

Brussels, 09 June 2017

## EEB comments to the European Commission study:

### ‘Preliminary determination of Key Environmental Issues (KEI) for industrial sectors in BREF reviews under the IED’

*This paper also attaches a more general concept note from our Danish member association “Danmarks Naturfredningsforening” which is added in the Annex. It addressed the KEI with the illustration of resource efficiency.*

#### Question 1: Do you have any comments on the draft list in Table 1?

We suggest including in the list of sources the following:

- **Chemicals of concern screening:** Substances identified on the [SIN 2.0 \(Chemsec\) list](http://sinlist.chemsec.org/) and the [Trade Union \(ETUC\) priority list](http://www.subsport.eu/listoflists), in particular those that are not yet on the authorization list / restricted and used as intermediates. Other relevant substances of concern are available here, which includes industry and US EPA priority lists: <http://www.subsport.eu/listoflists>.  
The screening should also include the substances identified under the SVHC Roadmap developed by ECHA implementation activities.  
We deem it important to also address substances that are relevant for health protection and workers protection reasons. The IED framework requires special attention to substances of concern through various provisions, based on an “intrinsic hazard approach”:
  - Annex II (Air) point 12 and Annex II (Water) point 4, 5, and 13 (Priority Hazardous Substances S/ Priority Substances), referring to substances of concern based on intrinsic hazard properties (similar to REACH Art 57).
  - Article 14(1) (a) provides that permits have to set measures (such as Emission Limit Values) for ‘polluting substances listed in Annex II, and for other polluting substances, which are likely to be emitted from the installation concerned in significant quantities, having regard to their nature and their potential to transfer pollution from one medium to another;’
  - Annex III point 2 provides that BAT have to require “the use of less hazardous substances”
  - Annex III point 2 provides that BAT have to meet the “need to prevent or reduce to a minimum the overall impact of the emissions on the environment and the risks to it”.

Efforts undertaken by Member States, the European Chemicals Agency (ECHA), NGOs and industry to promote substitution of chemicals of concern have therefore to be supported through the BREFs, which currently focus on the emissions (to air) from the installation and less on impacts of chemicals used in the process (intermediates) or manufactured. A stronger synergy with REACH related activities and worker protection concerns is therefore desired.

- GHG should also be included and considered. The IED aims to regulate environmental impacts of an industrial activity as a whole. This also includes CO<sub>2</sub> emissions and there are techniques to mitigate CO<sub>2</sub> emissions which are linked to energy efficiency which are clearly part of the BREF content. The EU-ETS system is market based approach to regulate CO<sub>2</sub> emission and different from the performance based technical approach of the BAT concept. There is therefore no “double regulation” if the BREF address CO<sub>2</sub> emissions, because the BREF lay down BAT (technologies and methods) to achieve emissions reduction which are not based on economic approaches.
- The same applies to substances with Ozone depleting potential (Montreal Protocol). These should be addressed as well
- Reference to WHO guidelines are missing, the WHO has recently started the process of updating the Air Quality Guidelines
- the databases compiled by the EU / international dedicated BAT centres e.g. the BAT centre operating in Belgium (Flanders region) and research institutes with extensive experience on industrial activities’ pollution abatement such as VITO (Belgium, Flanders region) and Oekopol (Germany)
- studies carried out such as impact assessment supporting the inclusion of a given sector in the scope of the IED (and its predecessor IPPC Directive)
- JRC own resources such as the report 2014 report ‘Progress in the management of contaminated sites in Europe’, relevant to soil and groundwater pollution (point 3 of table 1). Please see link here: [http://eusoils.jrc.ec.europa.eu/ESDB\\_Archive/eusoils\\_docs/other/EUR26376EN.pdf](http://eusoils.jrc.ec.europa.eu/ESDB_Archive/eusoils_docs/other/EUR26376EN.pdf)
- The state of the environment reports from the EEA is also a useful information source on environmental issues that may be considered as key. We welcome the consideration of the ‘EEA digests’ in this context
- Another guiding principle for assessing potential environmental issues considered as key would be to focus on delivering clear, precise and concise BAT conclusions, especially in order to derive BAT-AELs with narrow ranges which provide added value in delivering the IED and 7th EAP objectives under shortest possible timescales and in most effective manner. This would imply a qualitative assessment of the sector performance against objectives set under the Environmental Quality Standards –EQS– (Art 18) and the 7<sup>th</sup> EAP objectives, that assessment is linked to the EEA digests / state of the environment reports
- As regards point 6 of the table “consumption of energy” it is also important to specify the type of energy consumed in terms of its environmental profile e.g. renewable energy / fossil etc, the IED requires to address the specific “nature of” raw materials (Article 13.2 (a) of the IED)
- Techniques that achieve accidents prevention and site remediation should also be considered (see BREF review rules). This could include the consideration of information sources such as the guidelines / examples of Major Accidents Prevention Plan and/or Safety Reports (Seveso III Directive) and the consideration of baseline reports / implementation report on the Environmental Liability Directive.

