# EU environmental standards and Best Available Techniques (BAT) in dehydrated forage

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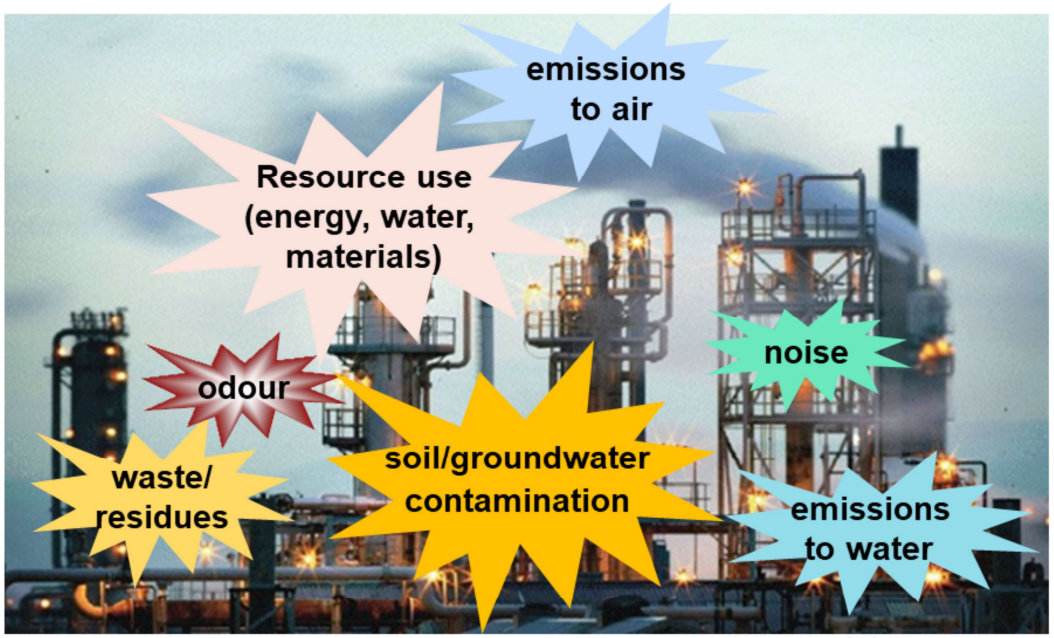
# Environmental drivers

**Premature deaths in EU(28) in 2018 (EEA):**
**379 000 linked to $PM_{2.5}$ and**
**54 000 linked to $NO_X$**

**52 000 IED-size installations contribute to ~25% of total emissions to air and up to 20% to water**

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The EEA estimates that, in 2018, a**pproximately 379 000 premature deaths were attributable to $PM_{2.5}$ and 54 000 premature deaths were linked to nitrogen dioxide in the 27 EU Member States and the United Kingdom**.

Currently, emissions from agro-industrial installations in the EU account for about 40% of all emissions to air, other than greenhouse gases, and for over 20% of emissions to water.

The major environmental impacts from industrial activities are emissions to air and emissions to water but other aspects are important such as noise and odour, and consumption of energy and water. All these aspects are regulated under the Industrial Emissions Directive for the large combustion plants as well as the industrial sectors specified in the Annex I of the IED including very important sectors such the chemical industry, iron and steel, cement industry etc…

Then the contribution of the IED to to the EU total pollution can be highlighted in the available space created when removing one of the two pictures.

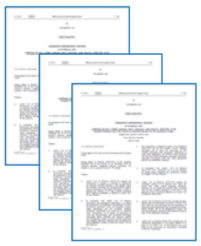
I agree, I have duplicated slide 2 to a “new” slide 3 keeping only 1 figure, complementing the description for the environmental drivers (soil & ground water contamination), resource use (energy, water, material), waste/residues) as well as the narrative for the contribution of IED installations

