



Review of the Industrial Emissions Directive

***European Commission
DG Environment - Industrial Emissions and Safety (C.4)***

Content

1. Introduction to the Industrial Emissions Directive (IED)

2. Main features of the Commission proposal

- The five sets of proposals addressing each problem
- Overview and timeline

3. Livestock sector

- What is covered
- Tailored approach

Policy Background

- European Green Deal/ Zero Pollution ambition

The European Green Deal – Zero Pollution Ambition

“review EU measures to address pollution from large industrial installations. It will look at the sectoral scope of the legislation and at how to make it fully consistent with climate, energy and circular economy policies.”



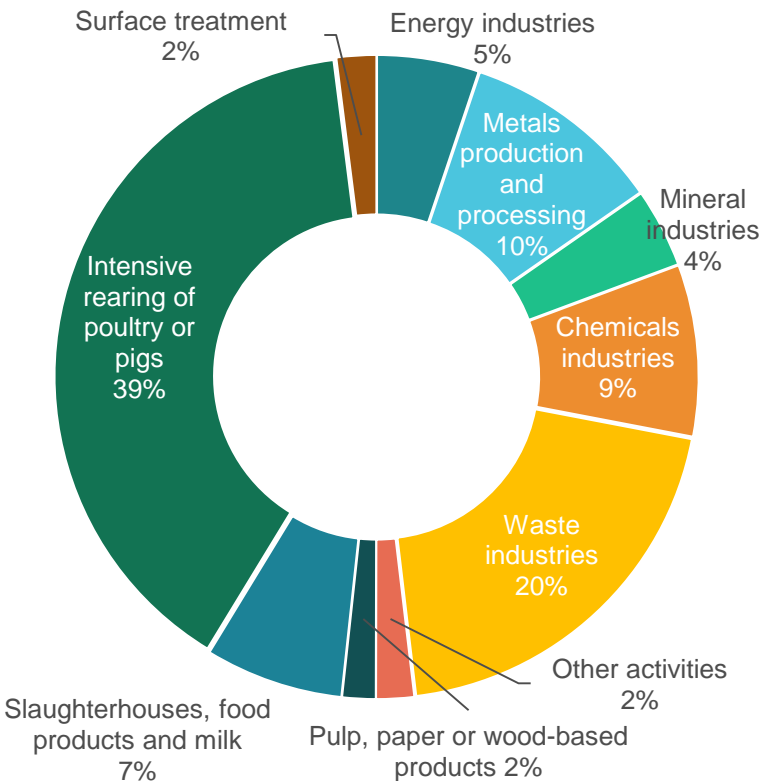
Clear remit & need for action

- Industrial Emissions Directive
- European Pollutant Release & Transfer Register (E-PRTR) Regulation

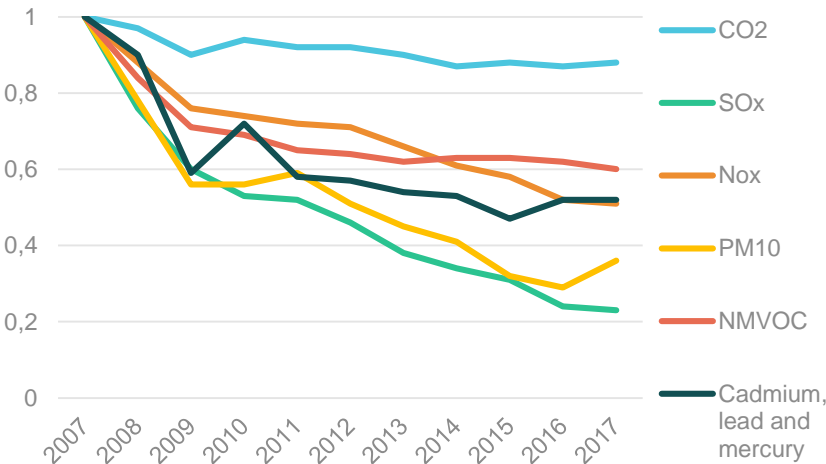
Industrial Emissions Directive (IED)

