

Evaluation of the Directive 2006/66/EC

Initial results of the evaluation study:

**No 3 Distinction between industrial and portable
batteries**

Trinomics/Oeko-Institut/E&Y

Brussels, 14 March 2018



Agenda

Distinction between industrial / portable

- 1. Definition**
 - 2. Observations during collection**
 - 3. Different responsibilities for collection**
 - 4. Different obligations for reporting (PoM, collection)**
 - 5. Discussion**
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1. Definition: portable batteries

Article 3(3): ‘portable battery or accumulator’ means any battery, button cell, battery pack or accumulator that: (a) is sealed; and (b) can be hand-carried; and (c) is neither an industrial battery or accumulator nor an automotive battery or accumulator.

Recital (10) gives a number of examples as single cell batteries (such as AA and AAA batteries) and batteries and accumulators used by consumers or professionals in mobile telephones, portable computers, cordless power tools, toys and household appliances such as electric toothbrushes, razors and hand-held vacuum cleaners (including similar equipment used in schools, shops, restaurants, airports, offices or hospitals) and any battery or accumulator that consumers may use for normal household applications.

- Batteries for cordless power tools are portable batteries, regardless if used by consumers or professionals.
- AA and AAA batteries and other standard batteries of low weight are considered ‘portable batteries’ as they are not “exclusively designed” for specific (“industrial”) applications.

1. Definition: industrial batteries

Article 3(6): ‘industrial battery or accumulator’ means any battery or accumulator designed for **exclusively** industrial or professional uses or used in any type of electric vehicle

Recital (9): gives a number of examples for industrial batteries including batteries for electric vehicles including electric cars and e-bikes. Batteries used for a limited number of specific purposes are considered as industrial batteries regardless the type / design, simply because of the application e.g. “batteries and accumulators used on offshore oil rigs”. Other batteries are considered as industrial batteries only if they are designed exclusively for e.g. “hand-held payment terminals in shops and restaurants”

- Traction and propulsion batteries for Electric Vehicles (EV), including for e-bikes, are considered “industrial”.
- Household power storage batteries (e.g. for PV) are considered “industrial”.

2. Observations during collection

In practice, it is very often difficult to distinguish if batteries are portable or industrial at the collection stage, e.g.:

