

EVALUATION ROADMAP			
TITLE OF THE EVALUATION/FC	Evaluation of DIRECTIVE 2006/66/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 6 September 2006, on batteries and accumulators and waste batteries and accumulators and repealing Directive 91/157/EEC ¹		
LEAD DG RESPONSIBLE UNIT	DG ENV B3	DATE OF THIS ROADMAP	16/08/2016
TYPE OF EVALUATION	Evaluation, Ex-post	PLANNED START DATE	Q4 / 2016
		PLANNED COMPLETION DATE	Q4 / 2017
		PLANNING CALENDAR	
This indicative roadmap is provided for information purposes only and is subject to change.			

A. Purpose
(A.1) Purpose ²
<p>This evaluation is intended to assess whether Directive 2006/66/EC on batteries and accumulators and waste batteries and accumulators ("the Batteries Directive") meets its objectives and contributes to the general objectives of the EU environmental policy. The results of this evaluation will be used to identify measures to improve the Directive and its implementation on the ground.</p> <p>This evaluation will pay particular attention to aspects for which implementation has been more challenging. The evaluation will consider the relevance, coherence, effectiveness, efficiency and EU added value of the Directive's provisions and the legislation implementing it.</p>
(A.2) Justification
<p>Article 23 of the Batteries Directive tasks the Commission to review the implementation of the Directive and its impact on the environment and the functioning of the internal market, after receiving the second series of the implementation reports from Member States. It also establishes that, if necessary, proposals for the revision of the relevant provisions of this Directive shall be made.</p>

B. Content and subject of the evaluation
(B.1) Subject area
<p>There are many types of batteries and accumulators playing an essential (and growing) role in our society. They ensure that many daily-used products (e.g. handheld appliances) and services (e.g. mobility and energy storage) work properly, constituting an indispensable energy source nowadays. Not all batteries are properly collected and recycled at the end of their life, which increases the risk of releasing hazardous substances and constitutes a waste of resources. While new battery technologies bring new chemicals into the sector, many of the components of these batteries could be recycled, avoiding the release of hazardous substances into the environment and ensuring savings of energy resources and valuable materials.</p> <p>The Batteries Directive lays down rules on batteries and waste batteries that, with some exceptions, apply to all</p>

¹ OJ L 266, 26.9.2006, p. 1

² In the following, the terms 'batteries' and 'accumulators' are considered synonyms and used indistinctively.

batteries and accumulators (portable, industrial and automotive), no matter their chemical nature, size or design.

The rules established by the Directive cover (i) the placing on the market of batteries, in particular prohibiting batteries containing hazardous substances (ii) the collection, treatment, recycling and disposal of waste batteries, (iii) requirements on information for end-users, (iv) design features, (v) extended producer responsibility issues and (vi) general obligations for Member States (e.g. on reporting).

The Directive relies on the assumption that the main environmental impact is caused by batteries that, at the end of their operational life, are not properly treated. Since only waste batteries that are collected can be treated, the Directive makes provision to ensure that as many waste batteries as possible are collected, to maximise their sorting and to minimise the disposal of spent batteries as mixed municipal waste.

To this end, the Directive requires Member States to provide for appropriate collection schemes and sets targets to be reached at national level for the collection of waste portable batteries (25% in weight of the amount placed on the market by September 2012 and 45% by September 2016). All spent batteries collected shall undergo treatment and recycling. In addition to ensuring that all processes comply with relevant EU legislation, the Directive sets minimum recycling requirements, including recycling efficiencies for different chemistries.

The 2006 Batteries Directive has already been amended with regard to some specific aspects³ and been subject to an ex-post evaluation, along with other waste stream Directives.⁴ The results of this fitness check constitute one of the building blocks for the current evaluation, since it already addressed some of the issues identified by stakeholders. The current evaluation nevertheless adopts a broader perspective, ensuring that aspects not addressed by the fitness check are properly taken into account and making use of more comprehensive and recent sources of information.

As part of the Circular Economy Package, the Commission has furthermore proposed to amend the Batteries Directive, along with other waste-related Directives, to modify the reporting requirements, in a way to eliminate the three-year reporting requirement, remaining with the annual reporting requirements to Eurostat.⁵

(B.2) Original objectives of the intervention

The primary objective of the Batteries Directive (Recital 1) is to contribute to the protection, preservation and improvement of the quality of the environment by minimising the negative impact of batteries and waste batteries. It also aims at ensuring the smooth functioning of the internal market by harmonising requirements concerning the heavy metal content and labeling of batteries and accumulators.

