

EUROPEAN
COMMISSION

Brussels, 14.12.2021
COM(2021) 793 final

REPORT FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT

on implementation of Directive 2010/75/EU on Industrial Emissions

1 Introduction

The Industrial Emissions Directive[1] (IED) is the primary EU legal instrument to regulate emissions from about 52 000 agro-industrial installations across the EU. These include among others: power plants, refineries, production of steel, non-ferrous metals, cement, lime, glass, chemicals, pulp and paper, food and drink, waste treatment and incineration and the intensive rearing of poultry or pigs. It aims to achieve significant benefits for the environment and human health, in particular through the mandatory application of Best Available Techniques (BAT). Sectors within the IED's scope account for a considerable share of emissions to air and water as well as non-household waste generation in Europe. It is estimated[2] that they contribute to around 23% by mass of the total EU emissions to air and around 40% of the total EU greenhouse gases emissions[3].

Regarding emissions to water, the situation is less clear - they are estimated to represent 20 to 40% of emissions of heavy metals and 30 to 60% of pollutants other than nutrients and organic carbon.

BAT Reference documents (BREFs) are prepared by the European Integrated Pollution Prevention and Control Bureau (EIPPCB) of the Joint Research Centre of the European Commission. The development of BREFs involves intense participation of stakeholders in an evidence-based, data-driven process. BREFs contain BAT Conclusions (BATC) that are given legal force by their adoption in Commission Implementing Decisions. BATC provide the BAT framework for a given agro-industrial sector and Competent Authorities must use these as the reference for setting permit conditions.

Article 73 of the IED requires the Commission to report to the Council and the European Parliament on the initial phase of implementation by 7 January 2016 and, thereafter, every three years. The report on the initial phase of implementation was published in 2017[4]. The present report summarises data collected from the Member States over the 2013-2018 implementation period, and factors in both, progress made since the reporting system was improved in 2018 (see Section 2) and the 2020 evaluation of the IED (see Section 5). This report also outlines other actions at EU level carried out to support the implementation of the IED.

In its Communication on the European Green Deal[5], the Commission announced a revision of EU measures to address pollution from large industrial installations, as one of the main pillars

[1] Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control), OJ L 334, 17.12.2010, p. 17–119

[2] Contribution of industry to pollutant emissions to air and water (https://circabc.europa.eu/ui/group/06f33a94-9829-4eee-b187-21bb783a0fbf/library/c4bb7fee-46df-4f96-b015-977f1cca2093/details)

[3] Staff Working Document SWD (2020)181 final

[4] Report from the European Commission to the Council and European Parliament on the implementation of Directive 2010/75/EU; COM (2017) 727

[5] COM(2019) 640 final

of the Commission's Zero Pollution Action Plan[6] that aims also at ensuring consistency with climate, energy and circular economy policies.

In September 2020, the Commission published a Staff Working Document (SWD) on the evaluation of the IED, which provided comprehensive assessment of its implementation and functioning. In follow up to the evaluation's conclusions, the Commission started work to revise the IED. The legislative revision package is planned for Q1 2022. The Commission has published an Inception Impact Assessment and has carried out public and stakeholder consultations[7]. In this context, this report looks also into the future and contains useful conclusions for the revision of the IED.

2 Reporting by Member States

Article 72 of the IED requires Member States to report to the Commission information on their implementation of the IED, as well as detailed annual information on large combustion plants.

Commission Implementing Decision 2012/795/EU[8] describes the type of information which Member States were required to report to the Commission for the 2013-2016 implementation period.

Building on the lessons learned, the more recent Commission Implementing Decision (EU) 2018/1135[9] steered a significant evolution of the reporting process, which by now happens annually (instead of tri-annually) and uses an electronic tool (the EU Registry on Industrial Sites[10]) made available to all Member States by the Commission. Although encountering some initial issues, Member State reporting is now much more systematic and harmonised.

Member State reports under both reporting schemes (the 2013-2016 and the 2017-2018[11],[12] periods) have been assessed and summaries of these assessments are available online[13].