**Question 2: Do you think any prioritisation of pollutants could be possible to implement, and if so how would this be done?**

Further to the parameters categorization presented (outcome of the proposed methodology), we suggest that priority is given to these parameters where one or more Member States have problems linked to EQS compliance (e.g. progress towards meeting the ceilings set in the National Emissions Ceilings-Directive compliance with the Ambient Air Quality and Cleaner Air for Europe Directive, Water Framework Directive good ecological / ecological standards etc.) and/or to these parameters for which compliance with the existing BREF requirements is already achieved and stipulated in the general binding rules in one or more Member States.

Priority might also be given to the pollutants for which the World Health Organisation is suggesting lower limits than those established by existing EU legislation. Having said that, the remaining relevant parameters (as per criterion 1) shall still be subject to the data collection and to a subsequent assessment (dedicating however less resources).

**Question 3: Do you have any comments on the interpretation of criterion 1?**

We agree with criterion 1 and pleased to see that the existing BREF (where applicable) is considered as the starting point for this exercise. We deem very important, however, to note that the methodology described shall indeed only apply to new issues/parameters i.e. the environmental issues already identified in the existing BREF (where applicable) shall be considered as relevant 'by default'. Please see general comments under Question 8. This should be clearly stated under criterion 1.

In relation to Table 4 criterion 1 sub-criteria: We do not deem the second sub-criteria "Is the parameter regulated in (most) Member States for this sector or process?" as a scientific basis to deselect an issue / parameter. The IED sets an intrinsic hazard properties based approach (see previous point). The fact that only a few / many Member States effectively address an issue is not a suitable indicator to allow an exclusion of the issue. In fact, many pollutants are not yet regulated e.g. candidate list SVHC in REACH / watch list SVHC in the WFD or properly regulated when considering cocktail effects.

On the other hand it may be useful to consider the issue for improving a level playing field across the EU and to carry out a pre-screening work.

#### **Question 4: Do you have any comments on the interpretation of criterion 2?**

We welcome the fact that the scope of criterion 2 as presented by DG ENV to the IED Forum in October 2015 has been broadened from not just “emissions” (to air or water), but considering other parameters such as resource consumption, as well as the mention of capturing of sectors that are increasing in importance so projecting the assessment to the future. On the latter, a bad example was the unfortunate, much debated decision to exclude pyrolysis and gasification systems from the Waste incineration BREF review despite the fact that big capacity installations are currently already under planning and taking also into account the period of time needed until the 2<sup>nd</sup> review of the BREF is finalised and the respective BAT conclusions are entering into force (more than 15 years).

However, we see several issues in the specific sub-criteria proposed in table 5 and have reservations in the method to define what is “significant” in the BREF context . Please see question 5.

#### **Question 5: Do you have any comments on the sub-criteria for criterion 2 in Table 5?**

The activities and substances addressed by the IED are considered as having “significant” impacts on the environment, in accordance to the Aarhus Convention and the IED. All the Annex I activities are de facto considered as having “significant” environmental impacts as per Annex I of the Aarhus Convention. Therefore an additional “significance threshold” should not be considered when assessing the environmental issues considered as “key”.

However, it could be acceptable to consider the significance through the application of the principle of proportionality when setting the stringency level of the BAT conclusions.

