

**EPBA** EUROPEAN  
PORTABLE  
BATTERY  
ASSOCIATION  
*The Authoritative Voice of the  
Portable Battery Industry*



## **EPBA sustainability report**

Looking back, looking ahead

*Past achievements, ongoing efforts and future perspectives of the European Portable battery industry*



# Content

- I. Introduction**
- II. Industry vision, values and landmark achievements**
- III. Sustainability progress**
- IV. Future sustainability roadmap**
- V. Conclusions**



# I. Introduction

- **EPBA mission statement**

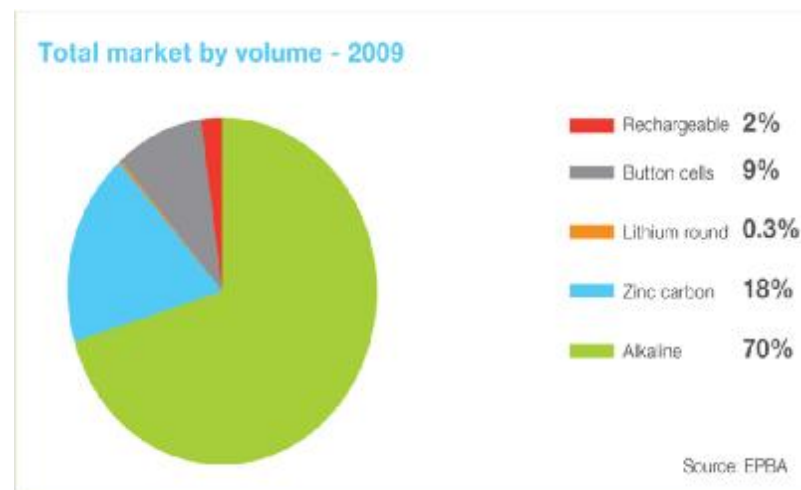
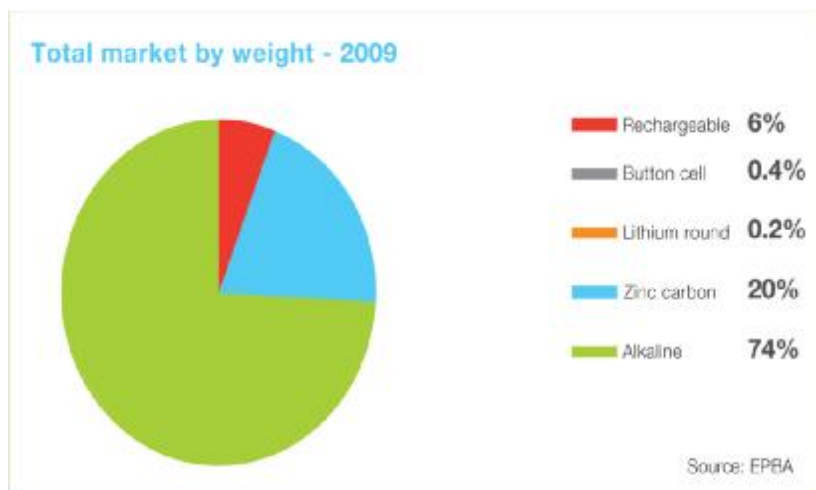
The European Portable Battery Association is the authoritative voice of the portable power industry. It supports the common interests of its members regarding portable batteries and battery chargers with European institutions and other leading international bodies to provide consumers with complete power solutions which are sustainable across their life-cycle



# I. Introduction

- **European battery market**

- In 2009, EPBA members placed more than 5 billion portable batteries on the European Market (primary and rechargeable combined)
- Alkaline batteries account for the largest market share