---

[6] Communication from the Commission to the European Parliament, the Council, the European Economic and social committee and the committee of the regions - Pathway to a Healthy Planet for All EU Action Plan: 'Towards Zero Pollution for Air, Water and Soil' (COM/2021/400 final)

[7] https://ec.europa.eu/environment/industry/stationary/ied/evaluation.htm

[8] Commission Implementing Decision of 12 December 2012 establishing the type, format and frequency of information to be made available by the Member States for the purposes of reporting on the implementation of Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions; Official Journal of the European Union, L 349, 19 December 2012

[9] Commission Implementing Decision (EU) 2018/1135 of 10 August 2018 establishing the type, format and frequency of information to be made available by the Member States for the purposes of reporting on the implementation of Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions; Official Journal of the European Union, L205, 14 August 2018

[10] Hereafter the EU Registry, accessible via the Industrial Emissions Portal (https://industry.eea.europa.eu/)

[11] Slovakia did not report for the years 2017-2018

[12] Although the United Kingdom was a Member State in 2017-2018, it is not included in the analysis for this period.

3 IED implementation[14]

Number of installations

For the year 2018, information was reported for 51 917 installations, showing a 9% increase in the number of installations since 2015.

The largest number of installations is reported for intensive rearing of poultry or pigs sector - 39% of all installations. The relative share of various IED sectors is shown in Figure 1.

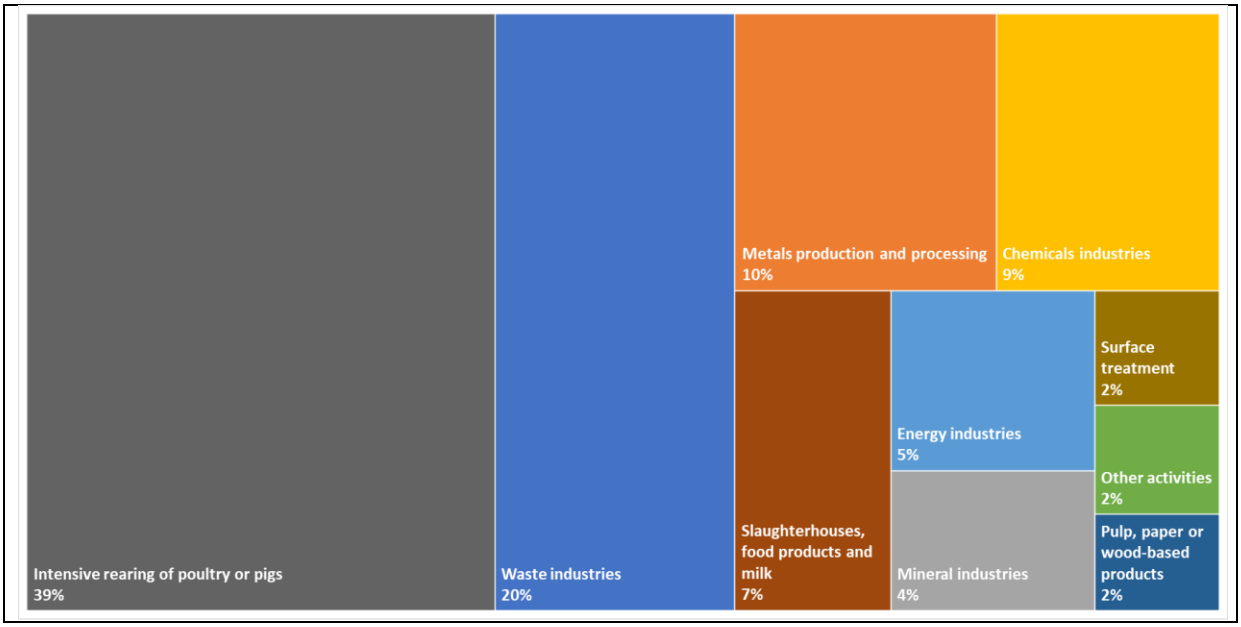


Figure 1 – Sectoral shares of IED installations in 2018[15]

Issuing of permits

According to Article 4 of the IED, no installations under its scope can be operated without a permit.