- **Sub-criterion a1 (number of installations):** the (built) capacity of installations is a factor that needs to be considered as well. Very few installations of big capacity can have a high environmental impact depending on the type of activity. Also the production outputs (e.g. surface and type of coated surfaces) or exact location of the installations may be more relevant for assessing environmental and human health impacts rather than the number of installations.
- **Sub-criterion a2 (number of installations reporting the parameter):** invalid criterion for the purpose of this exercise – it should be deleted. Parameters already identified in the existing BREF (where applicable) / regulated in the IED shall be considered as KEI ‘by default’ (see question 8); for the new parameters where no reporting obligations yet exist, this sub-criterion will lead to a faulty conclusion. An example is the dl-PCB diffuse emissions to air from shredder installations tackled during the WT BREF review (despite studies showing the significant environmental impact of the parameter, no data were available because of absence of monitoring / reporting requirements for operators).
- **Sub-criterion b2 (number of Member States reporting the parameter):** see comment on sub-criterion a2, this is not a technical based criteria and is to be deleted
- **Sub-criterion c (proportion of installations’ emissions of total EU industrial emissions):** to be complemented as potential local impacts should also be taken into account. As

mentioned previously this criterion could be only considered for setting proportionate BAT-C ambition levels (stringency of requirements). It may be useful to benchmark EU industry performance against other countries such as US, Japan, China.

- (i) **Sub-criterion d (on hazardous chemicals / priority substances):** we welcome the recognition that such substances are significant independent of amount, which is in line with the hazard based approach of the IED. It needs to be clearly stated that the substances included in [SIN2.0 list of ChemSec](#) , the ETUC Trade union list and priority substances under the EU Water Framework Directive (Annex X) or PBT vPvB substances are considered “KEI” if emissions are above zero or used in the activity which may trigger likely environmental impacts off site (e.g. use of substances of very high concern in production processes);

- **Sub-criterion d2 (proportion of installations’ resource consumption of total EU consumption):** see comment on sub-criterion c.
- **Sub-criterion d3 (proportion of installations’ waste generation of total EU industrial waste generation):** see comment on sub-criterion c. It may be useful to consider all waste sources (not just industrial waste sources).
- **Sub-criterion e (proportion of permits including the parameter):** see comment on sub-criterion a2. It can only give indications on why the issue could be relevant.

**Sub-criterion f (relative importance in monetary value):** In general terms, the economic concerns of operators to implement BAT take too much importance over the technical feasibilities of a technique for the sector. Cost/benefit considerations linked to BAT uptake are extremely subjective and depending on specific local conditions. Further there is no agreed and harmonised Cost-benefit assessment method in place. Therefore we propose to use a more simple and easy to verify approach for assessing the economic viability test: If one EU installation meets the BAT levels over 1 year without public subsidy / bankruptcy the cost applicability restriction is to be rejected. In any case the operator can always rely / attempt to seek a derogation in accordance to Art 15.4. of the IED.

The other alternative is to assess costs as € per unit of pollution abated (ECM BREF) or to assess the % of total cost of BAT-C uptake against revenues of the company considering associated monetised benefits (health and environmental protection).

However it needs to be borne in mind that there are methodological limitations to value ecosystem damage e.g. for heavy metals and POPs. More importantly this benefit assessment should not produce delays in BREF reviews.

Finally the levels of attributing monetary value to air pollution (value of statistical life) is highly subjective and political, in the US a life year lost of an US citizen is “worth” much more compared to the EU citizen. (See *EEB comments submitted to the CBA method workshop*).

- **Sub-criterion g (evidence by the TWG on significance):** this criterion shall only apply for new issues / parameters i.e. issues / parameters not dealt with at the existing BREF (where applicable). Please see questions 1 and 8.

**General comment on proportionality:** While we understand the logic behind applying the proportionality principle, at the same time we want to prevent the approach of disqualifying an issue / parameter as KEI when there may significant local impacts e.g. in the case of Hg and/or dioxin emissions.

What we propose it to tackle this issue not during the KEI identification step, but when deriving BAT conclusions incl. BAT-AE(P)Ls and/or associated monitoring requirements – an approach would be to set BAT-AELs indicating the maximum technical feasibility if certain threshold of annual loads of pollution are exceeded (provided that for PBT (vPvB) / SVHC substances no thresholds shall apply).

### **Question 6: Do you have any comments on the sub-criteria for criterion 3 in Table 6?**

We agree with the approach of assessing cross-fertilisation of techniques within the IED sectors.

The BAT-C selection should always be based on technical feasibility considerations (see EEB input to BAT Derivation methodology), even if the sector has not yet implemented more effective pollution prevention and control techniques. This approach is in line with the BREF review rules (see Section 2.3.7.1 “Techniques which are emerging in practice within the sector and are established techniques in other sectors will be included where relevant”).