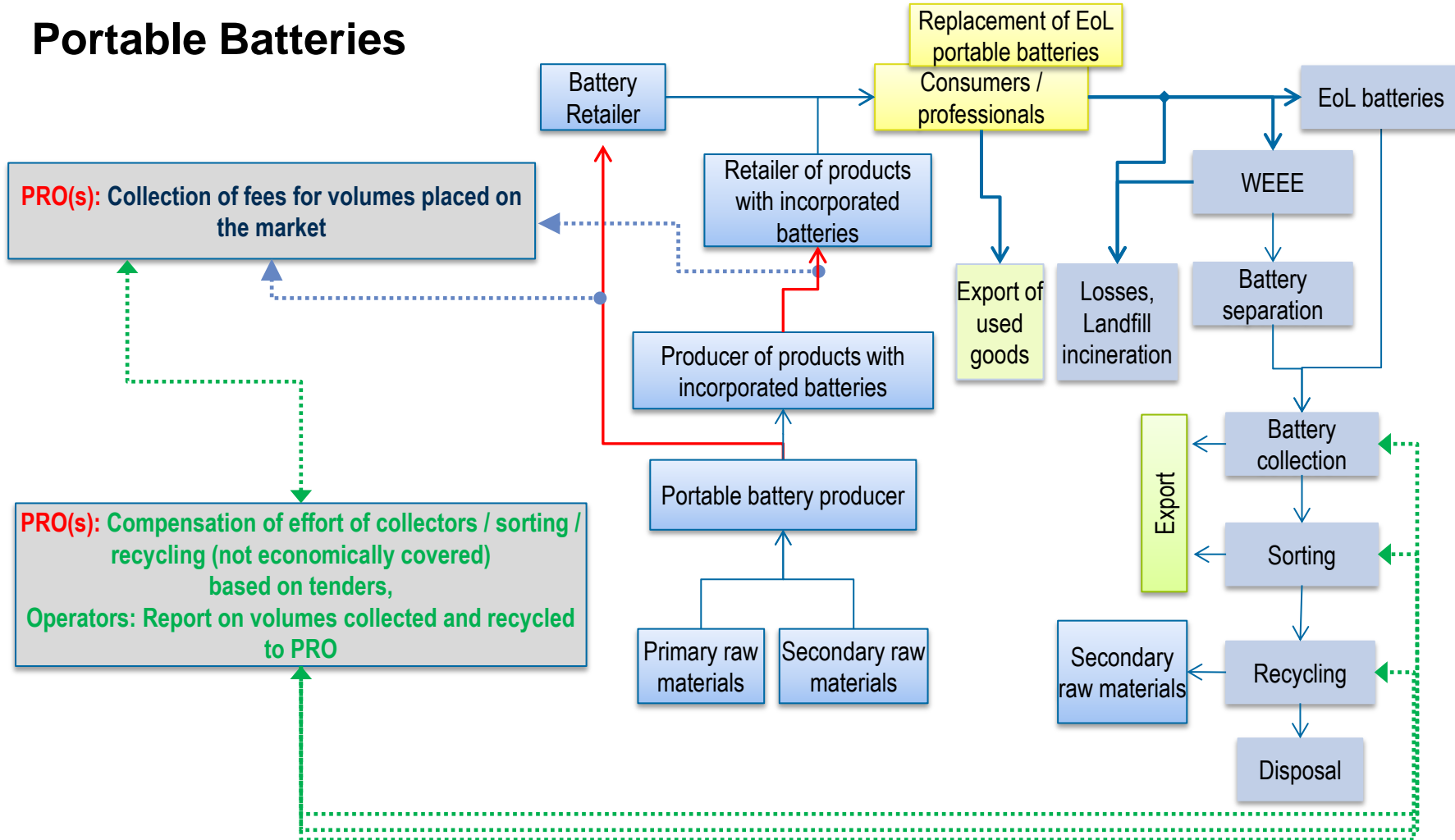
- Li-ion batteries incorporated into consumer or industrial devices where the information is labelled on the product: when the battery is removed (during WEEE dismantling), the information about origin or chemistry of the battery is no longer known.
- Batteries collected from e-bikes (“industrial”), often collected at municipal collection points in the same systems as laptop batteries (“portable”).
- At least 5 MS established legal and administrative provisions differentiating portable and non-portable batteries by weight, but a relevant share of lead-acid batteries (e.g. for ignition) weigh less than 5 kg per unit (“industrial” and “automotive”).

2. Initial conclusions (1)

- The absence of more detailed criteria to distinguish different types of batteries (above all portable and industrial) could lead to a non-harmonized implementation of relevant provisions.
- The implementation for the distinction across EU is not coherent, as at least 5 MS apply (different) thresholds by weight as national criteria for the distinction.
- The distinction between “portable” and “industrial” during collection is not always practically applicable.
 - if ‘industrial’ is collected together with portable and accounted for portable this increases “artificially” the collection rate.