In 2018, 87% of the operational installations were reported as having a permit, but there remains a number of installations reportedly without a permit – in particular those operating in waste industries (17% of the operational installations for the industry) and chemicals industries (16% of the operational installations for the industry). The largest number of installations without a permit was reported for installations operating in the intensive rearing of poultry or pigs sector (2 685 installations, accounting for 14% of the operational installations). Seven Member States reported cases of installations without permits, mainly

[13] CIRCABC>environment>IED>Library>Studies> 2019 - IED Implementation Report 2013 – 2016 and CIRCABC>environment>IED>Library>Studies> 2021 - IED Implementation Reports for 2017 and 2018
[14] The information given in this section does not include the reporting made by the United Kingdom
[15] Source: Assessment and summary of Member States' reports under Commission Implementing Decision 2018/1135/EU, RICARDO, 2021

located in Denmark, Germany, Greece and Spain. It is however not clear whether this situation corresponds to the absence of a permit or to misreporting. For example, as from 2018, if no permit has been granted, Member States are required to describe what enforcement action has been taken against the concerned installation operator (and to report this to the EU Registry). Nevertheless, the number of installations without a permit is greater than the amount of cases of enforcement actions reported to the EU Registry, which shows that further clarification is needed (see Section 6).

Emission Limit Values

According to Article 15(3) of the IED, emission limit values (ELVs) which are set in permit conditions shall ensure that, under normal operating conditions, emissions do not exceed the emission levels associated with the Best Available Techniques (BAT-AELs), as found in the relevant Commission Implementing Decisions.

France, Germany, Italy and Sweden reported a total of 22 cases where ELVs in permit conditions are more stringent than the BAT-AEL range. Out of them, it is worth noting that stricter permit conditions were more reported under Article 14(4) of the IED (to achieve greater emission reductions than those achievable by the use of BAT in the adopted BAT Conclusions) in 16 cases and under Article 18 (to meet Environmental Quality Standards for air or for water) in 5 cases. For one case reported by Germany, stricter permit conditions were set in accordance with both Articles 14(4) and 18 of the IED. Stricter permit conditions have most commonly been set for installations operating in the glass industry. This may, however, only reflect the fact that the BAT Conclusions for this sector were among the first ones to be adopted under the IED and technological advances in emission reduction techniques have occurred since then.

Article 15(4) derogations

According to Article 15(4) of the IED, by way of derogation, the competent authority may, in specific cases, set less strict ELVs than those set in Commission Implementing Decisions. Such a derogation may apply where the achievement of emission levels within the BAT-AELs would lead to disproportionally higher costs compared to the environmental benefits.

Based on reported data, a total of 133 derogations have been granted with respect to BAT Conclusions applied at 98 installations operating in 15 Member States (Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Portugal, Romania, Spain and Sweden), with the largest numbers granted by Sweden, the Czech Republic and Italy. The largest number of derogations have been granted to installations falling under the BAT Conclusions for the manufacture of glass, followed by installations where the BAT Conclusions for the production of pulp, paper and board apply. More derogations have been granted for emissions to air (for 59 BAT-AELs, out of the total 811 BAT-AELs in BAT Conclusions) than for emissions to water (for 24 BAT-AELs, out of the total 252 BAT-AELs in BAT Conclusions).

The longest lasting derogation related to BAT Conclusions for the manufacture of glass (up to 202 months in one case reported by the Czech Republic). 22 derogations have been granted for an indefinite period of time. Long-lasting or indefinite derogations are not in contradiction with the relevant IED provision which does not set an explicit time-limit, but are being investigated under the scope of an on-going IED revision.

Baseline reports

According to Article 22(2) of the IED, where the activity involves the use, production or release of hazardous substances, and having regard to certain circumstances, a baseline report shall be submitted to determine the state of soil and groundwater contamination at the site of the installation[16].

Only six Member States (Cyprus, Estonia, Finland, Hungary, Romania and Slovenia) reported that all baseline reports required were submitted. For the remaining Member States, cases have been identified where the baseline reports were required as per Article 22(2) of the IED, but had not been submitted. This is an issue, in particular, for installations operating in Austria, Denmark, France, Germany, Italy, the Netherlands, Poland, Portugal and Sweden.

On average 57% of the required baseline reports have been submitted on time. In the case of installations where BAT Conclusions for the tanning of hides and skins apply, only 14% (four reports out of 28 required) have been reported as submitted. This suggests that there may be an implementation or compliance issue for this particular industrial activity. Overall, implementation and compliance for this aspect appear to be a challenge for Member States across all industries.

Enforcement action taken

According to Article 8(1) of the IED, Member States shall take the necessary measures to ensure that the permit conditions are complied with.