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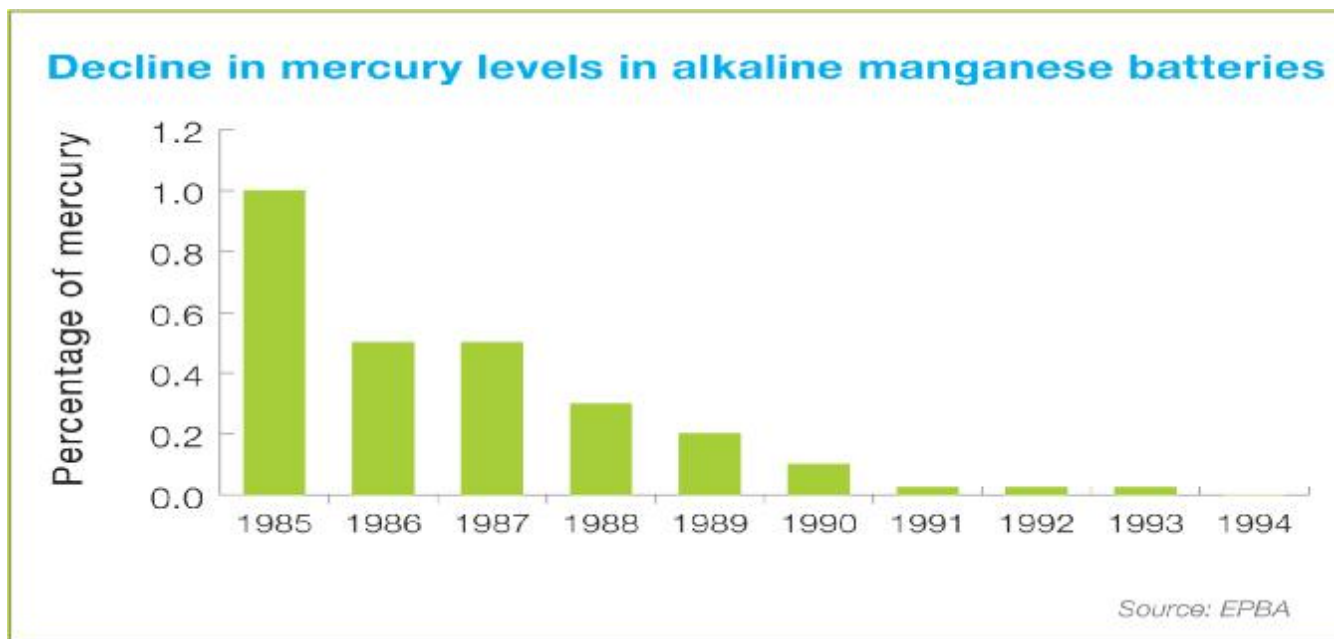
## II. Industry vision, values and landmark achievements

- Development of sorting and recycling technologies
- Regular improvements in battery performance
- Bringing to market new battery technologies e.g. NiOOH, LiFeS<sub>2</sub>, NiMH, Lilon
- Building Europewide network of compliance organisations
- Close collaboration with EU and EU Member States



## II. Industry vision, values and landmark achievements

- Voluntary removal of mercury from alkaline and zinc batteries





## II. Industry vision, values and landmark achievements

- **Substitution of Mercury oxide batteries**
  - The battery industry developed alternative zero and low Hg containing batteries, (lithium and zinc air types) to replace Hg oxide batteries containing +30% Hg
  - Today, the EPBA can state that by July 2011, 95% of button cells placed on the market will be mercury free!



