European Union Network for the Implementation and Enforcement of Environmental Law

SUPPORTING THE INDUSTRIAL EMISSIONS DIRECTIVE (2010/75/EU) IMPLEMENTATION

Projects in 2019

Date of report: ***9 June 2020***

Report number: ***2019-01***

Introduction to IMPEL

The European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL) is an international non-profit association of the environmental authorities of the EU Member States, acceding and candidate countries of the European Union and EEA countries. The association is registered in Belgium and its legal seat is in Brussels, Belgium.

IMPEL was set up in 1992 as an informal Network of European regulators and authorities concerned with the implementation and enforcement of environmental law. The Network's objective is to create the necessary impetus in the European Community to make progress on ensuring a more effective application of environmental legislation. The core of the IMPEL activities concerns awareness raising, capacity building and exchange of information and experiences on implementation, enforcement and international enforcement collaboration as well as promoting and supporting the practicability and enforceability of European environmental legislation.

During the previous years, IMPEL has developed into a considerable, widely known organisation, being mentioned in a number of EU legislative and policy documents, e.g. the 7th Environment Action Programme and the Recommendation on Minimum Criteria for Environmental Inspections.

The expertise and experience of the participants within IMPEL make the network uniquely qualified to work on both technical and regulatory aspects of EU environmental legislation.

Information on the IMPEL Network is also available through its website at: www.impel.eu

Summary

Title of the report:	Number report:
SUPPORTING IMPLEMENTATION OF THE INDUSTRIAL EMISSIONS DIRECTIVE (2010/75/EU)	2019/01
Project Manager/Authors: Horst Büther (Project Manager - IED Implementation project) Terence Shears (Author of the report) John Seager (Author of the report)	**Report adopted at IMPEL General Assembly Meeting**: 2-3 December 2020, Virtual **Total number of pages:** Report: 19 Annexes: 116

Executive Summary

Introduction

The work on this project during 2019 had a number of components:

1. Working groups on specific aspects of IED implementation to exchange information on good practice and to produce practical guidance.
2. Joint inspections of IED installations carried out in Poland and Spain.
3. Project meetings and workshops in Poland, Finland and Spain.
4. Planning of the future work programme on IED implementation.

1. Working groups on specific topics

i. BAT Conclusions for Intensive Rearing of Poultry or Pigs (IRPP)

This group was concerned with implementation issues of compulsory BAT by February 2021 on the IRPP sector.

A questionnaire was circulated and completed by 33 people from 18 European countries.

This provided the basis for an analysis of the main issues arising in the IRPP sector in member countries, including a questionnaire completed by regulatory authorities.

One joint inspection, two face-to-face workshops and one teleconference were held.

The group has identified four key areas for future work:

- The use of Environmental Management Systems
- Management and treatment of slurry and manure
- The use of slurry and manure as a fertiliser
- Emissions to air, particularly odours and ammonia.

ii. Integrating Climate Change Adaptation into Regulatory Practice – ICCARP

This group has looked at how the impacts of climate change can be taken into account in industry regulation. A questionnaire was previously circulated, and a Fact Sheet produced. These provide the basis for further consideration on how climate change can be factored into IED permits, including risk assessment approaches and practical guidance to support regulators.

iii. BAT in industrial wastewater

This group has produced an updated version of previous guidance on the regulation of industrial wastewater treatment. A range of emerging topics are being considered for further work including:

- problems with odours
- severe weather conditions
- promoting the circular economy
- prevention of pollution by specific contaminants

Member countries are being encouraged to use the guidance and the inspection checklist and to provide feedback. The group is looking at priorities for training of practitioners with a view for implementing a training programme in 2020.

iv. Aspects of BAT application

The focus of this group has been the practical application of BAT Conclusions emerging from the IED. Specific issues considered have been:

- The relationship between BAT conclusions and General Binding Rules.
- How emission limit values are set in practice where a range of values exists.
- The approaches used to apply BAT Conclusions within the 4-year period.
- The approaches used to interpret and implement narrative BAT.
- The application of BAT where there are no BAT Conclusions.

A questionnaire was previously circulated providing the basis for a report. Factsheets have been drafted on each of the specific issues.

v. Baseline report: monitoring of soil and groundwater contamination

This group has looked at some specific aspects of the IED concerning the monitoring of Relevant Hazardous Substances (RHSs). In particular, it has considered:

- The periodic monitoring of RHSs where there is a possibility of soil and groundwater contamination.
- The systematic appraisal of the risk of contamination.

The application of these requirements in different countries is being shared within the group with a view to identifying good practice. The group will develop criteria or a risk assessment methodology to determine the necessary frequency of monitoring of soil and groundwater.

vi. Odours

The aim of this group is to identify problems with odours in member countries and to identify good practices for permitting and controlling odours. Areas of interest include general provisions to be included in the IED permit on the control of odours, the tools available and how they might best be used, and the requirements for the implementation of an odour reduction plan.

The group is developing a questionnaire covering Regulation, Permits, BAT conclusions, Inspection, Methodology, and Complaints Management. The group is also considering odour prevention measures, the definition of odour, and the monitoring, measurement and assessment of odours.

vii. Horizontal aspects of permitting

This project had previously looked at a range of horizontal issues concerning permitting (including: environmental inspections; contact person; process modification/extension; consumption of raw materials, water and energy; maintenance of equipment; noise and odour; staff competency and training; prevention and management of accidents; Environmental Management Systems (EMS); energy efficiency; site closure; reports; and communication). The project had used a questionnaire approach to assess practices in different countries. The overall conclusion was that there was a wide range of different practices across member countries. A Fact Sheet has been produced that summarises the main outcomes from the project.

viii. Application of BAT in the Cement Sector

A report (at Annex IX, page 145) has been produced detailing the results of an on-line questionnaire survey of approaches to the application of BAT in the cement sector, a joint inspection carried out at the Lafarge Cement Facility, Mannersdorf, Austria, and a

workshop held in Eisenstadt, Austria. A Factsheet on the use of waste as fuel or secondary raw material in the clinker/cement production has been drafted.

ix. Training and capacity building

Professional training is a key priority of the Commission's Environmental Compliance Assurance Action Plan. The European Commission has contracted consultants, Milieu, to look at professional training needs for environmental protection organisations. IMPEL has also approved a major 3-year project to develop a multi-annual programme, including the setting up of a Knowledge and Innovation Centre.

Guidance and tools such as the DTRT guidance on permitting and inspections provide a good starting point for identifying training needs. A working group on Training and Capacity-building has been set up to identify specific training needs associated with the IED. Future work in specifying an on-going training programme will build on these initiatives.

2. Joint Inspections

Joint inspections have been an ongoing part of the IED implementation project. So far, there had been 12 inspections in 10 countries involving 26 inspectors from 19 different countries. Joint inspections provide a focus for practitioners to come together to share their expertise, to develop and test methodologies, such as inspection 'check lists', and to agree on good practices for the planning and execution of on-site inspections. They make a valuable contribution to the professional development of those directly involved, and, by sharing the results more widely, to the building of capacity within IMPEL's member organisations. Joint inspections also play an important role in helping to achieve a level playing field in the environmental regulation of industry across Europe.

The working group has developed procedures for preparing and carrying out joint inspections. Practical guidance has been developed in the form of a Fact Sheet for the 'Doing the Right Things' combined guidance on permitting and inspection. A Project Abstract has also been produced and uploaded on IMPEL's web site.

During 2019 joint inspections were carried out in Gdansk, Poland and Santiago de Compostela, Spain:

Gdansk: The joint inspection in Gdansk took place at the site of the Grupa Lotos, an operation that includes an oil refinery and a combined heat and power plant. The focus of the joint inspection was the wastewater treatment plant. The main objectives of the joint inspection were to test the checklist that had been previously produced and to look at how the organisation (preparation, execution and reporting) of the joint inspection

could be improved. The joint inspection resulted in several important (positive and negative) learning points. Good preparation is a key factor for a successful outcome. The checklist was particularly useful in the preparing the inspection plan in advance. Commitment of the team, regular communication, clear definition of responsibilities, getting hold of the key documents (and translating them) in advance, are essential.

Galicia: Two joint inspections were carried out in Galicia. The first was at the FerroAtlantica ferroalloy plant in Dumbría. The inspection covered many aspects of environmental management at the plant. A particular issue related to BAT concerned the continuous monitoring of emissions. This is currently done using mass balance calculations. The new BAT requires that concentrations are measured, and a way forward needs to be agreed between the operator and the environment authority. The second joint inspection was at the NUDESA intensive breeding sows farm. The inspection looked at manure and slurry management, water management, emissions to air, and disposal of manure in land spreading. The group highlighted their nutrition management, heating system energy efficiency, and investment in applied research and development projects. There are opportunities for improvements in the follow up on the spreading of manure, the closure of all storage of manure to reduce ammonia emissions, and in increasing the frequency of manure removal.

For the future, the intention is to increase the number of joint inspections carried out each year. This will be a key part of IMPEL's training and capacity building programme. Feedback from inspectors to policy makers in the BREF cycle is also important and this should be factored into the joint inspections programme. A wide range of potential topics for future joint inspections has been captured resulting from a questionnaire exercise. Member countries are being encouraged to come forward with proposals for hosting joint inspections.

3. Project meetings

Three project meetings took place in 2019:

i. Gdansk, Poland

This meeting took place on 6-7 June and was hosted by Pomerian Voivodeship Environmental Protection Inspectorate. It was the first meeting of the year and provided an opportunity to take stock of progress with working groups and to plan forthcoming work and outputs. It also provided a focus for reporting back on the joint inspection of the wastewater treatment plant of the oil refinery and a combined heat and power plant that had taken place immediately beforehand in Gdansk. The meeting also

received a presentation by the consultants to DG Environment's project to support IED implementation. The meeting was attended by 30 delegates from 18 countries.

ii. Kouvola, Finland

This meeting took place on 3-4 October and was hosted by the Centre for Economic Development, Transport and the Environment, South-East Finland. The meeting involved the leads for the project working groups only. It provided an opportunity to look in detail at progress in each of the topic areas and to plan for the main workshop meeting that took place in Santiago de Compostela. It looked at the overall organisation and budget for the project. It also considered plans for the development of the IED implementation work programme for future years. The meeting was attended by 12 delegates from 11 countries.

iii. Santiago de Compostela, Spain

This meeting took place on 23-24 October and was hosted by the Environmental Quality General Directorate, Xunta de Galicia. The meeting involved a workshop with breakout group sessions to discuss future work in the topic groups. The meeting also provided a focus for reporting back on the joint inspections that has been carried out immediately beforehand. A workshop on BATs for Intensive Rearing of Poultry and Pigs had also taken place during that week and the results from this fed into discussions on this topic at the main meeting. There were 43 delegates from 22 countries present at the meeting.

4. Planning of Future Work

A ToR for the continuation of the project on supporting IED implementation in 2020 has been produced for approval by IMPEL's General Assembly. This takes account of ongoing work that will continue into 2020, new work, and the expansion of some activities such as joint inspections.

A paper has been developed to support discussion and agreement of a future multi-annual programme on supporting IED implementation covering the period 2021 to 2024. This has taken account of the following sources:

- Priorities arising from the survey of Challenges in Implementing EU Environmental Law, last carried out in 2017.
- Priorities emerging from discussions with the European Commission.
- Cross-cutting priorities for IMPEL, for example, training and capacity building.
- Topics suggested by the IMPEL Air and Industry Regulation Expert Team.
- Completion and implementation of the outputs from on-going work in the IED Implementation Project.
- Open topics suggested by the IED Implementation Project Group.

Disclaimer

This report is the result of a project within the IMPEL network. The content does not necessarily represent the view of the national administrations or of the Commission.

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1. Purpose of the project

The IED project is intended to help achieve better implementation of the IED. It has particular regard to permitting, participation of the public, and increasing the efficiency and effectiveness of environmental inspections and surveillance through:

- Application of risk criteria in a strategic way with a view to assessing, evaluating and mitigating the most serious types of non-compliance with the IED
- Development of best practice examples in the application of BAT conclusions and the compilation of baseline report on soil and ground water contamination
- Optimising the communication with and active dissemination to the public of the results of inspection and surveillance work
- Fostering cooperation and coordination between different inspection and surveillance bodies with a view to streamlining and optimising the use of inspection and surveillance resources
- Development of reaction methods after serious environmental complaints
- Creation and use of electronic records of inspection and surveillance work with a view to enabling the efficiency and effectiveness of such work to be more easily measured and evaluated.

2. Background to the project

Industrial production processes account for a considerable share of the overall pollution in Europe owing to emissions of air pollutants, discharges of wastewater and the generation of waste.

The Industrial Emissions Directive 2010/75/EU of the European Parliament and the Council (IED) is the main EU instrument regulating pollutant emissions from industrial installations. The IED was adopted on 24 November 2010 and entered into force on 6 January 2011.

The IED aims to achieve a high level of protection of human health and the environment taken as a whole by reducing harmful industrial emissions across the EU, in particular through better application of Best Available Techniques (BAT). Around 50,000 installations undertaking the industrial activities listed in Annex I of the IED are required to operate in accordance with a permit (granted by the authorities in the Member States). This permit should contain conditions set in accordance with the principles and provisions of the IED.

The IED allows competent authorities some flexibility to set less strict emission limit values. This is possible only in specific cases where an assessment shows that achieving the emission levels associated with BAT described in the BAT conclusions would lead to disproportionately higher costs compared to the environmental benefits due to the geographical location or the local environmental conditions or the technical characteristics of the installation. The competent authority is required to document its justification for granting such derogations.

Furthermore, Chapter III of the IED on large combustion plants includes certain flexibility instruments (Transitional National Plan, limited lifetime derogation, etc.).

The IED contains mandatory requirements on environmental inspections. Member States shall set up a system of environmental inspections and draw up inspection plans accordingly. The IED requires a site visit to take place at least every 1 to 3 years, using risk-based criteria.

The IED ensures that the public has a right to participate in the decision-making process, and to be informed of its consequences, by having access to permit applications, permits and the results of the monitoring of releases.

An initial IED project was carried out in 2015 and subsequent projects were carried out in 2016, 2017 and 2018. This latest project (2019) sought to build on and develop the outcome of the previous project by identifying further areas of the IED where there were challenges for those seeking to implement the directive and by seeking to establish good practice in those areas. This work has been incorporated into a draft guidance book and has been continued into the project in 2019.

Annexes

Annex I

Terms of Reference IED Implementation

TOR Reference No.: 2019/01	Author(s): Horst Büther / Florin Homorean Amended by: Elisabete Dias Ramos
Version: 3	Date: 07 August 2019
TERMS OF REFERENCE FOR WORK UNDER THE AUSPICES OF IMPEL	

1. Work type and title

1.1 Identify which Expert Team this needs to go to for initial consideration	
Industry	☑
Waste and TFS	☐
Water and land	☐
Nature protection	☐
Cross-cutting tools and approaches	☐
1.2 Type of work you need funding for	
Exchange visits	☑
Peer reviews (e.g. IRI)	☑
Conference	☑
Development of tools/guidance	☑
Comparison studies	☑
Assessing legislation (checklist)	☐
Other (please describe):	☐
1.3 Full name of work (enough to fully describe what the work area is)	
Mutual joint visits of industry inspectors and regulators to achieve a level playing field implementation of the IED 2019.	
1.4 Abbreviated name of work or project	
Supporting IED Implementation 2019	

2. Outline business case (why this piece of work?)

2.1 Name the legislative driver(s) where they exist (name the Directive, Regulation, etc.)

- Industrial Emissions Directive (IED).
- BAT Reference Documents and BAT Conclusions.
- Air Quality Directive.
- Seveso III Directive.

2.2 Link to IMPEL MASP priority work areas

1. Assist members to implement new legislation.	☑
2. Build capacity in member organisations through the IMPEL Review Initiatives.	☑
3. Work on 'problem areas' of implementation identified by IMPEL and the European Commission.	☑

2.3 Why is this work needed? (Background, motivations, aims, etc.)

Industrial production processes account for a considerable share of the overall pollution in Europe due to their emissions of air pollutants, discharges of wastewater and the generation of waste. The Industrial Emissions Directive 2010/75/EU of the European Parliament and the Council (IED) is the main EU instrument regulating emissions from industrial installations. The IED aims to achieve a high level of protection of human health and the environment taken as a whole by reducing harmful industrial emissions across the EU, in particular through better application of Best Available Techniques (BAT). Around 50,000 installations undertaking industrial activities listed in Annex I of the IED are required to operate in accordance with a permit (granted by the competent authorities in the Member States). This permit should contain conditions set in accordance with the principles and provisions of the IED. The 2014/2015 and more recently 2017 Implementation Challenge project of IMPEL, the Industry and Air Expert Team, and consultations with the European Commission identified a lot of unresolved problems in the implementation of industrial regulation, and specifically on the intensive rearing of poultry or pigs.

The intensive rearing of poultry or pigs will be topic of a sub-group of the IED Implementation project. BAT Conclusions: Commission implementing decision (EU) 2017/302 of 15 February 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for the intensive rearing of poultry or pigs.

The European Committee of the Regions (CoR) – in the draft opinion on Environmental Implementation Reviews (EIR) stresses the need to incorporate the implementation of the Industrial Emissions Directive into the next round of the Review. **In this respect, the IMPEL network should have a more prominent role in the process in order to support the collection of good practices for 2019**.

2019 is the fifth year in a row of the IMPEL IED Implementation project. It has become a very successful IMPEL activity attracting a lot of environmental officers from numerous European countries. In the last years more and more participants joined the project meetings on own costs

because of the restricted project budget. In 2018 between 30 and 40 participants joined the project meetings. This is a clear indicator that there is need for exchange on IED topics between the European competent authorities with responsibility for IED implementation. The IED Implementation project has established itself meanwhile as one of the main long running activities of the IMPEL network.

One of the highlights of the last years activities are the joint inspections under the IED Implementation project. Meanwhile there were joint inspections of installations falling under: steel production, refining of crude oil, waste processing, energy production, aluminium production, rearing of pigs, animal feed production, chemical industry, waste oil refining, soft drink production and cement industry. During these inspections inspectors from the host country are joined by inspectors from IMPEL member countries to exchange expert views and learn from each other. The results are compiled and used to improve the inspections. There is always more interest from inspectors to join than places for participation. The joint inspections will continue in 2019.

Although climate change is not explicitly mentioned in EU legislation for IED, article 7 covers accident prevention that climate change and increasing severe weather may impact. Industry and business are vulnerable to extreme weather events and the number of these is expected to increase with climate change. Environmental regulation in the future will require facilities to consider and be resilient to extreme weather. The Environment Agency for England has done some work on the Integration of Climate Change Adaptation into Regulatory Practice (ICCARP) and they form a subgroup in close connection to the IMPEL IED Implementation project. The (core) project team members will also be members of the IED Implementation project and they will discuss the topic and the results at the IED project team meetings and form an ICCARP topic at the planned workshop.

In the last three years, the project team has developed a lot of good practice examples that were put into a specially designed guidance book. This book not only contains guidance from the running project but also from previous and related IMPEL projects dealing with issues of industrial regulation. The IED project itself developed in subgroups good practice examples for the following topics:

- Translation of BAT Associated Emission Levels (AELs) into Emission Limit Values;
- Levels of non-compliance; publication of inspection reports;
- Bankruptcy and temporary or definitive cessation of activity in IED installations;
- Self-monitoring and reporting obligations of the operators;
- Tools for regulating IED installations;
- Joint inspections;
- Definitions [in legislation];
- Horizontal aspects of permitting;
- Minimum content of IED inspections;
- Feedback from the inspector in the BREF-cycle;
- How to check industrial wastewater BAT;
- Going beyond BAT (application of Article 18);
- General binding rules;
- Application of BAT in four years;
- Narrative BAT; and
- Capacity building by e-learning.

During the 2019 project, other issues will be addressed, and good practices identified (further detailed under see 2.4).

In 2018 the IED Implementation project had another common project meeting and a common workshop with the IMPEL project "Doing the Right Things for Environmental Permitting (DTRT-P)". During these meetings the common guidance based on the permitting cycle and the inspection cycle of DTRT-P was further developed. Based on the guidance elaborated in 2017 the IED Implementation project has delivered fact sheets for the different steps of the regulatory cycles. As a result, an Online Guidance for industrial permitting and inspection will be created on the IMPEL website and shall be used as basic concept for the IMPEL Review Initiatives (IRI's) and as training material for competent authorities. Both projects finished the preparation end of 2018. In 2019 additional good practise examples, reports and fact sheets coming from the IED Implementation project will be added to the regulatory cycles of the online Guidance based on the IMPEL website (see 2.4).

2.4 Desired outcome of the work (what do you want to achieve? What will be better / done differently as a result of this project?)

A general goal of the project is to establish the project team as a core group of the Industry and Air Expert Team and a sustainable cooperation of European enforcement authorities. This includes: improvement of the IED implementation in Europe; raising the percentage of BAT application through common understanding and expert exchange, fast exchange of solutions concerning implementation problems; facilitating implementation; joint inspections; web applications and tools; invited speakers of related projects and activities outside IMPEL; feedback to the COM on implementation of the IED; new ways of identifying implementation challenges.

A lot of these general goals have already been achieved, e.g. a vivid exchange of problems and solutions via Basecamp, discussions with stakeholders of related projects, of the Seveso Expert Group, of the Joint Research Centre (BAT), and the Commission. In the last three years the common understanding of problems and solutions within the project group has grown intensely. In 2018 the development of training material for competent authorities has started in from of an e-learning tool with the generous support of the Italian ISPRA. A training session shall be performed using this material in 2019 and shall be organised like the IRAM training, which had been carried out several times per year since 2012 in IMPEL member countries.
A lot of good practice has already been developed by IMPEL projects in the last years and put into the guidance book on IED Implementation. There are still a lot of issues identified by the Implementation Challenge project, IMPEL member countries, the European Commission, and the project and workshop participants. The identified topics for further developing good practice are:

- Application of BAT within 4 years after publication of BAT conclusions (timetable);
- What is a significant change of a permit;
- Streamlining IED and EIA permits;
- Integrated permits (one stop shop);
- How to deal with other than normal operating conditions;
- Concentration vs. mass emission limits;
- Inspection content of installations dealing with VOC and falling under the IED;
- Non-routine inspections;
- Public participation and access to justice;
- Climate change adaptation (see 2.3);

- Better control of IED farming activities (see 2.3); and
- Broadening the scope of joint inspections (see 2.3).