Six Member States reported enforcement actions (Croatia, Cyprus, Germany, Italy, Poland, and Spain). Most Member States have reported between 1 and 11 cases of enforcement actions. The types of reported enforcement action are predominantly legal proceedings.

Inspections - site visits

According to Article 23 of the IED, Member States must set up a system of environmental inspections of IED installations.

The frequency of the site visits shall be based on a systematic appraisal of the relevant risks and shall be at least yearly for installations posing the highest risks and every three years for installations posing the lowest risks.

[16] The baseline report shall be submitted before the start of the installation operation or before the permit of the installation is updated for the first time after 7 January 2013.

On an EU-wide average, Member States have reported that site visits have been conducted at 49% of installations during each reporting year. However, according to the reporting, in France, Greece, the Netherlands, Portugal and Spain site visits have been conducted at less than 25% of installations. It is not possible to conclude from this information whether or not all installations have been inspected in due time, for two reasons:

- the obligation to report on the frequency of site visits in the EU Registry only started in 2017-2018 period and information is not yet available for a sufficient time-series;
- no information is available in the EU Registry on whether site visits of an installation are to be carried out more often than every 3 years according to its level of environmental risk.

Large combustion plants

3 162 large combustion plants (LCPs) have been reported in the EU Registry in 2018. The majority have a total rated thermal input of between 50 and 300 MW_{th}. The largest number of LCPs operate in Germany (534 in 2018). Seven other Member States reported more than 100 LCPs (Finland, France, Italy, the Netherlands, Poland, Spain and Sweden). 19 Member States have reported fewer than 100 LCPs.

LCPs may be granted time-limited derogations from meeting the ELVs prescribed by Annex V of the IED through Articles 31 to 35. Relatively small proportions of the LCPs have been granted these derogations (see Table 1).

Table 1 - Number of derogations granted to LCPs as of 2018[17]

LCP derogation type	Number of LCPs benefitting from derogations as of 2018
Article 31 - apply minimum percentage of desulphurisation rates instead of the SO_2 ELVs	16
Article 32 - installations included in Transitional National Plans are subject to an overall emissions ceiling declining linearly between 2016 and mid 2020	234
Article 33 - derogation to account for the limited lifetime of the installations and associated to a maximum 17 500 operating hours until no later than 31 December 2023	117
Article 34 - small isolated systems	22
Article 35 - district heating plants	217

Waste incineration plants

In 2018, 750 waste (co-)incineration plants within the IED scope with a total nominal capacity higher than 2 tonnes/hour were reported to the EU Registry. The largest number of such plants were reported by France (179), Germany (149) and Sweden (117). In the EU overall, the majority are waste incineration plants rather than waste co-incineration plants. This is due to the very large numbers of waste incineration plants in France and Germany, whereas the majority of other Member States have mainly waste co-incineration plants, but in relatively smaller numbers. The largest proportion of plants have a capacity of between 2 and 25 tonnes/hour.

Installations using organic solvents

In 2018, 26 022 installations have been reported as using organic solvents and falling under the scope of Chapter V of the IED. Of these, a small share (3 570, accounting for 14% of the total) use the reduction scheme under Article 59(1.b) of the IED and an even a smaller share (77 installations accounting for 0.3% of the total) have been granted Article 59 derogations to allow installations to exceed ELVs.

Public access to information

According to Article 24 of the IED, the permits and results of the monitoring of the emissions shall be made available to the public. Similarly, the site visit reports shall be made publicly available (Article 23(6) of the IED).

[17] Source: Assessment and summary of Member States' reports under Commission Implementing Decision 2018/1135/EU, RICARDO, 2021

For public access to such documentation (Article 24 of the IED), central permit repositories are available at national level in 20 Member States and, at regional level, in 5 Member States (Belgium, Germany, the Netherlands, Poland and Spain); however, in such cases, the repositories do not exist for all regions. Moreover, the ease of access to and readability of such documentation is sometimes negatively affected by its format as well as by the multiplication of permits and related documents available for each installation.

For site visits, the available information is often limited. The use of central permit repositories to publish site visit reports (Austria, Bulgaria, the Czech Republic and Denmark) makes access to them easier, as does the use of a common report template (Austria, the Czech Republic, Romania and some regions of Spain).