(B.3) How the objectives were to be achieved

The Directive lays down provisions that cover the entire life cycle of batteries (design, placing on the market, end of life, collection, treatment and recycling of spent batteries) and formulates different types of measures and actions to ensure the achievement of its objectives (general obligations, targets, specific conditions and exceptions, etc).

Key overarching objectives and actions by means of which the objectives of the Directive could be delivered are identified, (i.e. ensuring a high level of waste batteries collection and ensuring a high level of treatment and recycling (efficiencies)), with remaining provisions enabling and completing these key requirements.

³ In March 2008 (Directive 2008/12/EC, L 76, 19.3.2008), November 2008 (Directive 2008/103/EC, L 327, 5.12.2008) and November 2013 (Directive 2013/56/EU L 329, 10.12.2013)

⁴ COMMISSION STAFF WORKING DOCUMENT, SWD/2014/0209, at <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=SWD:2014:0209:FIN>

⁵ COM/2015/0593 final

To achieve these objectives, the Directive

1. establishes rules regarding the placing on the market of batteries and accumulators and, in particular, a prohibition of batteries and accumulators containing hazardous substances (e.g. in relation to mercury and cadmium),
2. establishes requirements to maximise the separate collection of waste batteries and their recycling rates and to minimise the disposal of batteries as mixed municipal waste and
3. seeks to improve the environmental performance of batteries and of all operators involved in the life cycle of batteries and accumulators, e.g. producers, distributors, collectors, recyclers and end-users.

Producers of batteries and accumulators and producers of other products incorporating a battery or accumulator are given responsibility for the waste management of batteries and accumulators that they place on the market.

The targets defined by the Directive in terms of collection rates and recycling (efficiencies) allow measuring the actual impact of its implementation, beyond mere compliance with the Directive.

C. Scope of the evaluation/FC

(C.1) Topics covered

This evaluation is intended to be the first step of the review required by the Batteries Directive (section A(2)).

The Directive highlights a number of aspects for the review, such as its impact on the environment and the functioning of the internal market, and identifies issues for the evaluation, i.e. further risk management measures for batteries containing heavy metals, appropriateness of the minimum collection targets for all waste portable batteries, possible introduction of further targets and the appropriateness of recycling efficiency levels set by the Directive.

The Commission Staff Working Document (Fitness check) on the ex-post evaluation of some waste stream Directives also identified several issues that should be looked at in detail during the evaluation, e.g. the low collection rates of portable batteries (including obligations for Member States or adequacy of calculation methods); the methodology for the calculation of collection rates and recycling efficiencies, the possibilities to reinforce focus on waste prevention and the need to ensure legal consistency, including with other pieces of legislation.

The evaluation will address all substantive provisions in the Directive and, when necessary, provisions in Commission Decisions and Regulations stemming from the Directive⁶. It will consider all relevant aspects, i.e. legal (e.g. legal base, internal coherence, consistency with other legislation in approaches, terminology and legal concepts), environmental (e.g. main environmental impacts of batteries along the whole life cycle of batteries, efficiency of measures), economic and social (e.g. access to (critical) raw materials, costs and benefits).

The evaluation should consider whether identified shortcomings result from the legal instrument itself (e.g. technical gaps, excessive burden, overlaps, inconsistencies, obsolete measures etc), or from implementation, monitoring and control activities by Member States (including administrative burden or excessive costs). The evaluation will take into account recent evolutions of technical aspects and of the use of batteries (e.g. second-use of vehicle batteries in stationary power storage installations), and consider how the reuse, recycling and collection of batteries can be enhanced.

The evaluation will rely on an evidence-based approach. Recent literature and reports on relevant aspects will be

⁶ See the list at: <http://ec.europa.eu/environment/waste/batteries/legislation.htm>

reviewed and, in addition, face-to-face, telephone or web-based interviews with a large sample of stakeholders will be performed.

(C.2) Issues to be examined

Standard evaluation criteria (relevance, effectiveness, efficiency, coherence and consistency and EU added value) will be used.