IED regulates over **30 000+ large industrial installations** and **20 000+ farms**

% of installations per industry sector



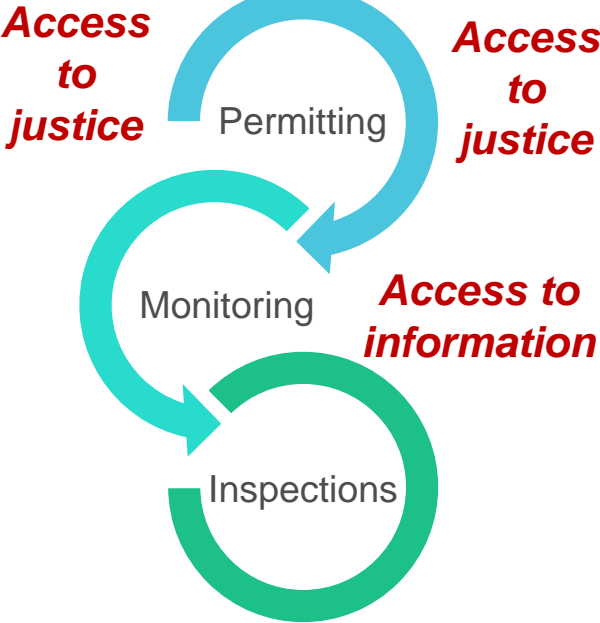
Supports a **high level of protection** of human health and the environment as a whole



Emissions of **air pollutants** by industry

Despite reduction by 40 to 75% of key pollutants over a decade, IED plants still represent about **50% of emissions of SO2 & heavy metals**, **30% of NOx & PM10**, and **40% of GHG emissions**

