Annex: Specific study request – 'Specific terms of reference'
(under Framework contract ENV.B.3/FRA/2019/0017)

Study to assess requests for a renewal of nine (-9-) exemptions 6(a), 6(a)-I, 6(b), 6(b)-I, 6(b)-II, 6(c), 7(a), 7(c)-I and 7 (c)-II of Annex III of Directive 2011/65/EU

1. General background and objectives

Directive 2011/65/EU[1] (RoHS Directive) restricts the use of certain hazardous substances in electrical and electronic equipment.

The RoHS Directive is regularly updated according to scientific and technical progress. The adaptation to scientific and technical progress is reflected in the lists of specific exemptions from the substance restrictions, in Annexes III and IV to the RoHS Directive.

Annex III is for all RoHS Electrical and Electronic Equipment (EEE), while Annex IV is exclusively for medical devices and monitoring and control instruments. Any adaptation of the above mentioned Annexes allowing a limited use of hazardous substances by means of exemption needs to follow specific requirements set by the Directive. In particular:

- Articles 4(1) and 4(2) provide that Member States shall ensure that EEE (as referred to in Articles 2(1) and 3(1)) placed on the market, including cables and spare parts for its repair, its reuse, updating of its functionalities or upgrading of its capacity, does not contain the substances listed in Annex II. The maximum concentration value by weight in homogeneous materials as specified in Annex II shall be tolerated.
- Annexes III and IV to the Directive currently list a limited number of applications which are temporarily exempted from the requirements of Article 4(1).
- Adaptation of the Annexes to scientific and technical progress is provided for under Article 5 of the Directive. Pursuant to Article 5(1), the inclusion in or deletion from above mentioned Annexes of materials and components of EEE shall be adopted by the Commission by means of individual delegated acts.
- Article 5(1)(a) provides that the Commission can adopt measures to adapt the Annexes III and IV to exempt materials and components from the RoHS substance restrictions only if this does not weaken the environmental and health protection of Regulation (EC) No 1907/2006 and if any of the following conditions is fulfilled:
    1. their elimination or substitution via design changes or materials and components which do not require any of the materials or substances referred to in Article 4(1) is scientifically or technically impracticable;
    2. the reliability of substitutes is not ensured;
    3. the total negative environmental, health and consumer safety impacts caused by substitution are likely to outweigh the total environmental, health and consumer safety benefits thereof;

[1] Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (recast), OJ L 174, 1.7.2011, p. 88.

- The decision on inclusion of materials and components of EEE in Annexes III and IV on exemptions and on the duration of possible exemptions shall take into account the availability of substitutes and the socio-economic impact of substitution. Decisions on the duration of possible exemptions shall take into account any potential adverse impacts on innovation. Life-cycle thinking on the overall impacts of the exemption shall apply, where relevant.
- Pursuant to Article 5(2) and (5), all granted exemptions have expiry dates and can only be renewed following an application for renewal submitted 18 months prior to the expiry date.
- On the basis of these provisions, the Commission is receiving requests for (granting, renewing, or revoking) exemptions that need to be evaluated in order to assess whether these requests fulfil the requirements of Article 5(1). Where the requirements of Article 5(1) are met, the Commission shall adopt a measure (delegated directive) amending the respective Annex to the RoHS Directive.
- An application for granting, renewing or revoking an exemption shall be made to the Commission in accordance with Annex V. This annex specifies the mandatory content of an application.

The Commission is launching this contract for evaluation of sixteen requests for renewal of the following nine exemptions in Annex III of the RoHS Directive.

- **Exemption 6(a)/6(a)-I** for lead as an alloying element in steel for machining purposes and in galvanised steel containing up to 0,35 % lead by weight (2 requests, submitted on 17 and 20 January 2020);
- **Exemption 6(b)/6(b)-I** for lead as an alloying element in aluminium containing up to 0,4 % lead by weight, provided it stems from lead-bearing aluminium scrap recycling (2 request, submitted on 9 December 2019 and 17 January 2020);
- **Exemption 6(b)-II** for lead as an alloying element in aluminium for machining purposes with a lead content up to 0,4 % by weight (1 request, submitted on 8 November 2019);
- **Exemption 6(c)** for copper alloy containing up to 4 % lead by weight (2 requests, submitted on 3 and 15 January 2020);
- **Exemption 7(a)** for lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead) (2 requests, submitted on 6 and 25 January 2020);
- **Exemption 7(c)-I** for electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound (6 requests, submitted on 2, 3, 6, 17, 19 and 20 January 2020);
- **Exemption 7(c)-II** for lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher (1 request, submitted on 19 January 2020);

2. Subject of the study

(1) The Commission needs clear technical and scientific evidence and an assessment of requests for granting, renewing or revoking an exemption in light of the criteria listed in RoHS, notably the provisions cited above, taking into consideration the differing validity periods and expiry dates for the various product categories. The number of exemptions to be reviewed under this study is **nine (-9-) in total**.