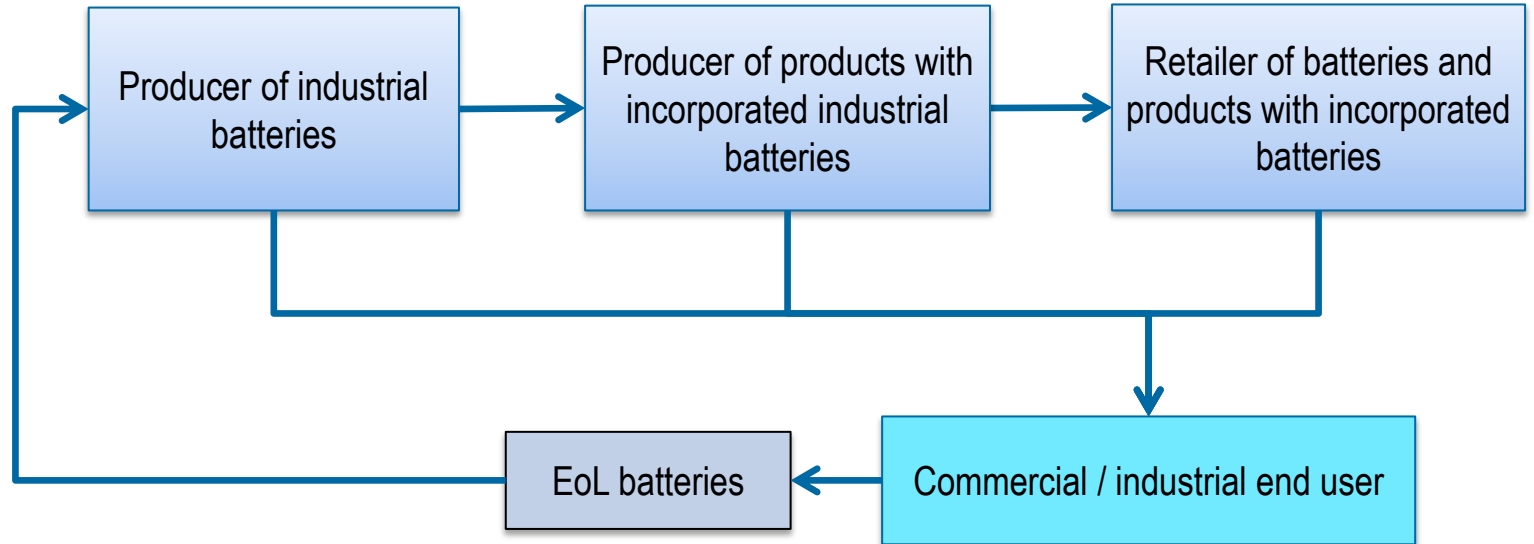
3. Different Responsibilities

Portable Batteries



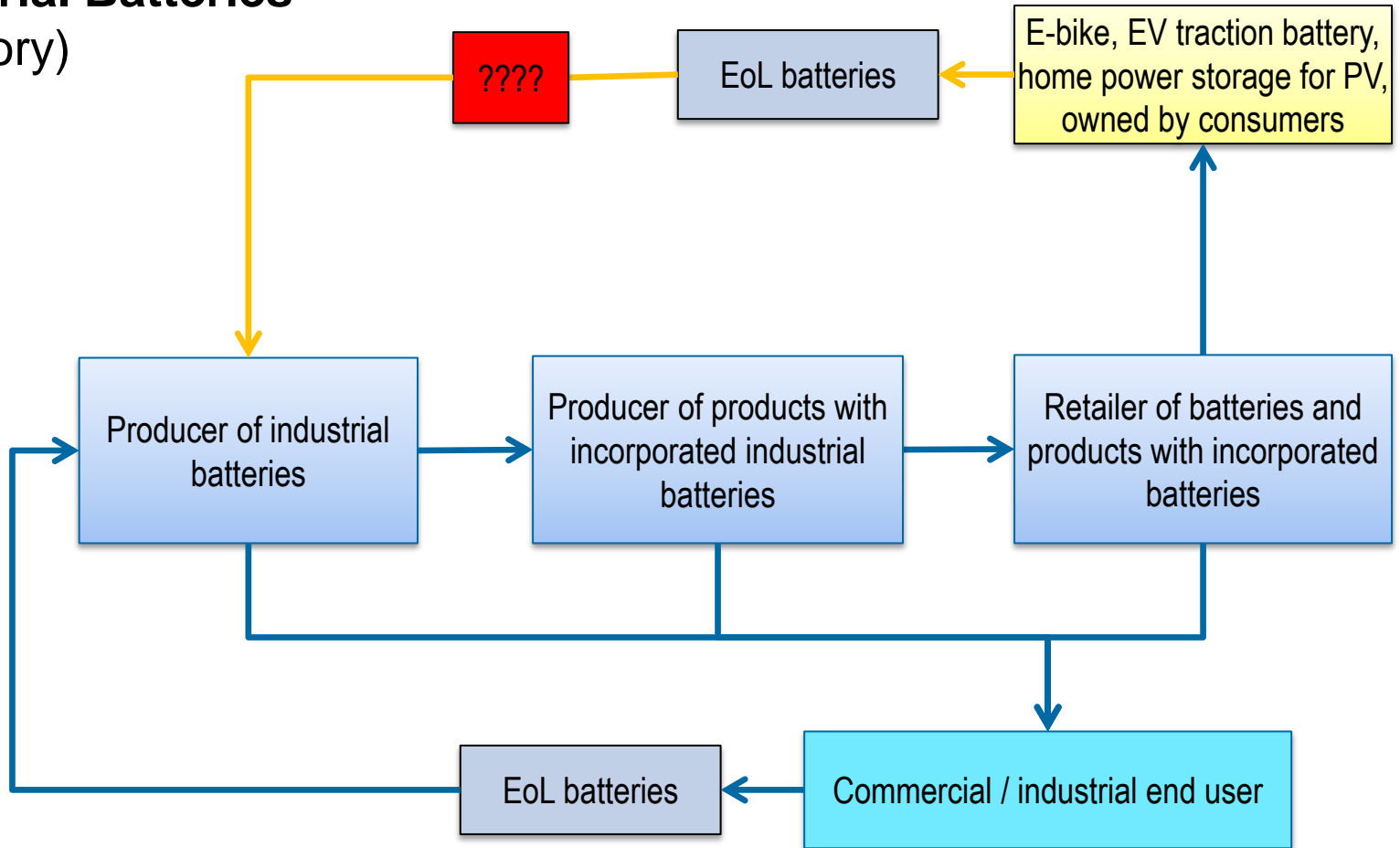
3. Different Responsibilities

Industrial Batteries (in theory)