# The JRC's BREF factory – Key figures

**32 BREFs**
Best Available Techniques (BAT) reference documents (300-1300 pages each)




**BAT conclusions**
- Consensual
- Voted upon by MS
- Published in the OJEU



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experts today in TWGs

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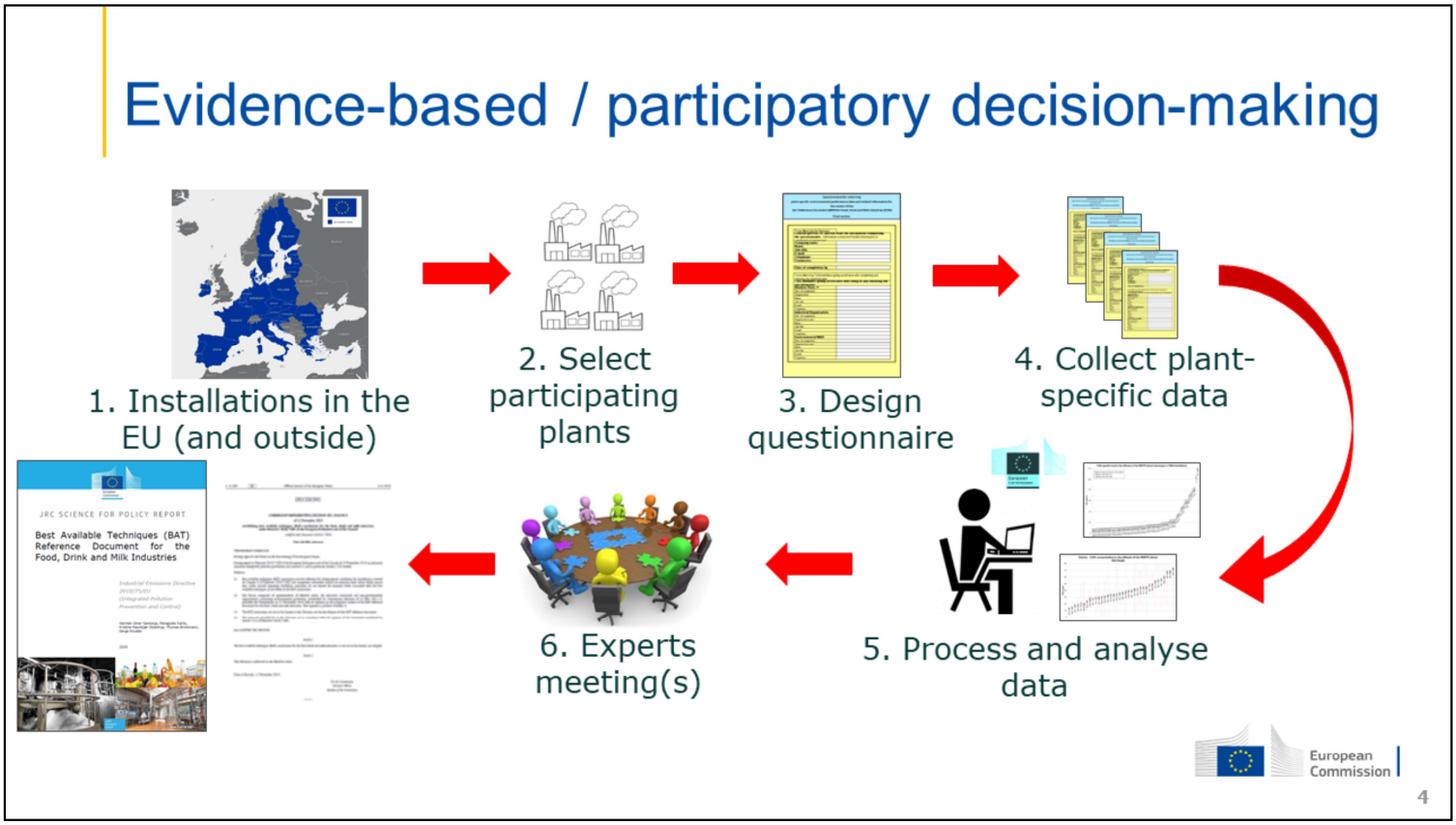
Under the IED, in total, 32 BREFs have been published under the coordination of the EIPPCB in close collaboration with DG ENV.

