



## DG ENVIRONMENT



### **Meeting with representatives of EUROBAT (EU-wide umbrella association for automotive and industrial batteries)**

#### **BRIEFING NOTE**

**Scene setter / Context:**

*You have accepted to meet the board of EUROBAT, which meets next Wednesday 20 of November.*

*EUROBAT is the EU wide association that represents the interests of the European Automotive and Industrial Battery Manufacturers. EUROBAT publishes reports or position papers on issues related to batteries or components. EUROBAT usually participates in consultation processes launched by the Commission.*

*EUROBAT is interested in exchanging views on high-level policy exercises, like the GREEN DEAL and the 2<sup>nd</sup> CEAP, to have recent information on the evolution of the review of legislation on batteries (ELV and Batteries Directives), the development of sustainable requirements for batteries and on pending issues on chemicals and REACH. The number of possible subjects for interest for EUROBAT is huge.*

*EUROBAT has had meetings with the Cabinet of VP Sefkovic and discussed some of the points presented in this note.*

Name of main contact person:



Directorate/Unit:

ENV.B.3

1.	SPEAKING AND DEFENSIVE POINTS.....	3
1.1.	Green Deal and the new CEAP .....	3
1.2.	Chemicals .....	3
1.3.	Review and modifications of the ELV and Batteries Directives.....	5
1.4.	Sustainable requirement for Batteries .....	6
2.	BACKGROUND INFORMATION.....	6
2.1.	Eurobat .....	6
2.2.	A green transition to Circular Economy.....	7
2.3.	Environmental issues about LEAD .....	7
2.4.	Use and manufacturing of lead-acid batteries. ....	8
2.5.	Legislation Applicable to lead acid batteries.....	8
2.6.	Producer responsibility .....	9
2.7.	REACH and Batteries.....	9
2.7.1.	REACH and Lead compounds .....	9
2.7.2.	REACH and Cobalt compounds.....	10
2.7.3.	REACH and the future management of hazardous substances in batteries .....	10

## **1. SPEAKING AND DEFENSIVE POINTS**

### **1.1. New CEAP and the Green Deal**

#### ***What would be the main elements of the new CEAP?***

- The Commission is preparing a new Circular Economy Action Plan to meet a number of challenges in relation to sustainable resource use, with a view to promoting Europe's economic transition to a truly circular model. We see it as a new opportunity to improve the competitiveness of EU companies, promote innovation and research, create new jobs and skills linked to the green economy and clean technologies and shift to sustainable practices.
- The plan will focus on sustainable resource use, especially in resource intensive and high impact sectors. It will also promote the arrival of circular products to the markets and the modification of production processes. For instance, phasing out single-use or short-lived products and replace them with more durable ones. The Commission is assessing the impact of restrictive measures for primary batteries.
- The Commission intends to make proposals that go beyond recycling, strengthening prevention, recyclability and recycled content aspects. Batteries, for instance, could be a field where these approaches are implemented.
- The plan will also contain supporting initiatives on waste prevention, ensuring strong implementation and enforcement of the current waste legislation.
- The Commission wishes to ensure that key legislation on important waste streams becomes more circular. In particular, it is expected that the processes of review of the End-of-Life vehicles Directive and the Batteries Directive be completed during the first two years of the Commission's mandate.

#### ***How will the Green Deal endorse them?***

- The CEAP will be part of the GREEN DEAL.

### **1.2. Chemicals**

#### ***What is the position of the Commission as regards the introduction of new measures on Lead in REACH?***

- For the time being, the Commission has decided not to include the four lead compounds in Annex XIV. A proposal for inclusion of new substances in Annex XIV of REACH without the four lead compounds is currently under the scrutiny by the European Parliament and the Council.

#### ***What are the next steps concerning Lead and chemicals legislation?***

- The Commission requested ECHA on 26 March 2019 to evaluate lead and its compounds for an opinion to revise the current occupational exposure limit values and the biological limit values, in accordance with the Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

- After a preparatory phase, including a call for evidence, the scientific report was published on ECHA's website on 17 October 2019. Stakeholders have been invited to submit comments by 16 December 2019. The final opinion is expected to be ready in July/August 2020 and will be submitted to the Commission in September 2020.
- We encourage EuroBat to submit comments by the 16 of December deadline. Based on these reports, RAC will develop its opinion.