The sub-criteria proposed are therefore supported but we strongly disagree with the fact that the criterion includes the word ‘significant’ – it should be deleted. All IED Annex I activities are activities of high environmental impact as per Annex I of the Aarhus Convention and therefore always considered as “significant”. Techniques that lead to (‘significantly’ or not) lower emission levels of a given pollutant (in comparison to IED Annexes or previous BREFs / current situation) and improved protection of the environment as a whole from these activities should form part of the BAT conclusions.

As mentioned in Question 1, another guiding criterion should be “added value in delivering the IED and 7th EAP objectives under shortest possible timescales and in most effective manner”. This would imply a qualitative assessment of the sector performance against objectives set under the Environmental Quality Standards (Art 18) and the 7<sup>th</sup> EAP objectives. BAT candidates should therefore be ranked in terms of effectiveness to deliver a certain environmental performance outcome, cross-media impacts have to be considered and may constitute valid applicability restrictions.

The criterion should make clear that “emission prevention, where practicable, is preferred over emissions reduction”, in accordance to the BREF review rules (see section 2.3.7.1).

### **Question 7: Do you have any comments on the sub-criteria for criterion 4 in Table 7?**

The sub-criteria proposed are interesting and valid to judge the penetration level of BAT (existing BREF / revised BREF) uptake but we strongly disagree with the following assertions:

- the word 'significant' should be deleted. Please see question 6. This approach is not in line with the BREF review rules.
- Similar comments as made to Question 6 apply here as well (percentage of installations that use BAT are not in itself technically viable eligibility criteria, they just indicate current practice).
- The first and more important guiding principle as a sub criteria should be the added value in delivering the IED and 7th EAP objectives under "shortest possible timescales and in most effective manner". This would imply a qualitative assessment of the sector performance against objectives set under the Environmental Quality Standards (Art 18) and the 7th EAP objectives. BAT candidates and BAT-AE(P)L levels should therefore be ranked and set in terms of effectiveness to deliver a certain environmental performance outcome, cross-media impacts have to be considered and may constitute valid applicability restrictions. The primary of environmental protection outcomes to be achieved is to be reflected in the criterion.
- Compliance with previous BREF BAT Conclusions is considered as the starting point, we consider the existing BREF BAT conclusions as the reference for setting permit conditions having their full validity (see IPPC Directive and IED Article 13.7 in combination to 14.3 of the IED), we disagree with the statement written in italics, even if it correct that many Member States have abused the unclear formulation of Article 9.4 of the IPPC-D;
- Investment levels can inform on the economic considerations linked to BAT uptake but are not a suitable criterion to derive BAT-AE(P)L because it is not technique performance driven criterion. This assessment should consider investments made outside of the EU e.g. Japan, China and US. This criterion rather fits as a sub-criterion to criterion 3 (Table 6);
- The range of actual pollutant concentrations across different countries is not a suitable criterion for technical feasibility of preventing/reducing pollution. It just highlights unlevel playing field across the EU. Further pollution loads per production outputs should be considered as well. It could be more relevant to assess on whether countries face problems with compliance with a certain EQS, pointing to a need for further actions (see earlier point under question 2).

## **Question 8: Do you have any comments on overall methodology and categorisations that will be generated?**

### **Comment on KEI categorisation and data collection:**

the preliminary categorisation of KEI will indeed help focusing the discussions at the KoM and speeding up the review process; however, we strongly disagree with the a priori exclusion of parameters from the data collection process (referring to category 'No, this is not a KEI') because of the methodology limitations (the main ones already identified and noted in the present report, in particular linked to the available data sources) and further concerns linked to the specific sub-criteria under criterion 2 (see question 5). The data collection should be comprehensive and include all issues / parameters identified as relevant following step 1 (criterion 1). The data gathered will then enable an assessment on whether the identified issues could be KEI to be tackled during the review.



## General comments:

- **When a BREF is under review, the KEI already identified therein, shall be considered as KEI 'by default' in the review process ('starting point')**

In the IED Forum meetings and at the Berlin meeting, the EEB and other Forum members have (repeatedly) stated that **the number of BAT-AELs / BATA-E(P)Ls should rather increase than decrease during a revision process. At worst, the ambition level of existing BAT conclusions is confirmed.** The opposite approach is counter-productive, it negates the technical basis behind the BAT conclusions developed in the past by the EIPPCB and the then TWG of experts and the efforts of those progressive Member States (and their operators) to comply with current / previous BAT conclusions in accordance with the IPPC Directive. The same principle shall apply to issues / parameters that have been included in general binding rules adopted at national level.

