Intensive livestock rearing

Tackling harmful pollution through the review of the Industrial Emissions Directive (Integrated Pollution Prevention and Control)
Towards a cleaner EU industrial production

This briefing presents the EEB’s analysis and recommendations, informed in part by the Clean Air Farming LIFE project, on how the EU’s zero-pollution ambition must be reflected in EU regulations concerning the livestock sector, in particular the Industrial Emissions Directive and the Industrial Emissions Portal.

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On 5 April 2022, the European Commission made proposals for a revised Industrial Emissions Directive (IED) and the related Industrial Emissions Portal Regulation (IEP).\(^1\) Considering the new elements presented, it doubtlessly represents a step forward towards cleaner industrial processes and improved reporting on industrial activities. However, there are aspects to be further strengthened and clarified. In this briefing, we provide our assessment of the new elements of the proposals relating to intensive livestock production.

**EU Industrial Emissions Directive (IED):** the main EU instrument regulating the environmental impact of industrial installations. It mandates that high-impact activities are permitted to operate according to strict conditions including pollutant emission limit values (ELVs), based on the performance of the best available techniques in the EU BREFs (see paragraph below). Furthermore, the Directive requires stricter permit conditions to be set in cases where environmental quality standards (EQS) are not met (IED, Article 18).

**EU ‘Best Available Techniques Reference Documents’ (BREFs):** industry-specific documents which define the most effective techniques that industry can employ to minimise the environmental impact of their activities – the so-called ‘Best Available Techniques’, or BAT. The BAT conclusions (included in the BREFs) are used as a reference to set permit conditions, which conditions industrial installations must comply with.

**Industrial Emissions Portal Regulation (IEP):** is the proposal for a revised Regulation establishing the European Pollutant Release and Transfer Register (E-PRTR), a Europe-wide register providing public access to key environmental data from industrial activities (incl. those covered by the IED). The framework is intended to implement the 2006 Kyiv Protocol on PRTRs. It refers to the triple objectives: 1) to enhance public access to information that would also 2) facilitate public participation in environmental decision-making, as well as 3) contribute to the prevention and reduction of pollution of the environment. The current reporting interface “European Industrial Emissions Portal” is hosted by the European Environment Agency [https://industry.eea.europa.eu/](https://industry.eea.europa.eu/).

The EEB is publishing a series of briefings on different aspects relevant to the review of the IED and the IEP.

All available briefings can be accessed and downloaded here: [https://eipie.eu/briefings-by-eeb/](https://eipie.eu/briefings-by-eeb/)

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Main environmental issues with livestock rearing

The European Union (EU)’s livestock sector is a major source of air, soil, and water pollution, responsible for 12-17% of the EU’s total greenhouse gas emissions, as well as a key driver of biodiversity loss in Europe. These environmental impacts are driven primarily by intensive livestock rearing and aquaculture, which concentrate farm animals or fish at high densities in small areas, leading to hotspots of harmful pollution. Intensive livestock rearing and aquaculture also require large feed inputs, the production of which also causes serious environmental impacts. Furthermore, intensive livestock rearing and aquaculture raise serious issues with regards to animal welfare.

Air and water pollution from agriculture are well documented, yet the costs are currently largely borne by society. Ammonia and methane emissions are precursors for particulate matter 2.5 (PM$_{2.5}$) and ground-level ozone, two air pollutants linked to severe health impacts. 94% of ammonia and 55% of methane emissions in the EU stem from the agriculture sector (in large part from intensive livestock farms), and these emissions are not declining. Excessive nitrogen deposition from high ammonia emissions also harms ecosystems and nitrates pollution from agriculture seriously damages water quality across the EU, making it unfit for human consumption. More than a third of rivers, lakes and coastal waters and more than 80% of EU’s marine waters are eutrophic due to excessive nutrient concentrations.

The health and environmental cost of water pollution in the EU due to excess nitrogen and phosphorus is more than €22 billion per year. Regions with the most intensive livestock farms are the most affected, highlighting the need to move away from intensive rearing practices to achieve the EU’s zero-pollution ambition. The impact assessment of the European Commission claims that the proposal to include cattle and lower thresholds for pig and poultry farms covered by the IED would result in an environmental and health benefit of €5.5 billion per year thanks to lower methane and ammonia emissions, while the compliance cost and administrative costs would only be €265 and €233 million, respectively. Some of those costs could be supported by the Common Agricultural Policy, which has a budget of €54 billion per year.