At every project meeting and during the workshop the IED implementation of the host country/authority is presented and discussed by the project members. This gives a fast and good overview on the approaches in different European countries and is a good addition to the IMPEL IRI's.

2.5 Does this project link to any previous or current IMPEL projects? (state which projects and how they are related)

Projects dealing with the IED in a broader sense but also the IRI's and the DTRT-P and easyTools projects are linked to this activity. The results and good practices of former projects dealing with industrial issues are already included in the IED Implementation Guidance Book. The project managers of related projects were invited to meetings of the IED Implementation project to give a presentation and discuss how their results could be included into the guidance.
These projects are:

- Derogations from BAT in IED permits;
- IED baseline report on soil and ground water contamination;
- IED and Habitat Directive;
- Doing the right things in (IED) the permitting process;
- IPPC and Water Framework Directive;
- Integrated water approach; and
- Air quality and industrial emissions.

In addition, a representative of the Technical Working Group on Inspections of the Seveso Expert Group was also invited to exchange the experiences of these related approaches.

In 2019 three additional subgroups that were planned originally as standalone projects shall deal with questions of IED Implementation within the Industry and Air Expert Team: IED Inspections, Climate Change Adaptation and BAT Conclusions in the Intensive Rearing of Poultry or Pigs (see 2.3).

3. Structure of the proposed activity

3.1 Describe the activities of the proposal (what are you going to do and how?)

In 2019 there will be two project meetings and one workshop. During the project meetings and the workshop, the host countries will give a presentation of the IED implementation in their countries. Guidance and best practice examples that have already been developed in the first years of the project and from other projects has been put into a form and into fact sheets that are useful for the Online Guidance on the IMPEL website. The work that is not finished will go on in 2019.

Priority topics from the issues described in 2.4 will be chosen by the project group for the development of solutions and guidance by subgroups of the project. These topics will also be

discussed and developed further during the workshop of the project. Coming from that further guidance will be prepared as described above.

The package of training material will be extended and put on the internet so competent authorities can access it and use it directly. A first face to face training will be performed in 2019. The extended joint inspections (see 2.3) will remain an important part of the discussion and development within the IED Implementation project. Also, the steering of the ICCARP subgroup and BAT Conclusions in the Intensive Rearing of Poultry or Pigs subgroup (see 2.3) will be an important part of the project meetings and the workshop.

Project managers of related projects will also be invited to the workshop to present and discuss the results of their projects. In addition to that, members of the Commission will also be invited to discuss the results of the projects and priority topics for further investigations.

3.2 Describe the products of the proposal (what are you going to produce in terms of output / outcome?)

Outputs:

- Technical advice for problems related to the IED implementation and good practice examples;
- Guidance for (joint) inspections of industrial installations;
- Training material for Competent Authorities based on the Online Guidance;
- Training of Competent Authorities concerning IED implementation;
- IMPEL member examples for IED implementation;
- Inclusion of the results of related projects;
- Inspection tools; and
- Results from a technical workshop on implementation of EU industrial law.

Outcome:

- Reduction of the IED implementation gap and achievement of a level playing field within IMPEL member countries (see also 2.4).

3.3 Describe the milestones of this proposal (how will you know if you are on track to complete the work on time?)

- Development of the work program 2019 together with the inspection, farming and ICCARP subgroups: January/February 2019.
- Work of the other subgroups that already started with new topics in 2018: January/February 2019.
- Meetings of the farming and ICCARP subgroups: March 2019.
- Finalising the work program for 2019 at the first project group meeting: March 2019.
- Fixing the joint work program of the IED Implementation, the inspection, the farming and the ICCARP projects: March 2019.
- Joint inspections of the inspection project: back to back with the project group meeting and the workshop to save budget.
- New project groups on further topics at the project group meeting: March 2019.
- Work of the subgroups on new topics of the 2019 project: April/May 2018.
- Preparation of the workshop: April/May 2019.

- Workshop: country approach / good practices / joint inspections / farming / ICCARP: June 2019.
- Development of guidance, fact sheets and good practice examples: until October 2019.
- Training session on IED implementation: Second half of 2019.

3.4 Risks (what are the potential risks for this project and what actions will be put in place to mitigate these?)

The first risk is that only a few countries collaborate within this activity. The new IMPEL strategic approach for actively encourage and support passive members was used to mitigate this risk. The big interest in the project in the last years shows that this is no real risk.

The second risk is that outputs of the project are only recognized by a small group of active project members. The new approach to develop online guidance and training material on the IMPEL website together with the DTRT-P project and the intention to start with trainings in 2019 will help to make the project a success. In addition to that, the new strategic IMPEL approach on communication of IMPEL results shall also be used to mitigate this risk (see item 8).

4. Organisation of the work

4.1 Lead (who will lead the work: name, organisation and country) – this must be confirmed prior to submission of the TOR to the General Assembly)

Co-led by:

- Horst Büther, Regional Government Cologne, Germany.
- Florin Homorean, National Environmental Guard, Romania.
- Marinus Jordaan, DCMR, The Netherlands (Joint Inspections).
- Emma Thomson, Environmental Agency, England (ICCARP).
- IGAMAOT/APA, Portugal and Redia, Spain (Pig and Poultry - BAT).

4.2 Project team (who will take part: name, organisation and country)

Austria	Robert Gross
Belgium	Martine Blondeel (Flanders)
	Annelies Baert (Flanders)
	Olivier Dekyvere (Wallonie)
Croatia	Dubravka Pajkin Tuckar
Cyprus	Chrystalla Stylianou
Czech Republic	Helena Kamenickova
Denmark	Rikke Cochran
	Mette Lumbye Sørensen
Estonia	Silva Prihodko
Finland	Jaakko Vesivalo
Germany	Horst Büther (Project Leader)
	Hartmut Teutsch
	Wulf Böckenhaupt

Greece	Martha Georgiopoulou
Iceland	Halla Einarsdottir
Ireland	Martin O'Reilly
Italy	Romano Ruggeri (ARPA Sardegna)
	Fabio Colonna (ARPA Lombardia)
	Roberto Borghesi (ISPRA)
	Diego Angotti
Latvia	Deniss Pavlovs
Malta	Simon Farrugia
Netherlands	Marinus Jordaan (DCMR)
Poland	Malgorzata Budzynska
Portugal	António Quintas (IGAMAOT)
	Isabel Correia (APA)
	António Leitão (IGAMAOT)
	IGAMAOT/APA (Farming Activities):
	Ana Garcia (IGAMAOT)
	Ana Raposo (IGAMAOT)
	Paula Carreira (IGAMAOT)
	Célia Peres (APA)
Romania	Florin Homorean
Slovakia	Cyril Burda
Slovenia	Vladimir Kaiser
Spain	María Jesús Mallada
	Katia Juárez
	REDIA (Farming Activities):
	María Jesús Mallada (REDIA)
	José Francisco Alonso Picón (REDIA)
Sweden	Izabela Pettersson
Turkey	Şenay Aslan
UK	Jamie McGeachy
	Aga Iwanicha
	Lorraine Hutt
	Emma Thomson

4.3 Other IMPEL participants (name, organisation and country)

Further environmental officers of different national competent IED authorities to participate in the technical workshop and the conference, especially members of the Industry Expert Team. Invited speaker of related projects at the workshop.

4.4. Other non-IMPEL participants (name, organisation and country)

Close contact with desk officers of the EU Commission dealing with industrial environmental law.

5. High level budget projection of the proposal. In case this is a multi-year project, identify future requirements as much as possible

	Year 2019 (exact)	Year 2	Year 3	Year 4
How much money do you require from IMPEL?	63,085 €			
How much money is to be co-financed?	15,000 €			
Total budget	78,085 €			

6. Detailed other costs of the work for year 2019

6.1 Are you using a consultant?	☑ Yes ☐ No
6.2 What are the total costs for the consultant?	15,000 €
6.3 Who is paying for the consultant?	Germany.
6.4 What will the consultant do?	Organising the meetings, supporting the working groups, transformation of the project outputs into a format that can be used by all competent IED authorities and preparation of material that can be used for IMPEL communication purposes. Preparation of an IED implementation work program under changed IMPEL budgetary conditions.
6.5 Are there any additional costs?	☑ Yes ☐ No Namely: Transport of inspectors to the inspection sites.
6.6 What are the additional costs for?	Implementation of web-based tools on the IMPEL website.
6.7 Who is paying for the additional costs?	IMPEL: 835 €
6.8 Are you seeking other funding sources?	☐ Yes ☑ No

6.9 Do you need budget for communications around the project? If so, describe what type of activities and the related costs.	☐ Yes ☑ No

7. Communication and follow-up (checklist)

	What		By when
7.1 Indicate which communication materials will be developed throughout the project and when. ***(all to be sent to the Communications Officer at the IMPEL Secretariat)***	TOR˅* Interim report˅* Project report˅* Progress report(s) ˅ Press releases News items for the website˅* News items for the e-newsletter Project abstract˅* IMPEL at a Glance ˅ Other, (give details): PPP for project presentation	☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑	November 2018 June 2019 October 2019 March/June 2019 Workshop June 2019 After 1st meeting After 1st meeting October 2019 After 1st meeting
7.2 Milestones / Scheduled meetings (for the website diary).	See 3.3.		
7.3 Images for the IMPEL image bank.	☑ Yes ☐ No		
7.4 Indicate which materials will be translated and into which languages.	Project abstract / IMPEL at a glance: languages of the participating countries of the technical workshop.		
7.5 Indicate if web-based tools will be developed and if hosting by IMPEL is required.	Hosting of the DTRT Regulation Cycles in combination with the contents developed by the IED Implementation project.		

7.6 Identify which groups/institutions will be targeted and how.	The main target group consists of competent authorities for IED implementation and Industry and Air Experts. They will be targeted by the means under 8.1 and by discussion at other IMPEL events.
7.7 Identify parallel developments / events by other organisations, where the project can be promoted.	CCA TG 2 meetings, IRI's, meetings with COM, TFS technical workshops, national IMPEL meetings, international conferences, TAIEX workshops, Twinning projects.

*ˇ) Templates are available and should be used. *) Obligatory*

8. Remarks

Is there anything else you would like to add to the Terms of Reference that has not been covered above?

In case of doubts or questions please contact the IMPEL Secretariat.

Draft and final versions need to be sent to the IMPEL Secretariat in word format, not in PDF.

Thank you.

Annex II

Note of meeting of IED Implementation Project Group, 6-7 June 2019, Gdansk

Note of meeting IED Implementation Project Group, 6-7 June 2019, Voivodeship Inspectorate of Environmental Protection, Gdansk

Agenda

The meeting agenda is at Appendix 1

Participants

The list of participants is at Appendix 2

Summary of key points

1. Welcome by hosts

Dr inz. Edyta Witka-Jezewska, Director of the Pomerian Voivodeship Environmental Protection Inspectorate opened the meeting and welcomed participants to Gdansk.

2. Introduction to the IMPEL IED Implementation Project

Horst summarised the background to the Project, initiated in 2015, and progress that has been made. He explained the new financing mechanism for IMPEL projects and the changes that this will bring to IMPEL's ways of working.

3. Environmental Protection Inspection System in Poland

1_Environmental Protection Inspection

Pavel and Malgorzata gave an overview of the environmental protection inspection system in Poland. A new national structure had been introduced in 2019. The 16 Regional authorities will carry out site inspections. The Chief Inspectorate will carry out technical functions including monitoring and laboratory analysis. Permits are issued by Regional and District authorities.

Poland's inspection system is based on the EU Recommended Minimum Criteria for inspections (2001). A structure for inspection plans is in place and covers 50 different inspection goals. Areas covered include: IED, waste, water and sewage, air, SEVESO, REACH and f-gases. Projects include activities with significant environmental impact, agriculture, noise, electromagnetic forces, PRTR, genetic resources, GMOs and timber.

An IT tool has been introduced to support inspectors, providing procedures and work instructions. A risk assessment tool is used for targeting sites and frequency of inspections. There is a map-based service that provides information on inspections carried out and compliance assessment for specific sites. There are around 130,000 sites in the system across Poland.

More inspectors are being recruited to bring the total up to around 600. Inspectors are being trained through a 6-month programme ending with an examination. Shift working is being introduced. Measures are being taken to strengthen capacity, particularly in the area of waste crime.

4. The Regional Inspectorate in Gdansk

2_Voivodeship Inspectorate of Enviro

Paula gave an overview of the work of inspectors in the Pomeranian Region. It is a large area with many complex issues, including ports on the coast and nature protection issues inland. Nearly 5,800 entities are covered, including 151 IPPC installations. There are 36 inspectors across the Region and this will rise to 67. Trans-boundary movement of waste is a major issue for the Region, involving cooperation with customs and border guards. A recent example was the inspection of a shipment including 45 containers with 1,000,000kg mixed waste from the UK in July 2018. The discovery of undeclared items in the containers resulted in enforcement action and the return of the waste to the UK.

5. Overview of the IED Implementation Project

3_Overview IED Implementation Proje

Horst summarised past activities and results, and the status of current activities in the Project.

Good progress has been made in incorporating the outputs from the ongoing project into the 'Doing the Right Things' guidance tool which is now available on the IMPEL website: www.impel-dtrt.eu

Further work is needed to develop additional Fact Sheets and to provide links to more detailed information in Project reports.

The 2019 phase of the Project will include the following elements:

- BAT Conclusions for Intensive Rearing of Poultry or Pigs
- Joint inspections and assessment of enforcement actions in IED installations
- Integrating Climate Change Adaptation into Regulatory Practice – ICCARP
- Supporting IED Implementation

The budget for all these elements will be 63k euros.

6. Topics to be taken forward in 2019

The project meeting discussed the following topics at the meeting and agreed how they would be taken forward. Expressions of interest to contribute to these topics were previously invited on a Google form before the meeting. The contributors will be contacted by the leaders of the sub-groups to confirm their willingness to participate in the work.

BAT Conclusions for Intensive Rearing of Poultry and Pigs

4_Intensive Rearing of Poultry and Pigs (1

Manuel gave an overview of progress with this topic. The main objectives are to develop a checklist to support inspections of installations in this sector and to produce recommendations for inspection planning.

A questionnaire had been circulated and responses requested by 28 June. A report will be made on the conclusions.

A joint inspection for this sector is being planned for 23 October prior to the main Project workshop in Santiago.

Joint inspections

Marinus gave an overview on progress with the work on joint inspections and plans for 2019. A successful joint inspection had taken place in Gdansk the day before the project group meeting. A further joint inspection, targeted at the intensive pig and poultry sector, is planned to take place in Spain in October. There is budget available for a third joint inspection this year and plans need to be drawn up for that.

It is recognised that joint inspections are an important component of IMPEL's training and capacity building programme. For the future, the intention is to significantly increase the frequency of joint inspections up to 9 or 10 per year. A Google form will be developed and disseminated so that people can register their interest in taking part in joint inspections.

Integrating Climate Change Adaptation into Regulatory Practice – ICCARP

5_Integrating Climate Change Adaptation in

Richard gave a summary of progress with this topic. The objectives of the project are to develop tools and guidance to support regulatory authorities in incorporating climate change risks into IED implementation. The project is specifically addressing the risks related to severe weather events and the resilience of regulated industry.

A survey was carried out in 2018 to look at practices in different countries. 28 responses had been received from 22 countries. A Fact Sheet for the IED implementation guidance was produced. The intention is to develop the project further in 2019 to produce tools to take account of climate change risks in permitting and to develop the Fact Sheet based on wider geographic coverage and experience. This should cover both the risks associated with extreme rainfall events and the effects of prolonged periods of dry weather.

Richard made a plea for countries to come forward and join the project. 8 people have registered their interest so far. Emma Thompson of the Environment Agency, England will lead this project.

Industrial wastewater

Romano summarized progress with this project. A report was prepared in 2018 and is nearly completed. An inspection checklist was also produced. The report needs some further work to go more deeply into some areas, in particular: odours; severe weather conditions; and management of waste and the circular economy. It would benefit from some specific examples that could be inserted as text boxes, highlighting best practices.

Links need to be made with a related project in the Water and Land programme that is looking at an integrated water management approach, including the Urban Wastewater Treatment Directive and the re-use of wastewater.

The sub-group should continue, led by Romano, to complete the report and the checklist. The learning from the joint inspection of wastewater treatment systems at the Gdansk oil refinery will also feed into this work. The final report should be sent to the European Commission who had specifically requested that IMPEL should work on this topic.

Horizontal aspects of permitting

Simon reviewed progress to date. A draft report on this work had been produced. It was agreed that this would be used to draw out good practices and develop a Fact Sheet. The Sub-group would continue with Simon as group leader. 16 people have expressed an interest in contributing to this group. The draft report will be shared on Basecamp. The results will be presented at the October workshop.

BAT application

Jamie has produced a draft report covering several different issues related to BAT application. He has now changed job and is no longer available to lead the project. It was agreed that the sub-group should continue and complete the work. 23 people have expressed an interest in contributing. Jaakko will lead the group. Further work will be done on the 5 elements of BAT application and Fact Sheets will be drafted on each of these. First drafts should be completed by end August.

Baseline report and groundwater contamination

A draft report on the project carried out through the Water and Land programme has just been received. It was agreed that the topic would be taken forward through the IED Implementation Project with a view to identifying good practices and developing a Fact Sheet. Horst will lead the sub-group. 11 people have expressed an interest in contributing to this topic. Some initial questions will be drawn up for a video-conference discussion.

IED and the circular economy

Romano updated the group on the output from a recent project from the 'Making it Work' initiative called 'Making the Circular Economy Work'. This project has produced guidance for regulators on opportunities for promoting the circular economy. One part of the guidance looks specifically at the IED and the circular economy. There are several hooks in the legislation that could open doors for promoting a more circular economy, for example, the provision for a 9-month exemption from BAT to test emerging techniques.

The work on the circular economy will be taken forward by IMPEL's Waste Programme. A sub-group of the IED implementation project will be set up to join forces with the Waste Programme project. Romano has circulated a concept note that describes the work to be done. A Google form will be set up to invite contributors to this new sub-group.

Training and capacity-building

6_Feedback subgroup Capacity Bu

Horst updated the group on recent training initiatives. The European Commission has contracted consultants, Milieu, to look at professional training needs for environmental protection organisations. IMPEL has also approved a major 3-year project to develop a multi-annual programme, including the setting up of a Knowledge and Innovation Centre.

Guidance and tools such as the DTRT guidance on permitting and inspections provide a good starting point for identifying training needs.

It was agreed that a sub-group on Training and Capacity-building should be set up to identify specific training needs associated with the IED and feed into the Milieu and IMPEL training projects. Martine will lead this sub-group. 23 people have expressed an interest in joining this group.

Other Topics

Odour was suggested as a further topic and there was a good level of interest expressed by the group. Deniss volunteered to set up and lead a sub-group.

Energy efficiency of back-up energy production plant at times when energy from renewable sources is insufficient was also mentioned as a possible topic.

7. Report on the joint inspection, Gdansk, 5 June 2019

7_Joint Inspection Gdansk (1).pdf

Romano made the presentation on behalf of the group that had carried out the joint inspection. This took place at the site of the Grupa Lotos, an operation that includes an oil refinery and a combined heat and power plant in Gdansk. The focus of the joint inspection was the wastewater treatment plant.

The main objectives of the joint inspection were to test the checklist that had been previously produced and to look at how the organization (preparation, execution and reporting) of the joint inspection could be improved.

The joint inspection resulted in several important (positive and negative) learning points. Good preparation is key to a successful outcome. The checklist was particularly useful in the preparing the inspection plan in advance. Commitment of the team, regular communication, clear definition of responsibilities, getting hold of the key documents (and translating them) in advance, are essential.

Key points emerging from the discussion were:

- recognition that the purpose of joint inspection is mainly for training and the group has to decide on responsibilities for dealing with real non-compliances in advance;

- going through the checklist was time consuming and it would have been better to focus in on fewer areas, but in more depth;

- language skills of local inspectors can be a constraint and the group needs to prepare for this in advance;

- there was a question over whether dilution of wastewater streams is allowable;

- the importance of capturing the individual learning of team members and how this would be shared with others in their organisations and across the IMPEL network was recognised.

8. DG Environment study on supporting IED implementation

8_DG ENV Study on Supporting IED Imple

Natalia Anderson of Ricardo Energy and Environment gave an update on the European Commission's project to support IED implementation. The study aims to: identify key issues; develop an online

platform for sharing information on implementation; and identify and disseminate guidance on good practices, including two workshops.

A questionnaire survey has been carried out and this was followed up with a workshop on 5 June to identify priority areas for the work. The online forum for sharing information will be delivered through the Commission's CIRCABC Platform. The forum will be managed by Ricardo until the end of the project in August 2020, after which an arrangement for the ongoing management of the forum needs to be identified.

This study will feed into the Commission's current evaluation of the IED. This involves a public consultation and a targeted stakeholder consultation, including an online survey, stakeholder interviews, and feedback through focus groups. This will be finalized by February 2020.

9. Future Project organisation

The current project will finish in March 2020 after which it is planned to have a follow-up until the end of 2020 and a new ToR will be prepared for a 4-year project under the new financing arrangements.

It is very important that all time spent on IMPEL projects (both at project meetings and in the office) is captured and signed off by managers.

Project abstracts are needed for the three main elements of the project:

- regulation of intensive poultry and pig rearing sector
- integrating climate change adaptation into regulatory practice
- joint inspections

Reimbursement for travel should be done all in one document for signing by Horst.

10. Date of next meetings

19 and 20 September, Finland: small meeting of the leaders of the sub-groups to prepare for the main workshop in October.

23 October, near Santiago de Compostela: joint inspection related to poultry and pig sector

24-25 October, Santiago de Compostela: IED implementation workshop.

11. AOB

Joint inspection with checklist at pig and/or poultry IED installation. Manuel is host. Vlado suggested engaging more interested inspectors. There are many more inspectors interested than places to join the inspection. Knowledge of and experience with inspecting this type of installation should be the selection criterion. Manuel will explore if it is possible to organise two joint inspections simultaneously.