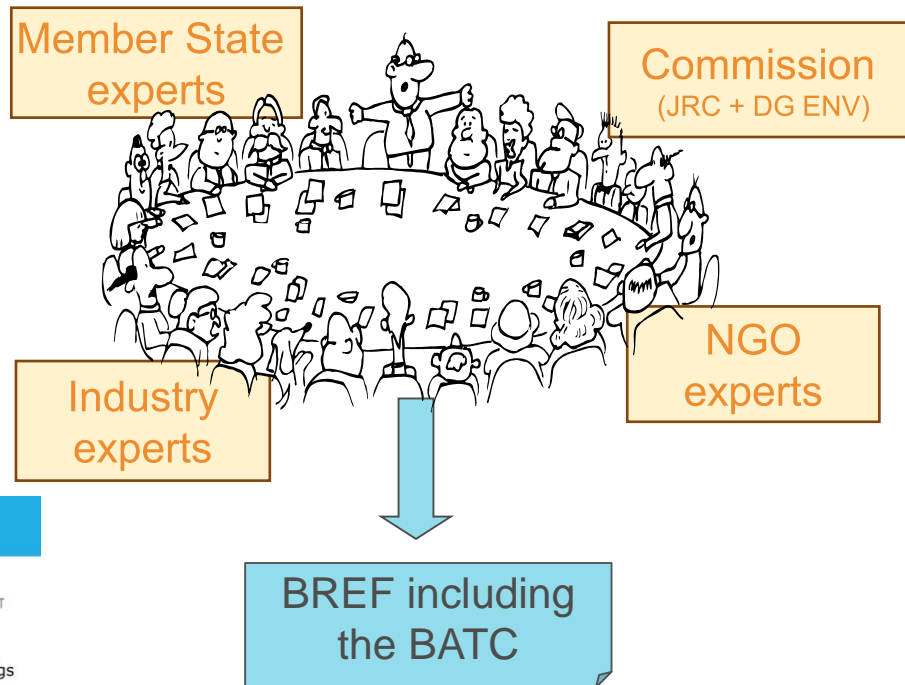
IED is a permitting directive



Reduction of Environmental impacts

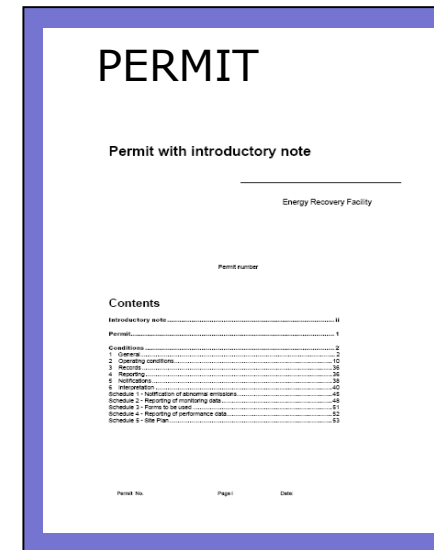
Conclusions on Best Available Techniques (BATC)

BATC are the fruit of a highly inclusive exchange of information among technical experts resulting in **BAT Reference Documents (BREFs)**



- Forum opinion on BREFs
- Adoption of 'BAT conclusions' through Article 75 committee

BAT conclusion requirements	Strong requirements		Weak requirements	
	Emission limit values		Performance levels	
Emissions to air	✓			
Emissions to water	✓			
Energy efficiency				✓
EMS				✓
Resource efficiency				✓
Waste management				✓



WHY do we need to revise the Industrial Emissions prevention & control framework ?



Over **50%** of total emissions to air of sulphur oxides, heavy metals and other harmful substances

Around **40%** of greenhouse gas emissions



Around **30%** of nitrogen oxides and PM₁₀ air emissions

Causing damage to public health and the environment amounting to many billions of Euros every year.



- This is despite reductions in the last 15 years of **40% - 75%** in pollutant emissions to air and water, depending on the pollutant.
- In **80%** of industrial plant permits, Member States set the **least ambitious levels of pollutant emissions** allowable via agreed EU 'BAT'

Revision of the IED: tackling five problems

1. Insufficiently effective legislation

- Excessive flexibilities
- Conditions not uniformly applied and enforced
- Imperfect information on emissions

2. Ineffective promotion of innovation

- Poor uptake of innovation and potentially inducing “lock-in” effects
- Backwards looking, rigid and slow regulatory processes

3. Insufficient contribution to resource efficiency, circular economy and use of less toxic chemicals

- Lack of clarity of the relevant IED provisions
- Weak status of the relevant parts of BAT conclusions

4. Limited contribution to decarbonisation

- Design and implementation have not prioritised GHG emissions

5. Sectoral scope coverage is too limited and outdated

- Fails to capture a significant stream of emissions
- Fails to address novel growth technologies and sectors emerging in the EU



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1. Improve effectiveness of IED

- **More ambitious emission limit values in permits** – start from considering feasibility of best performance, not legal laxest level allowed via BAT
- **Tightened derogations:**
 - Harmonised cost-benefit assessment required for any derogation from emissions limits
 - Review of derogations every four years
 - Monitoring of impacts on quality of the environment
- **Enhanced Aarhus rights:**
 - Improved public participation in permitting
 - Right for compensation for damages to health
 - More and better information available on the Internet including a harmonised permit
Cion to adopt an EU format for these summaries

2. Promote innovation

- **Innovation Centre for Industrial Transformation & Emissions (INCITE)** to:
 - Scout for worldwide emerging process techniques & clean technologies to jointly decarbonise and reduce pollution – **publish sectoral innovation scoreboards**
 - Make the IED **forward-looking** and **dynamic** by swiftly integrating innovations into BATC
 - Become a hub to foster innovation for the industrial transition, **linking policy and funding instruments** like Horizon, the Innovation Fund, and the Taxonomy
- **Support frontrunners** through flexible permitting arrangements, granting more time for testing and rolling out emerging techniques identified by INCITE
- **Transformation Plans:**
 - Operators to show how the installation will contribute to achieving EU's 2050 zero pollution ambition, circular economy and decarbonisation aims
 - Complements Corporate Social Responsibility Directive, EU Taxonomy