**If the data collection shows no improvement potential on certain issues / parameters then we expect the BREF upper ranges of the existing BAT conclusions to at least be maintained.** In many cases in practice **the upper range of a certain parameter is a non-issue (=accepted by the industry)**; it is just the lower range which is questioned. In this case **it would be sufficient to set an upper range e.g. <X**, in particular if the emission range is close to the detection limit or triggers measurement uncertainty. The dust example in the study would therefore point to the BAT-AEL level of <5mg/Nm<sup>3</sup> or 5-10mg/Nm<sup>3</sup>, with a footnote stating the 5mg is achieved with an optimised bag filter. Industry would remain free to use other techniques that achieve the same performance level, even if not yet used.

We do not expect that maintaining / updating the upper range of the BATAEL on these pollutants will require diversion of resources. **In case of strong conflicting views, the burden of proof shall lie with the stakeholders proposing the deletion of a KEI, as this is identified in the original BREF (where applicable). No such proposals shall be taken into account without thorough argumentation** based on a comprehensive data collection and assessment of the issues / parameters concerned.

- **Frontloading**

We agree that the frontloading should be done by the Commission with the support of a contractor but we deem necessary to include **a verification check by an independent agency like the EEA, both for the preliminary determination of new potential KEI and of the scope of the review.**

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## Annex

Working document (In Progress) by

Danmarks  
Naturfredningsforening



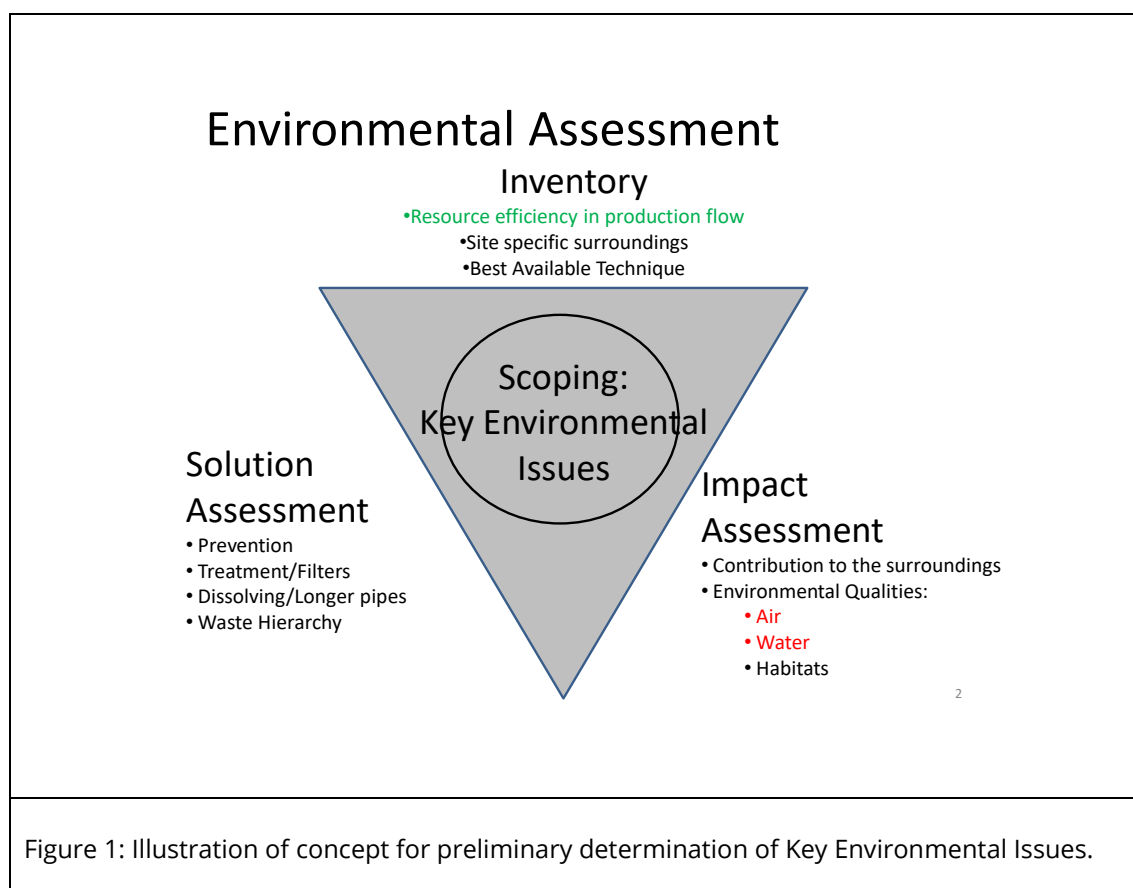
Date: 9. June 2017, Writer: Dr. Jens Peter Mortensen, +45 3119 3210, jpm@dn.dk

