,0	54,6	55,6	70,7
BG	34,0	39,0	45,3	44,6	48,5
CZ	29,0	31,0	31,5	36,3	52,0
DK	45,0	41,0	44,3	45,6	44,6
DE	42,0	43,0	44,2	45,3	46,2
EE	26,0	40,0	22,2	41,9	30,6
IE	28,0	31,0	32,6	33,2	48,0
EL	35,7	34,4	36,8	34,4	
ES	34,0	34,0	36,4	41,4	38,2
FR	35,0	34,0	36,8	38,5	44,5
HR	29,0	20,0	19,0	29,3	100,2
IT	27,0	29,0	34,1	36,4	
CY	12,0	16,0	19,0	27,0	
LV	28,0	27,0	28,4	25,0	30,0
LT	33,0	36,0	32,8	42,5	52,7

Source: Eurostat

LT	33,0	36,0	32,8	42,5	52,7
LU	73,0	63,0	65,0	60,2	63,4
HU	34,0	39,0	37,0	43,7	53,1
MT	20,0	41,0	21,3	39,4	
NL	43,0	44,0	45,0	46,0	
AT	52,0	53,0	53,8	55,1	49,2
PL	29,0	30,0	33,0	38,0	39,0
PT	31,0	31,0	28,0	31,1	41,6
RO	11,0	30,3	31,9	20,6	
SI	33,0	32,0	29,0	35,0	36,0
SK	61,0	48,0	66,0	53,0	47,6
FI	33,0	41,0	46,0	47,0	46,0
SE	61,0	64,0	59,0	61,0	45,1
UK	29,0	32,0	36,0	40,1	44,0

Figures from national implementations reports
Figure from EPBA
Missing data (for all sources)
Target not met
Data inconsistent