As for the joint inspection in Gdansk, good preparation is required by all joining inspectors and the necessary information will be provided well in advance. Inspection(s) will be done using a checklist and in close coordination with the local inspectors.

Martine requested contacts in organisations that use drones and satellites in inspections (cross cutting project). There are technical and juridical problems with using these methods. During the meeting some contacts were reported: Malgorzata, Silva, Manuel (cooperation with other agency), Fabio, Dennis. Another useful contact could be the space agency; for agriculture and dust monitoring purposes.

Please send contact information to Martine. She is interested in examples of inspection topics.

Appendix 1: Meeting Agenda IED Implementation 2019

First Project Group meeting and Industry and Air Expert Team meeting

Gdansk, Poland, June 4th until 7th, 2019

Agenda of the meetings:

IED Implementation: Joint Inspection

IED Implementation Project Group Meeting

Sub-group: Integration of climate change adaptation into regulatory practice – ICCARP

Sub-group: Intensive rearing of poultry or pigs - IRPP

Industry and Air Expert Team Meeting

IED Implementation: Joint Inspection

Preparation of the on-site inspection

Time and Place: March - June, online and by teleconference

Gdansk, 4 June 2019

16:00 – 19:00 Preparation of the on-site inspection

Information about facility, industrial waste water treatment plant, previous inspections, selfmonitoring data presented to Inspection, further work on IWWTP checklist

Place: Trakt św. Wojciecha 293D 80-001 Gdańsk

Gdansk, 5 June 2019

9:30 – 15:30 On-Site inspection with focus on industrial wastewater and check the checklist.

Installation: Grupa LOTOS S.A., ul. Elbląska 135, 80-718 Gdansk

http://www.lotos.pl/en/

Beginning of inspection, signing the authorization for inspection, operator's information about facility taking into special consideration wastewater treatment plant, site visit at wastewater treatment plant, checklist with operator, questions, answers.

Participants must have safety shoes and ID. If someone possess his/her own helmet, glasses - one may bring it to have its own. But if not - everyone will be equipped with it as well as with antistatic suit and escape mask.

Participants:

GIOŚ: Malgorzata Budzynska, Paweł Dadasiewicz

WIOŚ: 2 Polish colleagues,

IMPEL: Marinus Jordaan, Romano Ruggeri, Manuel Salgado Blanco, Silva Prihodko, Ruth Ciarlo, Roberto Borghese

16:30 – 18:00 Results of the inspection. Discussion and preparation of slides

Place: Trakt św. Wojciecha 293D 80-001 Gdańsk

Participants:

GIOŚ: Malgorzata Budzynska, Paweł Dadasiewicz

WIOŚ: 2 Polish colleagues,

IMPEL: Marinus Jordaan, Romano Ruggeri, Manuel Salgado Blanco, Silva Prihodko, Ruth Ciarlo, Roberto Borghese

IED Implementation: Project Group Meeting

Gdansk, 6 June, 9:00 – 17:30

Pomorski Urząd Wojewódzki w Gdańsku

ul. Okopowa 21/27, 80-810 Gdańsk

Topics

Welcome by the competent authority

Welcome and Tour de Table

Background and progress of the IED Implementation project (Horst)

Agenda of the meeting and work program 2019 and beyond (all)

Polish system of IED Inspection (Malgorzata)

VIEP Gdansk (inspector form Gdansk)

Work program and first results of the sub-group Integration of climate change adaptation into regulatory practice – ICCARP (Emma)

Work program and first results of the sub-group Intensive rearing of poultry or pigs – IRPP (Katia)

Work program and first results of the sub-group Joint inspections (Marinus)

Status of the IED regulatory cycle on the IMPEL homepage – DTRT (Tony)

Status of the working groups and activities:

- BAT in Industrial Wastewater (Romano)
- Horizontal aspects of permitting (Simon)
- Aspects of BAT application (NN)
- Baseline report, monitoring of soil and groundwater (Horst)
- Development of online guidance and training material (Horst)
- IED & Circular economy (Romano)
- Outstanding topics

Breakout groups on the topics of the work program

Gdansk, 7 June 2019, 9:00 – 17:00

Pomorski Urząd Wojewódzki w Gdańsku

ul. Okopowa 21/27, 80-810 Gdańsk

Topics IED Implementation, 9:00 – 13:00

Report from the Joint inspection (Participant of the Joint Inspection)

Results from the breakout groups

Identification of good / best practice, fact sheets

Report on the Commission study on the "Implementation support for the Industrial Emissions Directive" and the IED implementation support workshop, 6th June 2019, Brussels (Natalia)

IED project organisation (Horst)

- Budget and project organisation
- Combined workshop
- Project communication
- Project abstracts
- Reimbursement rules

Any other business

Location and date of the next meeting

Industry and Air Expert Team meeting, 14:00 – 17:00

Industry and Air Projects 2018

- Onshore Oil and Gas Regulation
- Lessons Learnt from Accidents
- IED Implementation

Results from different meetings

- General Assembly, 11-12 December 2018, Vienna, Austria
- Last Board meetings
- IMPEL meeting with the Commission, Brussels, 12 April 2019
- ENPE workshop on waste crime and air pollution, Nicosia, Cyprus, 28-29 March 2019

Industry and Air Work Program 2020 and beyond

- Specific grant agreements
- Open topics
- Focus on Compliance Assurance (e.g. trainings and peer reviews)
- ToRs for 2020 and beyond

Any other business

Location and date of the next meeting

Appendix 2 List of participants

Lp.	Participant	2019.06.04	2019.06.5	2019.06.06	2019.06.07
1.	Aleksandar Blagojevic				
2.	Roberto Borghesi				
3.	Horst Buether				
4.	Malgorzata Budzynska				
5.	Ruth Ciarlo				
6.	Fabio Colonna				
7.	Olivier Dekyvere				
8.	Halla Einarsdottir				
9.	Simon Ferrugia				
10.	Nadia Fibbiani				
11.	Barbora Herbekova				
12.	Marinus Jordan				
13.	Vladimir Kaiser				
14.	Maria Jesus Mallada				
15.	Denis Pavlovs				
16.	Silva Prihodko				
17.	Romano Ruggeri				
18.	Manuel Salgado				
19.	John Seager				
20.	Izabela Tyrka Pattersson				
21.	Jaakko Vesivalo				
22.	Bruno Yango				
23.	Senay Arslan				
24.	Elisabeth Vieira				
25.	Richard Chase				
26.	Katia Juarez				
27.	Preda Ional				
28.	Maria Isabel Correia				

29.	Martine Blondeel				
30.	Natalia Anderson				
	Pl				
	Paweł Dadasiewicz				
	Edyta Witka - Jeżewska				
	Piotr Trybuszewski				
	Jakub Piekart				
	Paula Makuch-Bursiewicz				

Annex III

Note of meeting of IED Implementation Project Group (subgroup leaders) 3-4 October 2019, Kouvola

Note of meeting of IED Implementation Project Group (subgroup leaders), 3-4 October 2019, Kouvola, Finland

Agenda

The meeting agenda is at Appendix 1.

Participants

The list of participants is at Appendix 2.

Summary of key points

Welcome by hosts

1_Leena Gunnar.pdf

Ms Leena Gunnar, Director General of the Centre for Economic Development, Transport and the Environment (ELY Centre) welcomed the participants to the meeting and hoped that it would be both pleasant and successful.

The Centre is part of the regional administration of the government, one of the 15 ELY Centres in the country. It operates in two provinces and has three areas of responsibility. The main office is in Kouvola and there is a branch office in Lappeenranta. The special features of the area include the biggest forest industry concentration in Europe, a significant logistics hub with border crossing to Russia and HaminaKotka port at the Gulf of Finland and large water systems: Lake Saimaa, the rivers Vuoksi and Kymijoki and the Baltic Sea.

2_Juha_Lahtela.pdf

Mr Juha Lahtela, the national IMPEL Coordinator for Finland, spoke about the Finnish Presidency and the organisation of the IMPEL General Assembly in Helsinki on 19-20 November, which would be preceded by a meeting of IMPEL National Coordinators on 18 November.

Priorities for the Finnish Presidency were to strengthen common values and the rule of law, make the EU more competitive and socially inclusive, strengthen the EU's position as a global leader in climate action and protect the security of citizens comprehensively.

In order to maximise sustainability in the Presidency arrangements, they were keeping the number of ministerial and other EU meetings in Finland reasonable and favouring videoconferencing in preparatory meetings. The meeting venue, Finlandia Hall, is within easy reach on foot or by public transportation. Finland will offset the carbon emissions caused by air travel to Presidency meetings in Helsinki and Brussels, instead of handing out traditional Presidency gifts. They will avoid production of single use plastics and other disposable materials, favouring recyclable, biodegradable & digital solutions.

Finland will offset emissions from air travel by funding projects that reduce greenhouse gas emissions and simultaneously advance sustainable development goals. The four funded projects will have a measurable effect on reducing greenhouse gas emissions and improve the health and welfare of local communities (in Honduras, Vietnam, Uganda and Laos).

3_Jaako_Vesivalo.pdf

Jaakko described the work of the Centre for Economic Development, Transport and the Environment for Southeast Finland which he said was the leading regional promoter of sustainable development and well-being.

The Centre has responsibility for Economic Development, Labour Force and Competence; Transport and Infrastructure; and the Environment and Natural Resources. It covers two provinces with a population of 310.000.

The Environmental Liability Unit protects the environment by supervising activities that cause environmental strain or risk, supervising the decision on licenses and permits founded on the Environmental Protection Act and the Water Act, specialising in wood industry and chemical industry and chemical law and preventing environmental damages and taking part in preventing as an authority.

The Unit has 16 employees and annually carries out 65-90 inspections. There are 272 installations of which 62 are IED.

Horst thanked the Finnish hosts for their kind hospitality and warm welcome.

Tour de table and agreement of agenda

Those present at the meeting introduced themselves and the agenda was agreed.

Horst said that there were new sub-groups on Odour, Monitoring of groundwater and soil and possibly Waste Incineration (new BRef). Deniss would lead the sub-group on Odours.

Martine said that the Flemish Government was introducing work on compliance promotion. They would begin with a macro risk analysis.

Florin said that Romania was looking at possible changes in the way that IED was implemented since it had found that IED implementation took up a lot of resources.

Manuel reported that work had begun for the sub-group on Poultry and Pigs.

Kay explained that she had taken over from Emma Thompson in the Environment Agency (England) on the subgroup on Integrating Climate Change Adaptation into Regulatory Practice (ICCARP).

Work programme and results of the sub-groups

Intensive rearing of poultry or pigs

Manuel reported that there would be a Joint Inspection on a Sow farm in Galicia. They would be using a checklist and the company also had a checklist of its own. The permit had been written using the old version of BAT.

There would be 24 people coming from different countries to the workshop in Santiago de Compostela on BAT for IRPP BAT. They would focus on the most important issues, namely:

- Slurry and manure discharge
- Slurry and manure applied as fertiliser
- Odours and NH3 emissions

The object was to identify the state of the art on how to solve problems. They will collaborate with the sub-group on odours. They will prepare a presentation and analysis for IMPEL and will also do some work on a wider presentation. They will probably need to do some follow up work next year. The big issues are nitrates, ammonia and the impact of climate change.

Integration of climate change adaptation into regulatory practice

4_Kay_Johnstone.pdf

Kay had taken over responsibility for this project in June. It was probably not yet possible to identify best practice, but some good work was being done on identifying principles for climate change adaptation.

The purpose of this sub-group is to help regulators increase the resilience and effectiveness of environmental permits, both now and in the future, by enabling better consideration and incorporation of severe weather and climate change. They do this by bringing together adaptation experts who understand the problem and IED practitioners who own the solution to deepen ICCARP 2018 exchange; better understand, identify and share good practice; and develop tools to help regulators lead and engage with industry to tackle this challenge.

In 2018, they produced a factsheet for the IED Handbook and carried out a survey to learn how others were incorporating climate change adaptation into regulatory practice. There were 28 responses from 22 countries which showed that different approaches were being taken. In 2019, they had continued to raise awareness and engage more widely and further explore challenges, approaches and needs. They produced a report, including principles for integrating climate change adaptation; case studies and examples; challenges and learning points; and current and potential future IED levers. They were considering whether to update the factsheet.

The challenges included connecting national adaptation planning and policy to regulatory practice and the level of knowledge/ skills of regulatory officers. There was a need to engage with industry and promote long term thinking and there was a lack of certainty over what was currently incorporated. There was a need to understand the relationship between future climate and emissions standards (norms).

Horst asked about the 4.000€ that had been set aside for a sub-group meeting. Kay doubted whether this was still needed but would check.

Joint Inspections

5_Marinus_Jordaan.pdf

Since 2015 there had been 12 inspections involving 26 inspectors from 18 countries. For the Joint Inspection proposal, it was planned that there should be 3-6 joint inspections per year. The inspections would be of three types, namely peer review, BRef check and site visit. At least half would be connected to an IED project meeting to which feedback would be given from the inspection. The base would be the needs assessment on subjects carried out in 2018. There would be a Project Leader for Joint Inspections who would be helped by two Working Group members.

The intention was to send out the subject list and to ask who wanted to act as host for which subject. After that members can show their interest: there would be a maximum of 4 participants dependant on the type. The Project Leader will be able to decide who takes part.

It was important to encourage different types of inspectors to go on inspections. They would need to remember that they are guests and to be diplomatic in their comments. Where good practice was identified it would be useful to have a mechanism on how to share it. It would also be helpful to have the perspective of industry on the Joint Inspection.

It would be possible to make use of the project officers in the IMPEL secretariat to help with the Joint Inspections. Although the new projects for 2020 would technically start in April, it might be possible to begin earlier if funding is available from the current year.

BAT in Industrial Wastewater

The Joint Inspection in Gdansk had been very successful. The group itself had done some good work and had produced a checklist. The group had originally been established at the request of the Commission: they had written to the Commission setting out the work they had done and had received a very favourable reaction.

Romano had said he was interested in doing some more work on this and wanted there to be a group on Industrial Wastewater. He wanted the checklist to be a living document that would be refined in the future.

Horizontal aspects of permitting

6_Simon_Farrugia.pdf

Simon said that the aim of this group had been to collect information on horizontal aspects in permitting within Europe and to identify common practices and differences in procedures and obligations of the operators among Members. They had then wanted to disseminate the information and improve the way

horizontal aspects are regulated and the IED Permits in an attempt towards achieving a more level playing field.

Horizontal aspects are the obligations of the operator that apply to all institutions. The findings of the group were that there were different approaches in regulating Horizontal Issues. Only a few make use of General Binding Rules or legislation and, even then, they are also included in the permit either as general or specific conditions. For some aspects (such as duration of permit, process modifications, EMS, record keeping and reporting, etc.) some members set more demands on the operators whilst others have fewer requirements. This means that there is not the same level playing field for operators and there are different requirements for resources in administration and operators.

The results of the project give an opportunity to reassess their requirements and evaluate their importance in verifying compliance and environment benefits. It was agreed that the factsheet would fit in the Permitting Cycle in Step 3B: -Decision Making/BAT assessment & setting conditions.

Aspects of BAT application

Jaakko reported that the group had prepared factsheets for 4 out of 5 specific topics from the collected answers. The fifth topic (Application of BAT when there are no BAT conclusions) was still open. Richard Chase had volunteered to do it, but he had been given other duties and there was no replacement for him as yet. Jaakko had agreed to take over the work.

Based on results so far it was not possible to talk about best practice as there was such a great variety. The group will now try to find out the reasons behind the different approaches. They would definitely need a meeting in Santiago de Compostela. It was not yet clear whether the group would need to continue in 2020.

Baseline report, monitoring of soil and groundwater

Work had started on this in Gdansk. There had been various different opinions on monitoring, and it was agreed that the topic would be discussed in a working group in Santiago de Compostela and that Horst would lead the discussion. Horst prepared a discussion paper on this topic as an input for the workshop (Appendix 5).

Development of online guidance and training material

Martine said that in January 2018 an Action Plan had been launched to help inspectorates to implement the environmental acquis with nine activities. IMPEL decided to develop a knowledge centre. The ToR was presented in December 2018 and, with subsequent modification, was adopted under the written procedure.

Milieu was appointed by the Commission to look at a similar topic and asked IMPEL to steer the study. This proved challenging. Milieu sent out a questionnaire at the beginning of the year and Rob Kramers is due to present the results in Santiago de Compostela. The Commission were disappointed with the results of the questionnaire. The Terms of Reference have been sent to the Commission and the document is awaiting approval. The grant agreement for the project has yet to be signed.

There was a discussion about how to take this forward. The Commission will make a platform for this, but it will be important to see what kind of platform is to be developed.

Odours coming from farming and industry

7_Deniss_Pavlovs.pdf

Deniss said that the general aim of the sub-group is to identify problems with odours around IMPEL countries and to identify best practices for permitting and controlling odours. Possible outcomes were general provisions to be included in IED permit on odour topic, methodologies applied to odour control and monitoring, and a Factsheet of best practice examples.

Areas of interests would include general provisions to be included in IED permit on odour topic, dynamic olfactometry, field inspections, emissions characterization: how to combine different tools and experience in organising air research. They would also look at requirements for the implementation of odour reduction plan and mandatory measures for installations that cause odour pollution. Experience in organising air research on the identification of the substances that potentially cause odour nuisances would be examined, especially in the following activity sectors: chemical industry, food industry, pig farming, slaughterhouses and non-ferrous metal industries. The BREF applicable to refineries already identifies the substances that cause odour and establishes a methodology for its control. Methodologies applied to odour monitoring would be looked at and what mandatory measures can be identified in the permits in order to reduce the odour nuisances.

So far there were only four participants for the group and more were needed. The topic would be discussed in Santiago de Compostela.

BAT in Cement Industry

The group have prepared a draft report and are drawing up a factsheet for the 'use of waste in cement production.' They see no need for a factsheet for the other topics concerning BAT Conclusions in the Cement Production Industry. It is either a specific member state problem or it's because of the different technical equipment in the cement industry.

IED and circular economy

Romano would work on this, but it was not yet clear whether there would be a sub-group in Santiago de Compostela.

BAT in waste incineration

There was a new draft BRef on this and the Confederation of European Waste to Energy Plants had requested IMPEL's opinion on how the BRef might best be implemented. Horst would reply that we are thinking about having a sub-group on BAT in waste incineration but that it will take a little time to identify good practice.

Status of the IED regulatory cycle on the IMPEL home page

This topic was not discussed.

Identification of good / best practice, fact sheets

A fact sheet to identify good practice would be produced for Cement. Marinus would update the guidelines on how to organise Joint Inspections with help from John and Terry as necessary. The climate change factsheet could be updated in due course (by Kay).

Preparation of the workshop in Santiago de Compostela

There was a discussion about the workshop and a revised agenda was agreed (see Appendix 3). Manuel would put the agenda on Basecamp.

The topics to be included are Pigs and Poultry, ICCARP, Joint Inspections, Wastewater, BAT application, Soils and Groundwater and Odours. The subgroups would be led by those who had given presentations in Kouvola.

IED Project Report 2019

Because of the late start for projects in 2019 it had been recognised that it would be difficult to have reports ready for the deadline of 28 October. In the light of this it had been agreed that reports could be adopted early in 2020 either by written procedure or at a special meeting of the General Assembly if that were to be organised. However, the German Federal Ministry (which funded the consultants for the project) would require a completed report by the end of November and John and Terry would work to that as a deadline. If any further minor amendments were needed to the report after that date they could be incorporated before the report was submitted for adoption by IMPEL.

Work Programme 2020 and beyond

ToR for 2020

Terry had drafted a ToR for the project for 2020. The working year for IMPEL in 2020 would start in April and run until December (though in practice the project had usually begun work in March in any event). It was agreed that the approach to be adopted in 2020 would be similar to this year and that changes could be introduced from 2021 onwards. The difference from 2019 would be that there would be 6 Joint Inspections. Florin kindly agreed to work on the detailed costings: these were not required in the template ToR that had been circulated but would doubtless be useful anyway. Terry would make any other amendments necessary to the ToR in the light of the discussions at this meeting.

Multi-Annual Work Programme for 2021-24

Appendix 4

John had prepared a Multi-Annual Work Programme for the period 2021-24 which he introduced. A key priority was Air Quality which was regularly identified as a major concern. It could be useful to identify who is doing what in this area and to identify good practice. The next was Public nuisance problems arising from industry. Work was already under way on odours and noise and dust (but not littering) should also be included. Farming and Agriculture would continue in the work programme as would BRefs: these could include Refineries, Waste Incineration and Waste Management.

Work on Guidance on Doing the Right Things and IED implementation would continue and it would be useful to seek out feedback from users of the Guidance and from practitioners. As a start it would be a good idea to count how many hits there were on each of the different factsheets. Training would clearly be prominent in the future work programme and Joint Inspections would certainly continue.

It was agreed that the Open Topics would be discussed in Santiago de Compostela. They had been prioritised in the Bremen meeting but there might be a need to reprioritise them now. Horizontal aspects of permitting could be deleted from the Ongoing Topics.

For other priorities emerging from the Implementation Challenge Survey, it was suggested that the question of resources in regulatory organisations might better fit with the Cross-Cutting group. The IRIs might help produce some answers on this and a useful starting point would be to analyse their recommendations

It was agreed that Climate Change should be included in the list. It should be considered in Santiago de Compostela to see whether there was enough experience to share.

Horst said that a new project lead would be needed from 2021. It was unanimously agreed that it would be very helpful if Horst could be available to hand over to whoever took on the task. There would also need to be a new leader for the Industry and Air Expert Team which should be organised with a rotation of the Steering Group.

Locations and dates of the 2020 meetings

Any small groups wanting to meet before April could do so, subject to funding being available.

The next large meeting would be in April/May and possible candidates for hosting it included England, the Netherlands and Latvia. Florin would prepare a list of where meetings had been held over the last three years and the countries that participated.

IED Project organisation

Budget

It was unlikely that there would be underspending on the project.

Project communication

Material had been included on the IMPEL website on Joint Inspections and Wastewater. It would be interesting to know how often this material was read and to have feedback from the users. This would be discussed with Rob Kramers in Santiago de Compostela.