***What is the position of the Commission as regards the introduction of restrictions for Cobalt?***

- We consider some advantages to have the chemical group of Cobalt and its salts regulated under OSH rather than REACH. By turning to OSH, we would also be able to include the intermediate uses (partly covered by this restriction) and to protect workers at risk during the recycling and the waste management stages (as REACH does not cover waste).
- Moreover, by tackling Cobalt and its salts as a group of chemicals, we will protect all the workers involved in the manufacturing of batteries, catalysts and in uses like surface treatment, pigments/dyes or biotechnology.
- The ECHA Committees have not finalised their work. We expect RAC to finalise its opinion by the end of November during its plenary meeting. We are aware of the change of RAC compared to the original proposal (a limit value 50 times higher is proposed) and we will take a decision on the values once the Commission services will receive both opinions.
- We encourage EuroBat to take contact with DG EMPL in order to include Cobalt and its salts as a priority in the next amendment of the Carcinogens Directive. The progress made by RAC on the restriction dossier may facilitate the overall evaluation of ECHA.

***Is the Commission aware that the Lead industry is already circular?***

- There is no doubt that the recycling of lead greatly contributes to reducing pollution and saving energy and resources. Moreover, as an industrial activity lead recycling is, today in Europe, a clear success: the industry uses a higher amount of secondary than of primary lead. Lead recycling is a very important economic activity and it is self-sustainable because it is profitable
- One of the factors that have facilitated the emergence of this activity is our legal framework and this should not be forgotten, in particular the Batteries and the End of Life Vehicles Directives. This industry has achieved its current level of importance thank to these two Directives.
- In any event, lead continues to be poisonous and any industry dealing with it has to be subject to strong control and management measures.

### **1.3. Review and modifications of the ELV and Batteries Directives**

#### ***What is the status of the review of these two directives?***

- It is expected that the processes of review of the End-of-Life vehicles Directive and the Batteries Directive be completed during the first two years of the Commission's mandate, i.e. in 2020 or 2021.
- The process for the Batteries Directive is more advanced, since the evaluation was completed this year.

#### ***Will the Commission revise the current prohibition of lead in the ELV Directive?***

- Yes, of course, as requested by Annex II of the ELV Directive. The 8th amendment in 2017 proved that there are alternatives to lead and that the use of lead is therefore avoidable.
- It should be noted that this process is based on technical and scientific progress and has not socio-economic considerations. The contract for the assessment of scientific and technical evidence will be launched next year.

#### ***What about cadmium?***

- The exemption for the use of cadmium in batteries for electrical vehicles ended in 31 December 2007. The Commission is aware that suppliers used cadmium in Germany beyond that date. This information was published last year, and additional information has been requested to the German Ministry for the Environment.
- In any event, the status of the cadmium in batteries should be clearly established in the revised text of the Batteries Directive.

#### ***Is the Commission considering proposing targets for the collection of waste industrial and automotive batteries in the revised Batteries Directive?***

- Yes. The Commission is assessing whether establishing such targets will result in environmental, economic and social benefits.
- We are aware that the industry usually considers that there is no need to have such targets for waste lead-acid batteries because their market value ensures the collection and treatment. Unfortunately, we do not see that the information available proves it. Even if the amount of lost waste batteries is low, it will be still too much.
- The Commission relies in the cooperation with manufacturers and waste collectors to identify the best means to set these targets and to control and monitor the results.

#### ***There is some degree of overlapping between the two Directives, on e.g. extended producer responsibility issues or reporting. Will the review address them?***

- The interaction of the two directives has been looked at initially by the Evaluation of the Batteries Directive, and the assessment will be completed by the on-going evaluation of the ELV Directive.

- The Commission is aware that batteries producers and carmakers have complained on a number of occasions for double legislation, underlining the risks for their proper implementation. The Commission sees room for improvement.
- When the text of these two directives is revised, particular care will be made to establish clear demarcation lines as regards obligations (on extended producer responsibilities for instance) or reporting (on automotive batteries).
- The Commission is aware that some stakeholders would prefer that the number of legal instruments dealing with batteries be reduced. While accepting the need of integration of all provisions concerned, it is still too early to advance how the legal instruments concerned will be linked.

#### **1.4. Sustainable requirement for Batteries**

***What kind of sustainability requirements does the Commission consider that should be met by batteries?***

- All types of batteries will be subject in the future to compliance with some sustainability requirements. Let me remind you the current prohibition of the use of mercury or cadmium, the obligations on removability, etc. The Commission is for instance considering the establishment of ‘minimum levels of recycled content,’ which would oblige all new batteries to be manufactured using secondary materials.
- The exercise you mention in your invitation, which is led by our colleagues of DG GROW, focusses on electromobility batteries. Particular aspects will be considered, namely in relation to CO2 emissions, energy round-up efficiency, reusability etc.
- The Commission has not yet decided how the results of this initiative will be pooled with those of the revision of the Batteries Directive. That is why we prefer to talk about ‘elements of the new regulatory framework’ for batteries.

## **2. BACKGROUND INFORMATION**

### **2.1. Eurobat**

EUROBAT declared purpose is to study all matters of interest to storage battery manufacturers and their sub-contractors in Europe, Middle East and Africa. According to its website, EUROBAT’s activities include:

- Promoting the regulatory commercial and economic interests of the European automotive, industrial and special battery industries;
- Facilitating a continued growth of the European industry;
- Working with stakeholders to help develop new battery solutions.