3. Contribute to resource efficiency, the circular economy and use of safe chemicals

The **Environmental Management System** becomes a strong obligation – It will be the formal means for implementing the relevant parts of BATC to:

- Improve resource efficiency, including water reuse, to meet benchmarks set in BAT-C
- Enhance energy efficiency – the EMS integrates energy audits and plans required by the Energy Efficiency Directive, securing oversight by the IED competent authorities
- Foster use of safer chemicals – ECHA gets a formal role in the BREF process

Possibility to **set efficiency levels in BATC** for the use of materials, water and energy, or production of waste, that will be binding in permits

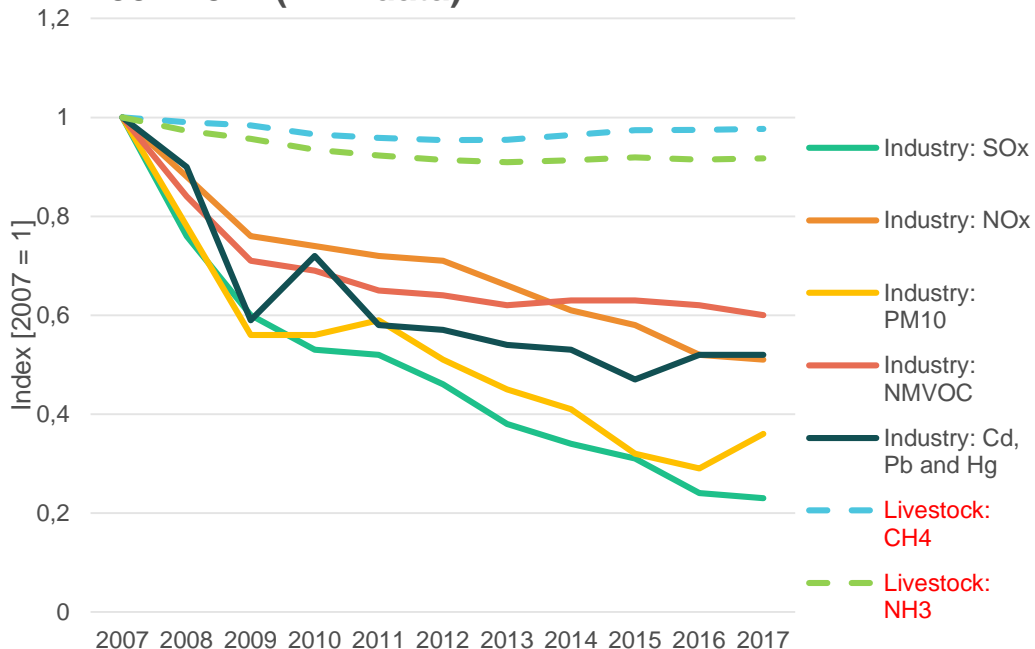
4. Support decarbonisation

- **Innovation options** (INCITE & Transformation Plans) promote optimal investment strategies that take an overall approach to pollution, decarbonisation and the circular economy
- **Mutual IED and ETS review clause** (already in Fit for 55 proposals) in 2028
 - to examine implementation of IED in the context of dynamics of innovation
 - The **EU-ETS** remains the **key instrument** regulating **GHG emissions**, where the activities and types of GHG are in its scope
- Inclusion of **energy efficiency** requirements based on BAT becomes mandatory in permits for all IED installation - incl. those covered by ETS
- IED will play a major role in **reducing non-ETS GHG emissions**
 - Thanks to its widened scope, IED will cover a larger fraction of non-ETS GHG emissions - representing 15% of total EU GHG emissions, e.g. methane