(2) Stakeholder/public consultations are to be organised in order to provide for a complete assessment (as described in detail below).

3. Tasks to be performed

The contractor should be prepared to structure the process of evaluation according to the priorities communicated by the Commission.

Task 1: Assessment and evaluation of the exemption requests under RoHS

The contractor shall provide technical and scientific evidence and an assessment including comparative information on the costs and benefits related to granting or refusing the exemption concerned under the relevant RoHS Annexes, as indicated by the Commission.

The assessment shall comply with the requirements of RoHS and be in line with the Commission's mandate for an Annex review. The contractor shall discuss and agree the detailed boundaries of the assessment with the Commission services at the beginning of the project.

Building on the criteria set out in Article 5(1)(a), the contractor shall provide a clear assessment and evaluation of whether the respective exemption is justified in line with the requirements of RoHS, clearly specifying which criterion that would allow granting the exemption is verified;

- Clearly identify the specific application for which the exemption is requested and, where applicable following the assessment, propose a precise wording for a possible exemption;
- Assess why the restricted substance is currently required or used, and the quantity of the restricted substance present/needed for that function in the specific application;
- Assess if the elimination or substitution of the restricted substance via design changes or different materials and components is currently technically or scientifically possible;
- Assess if the elimination or substitution of the restricted substance via design changes or different materials and components is currently technically or scientifically practicable;
- Assess whether the reliability of substitutes is ensured;
- Assess the availability of substitutes;
- Assess if the (total) negative environmental, health and/or consumer safety impacts caused by substitution are likely to outweigh the (total) environmental, health and/or consumer safety benefits; life-cycle assessment on the overall impacts of the exemption shall apply, where relevant. This assessment shall include impact on CO_2 emissions, to the extent possible.

- If suitable substitutes exist, assess, the case given, why they are not used;
- Assess whether a possible exemption would be in line with Regulation (EC) 1907/2006 (REACH), or alternatively indicate possible problems;
- Identify any possible adverse impacts on innovation, in particular in relation to the length of a possible exemption;
- Assess any similar applications in which the substances (or their substitutes) are used and why they are not suitable for the application in question;
- Assess, if possible, what efforts have been made by the applicant for an exemption to investigate if alternatives are available/what efforts are being made by the applicant to develop alternatives;
- Assess if alternative production techniques or materials will be available by a proposed expiry date of an exemption / any other date;
- Identify and assess (see below) the socio-economic impacts of substitution;
- Work in close liaison with the Commission and, in consultation with the Commission, with the applicant or other stakeholders concerned, relevant trade associations and non-governmental organisations; any other inputs received in the context of the public consultation will be equally assessed;
- Having regard to confidentiality issues, ensure, inter alia through setting up a dedicated website, that all relevant stakeholders will receive all the necessary information about launching and progress of the project and be given the opportunity for a timely and appropriate contribution and participation. The same information will be published online. This exercise shall be conducted following the minimum standards for consultation set in the Commission Communication COM(2002) 704 final of 11.12.2002;
- Consider previous assessments of the similar exemption requests already published at http://ec.europa.eu/environment/waste/rohs_eee/studies_rohs1_en.htm.

The above list is not exhaustive.

In order to assess and provide complete information on the socio-economic impact, the contractor shall consider (separately for each request) the two following scenarios, in a time horizon corresponding to the recommended exemption duration:

1. Business as usual, where the substance substitution in the EEE is governed by market forces (by granting the exemption requested);
2. Rejection of the exemption request and consequent prohibition of the placing on the EU market for the EEE concerned;

The contractor shall assess for each scenario by also building both on own research and on documentation provided by the Commission:

1. Volume of EEE concerned placed on the EU market annually;
2. Impact on employment in the EEE concerned industry and related upstream and downstream supply chain in the EU (job losses/gains), taking into account the

manufacturer's geographical distribution; list of main EU manufacturers should also be provided;

3. Additional costs (money expenditure) through substance substitution in the EEE divided into sectors (private, industry, public);
4. Generation of additional waste;
5. Reduction in amount of restricted substances placed on the EU market.