De facto, EUROBAT represents the interest of the automotive and industrial batteries. EUROBAT activities have targeted mostly lead-acid batteries, but they are progressively broadening their interests to cover also lithium-based ones.

EUROBAT uses to participate in consultation processes launched by the Commission with the occasion of evaluations (as e.g. of the Batteries Directive or of the ELV

Directive), technical updates of legislation (as e.g. Annex II of the ELV Directive) or the adoption of measures on chemicals under REACH.

## **2.2. A green transition to Circular Economy**

The Commission considers that spite the advances towards a more sustainable economy, there remain several challenges the EU has to face,

- The EU has so far managed to reduce greenhouse gases, decoupling emissions from economic growth. However, there is still a long way to go to achieve a climate-neutral Europe by 2050.
- EU's consumption and production patterns exert growing pressure on natural resources of any kind, biotic and abiotic. Europe still produces too much waste and squanders resources.
- Efforts should be continued and accelerated to complete the transition towards a Circular Economy. Important steps have been made, including the adoption in 2018 of the world's first Plastic Strategy, but this is not enough.

To meet these challenges, the Commission is preparing a new Circular Economy Action Plan, to scale up and accelerate Europe's economic transition to a truly circular model. The plan will focus on sustainable resource use, especially in resource intensive and high impact sectors such as food, textiles and construction. Ensuring the circular use of a number of key materials (steel, aluminium, cement and plastic) - could halve Europe's industrial emissions.

The Action plan will be built on few key pillars:

1. Promotion of circular products and production processes: phasing out single-use or short-lived products and replace them with more durable ones.
2. Empowering consumers and public authorities in their procurement: reliable, comparable and harmonised information on the environmental impact of products makes green purchases easier.
3. Prevention and minimisation of waste to achieve a quicker decoupling of growth and use of resources. We need to move beyond recycling and take steps to prevent waste creation, including for food.
4. Supporting initiatives on waste prevention, ensuring strong implementation and enforcement of the current waste legislation and futureproofing and making more circular legislation on key waste streams (packaging, batteries and end-of-life vehicles) and the rules on waste shipments

In the first two years of the Commission's mandate, the following reviews are due: Packaging and Packaging Waste, End-of-Life vehicles, Restriction of Hazardous Substances (RoHS), Persistent Organic Pollutants (POPs), the Waste Shipment Regulation and Batteries Directive.

## **2.3. Environmental issues about LEAD**

Lead (metal) and its compounds are extremely toxic. Poisoning ('saturnism') affects the brain, nervous system, blood, and digestive system and can be either chronic or acute. For these reasons, the EU legislation strongly regulates the use of lead and of the associated industrial processes.

Furthermore, scrap lead-acid batteries are categorised as hazardous waste. Exports outside the Member State concerned or outside the EU are subject to specific rules on the shipment of waste. The shipment of scrap lead-acid batteries between Member States, within the EU or with transit through third countries, is subject to a procedure of prior written notification and consent by the competent authorities.

The extraction of raw materials ('primary lead') and the processing of components of lead-acid batteries are the production phases with the most important environmental impact, by far. The recycling of lead-metal and alloys considerably reduces the need for production of primary lead and, therefore, dramatically reduces the environmental impact of the process as a whole. The smelting and refining of secondary lead continues nevertheless to be the most important sources of emissions and releases in EU countries.

The recycling of scrap lead-acid batteries is subject to specific rules in the European Union.

#### **2.4. Use and manufacturing of lead-acid batteries.**

Lead-acid batteries include automotive batteries and industrial batteries. Automotive batteries are used for supplying starter-lighting-ignition power in motor vehicles. Industrial batteries are used for supplying motive power in industrial electric vehicles or for supplying standby power in industrial installations or stationary equipment. Automotive batteries account for around 80 to 85 % of scrap lead-acid batteries; the rest are industrial batteries.

Many of the lithium-based batteries also depend on lead batteries as a back-up. Furthermore, lead batteries account for 75% of the energy storage in the EU.

The manufacture of lead-acid batteries accounts for around 80 to 85 % of the production of recycled lead at worldwide level. The collection and recycling rate of (automotive) lead-acid batteries in the EU is estimated at 99 %.

There are various industrial processes for the treatment and recycling of lead-acid batteries. In any event, the various operations needed (battery breaking, smelting, refining, alloying, recycling of other materials) might entail serious risks for the environment if they are not properly managed.

#### **2.5. Legislation Applicable to lead acid batteries**

The End-of-life Vehicles Directive (ELV) bans the use of four hazardous substances in the new vehicles, one of which is lead. Lifecycle emissions from lead, cadmium, mercury and hexavalent chromium in cars have fallen by nearly 100% since most uses of the heavy metals were banned.