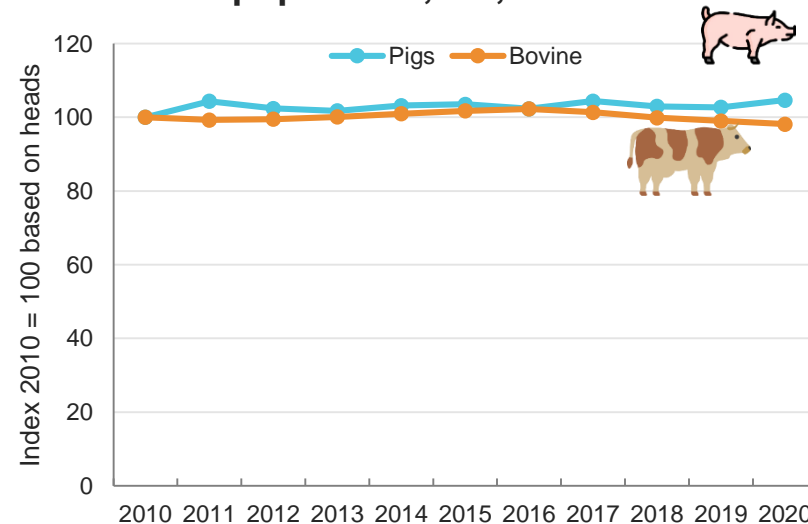
5. Widened scope – main changes

- IED will become a key instrument addressing emissions of **methane** and **ammonia** from **livestock farms**:
 - New permitting regime to cover the 13% (184 000) largest cattle (new), pig & poultry farms - representing 60% of the EU's livestock emissions of ammonia and 43% of methane. Health benefits estimated at € 5.5 bn per year – CBR = 11

Emissions from Industry and Livestock, EU, 2007-2017 (EEA data)



Livestock population, EU, 2010-2020



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General overview of proposals

To transform the legislation into a forward-looking framework fit for accompanying the industrial transformation needed for the green transition

1. More effective

- Increase ambition in permits & tighten flexibilities
- Accessible information on permits & performance
- Reinforced Aarhus rights
- New Portal Regulation

2. Support innovation

- Flexible permitting for frontrunners
- Create INCITE to ensure latest technologies are employed
- Transformation plans in EMS

3. Resources & chemicals

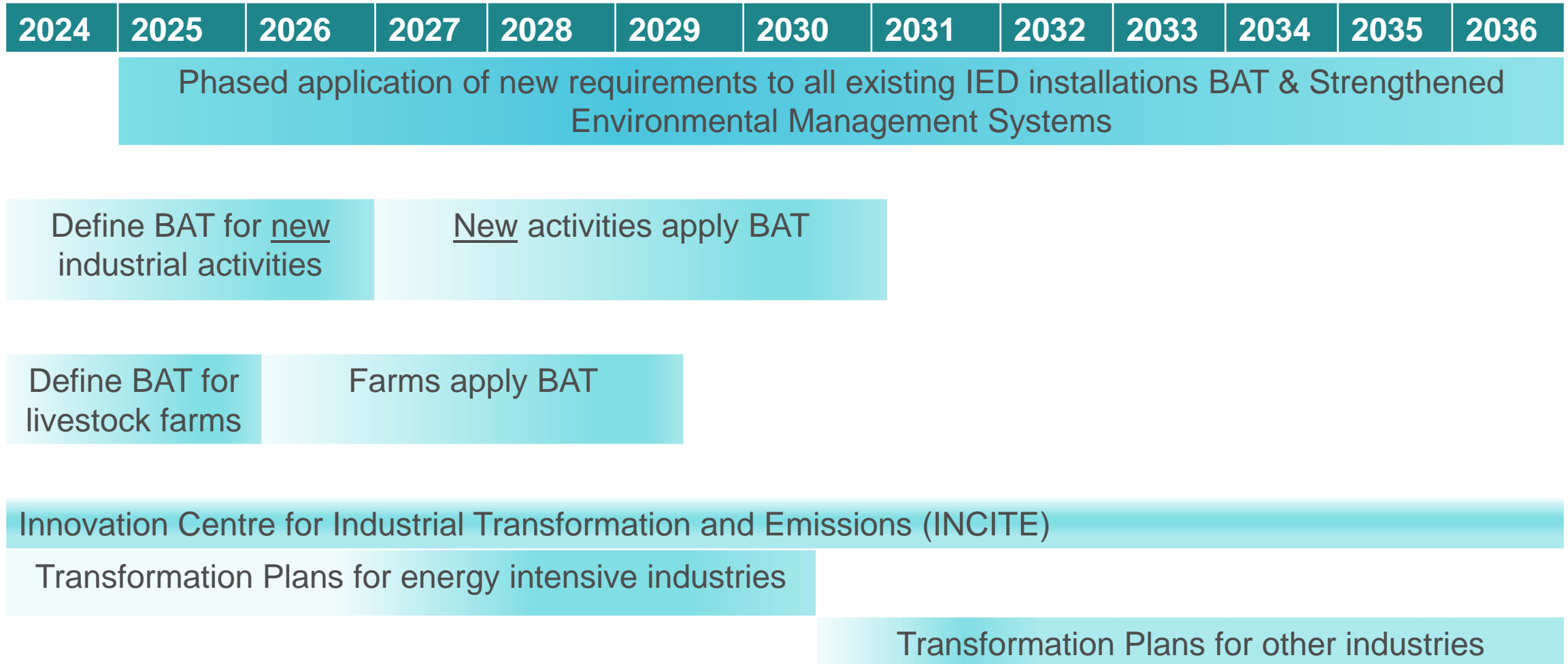
- EMS to improve resource efficiency, apply circular economy practices and use safer chemicals
- Performance levels and benchmarks