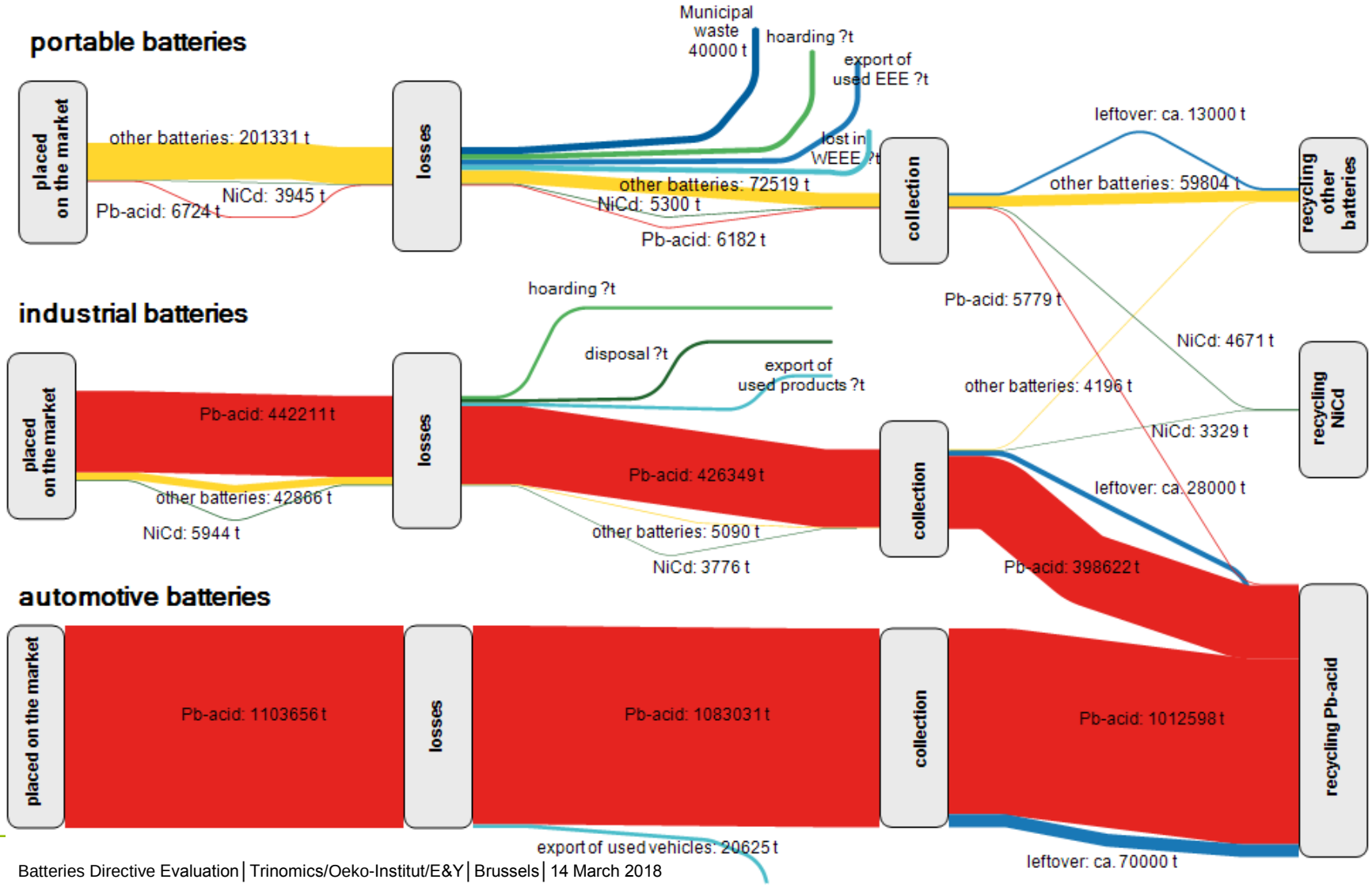
1. Collection rate - 45% target

Compliance / non-compliance: initial conclusions

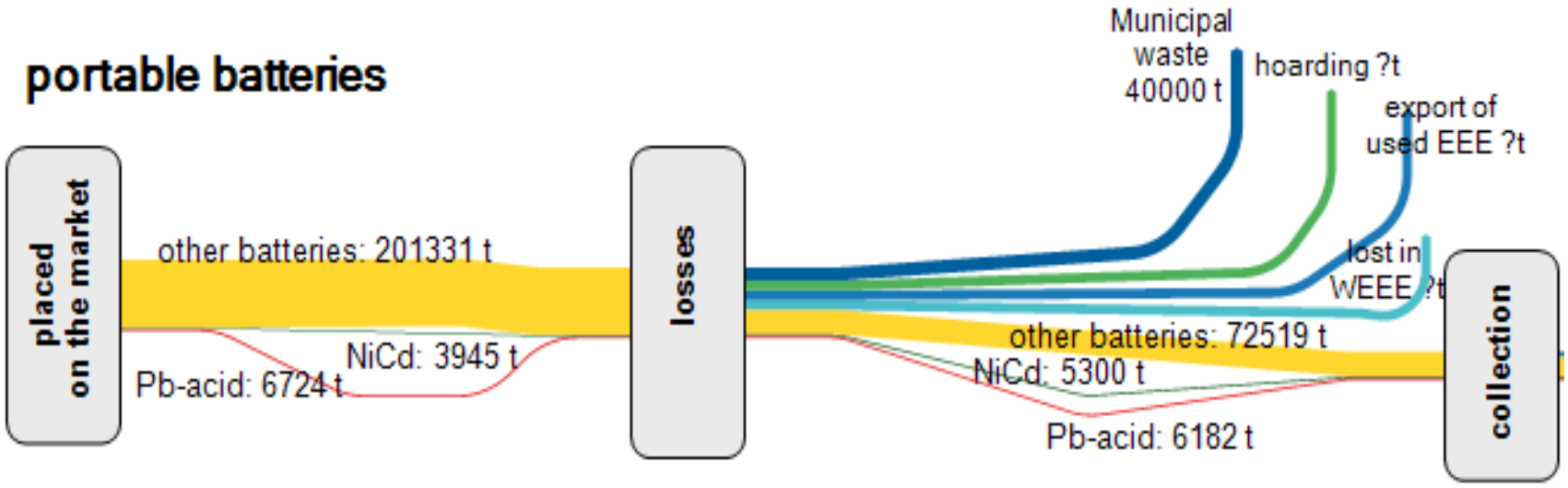
- 14 Member States met the collection target in 2016.
- 4 out of the 14 Member States reported collection rates with an unusually sharp increase (partly explained or is under investigation).
- In addition to the 14 Member States, HR reported an unusual collection rate of 100%.
- 13 Member States did not meet the target.
- Out of the 13 Member States, 6 MS (EL, IT, CY, MT, NL, RO) did not report data on collection rates.

Overall, the collection rates increased from 2012 to 2016. However, there are some countries without a clear trend or with fluctuating figures.

2. Mass flows of batteries in EU28 in 2015



2. Mass flows of batteries EU28 in 2015



POM = 212 000 tonnes
Collected = 84 000 tonnes
“Losses” = difference POM – Collected = 128 000 tonnes

3. Batteries in municipal waste

Initial conclusions

- There is no reporting or systematic analysis of batteries in residual waste at EU level.
- Analysis of household waste in 7 Member States (AT, BE, DE, DK, IE, LU, NL) revealed large amounts of waste batteries being disposed of as a part of municipal waste.
- These high volumes of batteries, extrapolated ca. 40 000 tonnes in EU28, correspond to about 31 % of all losses, 47 % of the amount of collected waste portable batteries and 19 % of the amount of batteries placed on the market in the EU28 in 2015.