## II. Industry vision, values and landmark achievements

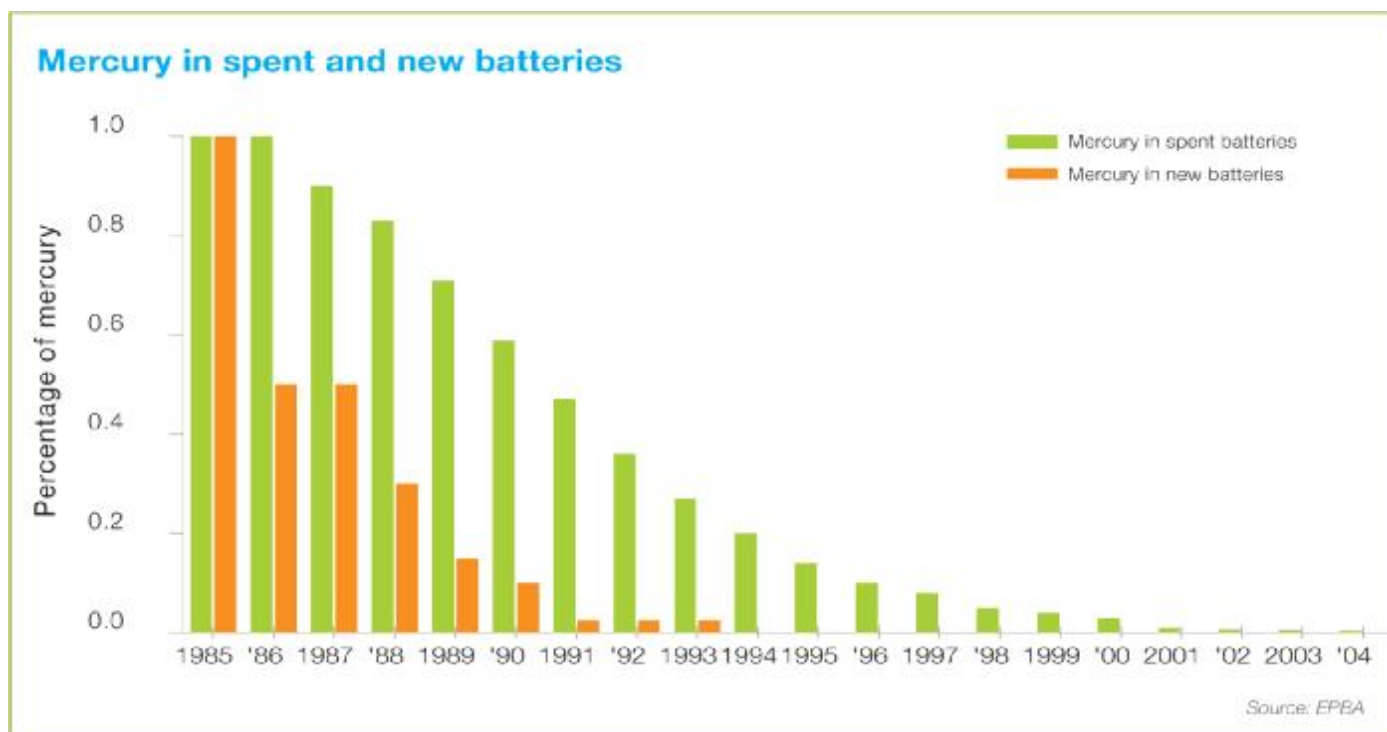
- **Mercury elimination and the two-step plan**

- As of 1991, EPBA started investigating and testing technologies for the recycling of primary batteries
- Mercury in batteries posed environmental risks which led to high costs for all recycling solutions
- EPBA approached the commission with a proposal for a two step plan:
  1. Immediate ban on primary batteries containing more than 5ppm mercury
  2. Mandatory recycling of all batteries four years later



## II. Industry vision, values and landmark achievements

- Mercury elimination and the two-step plan (cont'd)





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## III. Sustainability progress

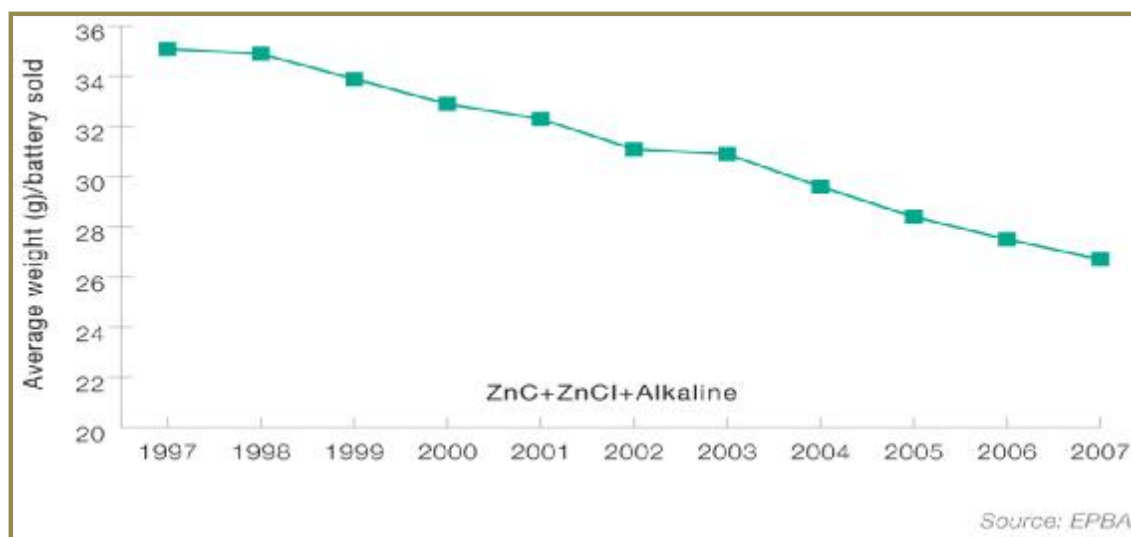
- **Environmental impact**

- LCA studies showed that for both primary and rechargeable portable batteries, the mining and refining phase has the highest environmental impact
- For rechargeable batteries, the use phase also plays an important role:
  - Number of charge cycles
  - Energy efficiency of chargers
  - Electricity mix