Relevance

Assessing the relevance of the Directive requires to assess whether the main issues addressed by the Directive still persist, have improved, worsened, or otherwise changed.

Information available indicates that the use of batteries nowadays is more important than at the time of the Directive's adoption (e.g. their electric power is increased, the functions they perform are more numerous, technologies for their production and functioning are more complex), and that all these and similar trends will persist in coming years and decades. It can therefore be assumed that the need to minimise the negative impact of batteries and waste batteries, with the aim to preserve and protect the quality of the environment, will continue to be relevant in the near future.

The evaluation will assess whether the currently most frequent uses of batteries and subsequent technical requirements are duly taken into consideration by the Directive. Current and future components, main flows of materials for the manufacturing of batteries and the treatment and recycling of waste batteries, as well as the main technologies being used, design-features such as removability, replaceability, repairability and fitness for second use will be assessed to check if current measures laid down in the Directive are sufficient, attending to the broader considerations mentioned above. Manufacturing of and waste flows from both well established and recent and emerging batteries' technologies (e.g. Lithium-ion based batteries, printed or organic batteries, etc) will be included in the assessment.

New approaches in relation to the reusing, recycling, or recovery of spent batteries will be addressed. Other changes to be considered relate to the possibility to develop waste management systems resulting in the waste batteries streams being superfluous, etc.

Effectiveness

The effectiveness of the Directive will be assessed looking at Member States performance in implementing its main provisions as well as the results, measured in terms of collection and recycling. The information submitted by Member States' reports on the implementation of the Directive will provide a general description of the laws, regulations and administrative measures taken to comply with the Directive. The quantified information submitted to EUROSTAT on levels of collection and recycling (efficiencies) will in addition allow to measure the real impact of the Directive.

The Commission expects to adopt the first report on the implementation of this Directive, as part of a general report on the implementation of waste legislation, at the outset of the evaluation process. The more detailed assessment compiled by a contractor of the national reports for the first reporting period (27 September 2009 – 26 September 2012) is already available.⁷ The assessment of the Member States' reports on the implementation of the Directive for the second reporting period (27 September 2012 – 26 September 2015)⁸ is part of the evaluation planned.

⁷ http://ec.europa.eu/environment/waste/batteries/pdf/batteries_directive_report.pdf

⁸ The deadline for submission expired on the 26th June 2016

Particular importance will be paid to cases where Member States fail to reach the collection and recycling (efficiencies) levels established by the Directive, and the identification of related causes. Both the prohibition of placing on the market of batteries containing hazardous substances (cadmium and mercury) and the increase of the level of collection and treatment of waste batteries are intended to ensure the achievement of the primary objective of the Directive. Disposal of waste batteries as mixed household waste or simply into the wild undermines the achievement of the objectives of the Directive.

The adequacy of the Directive in its current form to actually increase collection rates, the level of recycling and recycling efficiencies will have to be assessed. This includes assessing the effectiveness and appropriateness of the current mechanisms to measure the performance in the implementation of the Directive, to monitor and report on the results of the implementation, and of the rest of information provisions. Due attention will be paid, in this context, to the objectives of the the objectives of the Fitness Check on Environmental Monitoring and Reporting.⁹

In addition, the effectiveness of the Directive will have to be examined in the light of broader considerations, i.e. whether the Directive: (i) adequately addresses the environmental and health impact(s) of the production and use of batteries in Europe, (ii) supports the proper functioning of the internal market for relevant products and services (iii) encourages innovation and investments and promotes jobs and smart growth (iv) enhances the contribution of the sector to the efficient use of resources (including critical ones) within a more circular economy,¹⁰ (v) contributes to the transition towards decarbonized European transport and economy and (vii) ensures end-users and consumers' interests.

Efficiency

The efficiency of the Directive will be assessed by means of considering the economic linkages between the life cycle of batteries (from cradle to grave and back) and the implementation of relevant provisions of the Directive.

In order to establish the economic impact of the obligations under the Directive, two points will be focused on: (i) costs and benefits for operators arising from the implementation of the Directive, including impact on SMEs and (ii) impact of the provisions in the Directive on the competitiveness of the Batteries Industry within the EU.

While monetization of costs can be relatively straightforward, quantification of the benefits of the legislation could be more complicated. It can be done, for example, by estimating costs of inaction (what could have happened and at what cost if there had been no legislation), or by estimating the turn-over and benefits of the new activities brought forward by the legislation. The final methodology to be applied will be further considered.