The different impacts of substitution triggered by the exemption request rejection should be expressed not only in absolute terms, but also in differential terms in comparison to the scenario where the substitution is left to the market (exemptions request accepted).

Task 2: Stakeholder Consultation

The contractor shall organise and perform a stakeholder consultation as outlined here:

The stakeholder consultation shall be conducted following the minimum standards for consultation of interested parties.[2] The consultation has to include the mandatory elements, i.e. use of standard template, data protection, announcement for public consultations, publication of answers/results/report on the web. The stakeholder consultation shall be conducted with due regard to data protection rules, in particular as to the legal basis for processing the data and the modalities of implementation the survey. The contractor will prepare a data protection notice that will be attached to the survey and will provide information about how personal data will be processed.

Stakeholder consultation shall be an iterative process. At the beginning of the project, the contractor shall set up a website, publishing a summary of each exemption requests subject to this study. The contractor shall keep this website updated with regular reports indicating the progress of work, especially announcing the opening and closure of stakeholder consultations and publishing the non-confidential stakeholder contributions. The contractor shall host the website. The non-confidential contributions of the stakeholders shall be also posted by the contractor to the dedicated group on the CIRCABC platform.

The contractor shall organise at least **one round of stakeholder consultations**. The list of stakeholders to consult shall be established in close cooperation with the Commission services. The consultation shall be performed also by taking advantage of the CIRCABC platform.

The contractor shall:

(1) Prepare the consultation documents, as well as any other technical documents necessary;
(2) Follow-up of the consultation. In particular, manage and maintain regular contact with stakeholders and be ready to respond to all technical questions;

[2] The general principles and minimum standards for consultation of interested parties by the Commission are set out in the Better Regulation (see https://ec.europa.eu/info/better-regulation-toolbox_en)

(3) Provide to the Commission a summary of the stakeholder contributions through the report.

Information about the launch of the evaluation of the exemption should be clearly presented to all relevant stakeholders.

Additionally, the outcomes shall be presented by the contractor to a meeting of the Member States' expert group for delegated acts, organised by the Commission in Brussels. The contractor shall: a) prepare the draft agenda for the meeting; b) prepare the presentation of the results of his analysis, a background paper if necessary; c) respond to all technical questions by the experts.

4. Guidance on methodology

The duration of the tasks is **10** months from the date of signature of the contract.

The execution of the tasks may not start before the contract has been signed. The contractor shall start working immediately after the signature of the contract.

Frequent contacts with the Commission shall take place during the elaboration of the study in order to provide for a smooth and effective exchange as necessary. The contractor shall be available for clarification requests from the Commission (by email or phone) following the publication of the study until the Commission adopts the decision on the requests concerned.

The contractor does not have the authority to publish the deliverables without prior authorisation from the Commission. All matters related to this study should be treated with confidentiality.

5. Estimated value of the contract

The maximum value of this contract will be **EUR XXXXX** (covering all activities mentioned in this document, including associated travel and subsistence costs for presenting to the Member States expert meeting).

6. Place of performance

The place of performance of the tasks shall be the contractor's premises or any other place indicated in the tender, with the exception of the Commission's premises.

7. Estimated timetable and deliverables:

- **Kick-off meeting:**

  Within 2 weeks of the specific contract signature, the contractor shall participate in a kick-off meeting with the Commission to discuss the details of the study, in particular the criteria and requirements that need to be assessed. This meeting will be held via telephone conference.

- **Reports:**

- Interim report: Shall be submitted to the Commission before the end of the fifth month following the signature of the specific contract.
- Final Report: A draft shall be submitted to the Commission no later than nine months after signature of this specific contract. The study report shall then be finalised taking into account the Commission comments and shall include a concise and ready-to-print executive summary (in English and French) describing the objectives of the study and its main findings. The final report shall contain all deliverables under this contract.

All reports shall be written in clear, good quality English language and provided in electronic form, both in MS Word and in pdf format. The contractor shall use the version of MS-Office available at the Commission at the time of delivery (presently, the Commission is using MS-Office 2010). Reports shall be concise, focusing on main messages and avoiding long sentences, redundant text, and repetition. Reports shall use effective lay-out and style to enable the easy absorption of information.

- **Duration: 10 months**
- **Budget: EUR XXXXX**