### DN Comments to

## Criteria for identifying key environmental issues of priority for the review of BAT reference documents under Article 13 of the IED

The IED clearly states in purpose articles that prevention of emission is the purpose. Prevention is lost in this attempt to conceptualize the development of Key Environmental Issues, KEI. The concept only includes the half of what an environmental assessment is supposed to include, not only the half but the most important part according to the IED purpose.

Environmental assessment is described in a triangle taken from methodology of LCA. The method in the context of preliminary determination of KEI could be illustrated as in figure 1.



## System Limitations for Preliminary Determination of KEI

The first step in the environmental assessment is the system limitation: A plant will always be a part of a production chain. The plant is illustrated as a black box in figure 2. The production chain is illustrated by the blue colour concept of regulation regimes.

A plant will also impact the surroundings. The impact assessment of the surroundings is illustrated with red colour in the illustration in figure 2. The suggested criteria for determination of KEI are only focussing on this part.

## Inventory and Regulation Regimes

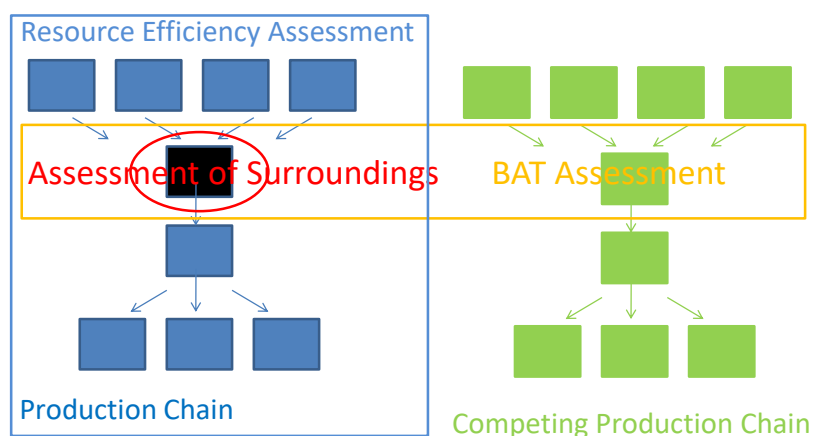


Figure 2: Illustration of system limitation of different environmental regulation regimes.

The preliminary determination of KEI and the deriving of BATAEL in the BAT conclusions must comprehend both approaches. Prevention is the most important one and must be prioritized according to the purpose of IED. The criteria as they stand alone derived from environmental impact assessment are unacceptable incomplete.

### KEI: Resource Efficiency

Any emission is not only an emission with an impact in the environment (as the only focus is in these suggested criteria for identifying KEI) but also a lost resource and worse for the industry a lost potential income.

Spending money on treating/transforming the emission to less harmful for the environment will only make it economically worse for the industry and create lock in impacts postponing the prevention and circular economy approach.

The deriving of KEI must first of all be derived from resource efficiency prioritized before KEI derived from environmental impact assessment.

Circular Economy represents a resource efficiency concept which can be conceptualized to the BREF note work. Different industries are located in different positions in the production chain and have different roles, see the illustration in figure 3.

Industries that work with biological materials are positioned at the right side in the biological cycle and industries working on minerals are positioned in the technical side. Industries positioned in both cycles needs to focus on a zero emission approach for their emissions regulated under the IED and preparing their production for receiving the resources back from after consumption.

The concept rethinks the manufacturing in reduce, reuse and recycle. This must be reflected in the formulation of the ELVs, the BATAELs and BAT conclusions for these relevant BREF notes. Resource efficiency is normally expressed by the load of product per input load of raw materials at plant level and cannot be comprehended by formulation ELVs in concentration values.

