Life cycle management from raw material to product and recycling, is a main target of the Sustainable Resources Management and Environmental policy of the European Union; a principle that is supported by the industry if implemented in a balanced and efficient way. Industry is convinced that the case of batteries forms an excellent demonstration of this sustainable potential since these products are composed of durable materials, with high efficient performance and a high and effective recycling potential for the metals fraction. It is in this respect that both the metals and battery production and recycling industries, have common goals and objectives.

The position and comments forwarded by this note should therefore be considered as a statement jointly supported by Eurometaux and its members, Eurobat, Collect NiCad and EPBA (further called as the metals and battery industry)(*). The metals and battery industry concur with the Commission that the present Battery directive needs to be updated mainly because its original aims and targets have not been fully met. Moreover, the policy and requirements of the present directive are not in line anymore with the present functioning of the internal markets, the technical evolution (new battery types developed), the Sustainable Development objectives and the principle set forward in the Green paper on Integrated Product Policy (improve the efficiency of the materials cycle).

The metals and battery industry welcomes therefore the recent initiatives of the Commission to prepare a revision of the Battery Directive (91/157) in particular the launch of the Extended Impact Assessment and the consultation of stakeholders on potential policy options.

Besides responding to the more technical options posed by the Commission, the metals and battery industry would like to take this opportunity to indicate some key policy aspects related to the recycling and material flow management of batteries:

- **Clarify the status of batteries in End of Life legislation**: The legal status of batteries in the variety of existing End of Life legislation is presently unclear. Moreover, the lack of coherence between the various End of Life directives including the battery directive, does not promote sustainable market and recycling conditions for the metals and battery industry. Most logically, the battery directive should confirm its superseding power over any other existing End of Life legislation, in particular the ELV, WEEE and RoHS directives. Industry would therefore like to encourage the Commission to use the opportunity of the revision of the battery directive to clarify this situation by clearly stating that: *the collection and recycling of batteries is solely regulated by the battery directive as revised.*

(*) More detailed and additional technical comments and remarks can be found in the submissions from the Battery Industry Coalition
**Sustainable Development as main policy objective to revise the battery directive**: the battery directive aims for a sustainable use of materials while minimising the risks for man and environment. Industry believes that the revision of the directive should include a balanced emphasis on all three pillars of the sustainability model – economic, environmental and social - to ensure an efficient and effective collection / recycling and resources policy. This may be promoted by striving for market-supported recycling options and policy targets.

**Utilise best science and technology to achieve policy targets**: both the environmental targets aimed for and the recycling options, should be based on non discriminatory and sound scientific principles and technologies. The Best Available Technology Not Entailing Excessive Costs, should be applied here as a guiding principle.

Applying the more generic principles discussed above, the metals and battery industry would like to suggest the following comments and guidance to the Commission, on the more technical or specific question raised in the consultation paper:

1. **The Extended Impact study** should recognise the available sound scientific analyses conducted within the EU targeted risk assessment on NiCad batteries. Industry and member states have spend a significant amount of resources to develop a tiered and extensive risk assessment model for End of Life assessments like for batteries, as well as in the collection and screening of high quality information to feed the EOL risk assessment.

2. The metals and battery industry believes that there is justification for a **distinction between** the recycling policies and between **different applications of batteries** (*industrial versus consumer batteries*). Indeed the technological conditions to recycle, the recycling possibilities and market conditions may differ significantly between different battery applications. Aligning the directive to this factual evidence would bring it closer to a policy integrating all aspects of Sustainable Development. A battery application driven policy, is therefore preferred over a generic approach. Industrial batteries are a good example of this. Different and more innovative management tools including supplier-customer contracts and / or agreements can promote recycling here.

3. The battery directive should **take maximal advantage of existing (efficient) collection and recycling schemes** rather than insisting on new or alternative schemes. The further promotion of (existing) market consistent collection and recycling schemes, is a proper way to ensure the interest of stakeholders, which would enhance the level of success to achieve the policy targets.

4. Collection and recycling targets do not only depend on battery application and technology aspects, but also on regional and local (often country) specific conditions like distance, population density, … Industry would therefore like to make a strong plea for **European wide collection and recycling recommendations** rather than binding country targets, AND promote that countries take appropriate actions to achieve these targets, leaving regional specificities of the recycling potentials for
national law. An indicative and differentiated collection target is therefore recommended, taking into account the age and efficiency of the existing schemes.