For emission monitoring data, the extent to which data are made available for all installations is limited. In a few cases, databases have been established, providing access to the data, while in most cases, the information is available via annual reports.

4 Actions at EU level

At EU level, the Commission has carried out various actions to support the implementation of the IED.

BAT Conclusions

All plants within the scope of Chapter II of the IED are obliged to apply BAT as per Article 11(b) of the IED. At the time of writing this report, 17 BAT Conclusions for various industrial sectors have been published as implementing decisions in the Official Journal of the EU[18].

Figure 2 below provides an overview of the cumulative number of BAT Conclusions published since the entry into application of the IED and the approximate number of installations covered by these. The BAT Conclusions published to date cover more than 70% of IED installations.

[18] The BAT Conclusions for Large Combustion Plants (Commission Implementing Decision (EU) 2017/1442) have been annulled by judgement of the General Court of the Court of Justice of the EU of 27 January 2021. However they remain applicable until the entry into force of a new Commission Implementing Decision, which must take place within 12 months from the date of the judgement, i.e. by 27 January 2022 at the latest.

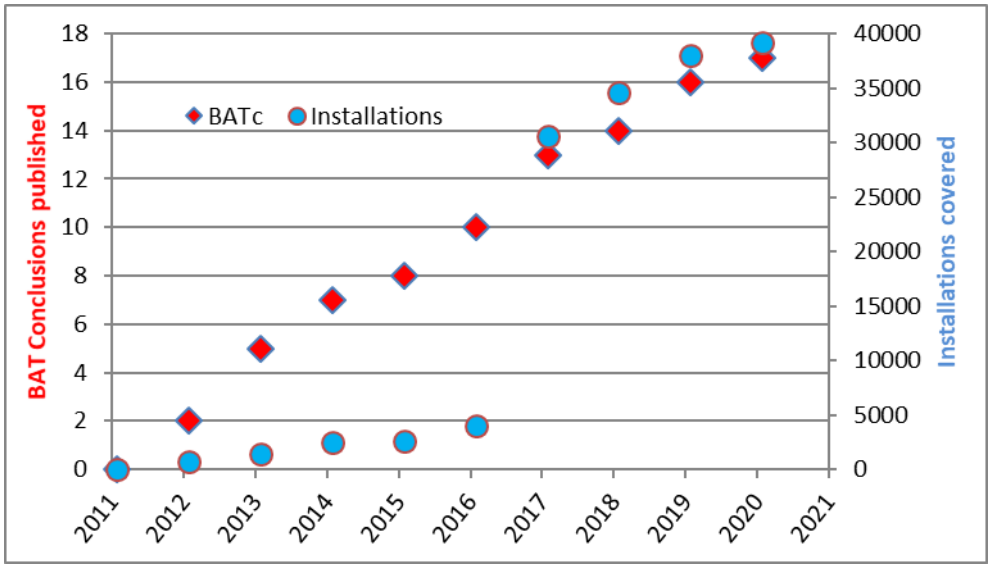


Figure 2 - Evolution of BAT Conclusions and of installations covered

Compliance promotion and implementation support

The main responsibility for effective implementation of the IED rests on the national competent authorities. Their tasks include issuing permits, assessing appropriate ELVs and other conditions, considering derogation requests and generally ensuring that installations are correctly operated. The Commission supports these authorities to ensure comparable, harmonised approaches at national level in line with EU law.

In 2019, the Commission set up an online platform[19] for Member States and competent authorities' representatives to discuss, exchange knowledge and experience and access resources related to IED implementation. In addition, the Commission is organising a series of workshops and webinars to facilitate the exchange between Member States competent authorities on specific issues. At the time of writing of this report, eight such events have been organised.

Finally, the Commission has made available on the Internet a summary of answers given to implementation questions[20].

International activities

One strand of the Commission's work relating to the IED has been to support organisations in other parts of the world using, or interested in, BAT and to share information and experience with them. The Commission has supported work ongoing in Israel, Kazakhstan, Russia and South Korea as they seek to develop industrial permitting regimes broadly based on the EU

[19] https://ec.europa.eu/environment/industry/stationary/ied/implementation.htm
[20] CIRCABC>environment>IED>Library>Questions answered by DG ENV

BAT and BREF approaches. The Commission has also supported the Energy Community[21] in its steps to implement the environmental goals of the IED for Large Combustion Plants.