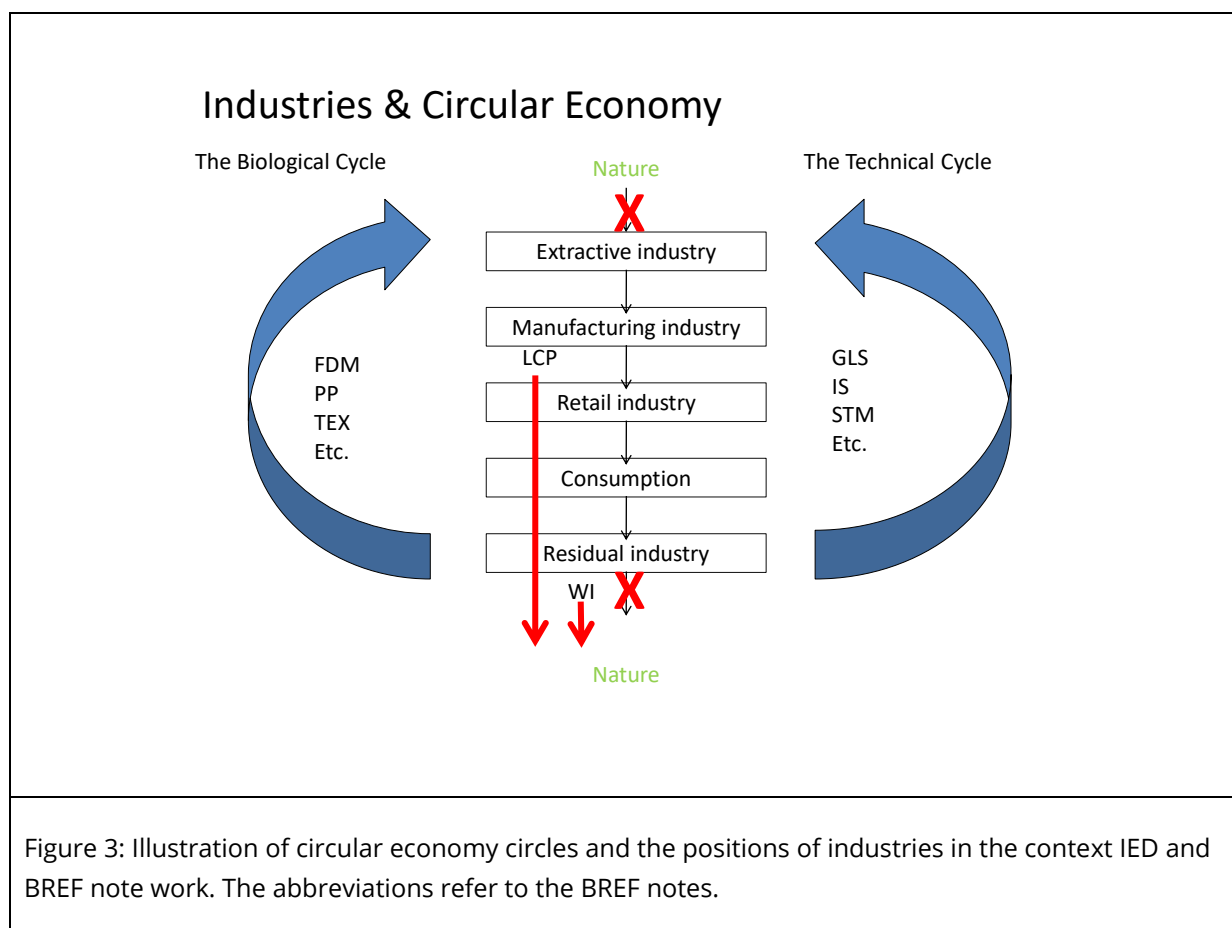


Figure 3: Illustration of circular economy circles and the positions of industries in the context IED and BREF note work. The abbreviations refer to the BREF notes.

Industries like combustion plants and waste incineration is burning and destroying biological resources. There is no point to talk about resource efficiency when the purpose is to destroy resources. Only destruction of hazards or other material hindrance for recycling is accepted as a transition to circular economy.

The BAT conclusions and the permits should include a phase out plant including double qualified techniques. *Double qualified techniques* are then THE KEY ENVIRONMENTAL ISSUE. For LCP and WI this will result in development of heat storage solutions, use of biogas in startup shut down and malfunction periods, preparing in the long run substitution by other ways of producing energy and handling waste.

The KEY ENVIRONMENTAL ISSUES for industries in cycle positions are zero emissions and the preparation for taking back resources from after consumption (urban mining).