For the IMPEL conference in Zwolle there had been an online newspaper. This had been expensive to produce but Martine said that she found it useful and found it still to be a useful source of information.

Florin and Manuel said that they would prepare a one-page document on what is to be discussed at the meeting in Santiago de Compostela for the IMPEL web page.

Project abstracts

The project abstract would be left as it is for now and possible amendments would be considered in the next period.

Results from different meetings

Last Board meeting

Florin had attended this meeting in place of Horst.

Michael Nicholson had reported on the state of finances. The network was growing, and they were looking at other potential sources of funding. For example, this year 150.000€ would be need in co-financing. It was important to try to record time spent on IMPEL projects in the proper way.

As already discussed, there was a plan to rotate leaders of the Expert Teams. The Chair of IMPEL (and of the Board), Dimitris Dermatas, had said that he found it difficult when different people were participating at

the Board meetings since this meant he often had to repeat what he had already explained at a previous meeting.

The IMPEL secretariat has been asked to produce guidance on integrity and procurement.

The structure of IMPEL was to be examined. Dimitris wanted to appoint a consultant to investigate this, but no decision had yet been taken. Of course, organisations might limit their contributions if IMPEL became too political.

Workshop of the Nordic Baltic Competent Authorities on the EU Timber Regulation, Tallinn, Estonia, 17 - 19 June 2019

Horst had been invited to this Workshop and had given a presentation on IRAM since these Authorities were interested in risk assessment.

IRAM in nature protection project meeting, Celje, Slovenia, 24 – 26 September 2019

This meeting had looked at different examples for risk assessment of Habitat 2000 areas with IRAM and how often they should be inspected. Two sites were visited, and the criteria and assessment were changed after the meeting.

Industry and Air meeting in Santiago de Compostela

The agenda for the meeting had been discussed and agreed. The draft agenda is at Appendix 3

There should be information from three projects, including IED, Lessons learned from accidents and Onshore Oil and Gas Regulation. Results from different meetings would be included as would the future programme of IMPEL together with the specific grant agreement. There would also be the question of seeking new members, new ToRs and new information on the budget.

Any other business

Horst had received an invitation from TAIEX for a Regional workshop on the Industrial Emissions Directive in November. In principle, Vlado was interested in attending but would check what they wanted before making a final decision.

Appendix 1: Meeting Agenda IED Implementation 2019

Second Project Group meeting (only sub-group leaders)

Kouvola, Finland, 3 and 4 October 2019

Agenda of the meeting

Welcome by the Competent Authority and the Finnish National Coordinator

Tour de Table: what's new

Work program and results of the sub-groups:

- Intensive rearing of poultry or pigs – IRPP (Manuel)
- Integration of climate change adaptation into regulatory practice – ICCARP (Kay)
- Joint inspections (Marinus)
- BAT in industrial wastewater (Romano)
- Horizontal aspects of permitting (Simon)
- Aspects of BAT application (Jaakko)
- Baseline report, monitoring of soil and groundwater (Horst)
- Development of online guidance and training material (Martine)
- Odours coming from farming and industry (Deniss)
- BAT in cement industry (Terry)
- IED and circular economy (Romano)
- BAT in waste incineration (Horst)
- Status of the IED regulatory cycle on the IMPEL homepage (Horst)

Identification of good / best practice, fact sheets (all)

Preparation of the workshop in Santiago:

- General organization
- IRPP
- ICCARP
- Inspections
- Working groups
- Other topics
- To Do List for the workshop

IED project report 2019 (Horst/Terry)

Work program 2020 and beyond (Terry/John/Florin)

Locations and dates of the 2020 meetings

IED project organisation (Horst)

- Budget
- Project communication
- Project abstracts

Results from different meetings

- Last Board meeting
- Workshop of the Nordic Baltic Competent Authorities on the EU Timber Regulation, Tallinn, Estonia, 17 - 19 June 2019
- IRAM in nature protection project meeting, Celje, Slovenia, 24 – 26 September 2019

Industry and Air meeting in Santiago

- Specific grant agreements
- Focus on Compliance Assurance (e.g. trainings and peer reviews)
- ToRs for 2020 and beyond
- Management of IMPEL and the Expert Team (rotation)

Any other business

Appendix 2: List of participants

Horst Büther

Manuel Salgado Blanco

Kay Johnstone

Marinus Jordaan

Martine Blondeel

Simon Farrugia

Deniss Pavlovs

Florin Homorean

Vladimir Kaiser

Jaakko Vesivalo

Terry Shears (Consultant)

John Seager (Consultant)

Leena Gunnar and Juha Lahtela were present at the opening of the meeting

Appendix 3: Meeting Agenda Santiago de Compostela

MEETING AGENDA

IMPEL: INDUSTRY & AIR Working Group

SANTIAGO DE COMPOSTELA

21-25 OCTOBER 2019

WEEK PROGRAM

DAY	SUBJECT	EXPLANATION	Attendants
21/10	IRPP BATs Subgroup 7p	Pig farm Joint inspection	Antonio Quintas, Antonio Leitao, Portugal, Christophe Bervoets, Flanders, Gottskalk Fridgeirsson, Iceland, Gabriele Wechsung, Germany; Paula Chantada, Manuel Salgado, Spain
22/10	IRPP BATs Subgroup discussion on IRPP BATs implementation. 24 people	Antonio Quintas & Antonio Leitao & Elisabete Vieira & Maria Isabel Correia (Portugal), Christophe Bervoets & Ilse De Vreese (Belgium-F), Jos Spruit (Holland), Ionel Preda (Romania), Gabriele Wechsung & Wulf Böckenhaupt (Germany), Cyril Burda & Martin Jursa &Kristína Kapriová (Slovakia), Nives Stele & Karin Malc (Slovenia), Jean-Charles Botella & Vincent Nicolazo De Barmon (France), Gottskalk Fridgeirsson & Rakel Kristjansdottir (Iceland), Thomas Baumhackl (Austria), Elisabete Dias Ramos (IMPEL), Albert Avellaneda & Braulio Belmonte & Beatriz Rodríguez Méndez & Manuel Salgado (Spain)	
22/10	Joint Inspections Subgroup 6p	Ferroalloy Joint inspection	Malgorzata Budzynska, Poland; Ruth Ciarlo, Malta Nadia Fibbiani, Italy; María Jesús Mallada, Paula Chantada, Milagros Pereira, Spain
23/10	IMPEL-AIR Workshop 38 people	IED Implementation: Project Group Meeting 1st day	Cyril Burda;, Kristína Kapriová, Martin Jursa, Maria Isabel Correia, Ionel Victor Preda, Wulf Böckenhaupt, Elisabete Dias Ramos, Jos Spruit, Nadia Fibbiani, Malgorzata Budzynska, Maria_Jesus Mallada, Ruth Ciarlo, Büther, Horst, Barbora Herberková, Bruno Yango, Deniss Pavlovs, Dubravka Pajkin Tučkar, Fabio Colonna, Florin Homorean, Halla Einarsdóttir, Hartmut Teutsch, Horst Buether, Jaakko Vesivalo, Marinus Jordaan, Martine Blondeel, Rob Kramers, Sean Pruce, Silva Prihodko, Simon Farrugia, Terry Shears, Vladimir Kaiser, John Seager, Manuel Salgado Blanco, António Leitão, Antonio Quintas, Elisabete Dias Ramos, Elisabete Vieira, Katia Juarez, José Francisco Alonso Picón
24/10	IMPEL-AIR Workshop	IED Implementation: Project Group Meeting 2nd day	
25/10	IMPEL-AIR Experts 32 people	Industry and Air Expert Team meeting	

ACTIVITY AGENDA

Monday 21/10 Pig farm Joint inspection

Objective: IRPP BATs implementation issues and verification

Place: Sow farm. 1 hour by car from Santiago

Schedule: 9:00 to 17:00

Logistics:

Attendants will be picked at hotel by Galician inspectors and driven to the installation.

All clothes (included underwear) and insulating sheath will be provided by the installation.

A shower is compulsory before entering the installation.

Attendants: 5 guest inspectors + 2 Galician inspectors

Documents to look in advance:

- IRPP BATs (possible to print bilingual)
- Installation Permit of a Galician Sow farm
- Short IRPP BATs checklist

Agenda:

9:00 pick-up at hotel
10:30 welcome coffee and presentation at the installation
11:00- 14:00 Site visit to the installation. Focus on implementation issues of BATs
14:00-15:00 Lunch
17:00 Back to hotel

Outputs: short presentation of lessons learned to present on IMPEL Industry and Air workshop

Tuesday 22/10 Ferroalloy Joint inspection

Objective: NFM BATs implementation issues and verification

Place: Ferroalloy installation, 1 hour by car

Schedule: 9:00 to 17:00

Logistics:

Security boots will be provided by the factory. We need to know in advance your ID number and Shoes number

Attendants will be picked at hotel by Galician inspectors and driven to the installation.

Attendants: 4 guest inspectors + 2 Galician inspectors

Documents to look in advance:

- NFM BATs (possible to print bilingual)
- Installation Permit of the Galician FerroAlloys installation
- Non Ferrous Metals BATs draft Checklist EN

Agenda:

9:00 pick-up at hotel
10:30 welcome coffee and presentation at the installation
11:00- 14:00 Site visit to the installation. Focus on implementation issues of BATs
14:00-15:00 Lunch
17:00 Back to hotel

Expected Outputs: short presentation of lessons learned to present on IMPEL Industry and Air workshop on Thursday the 24th.

Tuesday 22/10 Workshop on farm´s BATs (IRPP)

Objective: IRPP BATs implementation issues and verification

Place: Galician Civil Service School (EGAP) Rúa de Madrid, 2, Santiago de Compostela

Schedule: 9:30 to 17:30

Logistics:

Coffee break and lunch at the venue is included on IMPEL´s budget.

Easy 28m (2.2km) walk from hotels (Gelmirez and Universal), also buses

Attendants: 24 people:

Documents to look in advance:

- IRPP BATs (possible to print bilingual)

-- Questionnaire analysis and summarized excell sheet

-- There is also a library of national documents of interest and related projects

-- Choose 3 of the 4 topics to discuss Please fill in the form!!!

Work methodology:

Introduction: questionnaire analysis and explanation of work dynamic.

Discussion will be focused **on these 4 main topics**:

1. EMS (environmental management system BAT 2, BAT 5, BAT9, BAT12, BAT24, BAT 25 and BAT 29
2. Slurry and manure storage. BATs: 14, 15, 16, 17, 18, 19
3. Slurry and manure application as fertilizer. BATs: 20, 21, 22
4. Odours and NH3 emissions. BATs: 3, 12, 13, 26, 28, 30

3 discussion coordinators will lead each of the discussion topics.

People will be divided into 3 discussion groups.

The 3 discussion groups will work simultaneously.

3 working sessions of 1,5 h so everybody will discuss each topic.

Agenda:

TIME	CONTENT
9:30 10:30	PLENARY GROUP PRESENTATION: 1. Participants self-introduction 2. Presentation on the questionnaire analysis 3. Explanation of the work dynamics to follow
	Coffee break
11:00 12:30	4 working groups of 7-8 people discussing simultaneously, each on different topic Please fill in the form!!!
12:30 14:00	4 working groups of 7-8 people discussing simultaneously, each on different topic Please fill in the form!!!

	Lunch
15:00 16:30	4 working groups of 7-8 people discussing simultaneously, each on different topic Please fill in the form!!!
16:30 17:00	SHARING ANALYSIS: Presentation of issues and ongoing BATs implementation.

Outputs: Summary presentation on main issues and ongoing BATs discussed during the workshop. To present on IMPEL Industry and Air workshop

Wednesday 23/10 + Thursday 24/10 IMPEL-AIR Workshop

Place: Galician Civil Service School (EGAP) Rúa de Madrid, 2, 15707 Santiago de Compostela

Schedule: 9:30 to 13:30 and 14:30 to 17:30

Logistics:

Coffee breaks (morning and afternoon) and lunch at the venue is included on IMPEL´s budget.

Easy 28m (2.2km) walk from hotels (Gelmirez and Universal), also buses

Attendants: 38 people:

Agenda:

TIME	Wednesday 23rd October CONTENT
9:00 13:00	PLENARY GROUP PRESENTATION: - Welcome from Galician Environmental Quality General Direction - IED implementation in Galicia ○ Coffee break - What is new?. Tour de table: attendants self-introduction - Sub-Groups presentations
	Lunch
14:00 17:00	4 Simultaneous workshops on the following Subgroups:. Please fill in the form!!! (Coffee break included) - Intensive rearing of poultry and pigs BATs - Integration of climate change adaptation into regulatory practice – ICCARP - BAT in industrial wastewater - Baseline report. Monitoring of soil and ground water

TIME	Thursday 24th October CONTENT
9:00 10:00	Presentation of IMPEL project on Compliance Assurance (e.g. trainings and peer reviews)
	Coffee break included
10:00 13:00	Simultaneous workshops on the following Sub Groups: Please fill in the form!!! - Aspects of BAT application - Joint inspections - Odours coming from farming and industry
	Lunch
14:00 17:00	- Presentation of Joint inspection on a Ferroalloys factory - Presentation of Joint inspection on a Sow farm Coffee break - Sub-Groups presentations

	- Outlooks for future projects

Friday 25/10 IMPEL-AIR Experts

Place: Galician Civil Service School (EGAP) Rúa de Madrid, 2, 15707 Santiago de Compostela

Schedule: 9:30 to 14:30

Logistics:

Coffee break and lunch at the venue is included on IMPEL´s budget.

Easy 28m (2.2km) walk from hotels (Gelmirez and Universal), also buses

Attendants: 32 people:

Agenda:

TIME	Friday 25th October CONTENT
9:00 13:30	Welcome and opening of the meeting Information from current projects • Extended period for project reporting • IED implementation • Lessons learnt from accidents • Onshore oil and gas regulations and lessons learnt for other subsurface activities : (Coffee break included) Results from different meetings Future program for IMPEL Presentation on “Extending membership” and involvement of members in Expert Team New information on the budget New ToRs for 2020 and beyond Industry and Air Work program 2021-2024 Expert Team in the future Other business.
	Lunch

LIST OF THINGS TO PREPARE FROM ATTENDANTS

ACTIVITY	Tips to Attendant´s & To-Do Things
21/10 Pig farm Joint inspection	Attendants will be picked at hotel at 9:00 by Galician inspectors and driven to the installation. All clothes (included underwear) and insulating sheath will be provided by the installation. A shower is compulsory before entering the installation. **Documents to look in advance**: - IRPP BATs (possible to print bilingual) - Installation Permit of a Galician Sow farm - Short IRPP BATs checklist **Expected Outputs**: Short presentation of lessons learned to present on IMPEL Industry and Air workshop on Thursday the 24th.
22/10 Subgroup discussion on IRPP BATs implementation.	**Documents to look in advance:** - IRPP BATs (possible to print it bilingual) -- Questionnaire analysis and summarized excell sheet -- There is also a library of national documents of interest and related projects -- Choose 3 of the 4 topics to discuss_ Please fill the form!!!
22/10 Ferro-Alloy Joint Inspection	**Logistics:** Attendants will be picked at 9:00 at hotel by Galician inspectors and driven to the installation. Security boots will be provided by the factory. We need to know in advance your ID number and Shoes number **Documents to look in advance:** - NFM BATs (possible to print bilingual) - Installation Permit of the Galician FerroAlloys installation - Non Ferrous Metals BATs draft Checklist EN **Expected Outputs:** short presentation of lessons learned to present on IMPEL Industry and Air workshop on Thursday the 24th.
23/10 24/10 IMPEL-AIR Workshop	:. Please fill in the form!!! To choose which workshop will you participate in: Wednesday afternoon: 1 of the following: - Intensive rearing of poultry and pigs BATs - Integration of climate change adaptation into regulatory practice – ICCARP - BAT in industrial wastewater - Baseline report. Monitoring of soil and ground water Thursday morning: 1 of the following: - Aspects of BAT application - Joint inspections - Odours coming from farming and industry - Your suggestion

Appendix 4: Priorities 2021-2024

Priorities for an IED Implementation Programme 2021 – 2024

1. Introduction

This paper summarises priority areas to be considered in developing a programme for IMPEL's work on IED implementation to be carried out over the period 2021 to 2024.

The topic areas are derived from the following sources:

- Priorities arising from the survey of Challenges in Implementing EU Environmental Law, last carried out in 2017
- Priorities emerging from discussions with the European Commission
- Cross-cutting priorities for IMPEL, for example, training and capacity building
- Topics suggested by the IMPEL Air and Industry Regulation Expert Team
- Completion and implementation of the outputs from on-going work in the IED Implementation Project
- Open topics suggested by the IED Implementation Project Group.

Comments are requested, in particular, on:

- ***Are the priorities suggested for the future work programme the right ones?***
- ***Are there other high priority areas that have been missed?***
- ***Are there new implementation challenges that have recently emerged that should be addressed in the programme?***

2. Priority areas for the 2021-24 programme

Taking into account the various sources above, the following areas emerge as priorities for the 2021-24 programme. These link clearly with the Commission's Environmental Compliance Assurance Action Plan (ECAAP).

2.1 Air Quality

Poor air quality and failure to achieve ambient air quality standards continues to be a major problem in many Member States. Emissions from industry make a significant contribution to the loading of some pollutants into the environment, for example, NOx. This area of the programme would look at the sources and contribution of specific pollutants from industrial sectors and how the implementation of existing

environmental legislation, such as the IED and Air Quality Directives could be improved to regulate and reduce air pollution, and to achieve relevant ambient air quality standards. This links with Actions 1 and 3 in the ECAAP.

2.2 Public nuisance problems arising from industry

Odours, noise and littering are frequently cited causes of complaints from communities living in the vicinity of industrial installations. These were key problems raised in the Implementation Challenge Survey. They are often contentious issues and the source of conflicts and complaints with local communities. They are often not amenable to regulation in the same way as other kinds of pollution. There is a lack of standards and criteria to support the regulation of these kinds of aesthetic pollution.

This area of the programme would look at the nature and impacts of public nuisance problems arising from different industry sectors. This would involve investigation of the sources of conflicts and complaints experienced by its member organisations and how different approaches are used to address and resolve them.

It would look at how these problems can be mitigated through a range of possible measures. This might involve looking at good practices in the use of local interest groups; the management of neighbourhood dialogues; the facilitation of public meetings; and the provision of local environmental information. This should build on the work IMPEL has previously carried out on the resolution of environmental conflicts by neighbourhood dialogue and the development of a toolkit to support organisations in this area of work.

Future work in this area should build on the questionnaire and analysis of industrial odour problems initiated through the IED Implementation Project. It links with ECAAP Actions 1 and 3.

2.3 Farming and Agriculture

The Implementation Challenge Survey clearly showed that the agriculture sector is consistently the greatest area of concern for environmental regulators. Key issues are the impacts of intensive animal rearing installations and reducing the inputs of fertilisers and other agrichemicals. Odours from pig and poultry farms were cited as a particular problem area.

IMPEL has recognised the significance of the agriculture sector in its work programme through several projects that have addressed the environmental impacts of farming, for example, on the regulation of intensive piggeries; reducing diffuse source pollution from nitrates and pesticides; and achieving better compliance in the agricultural sector through networking and partnership working of environmental and agricultural inspectorates.

Future work in this area would build on the outputs from the IED Implementation project on BAT conclusions for intensive pig and poultry rearing involving a questionnaire and the development of check lists for inspection. It links with actions 3 and 5 in the ECAAP.

2.4 Practical implementation of new and revised BRefs and BAT Conclusions

At present, there are 32 BRefs in place under the IED. They should be reviewed and, where necessary, updated every 8 years. The practical implementation of the BRefs and BAT Conclusions is a major challenge for regulators and this area of the programme would provide support by sharing information and experience, and by providing best practices and guidance.

The IED Implementation project has already worked on wastewater treatment and the cement sector. It is currently working on intensive rearing of pigs and poultry. This provides good experience for addressing other sectors in the future programme.

The 2021-24 programme would include sectors where regulators are facing significant practical challenges. For example, many practitioners are currently encountering problems in the regulation of refineries. This sector would be a good starting point for the new programme. This links with Actions 1 and 3 in the ECAAP.

2.5 Further development and consolidation of the combined guidance on 'Doing the Right Things' (DTRT) and IED Implementation

Good progress has been made in developing the combined guidance in a flexible web-based format. The 'Fact Sheets' provide the basis for technical guidance. If the guidance is to continue to be relevant a mechanism needs to be put in place to continuously update and improve existing guidance and to add new guidance as work on new topics comes to fruition. A quality assurance mechanism for the guidance also needs to be considered. This links with Action 3 of the ECAAP.

2.6 Training

Professional training is a key priority of the ECAAP (Action 2). The European Commission has contracted consultants, Milieu, to look at professional training needs for environmental protection organisations. IMPEL has also approved a major 3-year project to develop a multi-annual programme, including the setting up of a Knowledge and Innovation Centre.

Guidance and tools such as the DTRT guidance on permitting and inspections provide a good starting point for identifying training needs. A sub-group on Training and Capacity-building has been set up to identify specific training needs associated with the IED. Future work in specifying an on-going training programme should build on these initiatives.

2.7 Joint Inspections

The IED Implementation project has carried out a number of joint inspections at a range of different installations covering different sectors. The intention in the future work programme is to increase the number and coverage of joint inspections. This will require attention to be given to how best to manage a coherent programme of joint inspections; how to capture the lessons learned, for example, in the combined DTRT guidance; and how to disseminate the learning to the wider IMPEL community. This links with Action 2 of the ECAAP.