With a view to wider outreach, the Commission supports an OECD project[22] in this field and has started to translate BAT Conclusions in non-EU languages[23].

5 Main findings from the IED evaluation

The evaluation was supported by an external study that gathered evidence through literature and desk research, targeted consultations, a 12-week public consultation and two stakeholder workshops. A SWD presenting the results of the evaluation was published[24] in September 2020. The main findings of the evaluation are as follows:

Effectiveness

Through establishing BAT-based permitting, the IED has been effective in reducing the environmental impacts of sectors within its scope and in reducing competitive distortions in the EU. The collaborative, inclusive, evidence-based process for producing BREFs and identifying BAT has worked well; this is recognised as a model of collaborative governance.

The IED has led to substantially reduced pollutant emissions to air (and associated damage costs as shown in Figure 3) and, to a lesser degree, to water. Scarce data also suggests minimised emissions to soil from IED installations. For a number of other aspects, such as contribution to resource efficiency and the circular economy, as well as to a less-toxic way of producing, it is much harder to draw any strong conclusions; however the indications are that the IED has made a positive contribution, even though of significantly lesser magnitude.

[21] https://www.energy-community.org/
[22] http://www.oecd.org/chemicalsafety/risk-management/best-available-techniques.htm
[23] Arabic, Chinese and Russian versions of BAT Conclusions are available at https://eippcb.jrc.ec.europa.eu/translation/index.html
[24] https://europa.eu/!hR34Qx

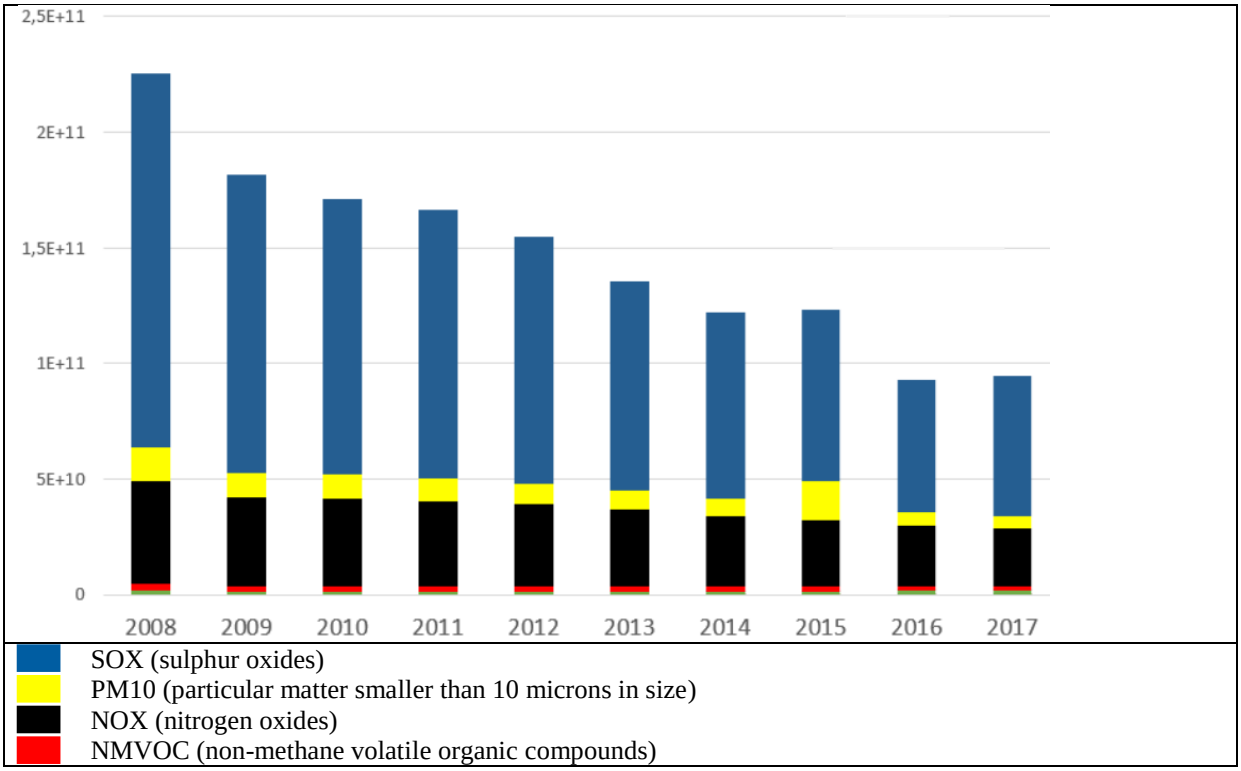


Figure 3 – Annual damage cost of emissions to air from IED installations by pollutant, expressed in euros[25]