The state of play for livestock in the IED

Since the origin of the Integrated Pollution Prevention and Control Directive (IPPC-D) in 1996, the industrial rearing of pigs and poultry (>2000 fattening pigs and 750 sows and >40,000 poultry places) has been covered under the pollution prevention and control framework (Chapter II of the IED). Intensive aquaculture (with annual production capacity >100 tonnes of fish/shellfish) is only included in the European Pollutant Release and Transfer Register, replaced by the Proposal for the Industrial Emissions Portal (IEP-R), meaning it is only subject to reporting requirements. The current regime regarding intensive livestock rearing and aquaculture in EU industrial pollution legislation is direly lacking, both in terms of scope and concrete provisions.

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2 Greenpeace (2020) Farming for Failure
4 ibid
5 European Commission (2021) Green taxation and other economic instruments: Internalising environmental costs to make the polluter pay
Industrial pigs and poultry rearing activities (currently Annex I Section 6.6 of the IED), are covered by the BREF “Intensive Rearing of Pigs and Poultry” (IRPP), published in February 2017 with a deadline for compliance on 21/02/2021. However, the BAT provisions of this IRPP BREF are so lax that intensive pig and poultry rearing farms have been able to continue with ‘business-as-usual’. A major shortcoming relates to the provisions on manure spreading, which only apply “on farm” and with an inadequate time delay for incorporating manure in soil. In addition, there are no provisions to ensure decent animal welfare. The EEB, together with Member States such as Austria, Denmark, Germany, the Netherlands and Finland, has repeatedly expressed its opposition to those standards.

**Shortcomings of the Commission’s proposals**

The Commission’s proposal for a revised IED (Integrated Pollution Prevention and Control Recast) makes welcome improvements to the scope of intensive rearing activities covered by this law but falls short in terms of the provisions that will apply to these activities, even backsliding on existing provisions for the industrial farms already regulated by the IED.

**Broader scope but too narrow focus on livestock and absence of concrete measures**

The proposal lowers the thresholds for pig and poultry farms covered by the IED to 500 pigs, 300 sows, 10,700 laying hens and 5000 other poultry, and, for the first time, includes cattle farms above 150 adult dairy cows (Annex Ia). This is welcomed, as the new scope would now cover the 13% largest livestock farms, representing 60% of ammonia and 43% of methane emissions from livestock. These new thresholds would address — in principle — the largest pollution contributors but could still be strengthened. Real change depends on the content of the operating rules, which are yet to be defined and hence an empty shell.

<table>
<thead>
<tr>
<th>Thresholds</th>
<th>Percentage of largest farms</th>
<th>Percentage of emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>500 pigs / 300 sows</td>
<td>18% largest farms</td>
<td>85% of emissions</td>
</tr>
<tr>
<td>10,700 laying hens / 5000 other poultry</td>
<td>15% largest farms</td>
<td>91% of emissions</td>
</tr>
<tr>
<td>150 adult cows</td>
<td>10% largest farms</td>
<td>41% of emissions</td>
</tr>
</tbody>
</table>

**Other types of animal rearing at industrial scale, for example aquaculture or insects, remain outside the scope** without clear justification. Furthermore, the criteria for inclusion under the IED are solely linked to absolute numbers of animals without consideration for stocking density (number of animals per hectare or square metre), which could make it seem arbitrary. Indeed, considerations for the receiving capacity of the land and surrounding ecosystem are missing; although this varies strongly across regions and is a crucial determinant for the impact of pollution.

Finally, the approach remains fundamentally about end-of-pipe pollution control, whereas to achieve the zero-pollution, biodiversity, and climate commitments of the EU, a **more holistic approach to sustainable protein production is direly needed**. The old model of factory farming is fundamentally unsustainable and unethical. It cannot be perpetuated if Europe is to deliver on its commitments to the Sustainable Development Goals and the European Green Deal.