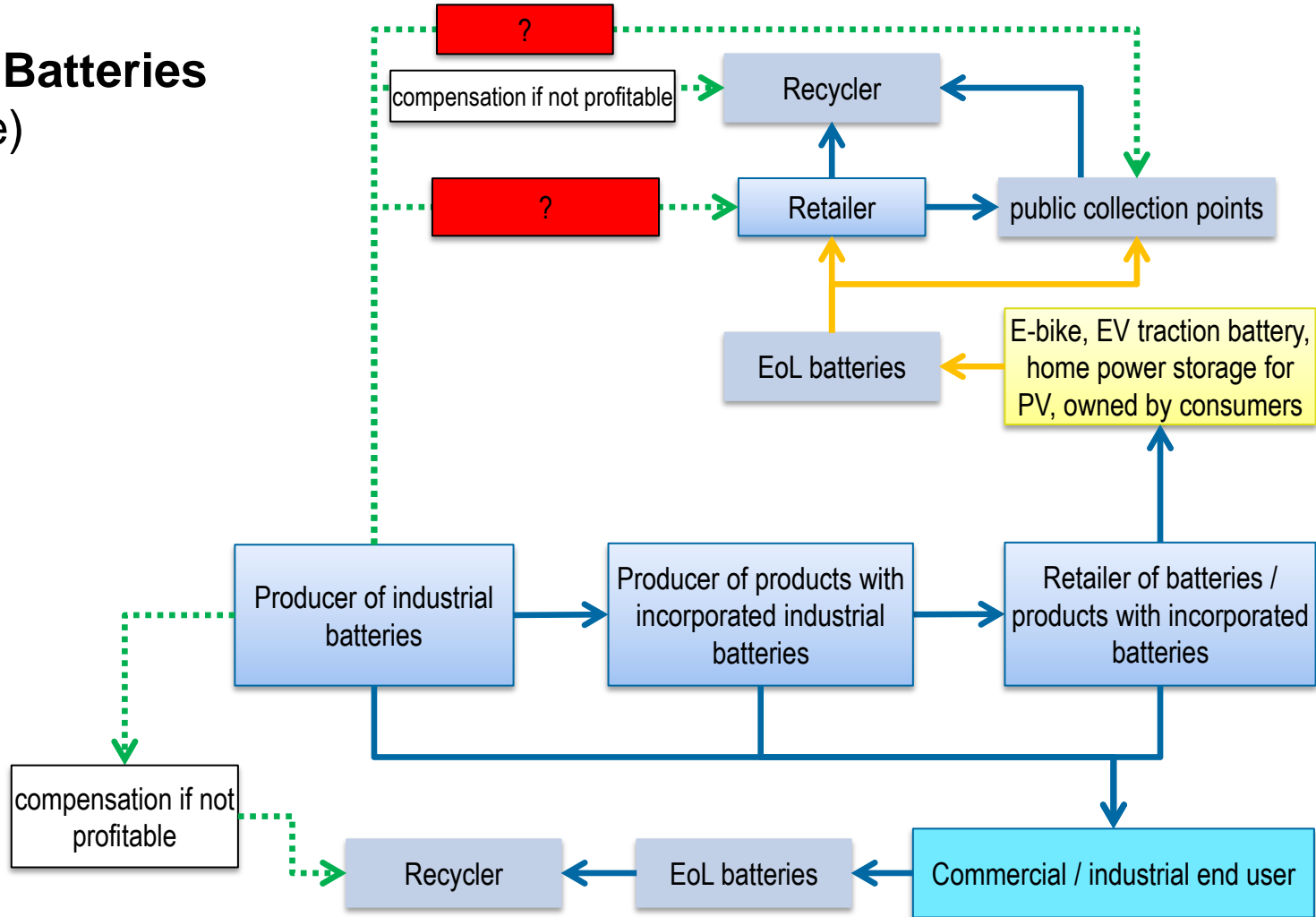
3. Different Responsibilities

Industrial Batteries (in theory)



3. Different Responsibilities

Industrial Batteries (in practice)