It will also be important to assess how the polluter-pays principle, applied as Extended Producer Responsibility, affects the different operators involved (producers, distributors, end-users, collectors and recyclers).

Coherence and consistency

An analysis will be carried out of the links and interactions of the Directive with, in particular, the Waste Framework Directive,¹¹ the Directive on waste electrical and electronic equipment and ROHS (WEEE),¹² the Directive on end-of life vehicles (ELV),¹³ the Regulation on shipments of waste¹⁴, the Decision 2000/532/EC on the

⁹ SWD (2016) 188 final, Commission Staff Working Document 'Towards a Fitness Check of EU environmental monitoring and reporting: to ensure effective monitoring, more transparency and focused reporting of EU environment policy.'

¹⁰ See the Circular Economy package adopted by the Commission on 2015

¹¹ OJ L 312, 22.11.2008

¹² OJ L 197, 24.7.2012

¹³ OJ L 269, 21.10.2000

list of waste¹⁵ and the Regulation on Evaluation, Authorisation and Restriction of Chemicals (REACH)¹⁶. Possible inconsistencies, overlaps, missing links etc will be highlighted.

Likewise, the completeness and internal consistency of the Directive will be assessed, in terms of e.g. the batteries classification system used, the clarity and exhaustivity of definitions, etc.

EU added value

The EU added value of the Directive will be assessed by comparing what has been reached through the implementation of the Directive with what could have been reached by Member States acting at national, regional and international levels alone. It will furthermore be assessed whether the issues addressed by the Directive continue to require action at EU level, by reason of the nature of the problems or of the instruments suited to address them.

Any remaining administrative or technical barriers relation to the manufacturing, production, placing on the market and use of batteries and the shipment of waste batteries will also be assessed.

(C.3) Other tasks

The deadline to submit national reports on the implementation of the Directive for the second reporting period is 26 of June 2016. The assessment of the information provided by Member States and related Commission reporting back is part of the evaluation process.

D. Evidence base

(D.1) Evidence from monitoring

Member States submit to the Commission information on

- The implementation of the Directive, every three years, making use of the questionnaire adopted in Commission Decision 2009/851/EC.¹⁷ Member States' Reports on the implementation of the Directive, covering periods 27 September 2009 – 26 September 2012¹⁸ and 27 September 2012 – 26 September 2015 will be available for the evaluation process.¹⁹
- Annual collection rates and recycling efficiencies. Methodological aspects are addressed by Commission Decision 2008/763/EC²⁰ and Commission Regulation (EU) No 493/2012.²¹ Data and information already published by EUROSTAT²² will be available for the evaluation process

Experience shows that information submitted within national implementation reports is mostly of legal and

¹⁴ OJ L 190, 12.7.2006

¹⁵ OJ L 226, 6.9.2000

¹⁶ OJ L 396, 30.12.2006

¹⁷ OJ L 312, 27.11.2009

¹⁸ http://ec.europa.eu/environment/waste/batteries/pdf/batteries_directive_report.pdf

¹⁹ The assessment of the information for the first reporting period is available at:

http://ec.europa.eu/environment/waste/batteries/pdf/batteries_directive_report.pdf

The deadline for submission of national reports for the second period expired on the 26th June 2016

²⁰ OJ L 262, 1.10.2008

²¹ OJ L 151, 12.6.2012

²² <http://ec.europa.eu/eurostat/web/waste/key-waste-streams/batteries>

administrative nature, alone not being enough to provide a picture of the impact of the implementation of the Directive on the ground. Information on collection rates and recycling efficiencies, necessary to establish the extent to which Member States reach the targets set by the Directive, is more useful to allow assessing the Directives' real impact. In spite of existing legal harmonization, problems are nevertheless expected with regard to the comparability of results.