5. Industry would promote a policy that **ALL collected batteries should be sent for recycling** if a feasible and economical technology exists. This would simplify the policy setting by avoiding the need to split different objectives for collection and recycling.

6. **Collection and recycling ranges** are far more efficient than fixed collection and recycling values, since annual recycling efficiencies are highly influenced by economic conditions and even meteorological conditions. It is industries view that a policy based upon “fixing to one value” will lose its final aim and objective, namely maximize collection and recycling of metal containing batteries in a economical and efficient way. Furthermore, the way to assess and measure these values needs proper consideration, recognising industrial experience in this field.

7. The efficiency of collection systems is besides economical reasons mainly dependant on the motivation and organisational structure of the delivery and collection-recycling chain. A **shared producer-distributor-user responsibility** seems therefore the best solution to promote collection and recycling over the entire value chain of the battery.

8. Collection and recycling systems can be imposed by regulatory means. However, it may be more relevant and efficient to engage all stakeholders of the battery value chain by **promoting voluntary initiatives in the frame of the revision of the battery directive**. A specific safety net, will however be required to minimise free riders.

9. The **battery industry is characterised by a high level of technical innovation** applied to production, design, application and recycling. Further technological development should be both anticipated and encouraged. A sound battery policy for the future should recognise this and should ensure that a mechanism exist for review in the light of technical innovation or related developments that might occur after the original policy is decided.

10. Finally Industry would like to **promote dialogue** between the policy makers and the battery producing and recycling industry in order to define the best and most sustainable collection and recycling targets, systems (including their financing), as well as measurement tools

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Battery Industry Coalition
Common Position Paper on Batteries
In the light of the revision of European battery legislation

April 2003

This Position Paper is common to the three associations representing the battery industry in the EU.

EPBA is the European Portable Battery Association. It is the trade association representing the interests of the portable battery industry (manufacturers and importers of both rechargeable and primary batteries) active in the European market.

Eurobat is the European Storage Battery Manufacturers’ Association formed by industrial batteries manufacturers and automotive batteries manufacturers. It represents the interests of those battery manufacturers.

CollectNiCad is the European Association formed by portable and industrial nickel cadmium battery manufacturers and by Original Equipment Manufacturers incorporating those batteries in their equipment. CollectNiCad represents the interests of nickel cadmium battery manufacturers, users and collectors.

Content:
1. Scope
2. Legal Basis
3. Producer Responsibility
4. Collection
5. Recycling
6. Marking
7. Financing
8. Economic Instruments

BIC – April 24_final
1 - SCOPE

1.1. The scope of the Directive, covers all battery types, sizes and categories. Batteries for national security, space and military applications are exempted.

**N.B.** A Table indicative of the main categories of batteries concerned by the Directive is supplied in *Annex 1.*

1.2. Depending on the battery type, size and category, specific requirements e.g. collection rates, recycling, marking can be set.

1.3. Considering the scope of the Waste Electrical and Electronic Equipment (WEEE) Directive and specifically its Annex 2 (1), all batteries must be removed from the separately collected waste EEE. Once removed, they are subject to the specific provisions of the Batteries Directive 91/157/EEC.

1.4. Considering the scope of the Restriction of the Use of certain Hazardous Substances (ROHS) Directive, batteries are excluded, as per Article 2 (2).

2 - LEGAL BASIS

All battery legislation should be based on the harmonised approach of Article 95 of the EU treaty. End-of-life management should be governed by a single legal framework across the EU. Non- harmonised standards based on Article 175 of the EU Treaty should not be applicable since end of life requirements impact the design and commercialisation of the product.

3 – PRODUCER RESPONSIBILITY

3.1. Definition of “producer”:
Producers means any person who, irrespective of the selling technique used (similar to adopted legislation such as the WEEE directive):
(i). manufactures and sells batteries under his own brand,
(ii.). resells under his own brand batteries produced by other suppliers (private label),
(iii). imports or exports batteries on a professional basis into a Member State,
(iv). manufactures and sells, imports or exports equipment incorporating batteries on a professional basis into a Member state

3.2. Producer field of responsibility:

(i). Each producer is responsible for the products he puts on the market (individual producer responsibility principle).