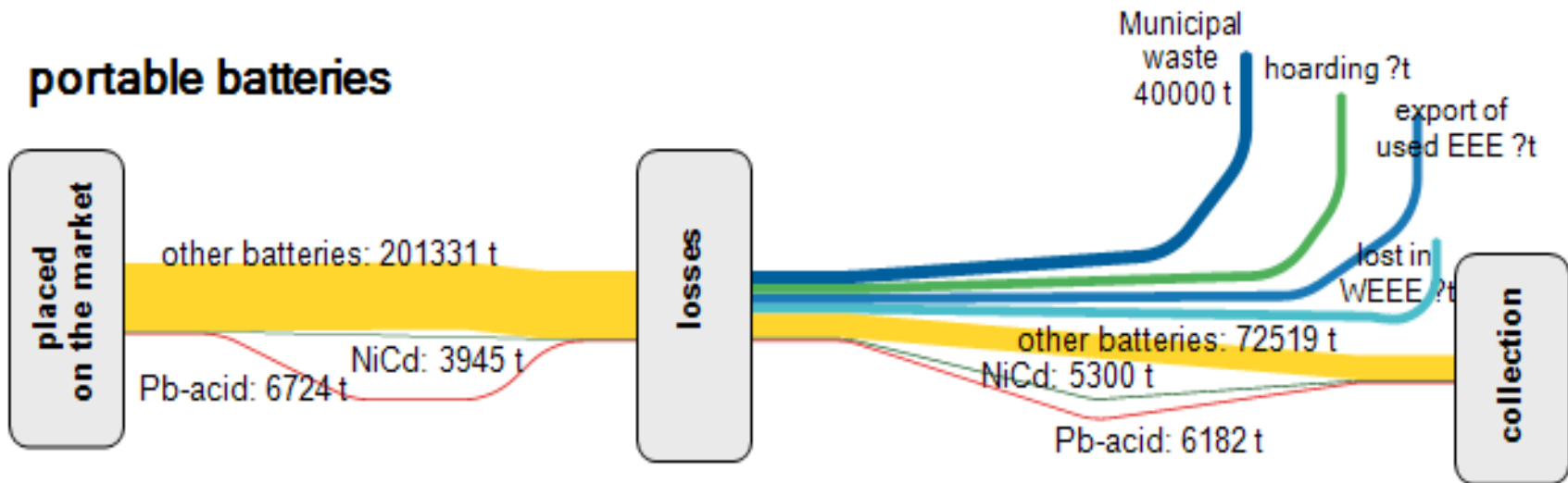


3. Initial conclusions (2)

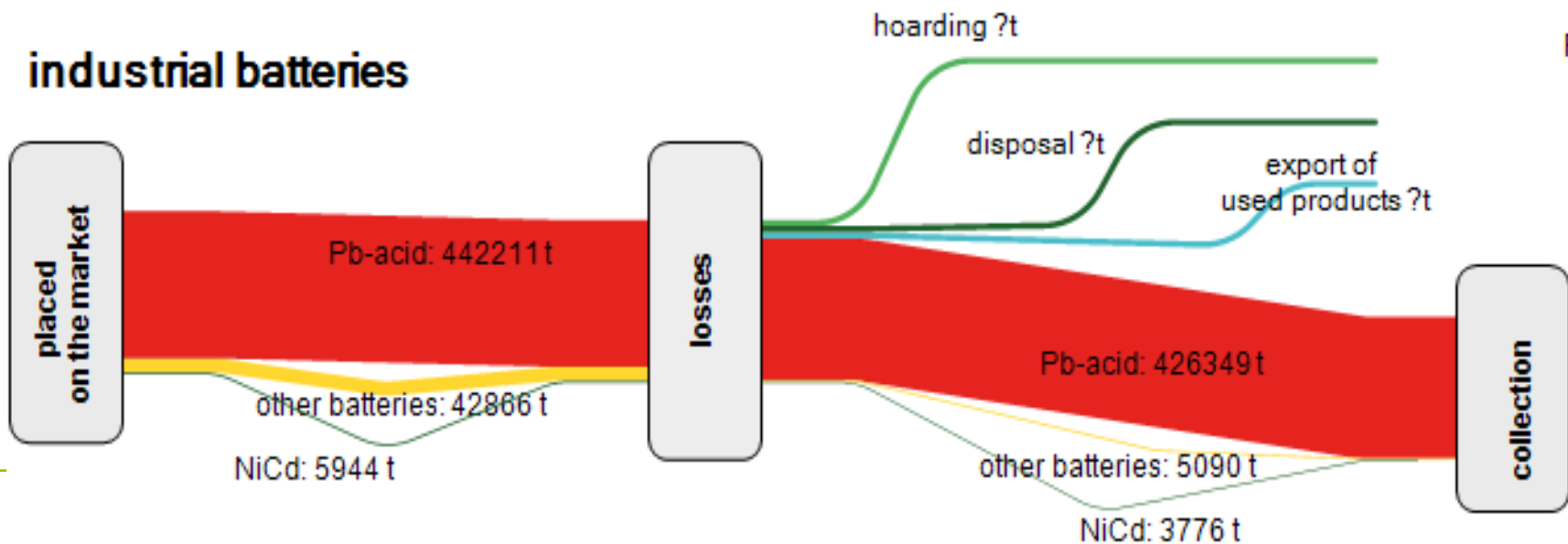
- Some industrial batteries (e-bike, traction batteries for EV, household power storage for PV) are increasingly used by consumers.
- Collection, safe storage and transport of waste Li-ion batteries is expensive due to security aspects. These additional expenses are not covered by revenues from recycling. Depending on the chemistry and market conditions for secondary raw materials, a recycling fee may even be required.
- Article 8(3) and 16(1) do not clearly specify who covers the burdens for collection, safe storage and safe transport of industrial batteries.

4. Reporting

portable batteries



industrial batteries



4. Initial conclusions (3)

- In terms of weight, the distribution of types of industrial batteries is by far dominated by lead-acid batteries.
- Collection and recycling of lead-acid batteries are, for the current conditions, economically viable.
- The Directive adopted in 2006 did not include reporting obligations for industrial batteries (e.g. amounts placed on the market and waste collected).
- Most likely the Directive was based on the assumption that all industrial batteries are handled in B2B relations and that management of waste lead-acid batteries is economically viable.
- There is no evidence to conclude that all industrial (or automotive) waste batteries are collected (or economically viable).

5. Discussion



Points for Discussion

- Are the provisions for industrial batteries in the Directive adequate to deal with dramatically increasing amounts of Li-ion batteries (instead of Pb-acid)?
- How to deal with the fact that collection, safe storage and transport of Li-ion batteries entail additional costs (security aspects) not covered by revenues from recycling?
- Is it appropriate that batteries used in applications like e-bike, EV traction/propulsion batteries, PV storage, owned by consumers are considered as industrial batteries?
- Is it true / appropriate that, regarding industrial batteries, the current provisions of the Directive:
 - are vague regarding the responsibility to provide collection infrastructure?
 - are vague on who must carry the economic burden for collection of batteries owned by consumers?
 - do not establish reporting / monitoring on industrial batteries for the volume PoM and collected?

Thank you for your attention!



Any further questions?

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