2.8 Topics that have been previously suggested by the IED Implementation Group and are still open

The IED Project has collected a range of topics where group members have expressed an interest, but so far no work has been carried out. These are:

- Inspector's input into the BREF-cycle
- Application of Emissions Ranges
- Concentrations versus mass emission limits
- Changes of permits – what is a significant change?
- Streamlining IED and EIA permits
- Integrated permits (one stop shop)
- Control of VOC installations under IED
- Non-routine inspections
- Public participation / complaints management
- Charging Regimes

2.9 On-going topics from IED Implementation Project that may continue into 2021 and beyond

The IED Implementation Project has a range of on-going initiatives that need to be brought to a conclusion. It is expected that most of this will be completed in 2019 or 2020. However, further work might be required in some areas where further development is needed. Current topics are:

- Joint Inspections
- BAT Conclusions for Intensive Rearing of Poultry or Pigs
- Integrating Climate Change Adaptation into Regulatory Practice – ICCARP
- Industrial wastewater
- Horizontal aspects of permitting
- BAT application
- Baseline report and groundwater contamination
- IED and the circular economy
- Odours

2.10 Other priorities emerging from the Implementation Challenge Survey

There are other topics that emerged from the Implementation Challenge Survey that have not so far been addressed by the IED Implementation Project. A lack of sufficient resources in regulatory organisations was a key conclusion of the Implementation Challenge Survey. This is an issue that cuts across all the Expert Team areas and is very relevant to the effective implementation of the IED. The programme could consider how it can help to facilitate more efficient and effective use of the limited resources in environmental authorities by sharing of experiences and practices and by developing appropriate tools and guidance.

Topics that could be looked at might cover: further development of risk-based approaches to environmental regulation for more effective targeting of effort; reducing and removing unnecessary bureaucracy and 'red tape'; moving away from resource-intensive paper-based systems and replacing them with more flexible electronic ones, taking advantage of opportunities for increasing use of automated approaches; improving organisation design and structure to maximize efficiency of resource use; deploying new technologies for monitoring and electronic data capture reporting and analysis; greater use of the internet and social media for communication and public engagement. This links with Actions 1, 3 and 8 in the ECAAP.

Appendix 5

IED Implementation: Monitoring of groundwater and soil

Article 22 Site closure

2. Where the activity involves the use, production or release of relevant hazardous substances and having regard to the possibility of soil and groundwater contamination at the site of the installation, the operator shall prepare and submit to the competent authority a baseline report before starting operation of an installation or before a permit for an installation is updated for the first time after 7 January 2013.

Article 14 Permit conditions

1. Member States shall ensure that the permit includes all measures necessary for compliance with the requirements of Articles 11 and 18.

Those measures shall include at least the following:

(b) appropriate requirements ensuring protection of the soil and groundwater …;

(e) appropriate requirements for the regular maintenance and surveillance of measures taken to prevent emissions to soil and groundwater pursuant to point (b) and appropriate requirements concerning the periodic monitoring of soil and groundwater in relation to relevant hazardous substances likely to be found on site and having regard to the possibility of soil and groundwater contamination at the site of the installation;

Article 16 Monitoring requirements

2. The frequency of the periodic monitoring referred to in Article 14(1)(e) shall be determined by the competent authority in a permit for each individual installation or in general binding rules.

Without prejudice to the first subparagraph, periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

Statements

1. If there is no possibility of soil and groundwater contamination then no baseline report is necessary and no monitoring is required.

2. The frequency of the periodic (routine) monitoring depends on the measures ensuring protection of the soil and groundwater and on the measures for the regular maintenance and surveillance of measures taken to prevent emissions to soil and groundwater and not on criteria related to soil and groundwater.

3. Only for those relevant hazardous substances that are regulated in the (change of the) permit a monitoring program can be included in the permit. All other relevant hazardous substances at the installation / site can only be regulated by general binding rules.

4. The periodic monitoring at least once every 5 years for groundwater and 10 years for soil is obligatory for every operator of an IED installation for all relevant hazardous substances when there is no regulation in a permit.

5. If such monitoring is based on a systematic appraisal of the risk of contamination the frequencies can be lower than once every 5 years for groundwater and 10 years for soil. The risk of contamination depends on the measures ensuring protection of the soil and groundwater and on the measures for the regular maintenance and surveillance of measures taken to prevent emissions to soil and groundwater and not on criteria related to soil and groundwater.

Task in the Workshop:

Please discuss the statements. What is your opinion, are they right or wrong? Or should only something be modified? Please write down your findings and give a presentation at the plenary. The results will be part of a fact sheet and good practice related to soil and groundwater monitoring. Many thanks!

Annex IV

Note of meeting of Industry and Air Working Group, Santiago de Compostela, 23-24 October 2019

Note of meeting of Industry and Air Working Group, 23-24 October 2019, Santiago de Compostela, Spain

Agenda

The meeting agenda is at Appendix 1.

Participants

The list of participants is at Appendix 2.

Summary of key points

Welcome from the Galician Environmental Quality General Direction

1_Benvida.pdf

María Cruz Ferreira Costa, Director General for Environmental Quality and Climate Change, welcomed those present to Santiago de Compostela and to the meeting. She considered it a real pleasure and an honour that the meeting was being held in the beautiful city of Santiago de Compostela and hoped that everyone would have an opportunity to enjoy it.

Thanks were due to Picon and Manuel Salgado for their tremendous efforts in organising the meeting and helping to ensure its success.

Ms Ferreira Costa explained that Galicia has its own language which had its roots in Spanish and Portuguese. Some competences were delegated from the national Government and the environment was the responsibility of the regional Ministry. They had a new strategy on climate change and were working on the circular economy.

Given its position, Galicia has a mild climate with a maritime influence and a lot of rain. There was plenty of seafood and fish available.

Galicia is one of seventeen autonomous communities in Spain and has its own Parliament. It is one of only three to have responsibility for meteorology, the other two being the Basque Country and Catalonia. Other competences for the Directorate General on Environmental Quality and Climate Change include

environmental assessment, IPPC permits, environmental inspection, climate change, Galician official environmental laboratory, waste, soil quality and circular economy. They were improving their inspection proceedings and were having to deal with a very high number of complaints.

Horst thanked Ms Ferreira Costa for her kind words and warm welcome and for her very informative presentation. He said that the group was very grateful to have been invited to Santiago de Compostela and really appreciated being there.

Tour de table and agreement of agenda

Those present at the meeting introduced themselves and the agenda was agreed. Aleksander said that Serbia was a new member of IMPEL and he was welcomed as the representative of Serbia.

The Organisation for European Waste Incineration had asked for the Group's opinion on the new BAT on waste incineration. Horst had replied that the Group had not worked on this topic until now but that it may wish to have a group working on it in coming years. Consequently, it was not possible to give an opinion at present.

Subgroup presentations on current state-of-play

Joint Inspections

2_Joint Inspection.pdf

Marinus said that the first inspection in which all inspectors had an active role with inspecting was in Gdansk. So far there had been 12 inspections in 10 countries involving 26 inspectors from 19 different countries. The goal of the Joint Inspections was to achieve a level playing field through an exchange of procedures and tools, knowledge, inspection approaches and innovation in industry. Among the lessons learned were the need to have a focus on a limited number of subjects during the inspection, to prepare well beforehand and to reflect on the experience afterwards. If the visiting inspectors suspect that there is a non-compliance it is important to deal with this in a diplomatic way. So the company could be asked to give some clarification, but the host is ultimately responsible and to avoid any awkwardness follow up action should be left to the host. These matters will be discussed amongst the inspectors during the reflection afterwards. There is a need to share what had been learnt from the experience.

Next year the plan was to have between 3-6 joint inspections. He suggested that it was preferable to have fewer topics but to go deeper into them.

Marinus invited volunteers to help organise Joint Inspections with him. There was a need for hosts in 2020 and when these had been identified it would be possible to seek participants for the Joint Inspections. It should be possible to begin the programme in February 2020.

It would be useful to have feedback from the companies inspected to see how they benefited from Joint Inspections and a questionnaire would be drawn up for that purpose.

Intensive rearing of poultry and pigs BAT

Manuel said that this subgroup had begun work this year and was already proving to be successful. He had worked with colleagues from Portugal to prepare for this. This topic also affects water authorities and agriculture control authorities and it had to be admitted that sometimes there was scope for improving the coordination between different authorities.

These farms have an important impact, for example in terms of nitrates and ammonia. Indeed, they did not fit in with the usual image of a farm and were not managed in the traditional way.

Integration of climate change adaptation into regulatory practice (ICCARP)

3_ICCARP October Workshop intro.pdf

Sean explained that he was giving the presentation on behalf his colleague in the Environment Agency (England), Kay Johnstone.

The aim of ICCARP was to help regulators increase the resilience and effectiveness of environmental permits, both now and in the future, by enabling better consideration and incorporation of severe weather and climate change. It did this by bringing together adaptation experts who understand the problem and IED practitioners who own the solution to better understand, identify and share good practice; and develop tools to help regulators lead and engage with industry to tackle this challenge.

Examples of the consequences of the impact of climate change were reduced river flow which lowers the quality of incoming dilution water, increase in emissions due to release or venting during emergency shutdown, temperature impacts on catalytic processes, switch to back up fuel during disruption that leads to operating outside permit condition, water collects on tank roofs causing collapse and high winds blow site litter or contaminated debris off-site. The role for the environmental regulator lies in tackling the new and changing environmental risks arising from the impact of climate change on industrial activity.

This produces several challenges. There is a need to connect national adaptation planning and policy to regulatory practice and the knowledge and skills of regulatory officers might need to be developed. It is necessary to engage with industry, which can itself be challenging, and long-term thinking is required. There is a lack of certainty on what is currently incorporated and technical challenges such as understanding the relationship between future climate and emissions standards (norms).

Several participants are working on these challenges, for example the Finish Meteorological Institute is working on a new flood map and have created a new job for a climate change adaptation expert to assess what needs to be done in industrial sites (see Finland case study (i)). Similarly, there are plenty of examples of IED implementation taking into account the effects of severe weather, for example, in Scotland they look at the preparedness of sites for winter and what measures they should have to take into account. If there's a risk on an IED installation they can write specific conditions in the permit.

In England (see England case study (ii)), the regulator has been able to bring together the regulation of environmental effects of severe weather under the IED, with consideration of the long-term future. A new climate risk assessment process has been developed along with a change in the charging to allow for additional time to be spent on climate change adaptation. There are also lessons to be learnt from how climate change is dealt with in other regulatory regimes, such as the Seveso Directive. For example, in Germany (see Germany case study (iii)) there are technical requirements for taking account of natural

hazards including a climate change allowance that is applied to flood risk. They also benefit from an integrated permit system, which means that trade inspectorates, as permit writers have to talk to all the other competent authorities, to collect their requirements. In case of climate change, a couple of authorities are concerned, but there is not yet a common understanding of how to deal with it.

Incorporating Climate Change Adaptation into Regulatory Practice (ICCARP)

(i) Case Study – Finland

Situation

In Finland it is common practice for environmental permit conditions to require operators to have a flood plan. For example, requiring that chemicals are stored above the likely flood level and that response plans are in place that will protect warehouses within a couple of hours.

In many installations there is a requirement to treat the drainage waters. In some cases, modelling is required to show the quantity of rain the installation is able to take care of (e.g. treat or store) or bypass based on a predesigned plan. There may be a requirement to be able to handle a specific volume of rain, for example that which statistically occurs 1 in 50 years (over a 30 min or 120 min period).

Moreover, permits are not recommended for new installations in areas of high flood risk.

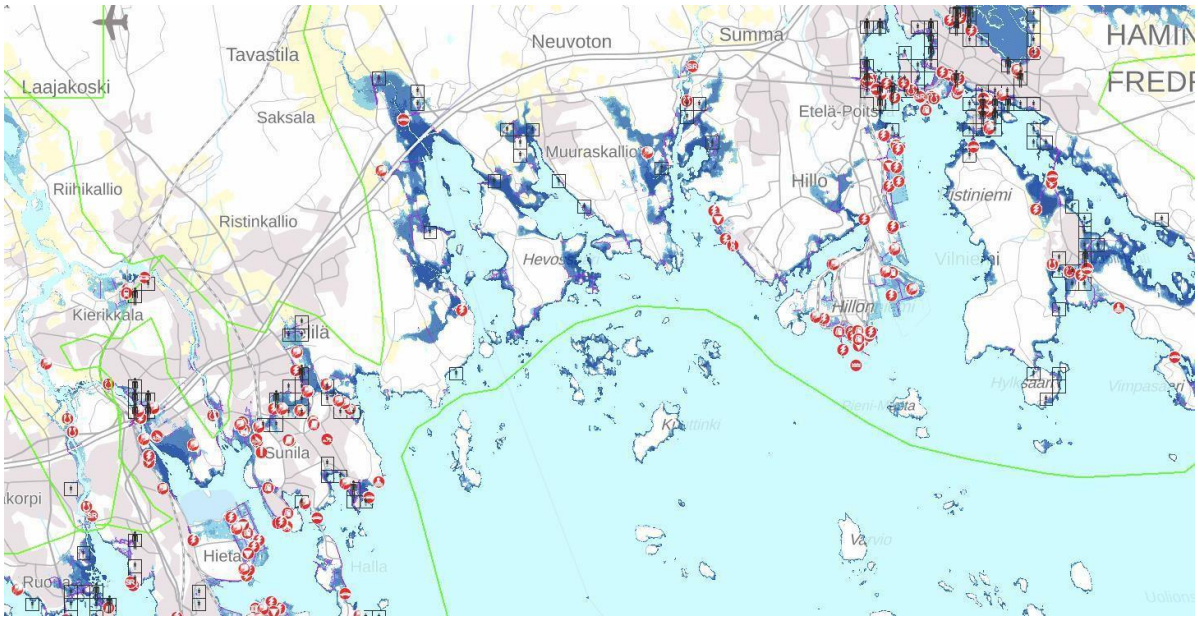
These requirements and processes do not currently take account of the changing flood risk due to climate change.

Task

In Finland, climate change is bringing an increasing frequency and possibly magnitude of flooding. They are also concerned that extreme droughts may cause problems for water supply. Finnish authorities want to improve operators' awareness of and preparedness for climate change.

Action

- The authorities have informed the operators in the flood risk areas about the changing flood risks due to climate change.
- Regional environmental authorities update flood risk management plans for high- risk areas every six years.
- The inspection authority requires consideration of climate change adaptation in its statement about environmental permit application.
- The Finish institute is developing new flood maps that take account of climate change. Currently the climate change scenarios are taken into account in flood frequency calculations made by the Finnish Meteorological Institute (FMI). For example, the probability for a 1/1000-year flood now will in the year 2100 be about 1/100.
- To help assess what needs to be done in industrial sites, many regional inspection authorities have created a new job for a climate change adaptation expert.
- The next step will be to require operators to plan for future flooding by using the new maps in their risk assessment planning.



Extract of Finnish flood risk map showing different depths of the flooding with a 1% likelihood within a year and critical infrastructure within an area of 0.1% likelihood flood risk. New maps for future time periods that take account of climate change are currently being produced.

Challenges and initial learning

- A different approach will be needed for existing installations that are already in high flood risk areas and certain activities, such as harbours, cannot be relocated.

(ii) Case Study - England

Situation

In England, Chapter II of the Industrial Emissions Directive is implemented through the Environmental Permitting (England and Wales) Regulations (2010) (EPR).

Under the regulations the Environment Agency for England is the Environmental Regulator for certain types of installation. The EA's National Permitting Service (NPS) review applications and are required to issue permits that include all measures necessary for compliance with Articles 11 and 18. In relation to climate change adaptation, permit conditions:

- must protect the environment when the installation is not operating normally, for example during start-up, malfunction, leaks or temporary stoppages; and
- should give consideration to the environmental hazards and posed by possible accidents and their associated risks.

Task

The Environment Agency aspires to take account of climate change in everything we do, with specific commitments on this in our 2016 Adaptation Plan, functional business plans and climate change strategy. This includes a project that is seeking to include adaptation into our approach to environmental regulation of industrial sites. As a first step, we are working to ensure that climate change adaptation is robustly considered within new EPR installations and bespoke waste permits.

Action

A joint project group from across relevant parts of the organisation has developed a process for identifying the highest risk sites and checking how operators assess and manage risk. Resources are being developed to support this process including an extra allowance of time to carry out the check and products aimed at both operators and environment officers:

Extra time

As part of our Strategic Review of Charges, an extra 30 minutes of time has been added to the process of reviewing applications, to allow for consideration of climate change adaptation elements.

New process for screening and checking

We have added screening questions on adaptation as part of the application process. The answers will generate a score and depending on whether the score is above or below the threshold, the applicant will either fall into the low risk bracket or the high-risk bracket.

All applicants must also develop their own climate change risk assessment (RA), which includes a plan for managing significant risks. A high-risk score on the screening questions means the RA will be reviewed as part of the permit determination. A low risk score means the RA will only be asked for as part of the application if there is cause for concern, otherwise it will be reviewed as part of standard compliance activities. The threshold could be reviewed and changed in the future if it is felt that too many or too few are being filtered out. For example, it can be raised if it becomes to resource intensive for the EA and it can be lowered if it is thought we are missing sites that need to tackle their risk sooner rather than later.

For high risk sites, NPS will review the RA as part of the permit determination process. On the basis of this review they will either issue (with or without conditions) or refuse the permit. They may also use the information as background to other permitting decisions for which weather or climate is a factor.

Figure 1 below illustrates the process for the operator and regulator. New products

We are developing new processes and products relating to climate risk assessment and adaptation planning at regulated sites. Including:

- Amended application forms and guidance
- Risk assessment template and user guide

Result

All applicants will be required to complete a high-level climate adaptation risk assessment and plan. This will help us confirm they understand the types of risk they face and that they are planning to manage these.

However, we are hoping that the RA is only the start of the process. We would ultimately like it to lead to greater understanding of climate risks beyond those that relate to environmental hazards and more comprehensive and robust adaptation planning at industrial sites.

User testing suggests the new screening and risk assessment process is easy to understand by both applicants and the National Permitting Service. It is hoped that the screening process, by filtering out lower risk sites and activities, enables a proportionate approach to incorporating climate change adaptation into regulatory practice.

Learning

Work is still underway to implement the process and develop the supporting products. However, the learning points, mainly gained through the user testing, so far include:

- Staff need to be provided with information and training on what to do at each stage of the process and how to determine if the risk assessment is good enough
- Operators need encouragement to think longer term and beyond only the most obvious impacts, in order to understand the depth and breadth of climate related risks.
- Work with sector groups to encourage further conversation. 'Good' examples for each sector are a helpful tool.
- Ownership of project is split across different teams (Climate Change and Future Regulation). Therefore, good cross-functional understanding and relationships are required.

(iii) Case Study - Germany

Situation

In Germany integrated permits are used to regulate several aspects including construction, emissions, nature protection, handling hazardous substances and excluding only some special water issues. The trade inspectorates, as permit writers, have to talk to all the other competent authorities, to collect their requirements. In case of climate change, a couple of authorities are concerned, but there is not yet a common understanding of how to deal with it.

Task

The German Strategy for Adaptation (DAS) states that, “at establishments where hazardous substances are present in larger quantities and could be released if extreme events occur, the safety requirements in place hitherto and safety management systems are to be reviewed and adapted as necessary so that they are consistent with the progress made in scientific knowledge and the operators’ obligations pursuant to the Major Accidents Ordinance.”

There are facilities that fall under Seveso directive, but not under IED. So, it was decided, to concentrate on Seveso plants, where the injury risk of people is supposed to be higher than with other facilities. For example: we have in Bremen a gas storage, it is not IED but Seveso relevant. There is concrete danger in case of flood from the nearby Weser River or extremely rising ground water.

The commission for process safety (KAS) identified that risks such as these are being altered by climate change.

Action

Technical rules for plant safety have been developed for Seveso III installations by KAS and were published in 2015 in two technical provisions documents TRAS 310 and TRAS 320 as detailed below. New installations are subject to risk assessment, expert consultation and permit conditions, while existing installations were required to be assessed within five years

Operators must also produce safety reports and review these every five years or less to take account of developments in knowledge including about the influences of climate change on sources of environmental hazards.

TRAS 310 - Technical provisions and measures due to potential hazards caused by precipitation and flooding

The following criteria are used to exclude hazard sources from the detailed hazard sources analysis as follows:

- River or coastal flooding: If it is not on a flood risk area on the flood maps
- Rising groundwater: There are no underground parts of installations where hazardous substances are present

- Flash flooding: no simple criterion but there is a list of factors to be taken into account to calculate inflow and runoff rates (includes expected precipitation intensity or total precipitation).

However, even if an installation meets these criteria, attention needs to be paid to new findings on climate change as this knowledge is developing, including changes to flood maps.

For hazard sources that are not excluded by the above criteria, a standard factor of

1.2 is suggested in the absence of updated climate projections for precipitation, flood maps or other information on possible changes in runoff. This 20% can be added to either the peak precipitation or the high-water flood runoff (but not relevant to groundwater) and used to calculate the dimensions of flood defences. It is a design variable for planning adaptation and not to be used in deciding whether to exclude a hazard source. Detailed hazard source analysis or developments in knowledge could vary the factor.

The climate change factor is to be applied to all new installations that will operate beyond 2050 and from 2050 onwards factor to be applied to all installations.

TRAS 320 - Technical provisions and measures due to potential hazards caused by wind, snow and ice loads.

Although the level of knowledge on changes in wind velocities, snow loads and ice loads in Germany is increasing, it is not yet possible to allow a clear trend to be identified. Therefore, no proposals are put forward for climate change to be taken into consideration in the form of a climate change factor for wind (including tornadoes), snow loads and ice loads analogous to the climate change factor proposed in TRAS 310.

However, operators are obliged to ascertain new information which means they have to pay attention to changes in hazard maps (the wind map published in DIN EN 1991-1-4/NA,2 the DWD gust map,3 the snow load map published in DIN EN 1991-1-3/NA4 and the ice load map published in DIN 1055-5).5

Results and next steps

- TRAS 310 and TRAS 320 are only valid for 5 years and now have to be revised. Resistance from industry may mean that the requirements for existing installations are dropped.

- Since 2015 new installations covered by the Seveso Directive been subject to risk assessment, expert consultation, reporting requirements and permit conditions that take account of climate change.

- However, new work is underway to link to emerging risks from severe weather and climate change to industrial emissions and regulation, in a project led by the Federal Agency for the Environment (UBA).

Challenges and initial learning

- A couple of different German authorities are concerned with climate change, but there is not yet a common understanding of how to deal with it.
- Permit conditions need to be specific and operators need to have something concrete in the rules. This does not lend itself well to the uncertainties of climate change.
- Operators recognise the need to carry out risk assessments for heavy rain and floods, high winds, snow and ice loads. But they don't know how it should be done.
- Resistance from industry that is making it difficult to extend requirements to existing installations where the costs of higher levels of protection are greater.
- This is limited to safety considerations and larger installations covered by the Seveso III directive. New project by the Federal Agency for the Environment is exploring the issue from an industrial emissions perspective.