(ii). Member States should provide a mechanism to ensure the compliance of each producer with its obligation on the basis of national registers (similar to adopted legislation such as WEEE).

(iii). Each actor in the collection chain (municipality, retailer, consumer, battery and equipment producers/importers, public authorities) should be fully responsible for his own action and financing. (shared responsibility principle).

4 – COLLECTION

4.1. Definition of Collection: Collection means the take back of spent batteries collected by municipalities, retailers, industrial end users and/or others.

4.2. Collection Responsibility:

The Battery Industry agrees to collect all batteries taking into account the following issues:

(i). The main purpose is resource recovery and prevention of uncontrolled disposal of spent batteries.

(ii). The legal framework should enable the collection systems to operate at reasonable costs and with appropriate financing mechanism.

(iii). Collection of batteries together with other waste streams (integrated waste management e.g. WEEE) should be allowed and encouraged.

(iv). Producers should have the freedom to choose between the participation in an individual or a collective collection system.
4.3. Collection target:

(i). Collected battery quantities are always measured in weight in the Member States. Collection targets could be further expressed as a ratio:
- in weight per inhabitant per year
- in percentage of batteries available for collection per year,
but should not be linked to sales.

(ii) The quantity available for collection depends on the battery systems and applications (see below).

(iii). The battery collection target should be measurable and achievable and has therefore to be based on the experience of existing National Collection Organizations in the Member States.

Note: Long-term public awareness programmes funded by the relevant public authority can achieve a major and enduring change in consumer behavior leading to an increase in collection of spent consumer and other portable batteries. Producers are willing to contribute with their technical expertise to such awareness programmes.

**Specific Collection Targets Requirements:**

<table>
<thead>
<tr>
<th>EPBA</th>
<th>CollectNiCad</th>
<th>Eurobat: Automotive Batteries (SLI):</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPBA proposes the following for spent portable batteries: Indicative collection targets of between 50-130 g/inhabitant per year in total are achievable after 5 years, depending on the existing infrastructure and collection experience in the Member States.</td>
<td>CollectNiCad should set collection targets. They should be set in each Member State taking into account the level of collection efficiency reached at the time of the Directive’s entry into force. CollectNiCad proposes to achieve the following targets in all Member States within 5 to 10 years after entry into force:</td>
<td>The quantity of batteries sold in relation to batteries recollected can vary significantly, as the collection rate is influenced by the:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- lifespan of Automotive Batteries, which can range from 3 to 7 years,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- percentage of cars with batteries in use that is exported, and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- variation of metal prices (in times of low Lead prices, scrap metal dealers will keep spent batteries on stock)</td>
</tr>
</tbody>
</table>
Spent sealed/portable rechargeable Ni-Cd batteries: a minimum of 75% by weight collection efficiency.

The take back of industrial nickel cadmium batteries is regulated by supplier customer contracts. Spent industrial rechargeable Ni-Cd batteries: 95% by weight collection efficiency.

Collection efficiency should be calculated according to the quantity of spent batteries available for collection (batteries collected for recycling and batteries present in the waste stream and not recycled) on a yearly basis.

Prior to establish targets for collection, the infrastructure has to be installed in certain countries. In consequence, the implementation of the collection targets has to consider an appropriate transition period. The collection rates should be defined with:
- 80% of the total batteries available for collection after 5 years,
- 90% of the total of batteries available for collection after 10 years.

Due to the import and export streams, the verification of the target should be on European level, considering the data to be provided by the single Member States.

\[
\text{Collection Rate} = \frac{L_R}{L_A}
\]

\[
L_R \quad \text{(Batteries recycled)}
\]

\[
L_A \quad \text{(Batteries available)}
\]

\[
L_R = \text{Weight of Batteries input from domestic sources + Exports to all countries}
\]

\[
L_A = \text{Weight of Batteries resulting from AM (= Volume x Average Weight acc. to life-span) + batteries from demolished cars in the country + lead acid batteries:}
\]

The collection and recycling of Industrial Batteries is to be regulated by established industry practices and supplier-customer regimes. Though the collection regimes vary from country to country within the EU, the efficiency rate for these Lead Acid Batteries is currently quite high. In addition these spent batteries have a positive market value, so they are in the scope of existing collection regimes (Scrap Industry – End User) beyond the influence and responsibility of the producer.
5 – RECYCLING

5.1. Definition:
Recycling means the reprocessing in a production process of the waste materials for the original purpose or for other purposes, but excluding energy recovery which means the use of combustible waste as a means of generating energy through direct incineration with or without other waste but with recovery of the heat.