3. Collection and losses of portable batteries

Batteries Directive, Article 7, Overarching objective: *"…to minimise the disposal of batteries and accumulators as mixed municipal waste"*

Initial conclusions

- 45% collection means that more than half of total portable batteries are "lost"
  à batteries (e.g. 40 000 tonnes in municipal waste per year) accumulate over many years in landfills or somewhere else
  à lost batteries present a steadily growing risk to the environment

- Other losses: export of used EEE, littering, WEEE, hoarding

Discussion


Points for Discussion
Points for Discussion
Points for Discussion
Points for Discussion

Points for Discussion

Öko-Institut e.V.

Collection and losses of portable batteries
Points for discussion

- The overarching objective of minimizing the disposal of batteries as mixed municipal waste is not fulfilled.
- 45% collection target is not sufficient to address or cover one of the main objectives of the Batteries Directive: protection of the environment.
- A monitoring system or target is missing that addresses the whereabouts of batteries not collected and thus more directly addresses environmental protection.

Öko-Institut e.V.

4. Difficulties in reporting on collection

4.1. Distinction of portable and industrial Pb-acid

Share of portable Pb-acid batteries is unusually high

Placed on the Market: Pb-acid share of all portables in %							Collected: Pb-acid share of all portables in %						
2009	2010	2011	2012	2013	2014	2015	2009	2010	2011	2012	2013	2014	2015
MKT Pb-acid	MKT Pb-acid	MKT Pb-acid	MKT Pb-acid	MKT Pb-acid	MKT Pb-acid	MKT Pb-acid	COL Pb-acid	COL Pb-acid	COL Pb-acid	COL Pb-acid	COL Pb-acid	COL Pb-acid	COL Pb-acid
				3%	3%	2%					4%	4%	6%
									46%	31%			
8%	10%	14%	15%	13%	15%	16%		53%	53%	45%	51%	50%	53%
				2%	2%	4%							
2%	2%	2%	2%	3%	3%	3%	9%	8%	7%	8%	7%	7%	6%
				3%	3%	2%							
21%	21%	17%	22%	24%	23%	31%	30%	24%	17%	17%	17%	15%	15%
											10%	5%	
3%	3%	3%	4%	6%	9%	12%							
						4%							14%
										45%	44%	39%	61%
6%	4%	3%	1%	1%	1%	1%	20%	23%	24%	19%	18%	16%	18%
						7%						13%	7%
	4%	4%	3%	4%	3%	3%			13%	11%	12%	6%	6%
					4%	7%							4%
3%	3%	1%	1%				58%	40%	19%	8%			
5%	7%	9%	9%	7%	9%	9%	5%	6%	6%	6%	3%	5%	4%
7%	5%	8%	9%	7%	6%	6%		11%	11%	12%	12%	11%	10%
16%	15%	13%	8%	6%	6%			42%	74%	82%	86%	76%	

4. Difficulties in reporting on collection

4.1. Distinction of portable and industrial Pb-acid

- The share of Pb-acid batteries of total collected portable batteries is implausibly high for five MS (up to about 75%).
- It might be that industrial Pb-acid batteries are (misleadingly) reported under the category portable batteries.
- The overall result will potentially be that reported collection rates are likely too high.

4. Difficulties in reporting on collection

4.2. Online sales, hoarding, reporting deadline

Initial conclusions

- Portable batteries are not being reported as placed on the marked because of not registered producers (e.g. online sales) or batteries being wrongly classified as industrial
- Increasing effect of hoarding because of an increasing share of long-life Li-ion batteries placed on the market (increasing share of applications e.g. smartphones, tablets, cordless power tools, etc.)
- Some MS mentioned that the deadline for data reporting is too ambitious; June of the following year is too soon.

5. Collection rate: calculation method

Initial conclusions

- Increasing share of long-life Li-ion batteries placed on the market (increasing share of applications e.g. smartphones, tablets, cordless power tools, etc.)
- The length of the battery life cycle is longer than three years and thus the calculation method does not correctly represent the collection performance in actual use.

Discussion


Points for Discussion
Points for Discussion
Points for Discussion
Points for Discussion

Points for Discussion

Öko-Institut e.V.

Collection rate: calculation method

Points for discussion

- Stakeholder consultation revealed an explicit demand to adapt the calculation methodology of the collection rate.
- Different proposals were offered in the stakeholder consultation as well as in literature (e.g . 6 instead of 3 successive years).

Ø Shortcomings of the current calculation method do not necessarily mean that an alternative method is more suitable.
Ø Any potentially new methodology needs to be assessed and compared to the current methodology.
Ø Pros and cons, practicability, effort etc. need to be identified.
Ø Decision on new calculation methodology to be based on assessment.
Ø A new calculation methodology would require developing a new collection target.

Öko-Institut e.V.
Institut für angewandte Ökologie
Institute for Applied Ecology

Thank you for your attention!

Any further questions?

Your contact

Dr. Hartmut Stahl

Öko-Institut e.V.

Office Darmstadt
Rheinstraße 95
64295 Darmstadt

Phone: +49 6151-8191-0
E-Mail: h.stahl@oeko.de