This has been a huge task, since within about 10 years almost all the sectors covered under the IED have been reviewed. Only a few sectors are still under review (e.g. TXT, SF, FMP, SA) before actually completing a first review cycle. This shows the efficiency of the Sevilla process and the capacity of the EIPPCB to deliver high quality BREFs and BATc. Very important sectors have been reviewed (e.g. WI, WT, LCP, IS, NFM, FDM etc…). Competent authorities and industry are using BREFs documents a lot, as it is the law in fact.

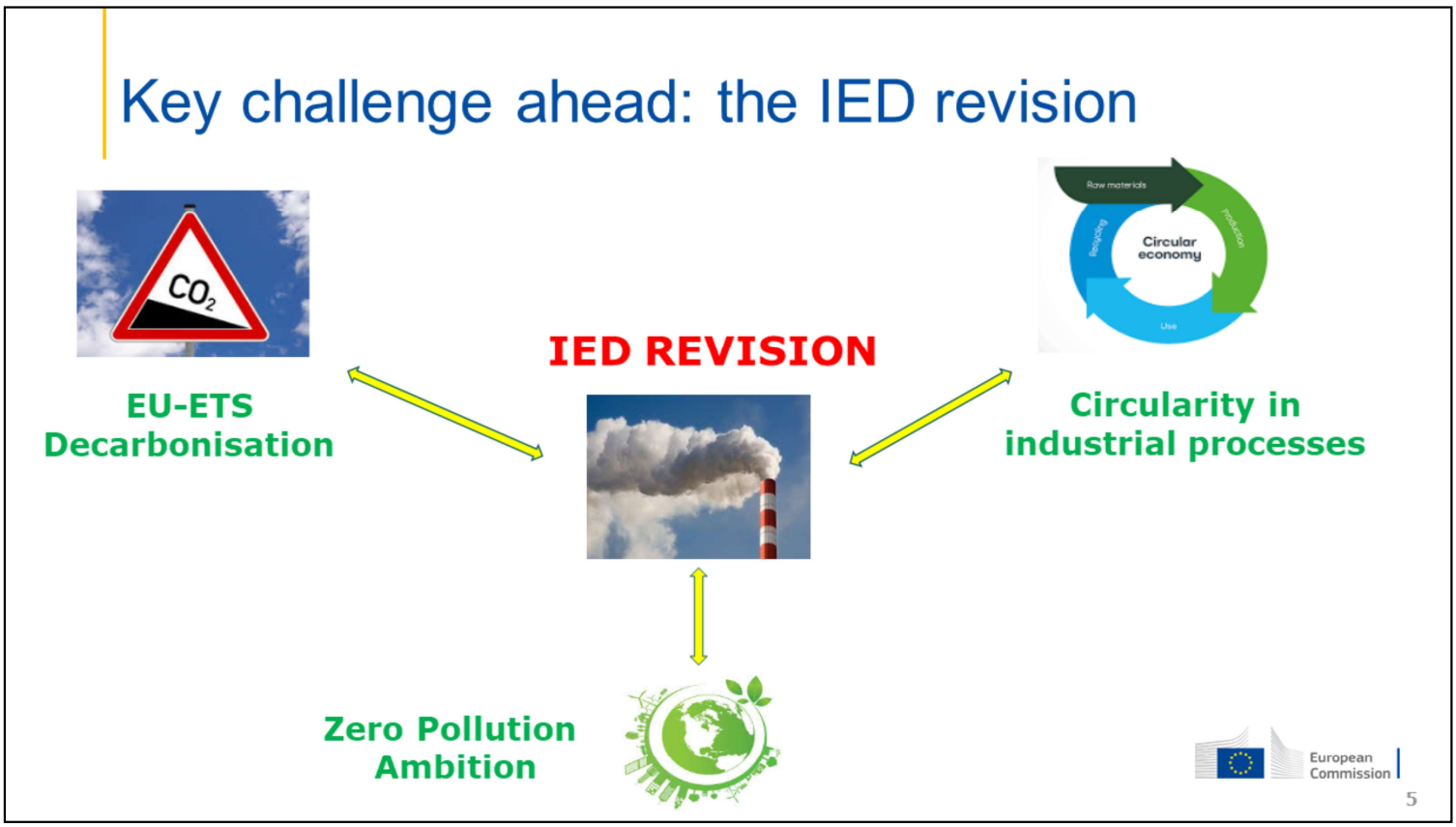



The Sevilla process is based on techno-economic evidences, and the most important source of evidences is a data collection carried out from EU industrial plants.

Plant-specific data are collected using a questionnaire designed by the EIPPCB and with participation of the TWG. The data are related to consumption, emissions and techniques to reduce or reduce these consumptions and emissions.

2-3 meetings with the TWG are normally carried to conclude on the design of the questionnaire and discuss the data collection. Transparency is a key issue and all data and related information are accessible to the whole TWG through a dedicated online platform called BATIS. The scientific value of the Sevilla process is very high, because the text discussed and agreed in Sevilla is the same as the one voted in Brussels.

To develop the FDM BATC, out of 353 plants participated in the data collection, 32 plants belong to the animal feed sector. Very few of them, around 5 plants, were dedicated to the production of dehydrated forage.




The European Commission is committed to reviewing the legal framework of the IED under the European Green Deal. The review aims to support the European Green Deal goals on zero pollution, climate neutrality, biodiversity and a more circular economy.

This new IED will need to carry on maintaining environmental protection from pollution arising from EU (agro-) industrial plants, but will need to go beyond this by addressing also the following:

- Take account of the latest technological developments for decarbonisation in the energy-intensive sectors. This may require integrating decarbonisation aspects in the IED/ BATc and develop BATs for decarbonisation. This will require aligning better the objectives of the EU ETS and the objectives of the future revised IED (coherence between both legislations).