**Vague and weakened provisions under the new ‘light permitting’ regime**

The proposal does not identify any mandatory pollution reduction measure in the IED and leaves all requirements and standards to be set in the Operating Rules (OR) (Art. 70i), which are currently an empty

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6 Manure must be incorporated within 4 hours to avoid 60-90% of ammonia emissions, whilst the BREF allows up to 12 hours
shell. While all other IED sectors see a reinforced BAT-based permitting process and enforcement in the proposal, the livestock sector is granted a significantly weaker process (Art. 70i replaces key articles of Chapter II). IED implementation through a BREF would take 8 years, while the ORs are foreseen to enter into force within 5.5 years of the adoption of the revised IED. This fast-track elaboration of ORs may be positive as it will speed up implementation of measures and fix shortcomings of the current IRPP BREF (precited), yet the actual outcome depends on the ambition and content of the ORs. It is concerning that the content of ORs is left open and there are no clear rules for public participation in their elaboration.

The Commission proposes a new light-touch permitting regime (Chapter VIa) for all livestock farms falling under the scope of the IED, even the most intensive, but only for the livestock sector. This new special regime for intensive livestock activities is problematic, as it is weaker and less enforceable than the current obligations, and even more so compared to the improved provisions proposed by the Commission applying to all other IED sectors. Applying this lighter permitting regime to industrial pig and poultry operations currently regulated by the IED (list in Annex I Section 6.6 and covered by the full IED Chapter II provisions) represents unacceptable backtracking on current standards. Further, the light permitting regime presents serious shortcomings:

Watered down general permitting rules

- The basic obligations on operators are strongly weakened (Art. 70d replaces Art. 11) – for example, no clear obligation to apply “Best Available Techniques” or to take appropriate preventive measures against pollution.
- Key information which should be required to apply for permits is removed (Art. 70c replaces Art. 10, 11, 12 and 14), such as a baseline report on soil and groundwater status, monitoring measures, and an assessment of the conditions of the site of the installation.
- The minimum permit conditions are hollowed out (Art. 70c replaces Art. 14): the straightforward link with EU environmental laws by requiring compliance with Environmental Quality Standards is removed (Art. 18), and permitting authorities are no longer required to set other measures related to energy efficiency, waste management, or requirements for soil and groundwater protection.
- The minimal monitoring obligations are scrapped (Art. 16): current minimal soil quality (every 10 years) and groundwater quality monitoring (every 5 years) obligations would no longer apply to intensive livestock operations.
- The periodical review of permitting rules is deleted (Art. 21) for livestock operations.

Weak compliance requirements (Art. 70f)

- Vague wording regarding non-compliance leading to “significant degradation” of local air, water or soil and “significant danger” to human health, limiting its enforceability and leading to varying legal interpretations and uneven protection of the environment and human health.
- The minimal inspection and site visits requirements and the annual compliance report are removed. The current minimal on-site inspection frequency is 3 years (Art. 23) and the compliance report must be sent to the competent authority every year (Art. 14). The proposal provides for a full exemption and leaves it to Member States to set up a system based on “either environmental inspections or other measures” (Art. 70f). This risks creating unlevelled and patchy verification systems – as is already the case in France due to a light permitting regime, even criticised by industry. Inspections of intensive livestock operations are crucial to ensure compliance7.

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Insufficient access to information, public participation, and access to justice

A consequence of the ‘light permitting regime’ is that the general public and concerned citizens will be limited in their democratic rights to access information, participation in decision-making, and access to justice due to the vague and unenforceable rules for permitting, monitoring, etc. Furthermore, Chapter IVa does not guarantee adequate public participation in the development of Operating Rules (Art. 70g), which is highly concerning.

A dangerous white card for polluters through an alternative ‘registration system’

One of the most worrying novelties of the proposals is a new provision (art. 4) which would enable Member States to allow a ‘registration system’ for livestock operations (i.e., a derogation from the requirement to have a permit), without any details on what this registration system would entail. It also excludes any kind of public participation as there will be no decision-making process that allows the public to make meaningful contributions. This constitutes a major and very dangerous loophole which could undermine the entire IED when it comes to the livestock sector and lead to unlevel playing field in the Union.

Recommendations

The revised IED should foster a move towards animal-based protein production in line with the zero-pollution ambition and respecting animal welfare, whilst supporting farms that act responsibly within planetary boundaries. Instead, the Commission’s proposals are plagued by a sense of ‘agricultural exceptionalism’ excluding the livestock sector from all improved rules proposed for other sectors and going as far as backsliding on the status quo for industrial pig and poultry farms. Considering the scientific consensus around the imperative to reduce livestock production and consumption levels in Europe to meet our climate, zero-pollution, and biodiversity commitments, this is unjustifiable and unacceptable.