Annex II to the ELV Directive allows the use of lead, as an **exemption**, where its use is unavoidable. The 8th amendment of this Annex in 2017 proved that there are alternatives to lead (ex. indium) and the use of lead is therefore avoidable. It also split this exemption in two: one ended in 2018 the use of lead in batteries in high voltage systems that are used only for propulsion small passenger cars and small trucks.

The exemption for all remaining batteries will be assessed in the next amendment of Annex II, scheduled for 2021. The contract for this evaluation will be launched next year. It should be noted that the evaluation of Annex II is based on technical and scientific progress and has not socio-economic considerations that may be added in the upcoming

review of the ELV Directive in line with RoHS. This may be used for opposing to the end of lead-acid batteries for the price (lead vs indium) the profitability of the recycling and the fact that there are many lead-acid batteries recycling plants in the EU providing jobs.

The Batteries Directive sets rules for the collection, treatment, recycling and disposal of **waste batteries**. Member States must also ensure that batteries that have been collected are treated and recycled and that these processes reach minimum levels of (industrial) efficiency.

The directive does not establishes **targets** for the collection of waste automotive and industrial batteries. This is a shortcoming identified by the evaluation.

## **2.6. Producer responsibility**

Batteries and car industries have complained on a number of occasions for double legislation but the Commission always had a clear understanding for the use of both Directives regarding batteries:

- EPR applies to the producer of the battery who is who places the battery on the market. For the automotive batteries, the car producer is also the battery producer. For the batteries that are sold independently as spare parts, the battery producer is the producer
- The producer has the obligation to contribute financially to the collection and recycling. In the case of the cars, the car producer is responsible for the collection of the batteries in the authorised treatment facilities for the ELVs or the repair garages for the other vehicles. The battery is then handed over to the battery recycler for further treatment. For the car producer, it is counted as 100% recycling for the ELV targets.

The evaluation of the Batteries Directive has underlined that, as regards industrial batteries, the system is (and will be) clearly insufficient. New provisions will be developed to address this insufficiency.

## **2.7. REACH and Batteries**

### *2.7.1. REACH and Lead compounds*

One year ago ENV met EUROBAT, which expressed concerns about the possible inclusion of four lead substances in REACH Annex XIV of substances for authorisation (tetralead trioxide sulphate; pentalead tetraoxide sulphate; orange lead (lead tetroxide) and lead monoxide (lead oxide)), of which two (lead sulphates) are entirely used in battery production.

EUROBAT stressed that batteries are sealed, almost fully recycled and that therefore the risk only occurs at the work place (dealing with the production but also with the recycling of batteries). For EUROBAT, OSH legislation is more appropriate for regulating lead substances. EUROBAT referred to blood analysis results of workers, demonstrating that concentrations are well below the current legal OSH limit value (also due to the fact that the limit value is outdated.) According to EUROBAT, authorisation because of Annex XIV inclusion would lead to relocation of lead battery production outside the EU.

### *2.7.2. REACH and Cobalt compounds*

In 2017, ENV requested the European Chemicals Agency (ECHA) to prepare an Annex XV dossier in view of a possible restriction under REACH on five cobalt salts classified as carcinogen category 1B and listed in the candidate list of substances of very high concern.

Cobalt sulphate, cobalt dichloride, cobalt dinitrate, cobalt carbonate and cobalt diacetate are the five salts concerned.

The Annex XV dossier was published by ECHA on 19 December 2018, when the assessment procedure of the two ECHA Committees on Risk Assessment (RAC) and on Socio-Economic analysis (SEAC) started. Today the procedure is still ongoing and we may expect a final adoption of RAC by the end of this year and a final adoption of SEAC in the first quarter of 2020. This means that the Commission will receive from ECHA before June 2020 the consolidated opinion by RAC and SEAC. Based on this information, the Commission will take the decision whether to proceed with REACH restriction, if the unacceptable risk from the exposure to the five cobalt salts is demonstrated needing to be addressed on a Community-wide basis.

ECHA's initial proposal was based on a dose response relationship derived for the respirable fraction of the five cobalt salts, using RAC methodology to calculate the levels of excess cancer risk, which corresponded to an exposure level of 0.01 micrograms of Co/m<sup>3</sup> for an excess lifetime cancer risk in workers of  $1.05 \times 10^{-5}$ . In practical terms, the limit of 0.01 would save one cancer case per year.

### *2.7.3. REACH and the future management of hazardous substances in batteries*

During the evaluation of the Batteries Directive, the stakeholders made clear their preference for REACH as regards the management of hazardous substances in batteries. Or, at least, that current instruments like the Batteries Directive or the ELV Directive are not adequate. Amongst the reasons for such preference, the fact that criteria for the definition of hazardousness and its assessment are lacking and that these two directives are based upon hazards consideration are often mentioned.