5.2. Principle:
All batteries collected will be recycled except those batteries that are not in a condition to be recycled which should be allowed to be considered as hazardous waste.

Note:
The ban on land filling of batteries containing hazardous substances and in condition to be recycled should be strictly enforced in all Member States.

5.3. Technology:
All collected batteries, should be recycled by best available recycling technology not entailing excessive cost – BATNEEC. A list of BATs should be defined, while the market competition between those technologies will ensure the most economic costs.

5.4. Target:
The reprocessing of spent batteries should lead to the recovery of 55 % average by weight of the battery, across all battery systems.
Specific Recycling Targets requirements:

<table>
<thead>
<tr>
<th>EPBA:</th>
<th>Eurobat:</th>
<th>CollectNiCad:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The recycling target of 55% by weight should not be legally binding but indicative across all battery systems in order to allow for sound competition between recycling technologies.</td>
<td>EUROBAT recommends defining a recovery target of an average of 55% (recognizing the high level of recovery of lead content in the batteries, as well as the recovery of steel, plastic components etc.) by weight of the automotive and industrial batteries available after collection.</td>
<td>The 55% target by weight should be legally binding for NiCd batteries only. Recovery: the recycling process should lead to the recovery of all the cadmium content of processed spent rechargeable Ni-Cd batteries. Reuse: the Cadmium metal thereby recovered (in metallic form 99.99% pure) is destined for reuse in Ni-Cd batteries and other cadmium applications.</td>
</tr>
</tbody>
</table>

6 – MARKING OF PRODUCTS

6.1. With the European-wide approach of collecting all batteries, any further marking system (than the 1991/157 Directive) on batteries becomes unnecessary. In particular, the marking is not relevant for industrial applications (Stand By Batteries, Motive Power, etc.) because of the size and the professional use.

6.2. For consumer applications, sound consumer information at points of collection allows for informing the consumer in a more efficient way.
7 – FINANCING

7.1. Market actors (retailer, producer) should have the opportunity to make their cost visible to their customers in the same way as public actors make their cost visible to the citizen by waste taxes.

7.2. Producers should take back “free of charge” collected consumer and other portable batteries from municipalities and retailers and/or dismantling centers without any payment to the previous actors.

7.3. For professional and industrial applications, producers and importers (suppliers) may conclude specific agreements with end users (customers) stipulating appropriate financing methods.

7.4. Producers should have the freedom to choose between the participation in an individual or collective collection and recycling organization/system.

8 – ECONOMIC INSTRUMENTS

8.1. Deposit systems considerably reduce the number of collection opportunities (collection points) due to the re-imbursement operation. A refundable deposit system is not economically feasible and is impractical: there are many difficulties linked to the control of the system through the sales outlets and it will add huge burden to the retailers. Furthermore it does not act as an incentive to collect batteries due to their long lifetime in the economic sphere (from 3 to 20 years and longer). Finally, the system is very open to fraudulent use.

8.2. Other economic instruments used as a punitive measure and not to finance the collection requirements - such as ecotaxes – must be avoided.
Annex 1. Indicative List of battery types.

TABLE 1 Indicative main categories of batteries covered by the Directive.

<table>
<thead>
<tr>
<th>Battery Categories</th>
<th>Battery Types</th>
<th>Portable (Consumer, professional or general purpose batteries)</th>
<th>Industrial (stand-by, motive power and transportation)</th>
<th>Automotive (starter, lighting and ignition)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>Zinc-Carbon</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td>Zinc-Alkaline</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Silver Oxide,</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lithium Primary</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Zinc-Air</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Rechargeable (accumulator)</td>
<td>Lead-Acid</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td>Nickel-Cadmium</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nickel-Metal H</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lithium Rechargeable</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
</tbody>
</table>

Key: Y = yes