1. Strongly reject any direct regression on current regulatory safeguards

   ➔ Reject the new ‘tacit approval’ registration system for livestock activities

   This system would lead to an uneven playing field and unequal pollution prevention across different parts of Europe, as already seen in France; and is not justified given the considerable pollution issues linked to the livestock sector.

   Delete Art. 4(1).

   ➔ Maintain the current regime for industrial pig and poultry operations already covered by the IED and add the most intensive cattle operations

   It is unacceptable that the 20,000 largest pig and poultry farms, which have been regulated under the IED for decades, would see the rules relaxed rather than strengthened like all other industrial sectors. The IED has not solved the pollution from these operators, so stricter rules are needed. This can be done simply by ensuring these operators continue to be regulated under Chapter II, while differentiating with lower thresholds. As intensive cattle farming is also extremely polluting, cattle farms over 300 LSU should also be covered by the standard regime. The light permitting regime would then constitute minimum provisions applying alongside the standard regime.

   Reinstate industrial pig and poultry rearing (above 600 LSU) in Annex I and add industrial rearing of cattle above 300 LSU.
2. **Improve the scope of the revised IED to ensure effective and fair pollution prevention**

➔ **Include intensive aquaculture and other animal rearing of industrial scale**

The pollution from intensive aquaculture is not currently addressed within the IED, however reporting obligations exist under the IEP (ex-PRTR) for operators producing >100 tonnes of fish/shellfish. These activities generate significant water pollution (notably with metals and phosphates) and lead to high water abstraction when onshore. Including onshore and offshore intensive aquaculture in the IED would help harmonise the regulation of this sector, including common licensing rules, monitoring requirements, sanctions, and emissions limits, creating more of a level playing field for operators in the EU. For the same reasons, other industrial animal rearing, e.g., minks or insects, should also be added under the scope of the IED.

Amend Annex I to include aquaculture producing >100 tonnes of fish or shellfish and add other industrial animal or insect rearing to Annex Ia.

➔ **Target pollution prevention measures at intensive farms by integrating a stocking density criteria**

The Commission’s Impact Assessment found that any livestock threshold between 50 and 150 livestock units (LSU) would be cost-effective. Lowering the threshold to 100 LSU would cover a significantly higher share of livestock methane emissions, while benefits would still outweigh costs. However, basing the thresholds of the IED on absolute animal numbers alone fails to really target intensive farms and therefore exposes the Directive to criticism. To target the IED at livestock pollution hotspots, it would seem appropriate to integrate a stocking density or other “intensity” criteria to the scope of the Directive, for example focusing the Directive on farms with more than 100 LSU which have a livestock stocking density higher than 1 LSU per hectare of grazing land under their management, and where animals spend less than 60% of the time outside.

Amend Annex Ia to tailor the scope to intensive livestock rearing.

3. **Ensure the permitting process and requirements are robust and proportional**

➔ **Lighten the administrative burden, but not the pollution prevention: ensure strict basic obligations, permit conditions, and compliance rules, bearing in mind animal welfare**

Livestock farms over 150 LSU constitute only the 13% largest of commercial livestock farms, which are responsible for the lion’s share of pollution linked to the livestock sector. While proportionality between expected environmental benefits and administrative burden is important, the level of pollution from these intensive farms does not justify the level of simplification introduced by the European Commission, which renders permits for intensive livestock farms near to meaningless.

The IED’s basic obligations (Art. 11), monitoring requirements (Art. 16), and inspection rules (Art. 23) should be applicable for all operators under the IED. There should also be a strong link with EU environmental laws through mandatory compliance with Environmental Quality Standards (Art. 18). Permitting authorities should include emission limit values, measures related to waste management, requirements for soil and groundwater protection, etc. in the permit conditions (Art. 14). Furthermore,

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high ambition regarding animal welfare should be integrated in the permit rules, to avoid investments with negative impacts on animal welfare, in line with growing societal concerns for the wellbeing of farmed animals.

Maintain link to key pollution prevention provisions (Art. 11, 14, 16, 18, 23).

➔ Ensure sufficient information is required for permits while reducing the administrative burden

While a lighter approach can be justified, the information required to apply for permits should still include the most important aspects required under the standard regime, notably a baseline report on conditions of the site regarding hazardous substances, the soil and groundwater status and monitoring measures.

Allow operators listed in Annex Ia to derogate from Art. 12 and 14 but amend Art. 70c to include essential basic information.