4. Support decarbonisation

- Curb non-ETS emissions
- Energy efficiency requirements
- IED review in light of innovation dynamics (June 2028)

5. Widening of scope: (1) close gaps in the IED scope (textiles, downstream metals, landfills), (2) accompany the growth of critical activities needed for the green transition (certain mining activities and battery gigafactories), (3) 13% largest livestock farms covered by tailored permit to address methane and ammonia emissions, (4° Watch mechanism for future widening of the scope (delegated acts)

Indicative timeline for application of revised IED

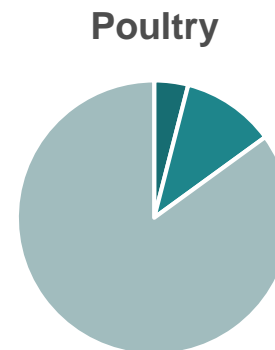
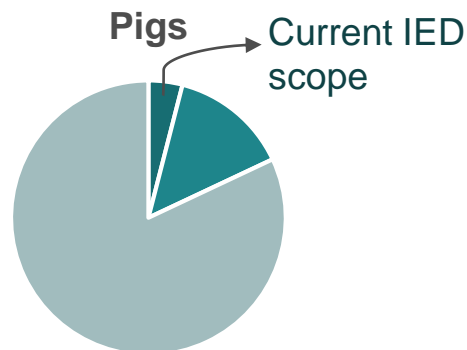
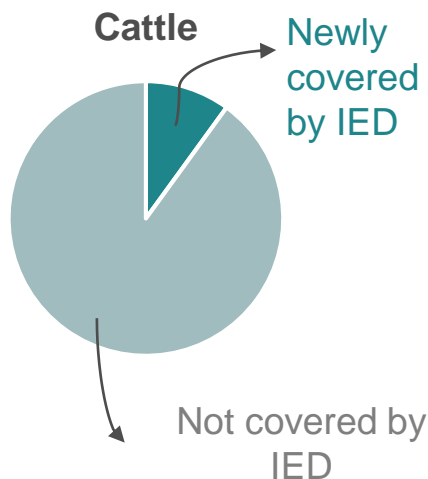


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3. Livestock sector: what is covered?