(D.2) Previous evaluations and other reports

Information and supporting data will be collected and assessed as part of a dedicated contract to support the evaluation. Other information to be used for this evaluation will include inter alia:

- The Commission Staff Working Document on ex-post evaluation of five Waste Stream Directives (fitness check)²³ and the study underpinning it.²⁴
- Studies carried out for the European Commission.²⁵
- Results of the Strategic Energy Technology Plan's²⁶, e.g. action 7 on 'A competitive global battery sector to drive e-mobility forward'
- Studies and reports, technical notices, policy statements, etc. from EU-wide relevant stakeholders (e.g. ACEA,²⁷ BEUC,²⁸ CECED,²⁹ Digital Europe,³⁰ EEB,³¹ EIP-RM³², Electro Mobility³³ EPBA,³⁴ EUROBAT,³⁵ EUCOBAT,³⁶ RECHARGE,³⁷ etc.)
- Battery Market Developments (e.g. AVICENNE ENERGY³⁸ or ROLAND BERGER³⁹)

²³ COMMISSION STAFF WORKING DOCUMENT, SWD/2014/0209,
at <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=SWD:2014:0209:FIN>

²⁴ 'Final Report. Ex-post evaluation of certain waste stream Directives,'
at: http://ec.europa.eu/environment/waste/pdf/target_review/Final%20Report%20Ex-Post.pdf

²⁵ See for instance the studies and reports listed at

<http://ec.europa.eu/environment/waste/batteries/studies.htm>

http://ec.europa.eu/growth/industry/sustainability/index_en.htm

http://ec.europa.eu/growth/sectors/raw-materials/specific-interest/critical/index_en.htm

http://ec.europa.eu/environment/waste/pdf/target_review/Guidance%20on%20EPR%20-%20Final%20Report.pdf

²⁶ <https://setis.ec.europa.eu/towards-an-integrated-SET-Plan>

²⁷ European Automobile Manufacturers Association, <http://www.acea.be/>

²⁸ The European Consumer Organization, <http://www.beuc.eu/>

²⁹ The European Committee of Domestic Equipment Manufacturers, <http://www.ceced.eu/site-ceced.html>

³⁰ <http://www.digitaleurope.org/>

³¹ European Environmental Bureau, <http://www.eeb.org/>

³² The European Innovation Partnership on Raw Materials, <https://ec.europa.eu/growth/tools-databases/eip-raw-materials/en/content/european-innovation-partnership-eip-raw-materials>

³³ <http://www.platformelectromobility.eu/#pgc-14-0-0>

³⁴ European Portable Battery Association, <http://www.epbaeurope.net/>

³⁵ Association of European Automotive and Industrial Battery Manufacturers, <http://www.eurobat.org/>

³⁶ European association of national collection schemes for batteries, <http://www.eucobat.eu/>

³⁷ The European Association for the Advanced Rechargeable Batteries, <http://www.rechargebatteries.org/>

³⁸ <https://www.avicenne.com>

³⁹ <https://www.rolandberger.com>

Information gaps identified during the review process are planned to be addressed contacting stakeholders (including national authorities), and accessing databases.
(D.3) Evidence from assessing the implementation and application of legislation (complaints, infringement procedures)
<p>Reporting and information from Member States indicate that a number are at risk of not reaching the targets for portable batteries collection rates. These shortcomings are among the main issue to be assessed.</p> <p>In addition, the assessment of reporting information for the first period indicates that a number of Member States find problems in relation to the reporting mechanisms laid down in the Directive and in relevant secondary legislation, by reason of</p> <ul style="list-style-type: none"> • Reporting mechanisms not working at national level (resulting in the lack of submission of information), and • Reporting mechanisms being inadequate to assess the real impact of the Directive, measured in terms of collection rates and levels of recycling (efficiencies). <p>Thirdly, the lack of available information resulting from market surveillance activities could indicate that not enough attention is paid to these aspects at national level.</p>
(D.4) Consultation
<p>The launch of stakeholder consultations related to this review process will be announced in the consultation planning that can be found at the dedicated webpage of the European Commission.⁴⁰</p> <p>A 12-week open public consultation will be held during the process, using a structured questionnaire and also open to the submission of free observations, policy statements, etc.</p> <p>In addition, the evaluation will include interviews with relevant stakeholders on specific aspects (i.e. representatives of EU-wide organizations of end-users, industry users, producers and manufacturers, waste batteries collectors and recyclers).</p>
(D.5) Further evidence to be gathered
The list of references used in Part D.2 is not exhaustive and will have to be completed when the evaluation process starts.

E. Other relevant information/ remarks
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⁴⁰ http://ec.europa.eu/yourvoice/consultations/index_en.htm