The IED has made a limited contribution to innovation. Other aspects, such as public access to information and access to justice, appear to have improved somewhat, although more remains to be done.

Efficiency

The IED is a largely efficient instrument and has simplified the EU acquis. The overall benefits of implementing BATC substantially outweigh the costs. There is no part of the IED where costs have been identified as disproportionate and no unnecessary administrative costs have been identified. There are mixed impacts on EU competitiveness, however no evidence is available that these are significant.

Relevance

All different stakeholder groups consider that the IED remains relevant to the needs, problems and issues of the EU. It is able to respond to new or emerging environmental issues, although there are limitations to this, due to the nature and length of the processes of BREF review.

Coherence

[25] Source: Staff Working Document SWD (2020)181 final

The IED has a high degree of internal coherence. However, there are interpretation challenges in relation to various aspects, illustrated by the number of inquiries received by the Commission. These do not point to fundamental contradictions or inconsistencies, but several aspects could be further clarified. The IED is largely coherent with other EU policies and supports, at least to some extent, their delivery. There is however scope for greater contribution in some areas, such as water policy.

EU added value

The IED provides significant EU added value, as it generates a number of important benefits. EU action has ensured a more consistent approach in the adoption of environmentally effective industrial emission standards and their monitoring and enforcement with relatively limited deviation among Member States. The BREF process itself could not be replicated by Member States' individual actions with similar impacts. Absence of EU action would have led to less demanding environmental standards, at least in many Member States. The result would have been a higher overall level of emissions and impacts on health and the environment. Moreover, continuation of the initial situation of inconsistent environmental requirements would have perpetuated and possibly aggravated distortions of the EU internal market, i.e. by favouring installations that are not required to invest in environmentally effective techniques. The IED BAT system has led to some degree of action in third countries globally, and has been taken up in a number of multilateral environmental agreements. The subsidiarity and proportionality principles are well reflected in the IED, with the responsibilities of Member States and the EU and interactions between them working well.

6 Conclusions

Following up the first implementation report issued in 2017, this report provides the second Commission overview of the state of implementation of the IED. The Commission draws a number of conclusions from the data reported by the Member States over the 2013-2018 period, which largely concur with conclusions from the 2020 IED evaluation:

- A number of time-limited IED provisions to grant derogations to LCPs have come to an end (Articles 32 and 34) or are approaching their end (Articles 33 and 35). As LCPs are a major source of emissions, notably to air, the Commission is systematically monitoring the situation after the end date of such derogations to verify the compliance of the concerned LCPs with the applicable ELVs.

- There are still implementation difficulties, for example related to the submission of baseline reports. The Commission has provided support to the Member States' competent authorities for a number of years: such difficulties highlight the need for continued support and communication.

- Although permit documentation is accessible to the public in a large number of Member States, there is still room for improvement, including in terms of technical

issues (on-line accessibility, format/clarity and language of the documents), ease of locating the documents (especially when they are not handled at national level), availability of site visits reports and monitoring data. This is also a point which is being investigated in the on-going IED revision.

- The new reporting system under the EU Registry clearly simplified the reporting and improved its completeness and consistency. However, as a result of the assessment undertaken, a number of reporting issues will need to be addressed, e.g. information on permits, permit updates, derogations.

In the coming years, the Commission will continue to improve the reporting quality and to progress on various work strands: continued support for the IED implementation and compliance assessment.

The Commission will further analyse the identified cases of significant non-implementation with IED provisions. Should it conclude that this results from systemic breaches of the IED, the Commission will take appropriate enforcement actions.

Finally, the Commission is committed to revising the IED for it to become a key legal instrument accompanying the transformation of EU industry needed for the EU to meet its objectives under the European Green Deal.