Consider setting more stringent BAT-AELs for water/ air emissions to support the zero pollution ambition objectives;

Increase circularity in industrial processes to reduce material, energy and water consumption. This may lead to introducing more BAT-AEPLs on consumption, promoting industrial symbiosis.

The aim for the Comission is to submit a proposal by the end of 2021.

# BAT conclusions for food, drink and milk industries (1/2)

## Commission Implementing Decision (EU) 2019/2031 (November 2019)

2.1.2. *Green fodder*

BAT 16. In order to increase energy efficiency in green fodder processing, BAT is to use an appropriate combination of the techniques specified in BAT 6 and of the techniques given below.

| Technique | | Description | Applicability |
|---|---|---|---|
| (a) | Use of predried fodder | Use of fodder that has been predried (e.g. by flat pre-wilting). | Not applicable in the case of the wet process. |
| (b) | Recycling of waste gas from the dryer | Injection of the waste gas from the cyclone into the burner of the dryer. | Generally applicable. |
| (c) | Use of waste heat for pre-drying | The heat of the outlet steam from the high-temperature dryers is used for predrying part or all of the green fodder. | |

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I have selected two BAT conclusions that apply directly to the production of dehydrated forage. These two examples belong to the FDM BAT conclusions that were adopted as CID in Nov 2019, when they were published in the OJEU.
According to the IED, existing installations will need to updated their permits in 4 years from the publication of the BATC.
A first example is BAT 16….

# BAT conclusions for food, drink and milk industries (2/2)

2.3. **Emissions to air**

BAT 17. In order to reduce channelled dust emissions to air, BAT is to use one of the techniques given below.

| | Technique | Description | Applicability |
|---|---|---|---|
| a | Bag filter | See Section 14.2. | May not be applicable to the abatement of sticky dust. |
| b | Cyclone | | Generally applicable. |

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The second example I have selected is BAT 17…..
Given the limited amount of data available, it was not possible to derive a BAT-AEL for dust emissions from plants producing dehydrated forage.

# Questions are welcome