Industrial wastewater guideline

4_Wastewater.pdf

The amended version of the Guidance, previously included as an Annex of the IED Implementation Report, has been published as an independent document. Romano said that a communication has been sent to DG Environment and in their reply, they had expressed their appreciation and indicated that they would be grateful if further work could be carried out. The abstract of the guidance has been prepared and published.

The Joint Inspection in Gdansk of an oil refinery had included a combined heat and power plant and a wastewater treatment plant. One of the aims of the inspection had been to check the checklist.

Topics for future work included counteracting odours in WWTP, severe weather conditions in WWTP, promoting circular economy in WWTP, training programme and revise and amend the checklist. One of the proposals for a new topic was indirect releases which could look at preventing dilution, concentration limits vs flux mass and UWWTP treatments vs organic/inorganic contaminants.

The main aim of the group today was to share ideas on the content of the new topics, define timelines and composition of the subgroups, define training opportunities for 2020 and consider the communication strategy.

Soil and groundwater monitoring

5_Soil-Groundwater-Monitoring.pdf

Horst said that the IED stipulates that for Relevant Hazardous Substances (RHS) the permit should include measures ensuring the protection of the soil and groundwater, requirements for the regular maintenance and surveillance of these measures and requirements concerning the periodic monitoring of soil and groundwater when there is a possibility of soil and groundwater contamination. There is a question over whether all RHS of an installation are as in the Baseline Report or only those that are regulated in the permit?

Furthermore, the IED says that the frequency of the periodic monitoring shall be determined by the competent authority. Without prejudice to the first subparagraph, periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination. This raised questions about whether it was only those RHS that are not regulated in a permit and how is risk of contamination defined? Also, what about risk appraisal instead of monitoring?

Odours

6_Odours.pdf

Deniss reported that interest had been shown in this topic in Gdansk and he had offered to lead it. He was preparing an interactive questionnaire and will keep it short and simple and user-friendly. There were links across to the groups on Wastewater and Pigs and Poultry.

The aim of the group would be to identify problems with odours around IMPEL countries and best practices for permitting and controlling odours. Areas of interest might include general provisions to be included in IED permit on odour topic, the tools available and how they might best be used and requirements for the implementation of an odour reduction plan. Possible outcomes might include general provisions to be included in IED permit on odour topic, methodologies applied to odour control and monitoring and a factsheet of best practice examples and best practice from inspections.

Aspects of BAT Application

7_Aspects_of_BAT_applications.pdf

The focus of this project is to understand a range of interconnected interpretational issues related to BAT Conclusions (BATc) and the IED. The main aspects include the relationship between BAT Conclusions and General Binding Rules and how member states set emission levels where a range exists. Others include the approaches member states use to apply BAT Conclusions within the 4-year period, how they interpret and implement narrative BAT and how they apply article 14.6 of IED.

So far, a questionnaire had been circulated and the results had been used to prepare a draft report covering different aspects related to BAT application. A video conference had been organised and factsheets prepared covering the main aspects. The findings were that there were different approaches in dealing with BAT applications and that it was difficult to define best practices.

IMPEL Project on Capacity Building and Training

8_Capacity building and training Milieu.pd

In introducing this topic, Rob said that the ToR for this had been adopted by the General Assembly under the written procedure in April. A specific grant application was submitted to the Commission in April and it was anticipated that approval would be given in November. Milieu were appointed as consultants for developing the project and the final draft of their study on capacity building and training needs had just been received and comments would be given to them. The final version of the report should be available in early November. The Commission asked IMPEL to steer the Milieu assignment. In future there would be a need to consider whether this was the right way to proceed though at least it had the advantage of objectivity.

The concept of the Knowledge and Innovation Centre had still to be developed and the question of its financial viability though there would be a full year to look into these matters.

The proposal was to establish three Work Groups, one on the Multi-Annual Strategy, one on the Knowledge and Innovation Centre and one on the Toolkit. Over the Work Groups there would be a Project Management Team with two Programme leaders and representatives from each of the Expert Teams under the overall governance of the IMPEL Board.

Feedback from the simultaneous workshops

Intensive rearing of poultry and pigs BATs

9_Intensive_Rearing_ Pigs_Poultry.pdf

The issues are Environmental Management Systems (EMSs), treatment and management of slurry and manure, use of slurry and manure as fertiliser and emissions of odours and ammonia.

Most countries do not have EMSs in place and slurry management is a key problem area, including the integrity of slurry stores in terms of construction standards, drainage and guarantees. Checking of Fertilizer Management Plans is problematic. There is a need for better tracking of supply and demand which requires coordination between agricultural and environmental authorities. There are many techniques available for air quality management such as vacuum and air cleaning and slurry treatment and there is a need to better understand effectiveness.

Agriculture and water authorities should be invited into the IMPEL community. A 'check list' approach for operators assessing compliance with EMSs should be developed. Innovative practices on slurry management should be shared and online slurry 'tracking' systems should be developed and shared with agricultural authorities. There should be a link with the European Commission on surveillance of land use in relation to agricultural subsidies. Methods for the mass balance calculations of nutrients should be shared (e.g. 'look-up' tables developed in Germany) as should information on state of art techniques for reducing air emissions.

Integration of climate change adaptation into regulatory practice – ICCARP

10_ICCARP Workshop.pdf

There were several examples in different countries where extreme weather or climate has had an effect on sites and industries including reduced water flow, heavy rain and floods and high temperatures that caused odour problems.

Contact with colleagues working on climate change adaptation is happening in some regulatory authorities and environmental permits are starting to take account of climate change impacts. This could be supported by anticipating what is going to happen in the future and specific conditions could be written in the permit to prevent certain situations. There are practical ways in which this change can be made such as the Portuguese dynamic wastewater discharge permits and specific conditions on the IED permit. Operators

need more awareness on climate change so that they take it into consideration and start engaging in making adaptations to the installations that will save them money in the future.

There is general agreement that Climate Change now or in the future needs to be addressed in permits. It will be a challenge to bring experts from different competent authorities to work together and there is still no holistic driver regarding ICCARP. Some feel that the IED permit can be used to write specific conditions regarding climate change adaptation: others think that this might be a SEVESO matter. There is also a view that there might be a horizontal BRef on Climate Change Adaptation for IED regulators and operators.

Possible actions for the future included a meeting with the Commission (JRC) to talk about a horizontal BRef and a discussion with a desk officer (IED Directive). Guidance could be drafted on good practice on ICCARP across the MS. There might be a more structured project plan that IMPEL could work on in the foreseeable future.

BAT in industrial wastewater

11_BAT_in_Industrial
_Wastewater_worksh

One question was whether the guidance might have elements focussed on mass concentration and the efficiency of the removal of contaminants. BAT limits are an average value and some national legislation sets instantaneous limits which is an issue of overlap. Existing studies could provide useful information and there was a need to avoid overlap so information would need to be gathered. Odours were an important issue and there was a need to consider how they might be included.

Wastewater discharges into sea as a result of severe weather and flooding of Wastewater treatment plants (WWTP) were an issue, linked to the question of climate change. There might be scope for WWTPs to do more for the circular economy, for example through the re-use of water and sludge. There was a need to be practical about training and to see what can be done next year at the EU level. Trainers should prepare programme for discussion such as case studies given that the trainer won't necessarily have more knowledge than those being trained.

The conclusions were that contaminants should ideally be removed at source rather than at the point of discharge but it was necessary to identify those that are hazardous or that accumulate. Odours are perceived as one of the biggest problems. Severe weather should not have a chapter of its own but the measures an operator could put in place to tackle it should be included in a box. Where possible, additional questionnaires would be avoided. There is a need to prepare training programme and identify topics and commitment for next year which will depend on number of trainers available in group.

The actions would be to gather information from existing studies to avoid overlap/duplication and to draw up a template for self-monitoring plan and other tools, looking at current examples. Odours should be included through analysis of sources and technical solutions (measurements and how to monitor installation). Examples of measures put in place to cope with severe weather would be collected together with examples of prescriptions in permits. Pollutants that are critical and non-critical would be identified since some need not be pre-treated.

Work would be done with ICCARP to Identify which type of installations more at risk from severe weather. There would be guidance to include examples of re-use of water and recovery of sludge, including destination. The 'Delta' principle could be relevant and that would be examined. Next year there would

be a joint site visit (with the second meeting next year) and a theoretical desk lesson for training purposes to be held next year. Members of subgroup were asked to use the checklist in home inspections and give feedback to contribute towards updating and streamlining it. At the next meeting subgroup members would be asked to present interesting problems they have which would be useful for a training session.

Baseline report: monitoring of soil and groundwater

12_baseline report_soil_groundwa

There were questions about when it was necessary to prescribe monitoring conditions of groundwater and soil during the operations and what determined the frequency of periodic monitoring? Where there was a substantial change, was it possible to require monitoring for substances not connected to the substantial change of the installation? Was there a minimum frequency in the IED for monitoring soil and groundwater and how does this work in practice?

EU legislation says that monitoring is not necessary in a case where a baseline report is not necessary or if the baseline report concludes that there is no possibility of contamination of soil and groundwater. The frequency of monitoring depends mostly on the measures taken to protect the soil and groundwater and the maintenance and internal inspections. The criteria related to soil and groundwater play a less important role in defining the frequency. The frequency can be determined by a risk assessment. The criteria to define the frequency of monitoring will be slightly different (more detailed) than the criteria if a baseline report is necessary.

Article 16 is a direction to the permit writer to define the frequency of monitoring of groundwater and soil (and not to the operator). It describes that the frequency can only be less than 5 years in a case where this is based on a risk assessment. Legal opinions differ on whether it is possible to require conditions in a "change of installation" permit on the monitoring for the substances that are not part of that substantial change. It is only relevant for pre-IED installations (installations that have a permit issued before 2010).

Aspects of BAT application

13_BAT_Application_ Workshop.pdf

In Sweden the BAT conclusions are transposed into national legislation which become general binding rules. BAT and General Binding rules complement one other and they always fulfil the 4 years deadline to comply. For Portugal, the AELs in BAT conclusions are mandatory and come first in the hierarchy level: national legislation applies to everything else that isn't covered in the BAT conclusions.

Malta pointed out that a possible issue can be that work is duplicated by having to verify two different pieces of legislation. Iceland added that there may be complications when there are different documents (legislation) the operators have to verify / comply with.

Most usually apply the upper limits of the BAT-AEL range, unless because of environmental protection standards the lower range is applied or even stricter ELV's are applied. The normal practice is to set an ELV based on a set of criteria (e.g. type of installation, environmental protection, installation performance, etc.).

The agreed changes would be made in the Factsheet about GBR and it would then be uploaded to Basecamp. More work needs to be done in this sub-group. Jaakko would aim to set up a video conference soon to continue the discussion.

Joint Inspections

14_Joint Inspections_Worksho

The purpose of this group was to propose a programme for 2020 taking into account the possibility of combining joint inspections with IED meetings and look at how joint inspections might fit into the BREF cycle. It might also be useful to consider combining IED and Seveso inspections.

The dissemination of learning points from Joint Inspections to the wider community is an important part of training and capacity-building. The secretariat can provide support on preparing and organising Joint Inspections to take pressure off the host organisation. Joint Inspections are a learning process in which the visitors are observers and the team prepares a presentation on lessons learned.

The assessment of specific tools such as 'check lists' is an important part of Joint Inspections. Feedback from inspectors to policy makers is an important part of BREF cycle. This should be described in a Fact Sheet as a key part of the DTRT guidance on Evaluation and Feedback.

Check lists for old and new BAT could be integrated into cycle for introducing and implementing new BRefs. Inspection arrangements for IED and Seveso installations vary between countries. Responsibilities are separated between different regulators in some countries. That is why a joint inspection on Seveso together with IED would be complicated to organise and will not be put high on the wish list.

There is already a good list of ideas for topics for future Joint Inspections from the 2018 questionnaire to feed into the future programme.

Future work identified included assessing the role of inspection in evaluation and feedback of BREF cycle through a pilot exercise (with waste or Waste Incineration being the suggested sectors). Topics for future Joint Inspections should be published on Basecamp and countries should be asked to come forward with proposals for hosting. The programme for 2020 should be prepared and agreed from the proposals.

Odours from farming and industry

6_Odours.pdf

It was agreed in the discussion that a questionnaire would be needed covering Regulation (Deniss), Permits (Ivo), BAT conclusions (Romano), Inspection (Vlado), Methodology (Elisabete) and Complaints Management (Fabio). It would be helpful to know about the odour target and emission limit values applied in member countries and to identify good practice. There would be a need to identify relevant sectors (such as

refineries, wastewater, food production etc.) and the sources of odour. The involvement of the public was important as was communication between them and the operator. There would need to be a definition of odour and information on how to monitor it.

Given that the responses to the questionnaire would identify information on specific issues, it was agreed that the sub-group would focus on more general matters. Odour prevention measures are included in different sectoral BAT Conclusions but are not regulated specifically. There are different methodologies for the calculation of odours in different member countries. The sub-group will focus on IED installations though others can be included.

Other members would be invited to join the sub-group.

Presentation of Joint Inspection at a Ferroalloy factory

15_inspection ferroalloys.pdf

The Joint Inspection was at the FerroAtlantica plant in Dumbría. Those taking part were Ruth (Malta), Nadia (Italy), Malgorzata (Poland), Maria Jesús (Spain – La Rioja) and from Spain – Galicia were Fátima, Milagros and Paula. They had read the permit translation prepared by Manuel, some information from inspectors in Galicia and BAT Conclusion of Non-Ferrous Metal Installations (NFM).

The plant at Dumbría is 75km from Santiago de Compostela and began operating in 1975. FerroAtlantica has another ferroalloy plant 10km from Dumbría in Cee which started its activities in 1904. The first Integrated Environmental Permit (IEP) according to IPPC Directive (1st update in 2013) was given in 2008. In 2016 there was the publication of the Commission Implementing Decision (EU) 2016/1032 of 13 June 2016 setting out the best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for the non-ferrous metals industries. In 2019 adaptation of the IEP to the BAT Conclusions (by June 2020) is in process.

Ferroalloys are master alloys containing iron and one or more non-ferrous metals (Si, Mn). They are used, for example, in the steel melt production. Their main benefits are an improvement in steel tensile strength, regular strength and resistance to wear and tear corrosion. In Dumbría they produce Ferrosilica (FeSi) and microSilica (mSi): during production there is a sub-product that is used in another ferroalloy plant which produces FeMn (less pure FeSi part). MicroSilica is produced from the abatement system – the baghouse filter collecting emissions from furnaces.

MicroSilica is also called silicafume and is mostly composed of SiO_2. It is used as Goo for production of building industry and provides greater mechanical resistance, anti-abrasion and is good against chemical attacks. It also provides high impermeability and is used in marine applications and gives greater durability and better protection of the armour. It reduces the weight and size of prefabricated parts.

In terms of the BAT Conclusions the finished product plant has baghouse filters for dust collection and abatement and there is reuse of all recycled material from baghouse filters on Ferroalloys Furnaces. There is a closed circuit for cooling water and there is rainwater collection and treatment plant (no process water discharge) together with re-use of treated water in the cooling system (on implementation). There is a continuous air quality monitoring station located in Dumbría village and continuous training for all employees.

The advantages of the plant are the strategic situation for Export and Imports by sea so that raw materials can be supplied with low logistic impact (environmental and costs). Raw materials sources are close to the plant except for coals. There is covered raw material storage and covered conveyors to transport raw materials to the furnace.

The plant is well located in that there it has no visual impact. In case of accidents, it is far away from main residential areas and so does not cause hazard to residents. The facility appeared to be clean and well organised. Waste Storage area is roofed, fenced in and locked liquid products had bunding and is well segregated and labelled. Two air monitoring stations located close to a nearby villages of Cee and Dumbría to monitor Particulate Matter. Air monitoring stations provide real time data of air quality transmitted monthly.

There is an issue related to BAT, namely the air emission monitoring which should be continuous. In this case it is measured in mass balance though the new BAT refers to concentrations. The operator stated that a way forward needs to be found with Environment Authority.

A suggestion from the group was that automated shutters might be introduced to better close off the storage warehouse so that there is less wind and less dust transportation.

Presentation of Joint Inspection at Sow Farm

16_Joint_Visit_Sow_Farm.pdf

The objectives were to have a visit on site in order to see how BAT on Intensive Rearing of Pigs was being applied and to share good practices. Those taking part were Manuel Salgado (Spain - Galicia), António Quintas (Portugal), António Leitão (Portugal), Gabriele Wechsung (Germany), Christophe Bervoets (Belgium), Gottskalk Fridgeirsson (Iceland) and Paula Chantada Adán (Spain - Galicia). In addition, there were four employees from NUDESA.

The NUDESA sow farm was established in 2003 with 700 sows. It became a new IED Installation in 2012 when it had 1000 sows. There is a workforce of five people and there are thirty births a week: it takes nine weeks to go from birth to weaners of 20kg. There is a slatted floor and also partially slatted floors and there was forced ventilation to control temperature, humidity and CO_2.

There is about 6120 $m^3$of slurry a year and the slurry stays in the pits for one whole cycle after which it is moved to storage out site. The dimensions of the slurry storage are 30x10x3 m with a roof on and a natural crust.

Nutrition management (BAT 24) and feeding (BAT 3) looked good. There was efficient use of water (BAT 5) thanks to the high-pressure water system and drinking systems (drink nipples and round). Efficient use of energy (BAT 8) was the use of natural lighting and low energy lights, thermal beds, ceiling isolation and automatic adjustment of ventilation. Manure storage (BAT 16) was good and for Odour (BAT 13) the distances were adequate regarding the location in that they were 1 km from other pig farms and 0.5 km from other houses. The requirement to control ammonia emissions (BAT 30) was met by good nutrition management and keeping clean water in the stable. For land spreading (BAT 21) there was a pre-approved plan for application of manure (mass balances) and records of delivery of manure.

The group was impressed by nutrition management, heating system energy efficiency and new projects (R&D). There are opportunities for development in the follow up on the spreading of manure, the closure of all storage of manure to keep NH_3 inside and there should be an increase in the frequency of manure removal.

Outlook for future projects

Horst said that next year the project would continue with subgroups and up to six joint inspections. The new project could only begin on 1 April 2020 so the current project would run until the end of March. It should however be possible to start before April on Joint Inspections and/or the ICCARP meeting.

As from 2021 there will be new regulations for dealing with projects.

Appendix 1: MEETING AGENDA

IMPEL: INDUSTRY & AIR Working Group

SANTIAGO DE COMPOSTELA 21-25 OCTOBER 2019

WEEK PROGRAM

DAY	SUBJECT	EXPLANATION	Attendants
21/10	IRPP BATs Subgroup 7p	Pig farm Joint inspection	Antonio Quintas, Antonio Leitao, Portugal, Christophe Bervoets, Flanders, Gottskalk Fridgeirsson, Iceland, Gabriele Wechsung, Germany; Paula Chantada, Manuel Salgado, Spain
22/10	IRPP BATs Subgroup discussion on IRPP BATs implementation. 24 people	Antonio Quintas & Antonio Leitao & Elisabete Vieira & Maria Isabel Correia (Portugal), Christophe Bervoets & Ilse De Vreese (Belgium-F), Jos Spruit (Holland), Ionel Preda (Romania), Gabriele Wechsung & Wulf Böckenhaupt (Germany), Cyril Burda & Martin Jursa &Kristína Kapriová (Slovakia), Nives Stele & Karin Malc (Slovenia), Jean-Charles Botella & Vincent Nicolazo De Barmon (France), Gottskalk Fridgeirsson & Rakel Kristjansdottir (Iceland), Thomas Baumhackl (Austria), Elisabete Dias Ramos (IMPEL), Albert Avellaneda & Braulio Belmonte & Beatriz Rodríguez Méndez & Manuel Salgado (Spain)	
22/10	Joint Inspections Subgroup 6p	Ferroalloy Joint inspection	Malgorzata Budzynska, Poland; Ruth Ciarlo, Malta Nadia Fibbiani, Italy; María Jesús Mallada, Paula Chantada, Milagros Pereira, Spain
23/10	IMPEL-AIR Workshop 38 people	IED Implementation: Project Group Meeting 1st day	Cyril Burda;, Kristína Kapriová, Martin Jursa, Maria Isabel Correia, Ionel Victor Preda, Wulf Böckenhaupt, Elisabete Dias Ramos, Jos Spruit, Nadia Fibbiani, Malgorzata Budzynska, Maria_Jesus Mallada, Ruth Ciarlo, Büther, Horst, Barbora Herberková, Bruno Yango, Deniss Pavlovs, Dubravka Pajkin Tučkar, Fabio Colonna, Florin Homorean, Halla Einarsdóttir, Hartmut Teutsch, Horst Buether, Jaakko Vesivalo, Marinus Jordaan, Martine Blondeel, Rob Kramers, Sean Pruce, Silva Prihodko, Simon Farrugia, Terry Shears, Vladimir Kaiser, John Seager, Manuel Salgado Blanco, António Leitão, Antonio Quintas, Elisabete Dias Ramos, Elisabete Vieira, Katia Juarez, José Francisco Alonso Picón
24/10	IMPEL-AIR Workshop	IED Implementation: Project Group Meeting 2nd day	
25/10	IMPEL-AIR Experts 32 people	Industry and Air Expert Team meeting	

ACTIVITY AGENDA

Monday 21/10 Pig farm Joint inspection

Objective: IRPP BATs implementation issues and verification

Place: Sow farm. 1 hour by car from Santiago

Schedule: 9:00 to 17:00

Logistics:

Clothes and insulating sheath will be provided by the installation.

Attendants will be picked at hotel by Galician inspectors and driven to the installation.