- To include cattle farming within the scope of the IED and the E-PRTR; and to expand the current IRPP scope by amending the capacity thresholds (IED Annex I activity 6.6).
- The analysis considered various Livestock Unit (LSU) thresholds: 50, 100, 125, 150, 300, 450, 600 and 750 LSU.
- Three criteria used to select the threshold in the proposal: (i) the cost benefit ratio, (ii) the degree of coverage of emissions from the sector, and (iii) the number of farms regulated.
- Livestock farms: share of non-subsistence farms covered (150 LSU):



Overall 13% of EU livestock farms
(184 k out of 1.46 million)

3. Livestock sector: costs and benefits (1/2)

- Coverage of methane and ammonia emissions
(% of livestock sector per animal type):

	Cattle	Pigs	Poultry*
Current IED	0	35	35
150 LSU	41	81	86
50 LSU	80	95	97

Overall, the fraction of **methane emissions** from livestock regulated by the IED increases from **3% to 43%** and from **18% to 60% for ammonia emissions**

- For 150 LSU: **health benefits** costed at more than € 5.5 bn per year – conservative estimates:
 - NH₃ reductions: 12% cattle, 7% pigs, 20% poultry
 - CH₄ reductions: >8% cattle, 37% pigs
- Offers the potential to **level the playing field** by providing minimum criteria for all Member States, notably towards the use of emission limit values in permits.

3. Livestock sector: costs and benefits (2/2)

- The total EU27 **compliance costs** for bringing livestock farms larger than 150 LSU into the IED (applying abatement measures tackling NH3 and CH4 emissions) are estimated to be:
 - € 112 m/year for cattle; 91 m/year for pigs and 62 m/year for poultry
- The associated **administrative costs** are estimated to be:
 - € 102 m/year for cattle; 39 m/year for pigs and 41 m/year for poultry
- This results in an average business costs of c. **2 400 €/year per farm**.
- The adoption of a **lighter permitting** approach for livestock (see next slides) under the IED could see the permitting **costs drop by c. 30%, per year**.
- For 150 LSU, the **benefit-cost ratio is 11** (14 for cattle, 8 for pigs and 9 for poultry)

3. Livestock sector: what is Tailored Approach?

- New, lighter approach = simplified permitting regime
- Designed for **ONLY** one IED sector!
- TA and its expected effects on public authorities and businesses is determined by the:
 - Measure design
 - Alignment with existing permitting systems and application of BAT

3. Livestock Sector: how Tailored Approach will work? 1/3

• IED 2010 Annex I point 6.6:

- Intensive rearing of poultry or pigs:

(a) with more than 40 000 places for poultry;

(b) with more than 2 000 places for production pigs (over 30 kg), or

(c) with more than 750 places for sows.



• IED 2022 Annex Ia:

- Rearing of cattle, pigs or poultry in installations of 150 livestock units (LSU) or more
- Rearing of any mix of the following animals: cattle, pigs, poultry, in installations of 150 LSU or more.



- IED 2022 New Chapter Via: *Special Provisions for Rearing Poultry, Pigs and Cattle*

- Articles 70a – 70i

CHAPTER II



Chapter Via

3. Livestock Sector: how Tailored Approach will work? 2/3

- Sets specific permitting procedures tailored to the sector, mindful of the need to balance the administrative permitting procedures with environmental integrity, public information and participation and compliance requirements
- Operating Rules for livestock farms will take into consideration not only the nature, type, size and density but also the complexity of these installations and the range of environmental impacts they may have, together with economical aspects
- Operating rules will be adopted two years after entry into force and will have to be applied within 42 months, hence in 2029
- Member State may implement the tailored approach as a permit or a registration, as long as all its minimum elements set out in Chapter VI are fulfilled

3. Livestock Sector: how Tailored Approach will work? 3/3

The TA will build on the successes of the IED for defining environmental standards:

- Inclusiveness – stakeholders fully involved!
- Fact based!
- BAT definition = viable

The permitting/registration process includes few key requirements on

- Application for permit
- Permit
- Public participation

Thank you

More info?

<https://ec.europa.eu/environment/industry/stationary/index.htm>

[The Industrial Emissions Directive - Environment - European Commission \(europa.eu\)](https://ec.europa.eu/environment/industry/stationary/index.htm)



#EUGreenDeal



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