## III. Sustainability progress

- **1997 – 2007: Market trends(\*)**
  - Average weight of primary batteries fell by 24%



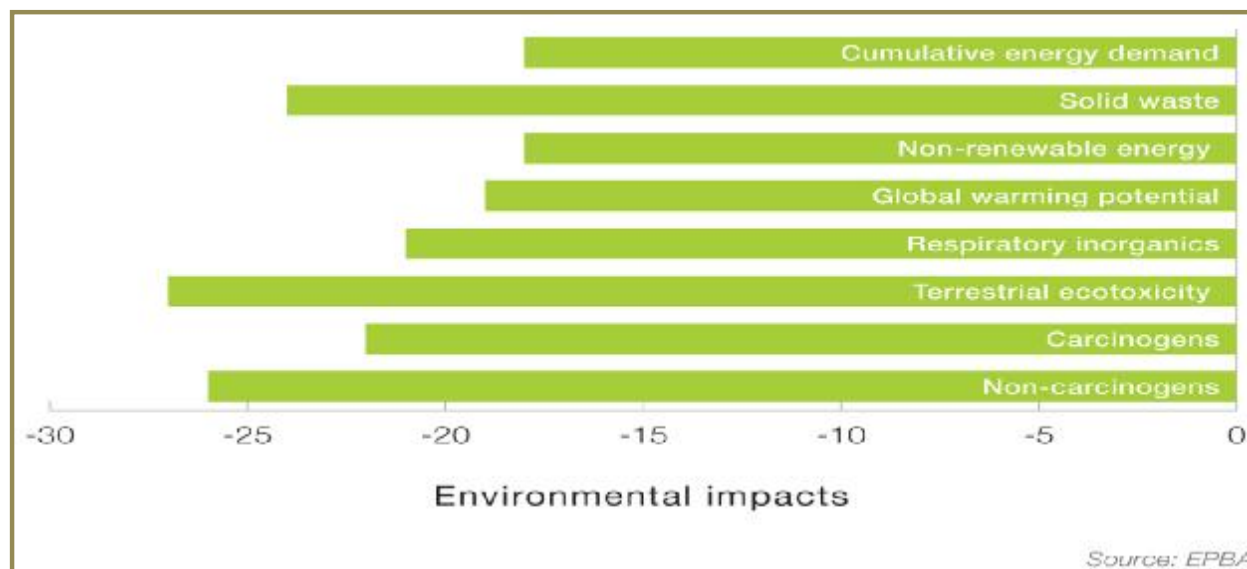
(\*) these market trends are based on EPBA data



## III. Sustainability progress

- 1997 – 2007: Market trends (\*)

è Environmental gains from reduced use of natural resources



(\*) these market trends are based on EPBA data



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## IV. Future sustainability roadmap

- **Sustainability of end-of-life**

- EPBA is currently looking into the end-of-life stage of Alkaline and NiMH batteries
- The objectives are:
  1. To assess the environmental impacts of existing recycling processes
  2. To analyse the environmental repercussions of battery collection systems



## IV. Future sustainability roadmap

- **Raw materials**

- Due to the high environmental impact of the mining and refining phase, EPBA plan to work with the supplier industries
- The objectives of this collaboration will be:
  1. To develop sustainable mining and refining codes of practices
  2. To establish a set of sustainability guidelines for suppliers
  3. To obtain life cycle inventory data on some key-ingredients



## IV. Future sustainability roadmap

- **Consumer information**

- EPBA is committed to provide consistent, accurate and useful information to battery consumers such as:
  - Advice on safe use of batteries
  - Measures to take in case of an emergency
  - Efficient use of rechargeable batteries
  - Guidance on purchasing decisions for intended application
  - Responsible disposal of used batteries



## V. Conclusions

- This report shows that the portable power industry has adapted to changing market demands, technical challenges while successfully reducing the environmental footprint of its products
- EPBA acknowledges that still a lot of work needs to be done such as understanding and further developing the concept of sustainability
- EPBA remains fully committed to working with the EU and national authorities to avoid barriers to the single market



Thank you!

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