Attendants: 5 guest inspectors + 2 Galician inspectors

Documents to look in advance:

- IRPP BATs (possible to print bilingual)
- Installation Permit of a Galician Sow farm
- Short IRPP BATs checklist

Agenda:

9:00 pick-up at hotel
10:30 welcome coffee and presentation at the installation
11:00- 14:00 Site visit to the installation. Focus on implementation issues of BATs
14:00-15:00 Lunch
17:00 Back to hotel

Outputs: short presentation of lessons learned to present on IMPEL Industry and Air workshop

Tuesday 22/10 Ferroalloy Joint inspection

Objective: NFM BATs implementation issues and verification

Place: Ferroalloy installation, 1 hour by car

Schedule: 9:00 to 17:00

Logistics:

Security boots will be provided by the factory. We need to know in advance your ID number and Shoes number

Attendants will be picked at hotel by Galician inspectors and driven to the installation.

Attendants: 4 guest inspectors + 2 Galician inspectors

Documents to look in advance:

- NFM BATs (possible to print bilingual)
- Installation Permit of the Galician FerroAlloys installation
- Non Ferrous Metals BATs draft Checklist EN

Agenda:

9:00 pick-up at hotel
10:30 welcome coffee and presentation at the installation
11:00- 14:00 Site visit to the installation. Focus on implementation issues of BATs
14:00-15:00 Lunch
17:00 Back to hotel

Outputs: short presentation of lessons learned to present on IMPEL Industry and Air workshop

Tuesday 22/10 Workshop on farm´s BATs (IRPP)

Objective: IRPP BATs implementation issues and verification

Place: Galician Civil Service School (EGAP) Rúa de Madrid, 2, Santiago de Compostela

Schedule: 9:30 to 17:30

Logistics:

Coffe break and lunch at the venue is included on IMPEL´s budget.

Easy 28m (2.2km) walk from hotels (Gelmirez and Universal), also buses

Attendants: 24 people:

Documents to look in advance:

- IRPP BATs (possible to print bilingual)

-- Questionnaire analysis and summarized excell sheet

-- There is also a library of national documents of interest and related projects

Work methodology:

Introduction: questionnaire analysis and explanation of work dynamic.

Discussion will be focused **only on pig farms and on these 4 main topics**:

5. EMS (environmental management system BAT 2, BAT 5, BAT9, BAT12, BAT24, BAT 25 and BAT 29
6. Slurry and manure storage. BATs: 14, 15, 16, 17, 18, 19
7. Slurry and manure application as fertilizer. BATs: 20, 21, 22
8. Odours and NH3 emissions. BATs: 3, 12, 13, 26, 28, 30

3 discussion coordinators will lead each of the discussion topics.

People will be divided into 3 discussion groups.

The 3 discussion groups will work simultaneously.

3 working sessions of 1,5 h so everybody will discuss each topic.

Agenda:

TIME	CONTENT
9:30 10:30	PLENARY GROUP PRESENTATION: 4. Participants self-introduction 5. Presentation on the questionnaire analysis 6. Explanation of the work dynamics to follow
	Coffee break
11:00 12:30	3 working groups of 7-8 people discussing simultaneously, each on different topic
12:30 14:00	3 working groups of 7-8 people discussing simultaneously, each on different topic
	Lunch
15:00 16:30	3 working groups of 7-8 people discussing simultaneously, each on different topic

16:30 17:00	SHARING ANALYSIS: Presentation of issues and ongoing BATs implementation.

Outputs: Summary presentation on main issues and ongoing BATs discussed during the workshop. To present on IMPEL Industry and Air workshop

Wednesday 23/10 + Thursday 24/10 IMPEL-AIR Workshop

Place: Galician Civil Service School (EGAP) Rúa de Madrid, 2, 15707 Santiago de Compostela

Schedule: 9:30 to 13:30 and 14:30 to 17:30

Logistics:

Coffe breaks (morning and afternoon) and lunch at the venue is included on IMPEL´s budget.

Easy 28m (2.2km) walk from hotels (Gelmirez and Universal), also buses

Attendants: 38 people:

Agenda: (tentative until agreement in Finland meeting)

Welcome by the Galician Competent Authority and the Spanish National Coordinator

Tour de Table: what's new

Work program and results of the sub-groups:

- Intensive rearing of poultry or pigs – IRPP (Manuel)
- Integration of climate change adaptation into regulatory practice – ICCARP (Kay)
- Joint inspections (Marinus)
- BAT in industrial wastewater (Romano)
- Horizontal aspects of permitting (Simon)
- Aspects of BAT application (Jaakko)
- Baseline report, monitoring of soil and groundwater (Horst)
- Development of online guidance and training material (Martine)
- Odours coming from farming and industry (Deniss)
- BAT in cement industry (Terry)
- IED and circular economy (Romano)
- BAT in waste incineration (Horst)
- Status of the IED regulatory cycle on the IMPEL homepage (Horst)

Identification of good / best practice, fact sheets (all)

Friday 25/10 IMPEL-AIR Experts

Place: Galician Civil Service School (EGAP) Rúa de Madrid, 2, 15707 Santiago de Compostela

Schedule: 9:30 to 14:30

Logistics:

Coffe break and lunch at the venue is included on IMPEL´s budget.

Easy 28m (2.2km) walk from hotels (Gelmirez and Universal), also buses

Attendants: 32 people:

Agenda: (tentative until agreement in Finland meeting)

IED project organisation (Horst)
- Budget
- Project communication
- Project abstracts

Results from different meetings
- Last Board meeting
- Workshop of the Nordic Baltic Competent Authorities on the EU Timber Regulation, Tallinn, Estonia, 17 - 19 June 2019
- IRAM in nature protection project meeting, Celje, Slovenia, 24 – 26 September 2019

Industry and Air meeting in Santiago
- Specific grant agreements
- Focus on Compliance Assurance (e.g. trainings and peer reviews)
- ToRs for 2020 and beyond
- Management of IMPEL and the Expert Team (rotation)

Any other business

Appendix 2: List of participants

Manuel Salgado Blanco	Xunta de Galicia, Spain
António Leitão	IGAMAOT, Portugal
António Quintas	IGAMAOT, Portugal
Cyril Burda	Environmental Inspectorate (SEI), Slovakia
Martin Jursa	Environmental Inspectorate (SEI), Slovakia
Maria Isabel Correia	Agência Portuguesa do Ambiente (APA), Portugal
Wulf Böckenhaupt	Cologne Government Regional Office, Germany
Ionel Victor Preda	National Environmental Guard, Romania
Elisabete Vieira	Inspeção Regional do Ambiente, Azores Head of Division, Portugal
Elisabete Dias Ramos	IMPEL
Izabela Tyrka Pettersson	EPA, Sweden
Nadia Fibbiani	ARPA Lombardia, Italy
Ruth Ciarlo	Environment and Resources Authority, Malta
Malgorzata Budzynska	Chief Inspectorate of Environmental Protection, Poland
Maria_Jesus Mallada	General Management of Environmental Quality, Spain
Martine Blondeel	Flanders, Belgium
Barbora Herberková	Czech Republic
Dubravka Pajkin Tučkar	State Inspectorate, Croatia
Silva Prhodko	Environmental Inspectorate, Estonia
Jaakko Vesivalo	Regional State Administrative Agency for Southern Finland, Finland
Bruno Yango	Ministry for the Ecological and Solidary Transition
Hartmut Teutsch	Germany
Horst Büther	Germany
Marinus Jordaan	The Netherlands
Rob Kramers	The Netherlands
Halla Einarsdóttir	Environment Agency, Iceland
Florin Constantin Homorean	National Environmental Guard, Romania
Terry Shears	IMPEL

Fabio Colonna	Italy
Romano Ruggeri	Italy
Deniss Pavlovs	Latvia
Ivo Lems	Latvia
Simon Farrugia	Malta
Aleksander Blagojevic	Ministry of Environmental Protection, Serbia
Vladimir Kaiser	Slovenia
Kaita Juárez Carreño	Ministry for the Ecological Transition
Simon Bingham	UK (Scotland)
Sean Pruce	UK (England)
John Seager	IMPEL
Thomas Baumhackl	Austria
Gonzalo Perales	Xunta de Galicia, Spain
Gabriele Wechsung	Germany
Braulio Belmonte Mariu	Murcia, Spain

Annex V

Note of IRPP telco 2020-01-22

Minutes of the teleconference
Preparing the continuation of the IRPP- BATs project

Please fill it and send it to manuel.salgado.blanco@xunta.es
If not, I´ll try to phone you for the answers!

When: Wednesday 22nd of January, 2020 from 13:00 to 14:35
Participants:
Jos Spruit; Antonio Quintas; Wulf Boeckenhaupt; Christophe Bervoets; Vincent Barnon ; Antonio Leitao ; Manuel Salgado
(A summary of the conversation is shown in coloured letters on the text used to focus on the topics to discuss.)

About the conclusions of the *IRPP Workshop in Santiago de Compostela*

Do you agree/have some input to wish to share? Please, share your opinion

Jos: 6000 farms in The Netherlands. Interested in sharing info on techniques and organizing a joint inspection on farms

Antonio Quintas: concerned about avoiding procrastination of the project, suggest focussing on outputs. Suggest preparing a little more the presentation in this sense

Wulf: agrees with conclusions

Chrisptophe: N balance excretion: difficult topic and very discussible

Vincent: Calculation of emissions with excel sheet does not cause them any trouble. Ammonia emissions are also calculated depending on BATs applied. They are used to compare farms efficiency. Permit in France are simple: National coordination: general rule. He has a project to control this year 3 BAT-implemented farms. They are going to implement and check a specific checklist for inspection with them. Interested in sharing experiences until June.

About the new objectives for preparing the ToR for the continuation of this project?

Let´s focus on the **DESIRED OUTPUTS**:

1. Permits:
   a. Collecting + Sharing **permit templates**
   b. Minimum standardized Permit Template
2. Inspection:
   a. Collecting + Sharing specific inspection **checklist**
   b. Minimum standardized inspection **checklist**
3. Environmental Management System
   Proposing a **simplified EMS** for farms ?
4. Strategies for the implementation of BAT son IRPPs:
   a. Define the main environmental issues (NH_3, NO_3^-, P_2O_5, water, energy)
   b. Define the environmental KEY points:
      i. Sludge spreading in agriculture
      ii. Sludge storage in farms

iii. Air emissions + odours in farms
iv. Environmental Management System

c. Collecting + Sharing of implementation strategies
d. Selection of best BATs implementation practices
e. Summarized recommendations to better implement BATs on IRPPs

Jos: actually updating permits. BATs are under national regulation.
IED farms have to report to the National System, not regional authorities controlling. They are not working with EMS.
Suggest sharing organized information in a platform (Agreed using Basecamp)

Antonio:
some information about how different countries implement the BAT conclusions into the permits were already in the previous questionnaire
On the inspection side checking implementations is a bit of a challenge. He proposes to focus inspections witch/how to check upon BATs during inspections not considering other aspects.
About EMS implementation: a bit of Impossible Mission in the way it's written on the BAT conclusions
This is not an impossible mission. I sent a circular mail to the subgroup on 12.12.2019 with concrete suggestions for meaningful EMS. This can also be seen as a minimum standard. Unfortunately, I did not receive any feedback. EMS is important because it obliges the operator to take more responsibility for his work. (Wulf)
More practical view with the focus on manure storage, ammonium and odours:
Spreading manure is quite difficult to control because competences shared by different ministries.
Just competence as inspector on controlling pig and poultry farms
Suggest to speak with Horst about how to integrate the Santiago Conclusions into the Industry+Air Guidance Book
A good place for the conclusions could be the IMPEL IED-Guidance-Book. Here we could add our basic results in form of Fact Sheets (John Seager is the contact person). (Wulf)
Concentrate on BATs inspection. 2 kinds: applied for everyone (generally applied) and target on these. Others are applied on a case by case analysis: more difficult to inspect
Work on a checklist of the BAT conclusions that are to be generally applied (as defined by the BAT conclusions)

Wulf: Permits: in Germany the implementation of the IRPP BAT is delayed. The BATs only apply to new permits and they are rare. But this is legally controversial.
Checklist: a lot of working ongoing. I have a lot of experience with checklists and would work on it here with others in the subgroup. It would be good to determine soon who is doing the work.
Vincent is working actually on this
There is a published guideline on how to elaborate
What I wanted to say here is that John Seager is asking if any of our results should appear in the IED Guidance Book. We have to decide that.

Vincent: Permits are always similar
His main focus is now on inspection checklist focused on implementation of EMS because it includes all regulation (EU, national, regional.)
Sharing documents is easy, not so much elaborating standardized simplified documents

Christophe: agrees on Antonio on focusing on general applied BATs to get a common level field and being practical.

Considers not convenient to require different MTD compliance between IPPC and much bigger farms.

I´ve proposed this because in Spain the pig sector is quickly growing because of Chinese demand, and normally BATs requirements are soft. For Big Farms BATs requirement should be more strict (Manuel)

Underground storage and control of leakages: big issue to check

Measuring of air emissions and odours is also difficult

With regard to odour - also from IRPP farms - I am in contact with a proven expert - Dr. Ralf Both from the State Environmental Agency. He also wants to participate in the subgroup Odor, which is headed by our colleague Dennis Pavlovs. I don't mean to exaggerate when I say that he knows solutions for odour problems.

BATs with: “one or a combination of the following techniques.” are confusing for implementation. We should focus on the most important BATs to implement.

EMS is not so important because National legislation are already implemented and requires stricter conditions.

Find main environmental issues: add odour, NOx (increments when reducing NH3)

Defining KEY points: is OK, add rainwater control,

Please send me your feedback it to manuel.salgado.blanco@xunta.es

You can write on this same document with another colour, or work straight on it on GoogleDocs

Annex VI

Priorities for and IED Implementation Programme, 2021-2024

Priorities for an IED Implementation Programme 2021 – 2024

1. Introduction

This paper summarises priority areas to be considered in developing a programme for IMPEL's work on IED implementation to be carried out over the period 2021 to 2024.

The topic areas are derived from the following sources:

- Priorities arising from the survey of Challenges in Implementing EU Environmental Law, last carried out in 2017
- Priorities emerging from discussions with the European Commission
- Cross-cutting priorities for IMPEL, for example, training and capacity building
- Topics suggested by the IMPEL Air and Industry Regulation Expert Team
- Completion and implementation of the outputs from on-going work in the IED Implementation Project
- Open topics suggested by the IED Implementation Project Group.

Comments are requested, in particular, on:

- ***Are the priorities suggested for the future work programme the right ones?***
- ***Are there other high priority areas that have been missed?***
- ***Are there new implementation challenges that have recently emerged that should be addressed in the programme?***

2. Priority areas for the 2021-24 programme

Taking into account the various sources above, the following areas emerge as priorities for the 2021-24 programme. These link clearly with the Commission's Environmental Compliance Assurance Action Plan (ECAAP).

2.1 Air Quality

Poor air quality and failure to achieve ambient air quality standards continues to be a major problem in many Member States. Emissions from industry make a significant contribution to the loading of some pollutants into the environment, for example, NOx. This area of the programme would look at the sources and contribution of specific pollutants from industrial sectors and how the implementation of existing environmental legislation, such as the IED and Air Quality Directives could be improved to regulate and reduce air pollution, and to achieve relevant ambient air quality standards. This links with Actions 1 and 3 in the ECAAP.

2.2 Public nuisance problems arising from industry

Odours, noise and littering are frequently cited causes of complaints from communities living in the vicinity of industrial installations. These were key problems raised in the Implementation Challenge Survey. They are often contentious issues and the source of conflicts and complaints with local communities. They are often not amenable to regulation in the same way as other kinds of pollution. There is a lack of standards and criteria to support the regulation of these kinds of aesthetic pollution.

This area of the programme would look at the nature and impacts of public nuisance problems arising from different industry sectors. This would involve investigation of the sources of conflicts and complaints experienced by its member organisations and how different approaches are used to address and resolve them.

It would look at how these problems can be mitigated through a range of possible measures. This might involve looking at good practices in the use of local interest groups; the management of neighbourhood dialogues; the facilitation of public meetings; and the provision of local environmental information. This should build on the work IMPEL has previously carried out on the resolution of environmental conflicts by neighbourhood dialogue and the development of a toolkit to support organisations in this area of work.

Future work in this area should build on the questionnaire and analysis of industrial odour problems initiated through the IED Implementation Project. It links with ECAAP Actions 1 and 3.

2.3 Farming and Agriculture

The Implementation Challenge Survey clearly showed that the agriculture sector is consistently the greatest area of concern for environmental regulators. Key issues are the impacts of intensive animal rearing installations and reducing the inputs of fertilisers and other agrichemicals. Odours from pig and poultry farms were cited as a particular problem area.

IMPEL has recognised the significance of the agriculture sector in its work programme through several projects that have addressed the environmental impacts of farming, for example, on the regulation of intensive piggeries; reducing diffuse source pollution from nitrates and pesticides; and achieving better compliance in the agricultural sector through networking and partnership working of environmental and agricultural inspectorates.

Future work in this area would build on the outputs from the IED Implementation project on BAT conclusions for intensive pig and poultry rearing involving a questionnaire and the development of check lists for inspection. It links with actions 3 and 5 in the ECAAP.

2.4 Practical implementation of new and revised BRefs and BAT Conclusions

At present, there are 32 BRefs in place under the IED. They should be reviewed and, where necessary, updated every 8 years. The practical implementation of the BRefs and BAT Conclusions is a major challenge for regulators and this area of the programme would provide support by sharing information and experience, and by providing best practices and guidance.

The IED Implementation project has already worked on wastewater treatment and the cement sector. It is currently working on intensive rearing of pigs and poultry. This provides good experience for addressing other sectors. in the future programme.

The 2021-24 programme would include sectors where regulators are facing significant practical challenges. For example, many practitioners are currently encountering problems in the regulation of refineries. This sector would be a good starting point for the new programme. This links with Actions 1 and 3 in the ECAAP.

2.5 Further development and consolidation of the combined guidance on 'Doing the Right Things' (DTRT) and IED Implementation

Good progress has been made in developing the combined guidance in a flexible web-based format. The 'Fact Sheets' provide the basis for technical guidance. If the guidance is to continue to be relevant a mechanism needs to be put in place to continuously update and improve existing guidance and to add new guidance as work on new topics comes to fruition. A quality assurance mechanism for the guidance also needs to be considered. This links with Action 3 of the ECAAP.

2.6 Training

Professional training is a key priority of the ECAAP (Action 2). The European Commission has contracted consultants, Milieu, to look at professional training needs for environmental protection organisations. IMPEL

has also approved a major 3-year project to develop a multi-annual programme, including the setting up of a Knowledge and Innovation Centre.

Guidance and tools such as the DTRT guidance on permitting and inspections provide a good starting point for identifying training needs. A sub-group on Training and Capacity-building has been set up to identify specific training needs associated with the IED. Future work in specifying an on-going training programme should build on these initiatives.

2.7 Joint Inspections

The IED Implementation project has carried out a number of joint inspections at a range of different installations covering different sectors. The intention in the future work programme is to increase the number and coverage of joint inspections. This will require attention to be given to how best to manage a coherent programme of joint inspections; how to capture the lessons learned, for example, in the combined DTRT guidance; and how to disseminate the learning to the wider IMPEL community. This links with Action 2 of the ECAAP.

2.8 Topics that have been previously suggested by the IED Implementation Group and are still open

The IED Project has collected a range of topics where group members have expressed an interest, but so far no work has been carried out. These are:

- Inspector's input into the BREF-cycle
- Application of Emissions Ranges
- Concentrations versus mass emission limits
- Changes of permits – what is a significant change?
- Streamlining IED and EIA permits
- Integrated permits (one stop shop)
- Control of VOC installations under IED
- Non-routine inspections
- Public participation / complaints management
- Charging Regimes

2.9 On-going topics from IED Implementation Project that may continue into 2021 and beyond

The IED Implementation Project has a range of on-going initiatives that need to be brought to a conclusion. It is expected that most of this will be completed in 2019 or 2020. However, further work might be required in some areas where further development is needed. Current topics are:

- Joint Inspections

- BAT Conclusions for Intensive Rearing of Poultry or Pigs
- Integrating Climate Change Adaptation into Regulatory Practice – ICCARP
- Industrial wastewater
- Horizontal aspects of permitting
- BAT application
- Baseline report and groundwater contamination
- IED and the circular economy
- Odours

2.10 Other priorities emerging from the Implementation Challenge Survey

There are other topics that emerged from the Implementation Challenge Survey that have not so far been addressed by the IED Implementation Project. A lack of sufficient resources in regulatory organisations was a key conclusion of the Implementation Challenge Survey. This is an issue that cuts across all the Expert Team areas and is very relevant to the effective implementation of the IED. The programme could consider how it can help to facilitate more efficient and effective use of the limited resources in environmental authorities by sharing of experiences and practices and by developing appropriate tools and guidance.

Topics that could be looked at might cover: further development of risk-based approaches to environmental regulation for more effective targeting of effort; reducing and removing unnecessary bureaucracy and 'red tape'; moving away from resource-intensive paper-based systems and replacing them with more flexible electronic ones, taking advantage of opportunities for increasing use of automated approaches; improving organisation design and structure to maximize efficiency of resource use; deploying new technologies for monitoring and electronic data capture reporting and analysis; greater use of the internet and social media for communication and public engagement. This links with Actions 1, 3 and 8 in the ECAAP.

Annex VII

Factsheet: Horizontal aspects of permitting

Factsheet: Horizontal aspects of permitting

Preamble

Whilst it appears that within the IMPEL community, the uptake of General Binding Rules (Article 17 of the Industrial Emissions Directive) in regulating horizontal aspects is not that popular, such aspects are usually regulated through permit conditions which are most of the time, backed up by national or regional legal instruments. Below, is an overview of the most popular approaches and permit requirements adopted across Europe in addressing a selected number of horizontal aspects. Where relevant, the associated generic article in the IED which details with that specific horizontal aspect has been referred to in the sub-title.

A possible way of utilising the below findings would be to set up a database or list of permit conditions from which the permit writer can opt to include in the permit as relevant. Alternatively permits may contain a specific section with all such generic obligations. Such an approach may be incorporated in an information system so that the permit writing process if facilitated. Notwithstanding the above suggestion, any chosen system adopted with the intention to facilitate the permit writing process, should seriously consider the other stages of the permitting cycle in order to ensure that it suits permitting context of that specific competent authority and without prejudice to the various horizontal aspects already incorporated within the IED such as those in Articles 11 and 12.