➔ Make permitting conditional upon strict environmental criteria (for all sectors)

IED permits should always be conditional upon compliance with the EU environmental acquis and relevant public interest goals such as the planetary boundaries. The competent authorities should have the possibility, and sometimes obligation, not to grant permits for activities that are not compatible with the zero-pollution ambition and EU environmental acquis. There are sufficient grounds to curtail intensive livestock activities and the long-standing failure to do so in parts of Europe (e.g. the Netherlands) has led to major, but avoidable, crises.

Amend Article 5(1).

4. Clarify the content of Operating Rules in the Directive to ensure best practice on pollution prevention

The revised IED should define the minimum content of those measures to foster legal certainty, democratic oversight, and a level playing field. Operating Rules should promote sustainable practices and not incentivise the further intensification of livestock rearing methods with end-of-pipe pollution control measures. They should be consistent with recognised best practice frameworks, in particular the 2018 EMAS sectoral reference document on best environmental management practices for the agricultural sector⁹; and should include at least, but not only:

- A maximum nitrogen and phosphorus load limit adapted to the state of the receiving area and in line with the objectives of the Water Framework Directive.
- Strict compliance with animal welfare legislation, including (but not limited to) on minimal lying area, enrichment materials, tail docking, and transport¹⁰.
- Additional animal welfare rules, including prohibition of cages for all species and of fully slatted floors for any housing systems for pigs, ducks, and cattle including calves, and minimal target values for stocking density reduction.
- Strict compliance with environmental legislation, including the Water Framework Directive’s non-deterioration principle for the status of surface and groundwater.

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¹⁰ This includes amongst others Directive 2008/120/EC
 Mandatory consideration of the environmental impacts of the livestock feed and associated impacts from its sourcing in the supply chain.

Rules on manure storage, including mandatory cover of slurry tanks to reduce ammonia emissions and odour nuisance and safeguards against pollution from liquid run-off of solid manure in field heaps.

A maximum time limit of 4 hours for incorporation of slurry into the soil and mandatory acidification of slurry to reduce methane (CH₄), nitrous oxide (N₂O), and ammonia (NH₃) emissions. Emission reduction gains (60-90%) can only be achieved if surface-applied solid manure or slurry is incorporated within 4 hours, decreasing strongly to just 50% and lower after that time-span.

A cap on ammonia emissions from fattening pigs housing, in line with WHO recommendations and decreasing with increasing animal numbers and potentially higher for straw/litter-based organic rearing. The installations covered by the IRPP BREF shall be capped to 2.2kg/NH₃/animal place/year, this level was supported by Germany, Denmark, the Netherlands, Sweden and Finland already in 2015. The Commission hinted at a differentiation between different models of livestock rearing under the Operating Rules. This may be appropriate, for example giving organic farms or free-range systems more leeway, or to provide for stricter measures for larger activities e.g., 300 LSU for cattle, but should be based on robust and clearly defined criteria which do not undermine the effectiveness of the Directive.

Amend article 70i to set minimal requirements differentiated by type of rearing and impacts.

5. Encourage the transformation of the intensive livestock sector toward sustainable farming for zero pollution and climate-neutrality

Just like all other IED sectors, the intensive livestock sector will need to transform in order to meet our zero pollution and climate-neutrality objectives. While technical measures may reduce the direct pollution from large livestock operations, industrial livestock farming remains fundamentally unsustainable as it requires massive amounts of feed crops, causing competition for land between food and feed, and disrupts global and local biogeochemical cycles at the cost of biodiversity, climate, and human health. Societal change away from industrial production of animal products and their overconsumption is therefore crucial to meet the Sustainable Development Goals, the Paris Agreement, and the objectives of the EU Green Deal.

Livestock operators should also develop a “transformation plan” by 1st July 2030 describing how the activity will transform itself during the 2030-2050 period to contribute to the emergence of a “sustainable, clean, circular and climate neutral economy” (Art. 27a). The exclusion of this sector from this provision in the Commission’s proposal is unjustified. Transformation plans in the livestock sector should include clear key performance indicators and involve all relevant stakeholders, including NGOs, water providers, and supply chain actors. Furthermore, to address the varying state of the receiving environment, transformation plans should also be developed at regional (e.g., river basin) and national level under the leadership of environmental authorities, in consultation with all relevant actors.

List Annex Ia activities under paragraph 1 of Article 27d