Environmental Compliance & Inspections (Art. 23)

Whilst national legislation may stipulate the obligations of the operator for inspections, these provisions may be broader in scope than the environment. Such legislation may require operators to provide any necessary assistance to the inspectors when required to do so. It may thus be useful to set more specific obligations within permit conditions, particularly with regards to general adherence to BAT. Other permit conditions may relate to the permit documentation requirements including the obligation to produce the documentation when requested and to retain it for a specific period of time.

Contact Person

Each operator shall nominate someone within the organisation or with whom s/he has a contractual relationship to act as a reference point for the competent authority on matters regarding the permit. The operator should notify the authority of any change in such a person and provide his/her contact details as appropriate. Such requirement is usually specified as a permit condition, which may also be backed up by a relevant provision in legislation.

Process modifications/extensions (Art. 20)

Should the operator wish to modify or extent any of the permitted processes, s/he will usually be required to undertake a process specified in the legislation for environmental permitting. The permit itself would then specify the various stages and requirements. Such a process normally commences with the operator notifying the authority so that it assesses the significance of the proposed change.

The legal instrument usually describes which circumstances merit a notification or application to be submitted to the competent authority. These may include but not limited to changes to the activity's location, the permitted activity itself or the total production capacity of an installation. Legislation may also define the

circumstances of a substantial or significant change. The authority would then be required to make a decision on the proposed changes. Proposals for substantial changes usually lead to a detailed assessment by the competent authority, which may at times resemble a full permit application process, and some modification to the existing permit.

Consumption of raw materials, water and energy (Art. 11 (f), 12.1 (b))

In the cases where the operators have such obligations, there is usually a permit condition linking to the information submitted during the application process. The application would usually require a description of how such consumption is minimised and a comparison with BAT, as applicable. Conditions may be introduced in the permit to prescribe a consumption limit value or limit the consumption of certain materials or energy; however, they are mostly used simply to prescribe monitoring for the consumption of raw material, energy and water. A change in the use of raw materials will require a permit modification.

Maintenance of equipment (Art. 14.1 (e))

Generally, permits have some form of conditions requiring operators to implement and maintain a maintenance system for critical equipment in accordance with any relevant BAT conclusions. The operator would also be required to maintain records of such maintenance systems and procedures. Such procedures may be incorporated in the installation's environmental management system. They may prove useful in the case of environmental accidents, incidents and complaint investigation.

Noise and odour (Arts. 3(2, 4), 11(c))

Noise impact is usually assessed at permit application stage and if the Authority deems that noise may be an issue, it may prescribe appropriate permit conditions intended to minimise noise pollution such as a noise management plan, noise monitoring at sensitive receptors or emission limit values.

When the Authority suspects an odour problem, it carries out further investigation and audit according to published guidance documents. It may then set permit conditions (including a change in operational practices) intended to minimise odour through limit values or an odour management plan.

In case the installation is thought to be generating noise and offensive odour, the permit might require the operator to maintain records of the measures taken to prevent or reduce such pollution and any associated incidents which led to the generation of excessive noise or odour.

Staff safety and Competence

A training program for staff, which may be a part of the Environmental Management System, is usually required by the permit. Conditions are also included to require the implementation of the training program, maintenance of training records and to revise such a program regularly.

Prevention and Management of Accidents (Arts. 7, 11 (g))

Whilst national legislation may provide generic obligations in terms of emergency prevention and response, permit conditions usually require the implementation of an action plan in case of accidents. They may also prescribe specific practices for accident prevention and management. Such practices may be incorporated in the Environmental Management System, particularly when the latter is required by the BAT Conclusions. Other specific conditions such as the implementation and maintenance of a Prevention and Accident Management System (PAMS) may arise from requirements under the Control of Major Accidental Hazards Directive, other regulatory bodies involved in emergency response or in the case of high risk installations.

When the operator is obliged to maintain a PAMS, the system may include:

1. Site specific measures on how to prevent and manage an accident

2. Measures to prevent flood risk,
3. Notification system to the competent authority(ies)
4. Record keeping
5. Employee training.

Environmental Management System (EMS)

An EMS is considered to lower the risk of an installation and may be utilised to justify the favourable decision on permit application. EMSs are particularly effective if they are implemented out of the operator's free will, even though they are many times required by the BAT conclusions or recommended by the Authority. Relevant provisions in the permit would require the operator to abide with the relevant BAT conclusions including EMS.

When an EMS is proposed, this is required to be implemented from the first day of operations and the operator must submit a summary of the management system to the regulator for assessment as part of their permit application. It is also highly important that management review of the EMS and regularly monitoring of its implementation is carried out.

Although an EMS is not required to be accredited say to ISO 14001 or EMAS, such an accreditation is favourably considered by the Authorities through means such as recommendations, lower inspection frequency, and reduction in processing fees. The requirements of an EMS are usually established in the relevant BAT Conclusions unless they are prescribed for specific sectors (e.g. intensive rearing of poultry and pigs, secondary raw materials etc.) by the regulator.

Energy Efficiency (Arts. 11 (f), 12 (1b), 13 (2a))

The permit contains relevant terms to describe the energy used or produced by the installation and any planned measures for ensuring compliance with energy efficiency targets. Such information is obtained from the permit application process during which a comparison is made with relevant BAT conclusions. IPPC permits include measures for economical use of raw material and energy. The permit usually also requires the recording and reporting of energy consumption.

Site closure (Art. 22)

When the operator has the intention to close part or whole of the installation, s/he has to notify the Authority of such closure, apply for a partial or full permit surrender, and provide a decommissioning plan through a set procedure. The contents of such a plan is usually included in national guidance and is subject to approval of the competent authority. As required by the IED, the operator has to provide a site surrender report on the condition, relative to the baseline report, of the land on which the installation (or part installation) is located.

In line with the requirements set out in the IED, the permit would also specify that where the installation has caused significant pollution of soil or groundwater by relevant hazardous substances compared to the state established in the baseline report, the operator shall take the necessary measures to address that pollution so as to return the site to its original state. In the cases when the operator was not required to prepare a baseline report, the permit still requires the operator to take all measures to ensure that the installation has no further pollution potential

Although a restoration plan is usually required to be submitted as part of a decommissioning plan, its requirements are not always included in the permit, but the content is always subject to the regulator's approval. When a decommissioning plan is approved, the permit is either updated (in the case of a partial decommissioning) or surrendered and closed (in the case of complete closure).

The above requirements may also be included in legal provisions associated with site closure and decommissioning.

Reports (Art. 14.1 (d))

Although legislation may require regular reporting, the permits usually specify what types of reports are required, their contents and reporting frequency. For EPRTR installations reports are to be submitted to the authority, whereas for other installations reports may be submitted upon demand by the regulator. Reports are usually based on a flexible system and the regulator may provide a specific format or template through the permit, website or legislation. Information on water, energy consumption and waste transfer are normally reported, particularly for installations falling within scope of the EPRTR regime. The permit may also require reporting on environmental monitoring, raw materials, product quality and other information on compliance.

Communication

Permits usually specify that in the event of an incident or accident all necessary measures shall immediately be taken:

a) to prevent, or where that is not practicable to reduce, emissions from the permitted installation.

b) to limit the environmental consequences as a result of that incident; and

c) to prevent further possible incidents.

In the event of a breach of any condition of this permit the operator shall immediately take the measures necessary to ensure that compliance is restored in the shortest possible time.

Where a breach of any condition poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator shall suspend operation of the installation until it can be operated in compliance with this permit.

These instances are to be reported to the authority immediately or within a set short period of time. Annual reports on such incidents and breaches of permit conditions may also be required by legislation.

Annex VIII

Project Abstract – Joint Inspections

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(Double click on icon to see the full abstract)

Why joint inspections?

Inspection is an important part of environmental compliance assurance. Many of IMPEL's member organisations have responsibility for carrying out inspections to ensure that environmental permit conditions and standards are being met. Sharing knowledge and experience on inspections amongst organisations and countries is a key area of IMPEL's work.

Joint inspections provide a focus for practitioners to come together to share their expertise, to develop and test methodologies, such as inspection 'check lists', and to agree on best practices for the planning and execution of inspections. They make a valuable contribution to the professional development of those directly involved, and, by sharing the results more widely, to the building of capacity within IMPEL's member organisations.

European Union Network for the Implementation and Enforcement of Environmental Law

Joint inspections also play an important role in helping to achieve a level playing field in the environmental regulation of

industry across Europe.

What's involved in a joint inspection?

Joint inspections involve visiting specific sites and processes.

For each joint inspection, specific objectives are identified and agreed. These may include: the assessment of inspection methods and procedures; the instruments that are used; and the practical application of Best Available Techniques (BAT). Sites may also be chosen because there is a specific issue that needs to be addressed and problem-solving among a small group of inspectors could be helpful in resolving it. In some cases, it may be valuable to showcase situations where solutions, such as practical remediation techniques, can be demonstrated to a wider audience, in which case the visiting group of inspectors can be larger.

For each joint inspection the host country identifies the site and liaises with the site managers. The host inspector prepares the inspection together with two to three inspectors from different countries. They execute the inspection together and evaluate what has been learned directly afterwards. The outcomes of the joint inspection are summarised and then presented to a wider group of inspectors so that lessons learned and good practices can be shared more widely.

Progress and next steps

Procedures have been developed within IMPEL's Industrial Emission Directive (IED) implementation project drawing on the learning that has been gained through joint inspections in more than ten countries. Practical guidance is available as a Fact Sheet in IMPEL's combined guidance on 'Doing the Right Things'.

For future years, the intention is to broaden the scope of joint inspections and increase the overall number carried out each year. If your organisation is interested in hosting a joint inspection, please contact the working group leader, Marinus Jordaan: marinus.jordaan@dcmr.nl

European Union Network for the Implementation and Enforcement of Environmental Law

Annex IX

Report of the Workshop on the use of BAT-Conclusions in the Cement Production Industry, Eisenstadt, 4-5 October 2018

IMPEL-WS-Cement_Report.pdf

(Double click on the icon to see the report)

Annex X

Wastewater treatment plants: how to deal with inspections

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ter-treatment-plants-2

(Double click on icon to see the report)

Annex XI

Sub-Project Report: BAT Implementation on Intensive rearing of poultry or pigs

	Author(s): Manuel Salgado
Version:	Date: 01/04/2020

SUB-PROJECT REPORT

BATs Implementation on Intensive rearing of poultry or pigs – BATs IRPP-2019 --

1. SUMMARY
2. OBJECTIVE
3. ACTIVITIES & MILESTONES
4. ANALYSIS of BATs IMPLEMENTING ISSUES
5. CONCLUSIONS
6. DESIRED OUTPUTS FOR 2020 SUBGROUP ON IRPP BATs

ANNEXES:

A I. LIST OF PARTICIPANTS

1. SUMMARY

The Commission Implementing Decision (EU) 2017/302 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU, for the intensive rearing of poultry or pigs (IRPP), will enter into force by 15th February 2021.

Intensive rearing of poultry or pigs (IRPP) is described in Directive 2010/75/EU, in Annex 1 paragraph 6.6:

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

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

(c) with more than 750 places for sows

Taking into consideration the high number of IPPC installations in this sector and some cultural and technical complexities, it was considered advisable to prepare a strategy to promote throughout Europe a common level field in the IED implementation on Intensive rearing of poultry and pigs.

2. OBJECTIVE

The objective of this subproject was to **analyse the main issues** of BATs implementation in the intensive rearing of poultry and pigs.

A prioritization of activities **and** expected **tools to develop** during the current year was also another output of this project.

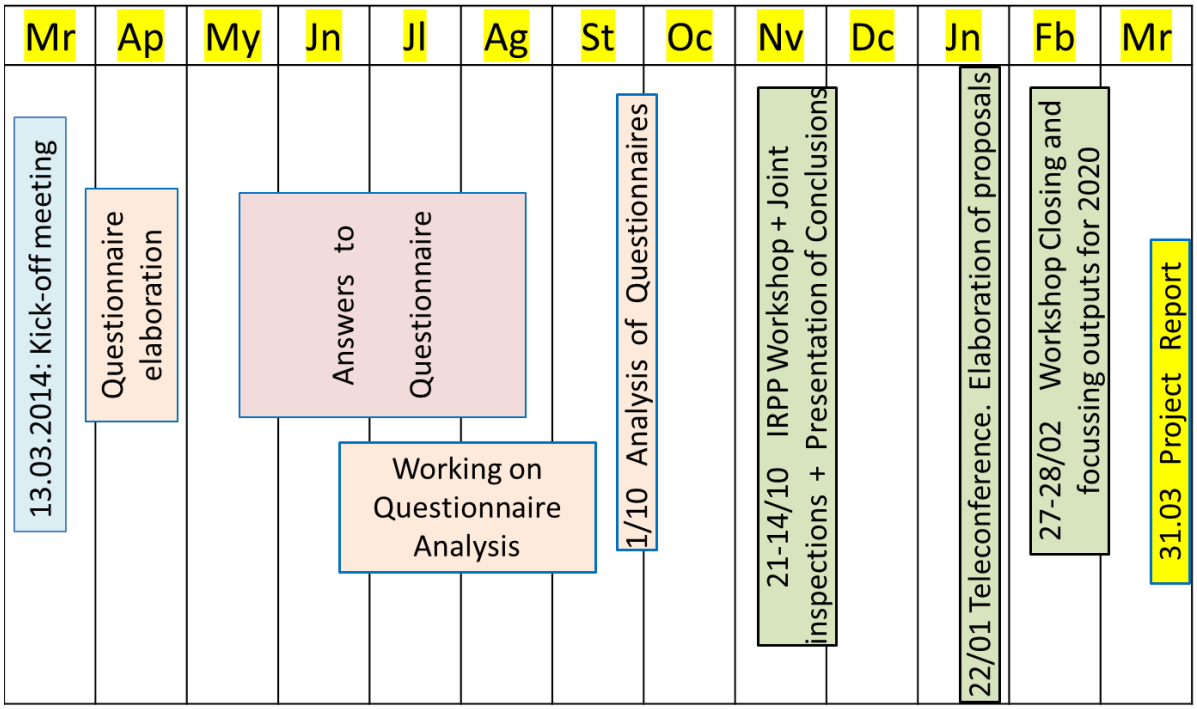
3. ACTIVITIES & MILESTONES

Almost 60 people (see annex I) from 23 European countries have participated in some of the different activities held.

This was the course of tasks performed:

- 13.03.2014: **Kick-Off Teleconference** promoted by Portuguese IGAMAOT and Spanish REDIA. 8 participants from 4 countries.
- 15/03 to 30/04 **Questionnaire** elaboration, on the main issues of BATs implementation in IRPP sector. (See annex II)

Activities and Milestones of IRPP-2019 Sub-Project



- 17/05 to 28/06 **Answers** to Questionnaire. 33 people from 18 European countries: Spain, Portugal, Denmark, The Netherlands, Germany (4 Lander), Italy, France, Austria,

Belgium, Finland, Slovenia, Slovakia, Luxembourg, Iceland, England, Croatia, Romania, Sweden). This important participation supposed a very good and fresh information on the state of the art.

- 05/06/2019. **IRPP Subgroup presentation** in IMPEL IED Working Group in Gdansk
- 30/09-01/10 Preparation of **analysis** of Questionnaires with Portuguese INGAMAOT
- 15/10 **Summary** of all questionnaires in Basecamp. All information was prepared in an excel chart, that is accessible in basecamp and Google Drive (see Annex III)
- 21/10/2019 Joint **Inspection**. Checking BAT´s compliance in a sow farm in Galicia, Spain. 6 inspectors attended.
- 22/10/2019 **Sub-group workshop** in Santiago de Compostela, brought together 33 experts from 11 EU member countries to discuss proposals for an effective checking of BAT compliance.
- 25/10/2019 Presentation of **workshop conclusions** in IMPEL project meeting in Santiago de Compostela (See Annex IV)
- 22/01/2020 **Teleconference**. Discussing conclusions of IRPP Workshop and elaboration of proposals for an effective checking of BAT compliance. 7 participants. (See Annex V: minutes of teleconference)
- 27-28/02/2020: sub-**working group** on IRPP BATs implementation. Closing of actual project and focussing outputs for 2020 IRPP sub-project. 6 participants, (See Annex VI: minutes of Segovia working group)
- 1/4/2020 Project **Report**

4. ANALYSIS of BATs IMPLEMENTING ISSUES

During the Santiago Workshop, all 33 experts were participating in 4 specific workshops in order to analyse BATs implementation in farms:

ANALYSIS OF BATs IMPLEMENTATION ISSUES AND PROPOSALS IN SANTIAGO MEETING

BATs Workshop	MAIN ISSUES	PROPOSALS
1 Environmental Management System (EMS) BAT1, BAT 2, BAT 5, BAT9, BAT12, BAT24, BAT 25 + BAT 29	Family farms vs. Industrial sector. Cultural problem in IRPP sector EMSs not in place in most countries.	▪ Amendment Exception? ▪ EMS/Log Derogations ▪ Book / ME Handbook? ▪ Involve integrator sector / subsidize EMS implementation? ▪ Different standards by size
2 Slurry and manure management and treatment BATs: 14, 15, 16, 17, 18, 19	- Slurry management is a key issue: - Storage leakage is problematic - Earth lagoons are very problematic - - covering of lagoons and tanks - Acidification of sludge is too costly and not in use. - Feasibility of “in situ” slurry and manure treatments	- Mandatory standardized quality or technology and leakage detections systems in new installations. - Treatment of slurry and manure compulsory in saturated areas and big-size farms.
3 Slurry and manure use as fertiliser BATs: 20, 21, 22	Landspreading of manure and slurry is one of the main sources of pollution of soils and water -Checking of Fertilizer Management Plans is problematic. -Difficult traceability from farms to land. -Requires coordination between agricultural and environmental authorities. -Assessment of N- excretion requires mass balance approach.	- Increase collaboration between public administrations. - Increase pressure on agricultural application. - Develop traceability systems for applying purines from the farm with GPS in the tanks with agricultural authorities. - Divulgation and environmental awareness
4 Odours and NH3 Emissions BATs: 23, 24, 25, 28 , 30, 31, 32, 33, 34 ammonia	-Nitrogen Directive -NEC Directive -N reduced feeding -Mass balance and approved feeding emission tables are the best feasible way -Ammonia reduction in storage, slurry treatment, and air cleaning techniques lists with Emission Factors desirable to include in the permit.	- Phase feeding supplied and justified by the integrators or feed industry. - Establish different requirements according to farm categories. - Emission reduction techniques and effectiveness verification of Emission Factors

BATs: 3, 12, 13, 26 Odour	-Odour management plans if nuisance occur.	- Minimum distances from sensitive receptors for new installations.

5. CONCLUSIONS

- Cultural issue: IRPP sector is a livestock breeding sector with traditional culture, but it is also a powerful industry with important NH3 emissions (precursor of NOx and PM 2,5 particles)

- BATs implementation on permits
  All participants reported that questionnaires have already been sent to farmers in order to obtain the necessary information to update their permits before February 2021, although some countries may need more time to implement BATs in permits.

- BAT 1: Environmental Management Systems are not implemented yet in the in farms.
  No participant reported working actually on this BAT.
  A simple logbook could be an interesting alternative and very helpful for later verification of BATs by inspectorate

- BATs on dust (11, 27), odours (12, 13, 26)
  These are important issues for some countries with a high density of livestock and population, where the installation of air scrubbers is already compulsory in their permits.

- BATs on ammonia (23, 25, 28, 30, 31, 32)
  Measurement of ammonia emissions is a concern and difficult to solve.
  Assessment of N- excretion is more convenient and enough with a standardized mass balance approach
  Emissions are mostly estimated based on national applications that link emissions to implemented BATs.

- BATs on manure and slurry storage (14, to 19, 24)
  Slurry management is a key problem area:
  - integrity of slurry stores (construction standards; drainage; guarantees)
  - covering of lagoons and tanks

- BATs on manure land spreading (20 -22)
  Checking of Fertilizer Management Plans is problematic: better tracking of supply/ demand is needed.
  A greater coordination between agricultural and environmental authorities is required, as supervision of fertilizer application on land is subjected to agricultural legislation and authorities.
  Contracts with manure managers and land farmers involve a transfer of responsibility.

6. DESIRED OUTPUTS FOR 2020 SUBGROUP ON IRPP BATs

Since it is time consuming to elaborate new templates for common use, it was considered more appropriate to share documents, existing ones or in elaboration, as a practical library of resources:

- Checklist for BAT´s inspection.

This is a common need that will be developed soon by each regional authority.
Sharing, existing or in elaboration, drafts may be of general interest
Elaborating a minimum common content checklist template may be a significant output.

- Environmental Management System:

As BAT #1 compulsory technique, it is necessary to facilitate farmers an easy and useful tool to comply with.
An easy-to-fill logbook will possibly satisfy this requirement. Cooperation with sector associations to elaborate a template is desirable.

- Permit template for BATs

Work on draft permits considering BATs are already advanced in all attendees' countries.
Still, sharing the draft documents may help administrations delayed in this task.
Also sharing 'check list' approach for assessing operator´s compliance with BATs

- BATs based tools for mass-balance emissions calculation

ELVs compliance is a must and adapted mass-balance emissions calculators are the best way to check it and report to EPER register.
As there could be many differences between regions, it was considered very convenient to share mass-balance calculators that link BATs implementation with emission levels.

- Other possible working items:
  - Involve integrator sector in EMS implementation
  - Develop slurry online 'tracking' systems and share with agricultural authorities
  - Link with European Commission on surveillance of land use in relation to agricultural subsidies
  - Considering establishing different requirements in permits according to size category

ANNEXES:

A1. LIST OF PARTICIPANTS

BaseCamp link:
https://impeleu.basecamphq.com/projects/14560238/file/256112148/2019IMPEL_AIR_Participants.xlsx
GoogleDocs link:
https://drive.google.com/open?id=1Ox_xKnDReWKQBZgsFD0dvN5_uH-44f85

A2. QUESTIONNAIRE,

BaseCamp link:
https://impeleu.basecamphq.com/projects/14560238/file/256112151/Questionnaire%20BAT_IRPP_%202019.docx
GoogleDocs link:
https://drive.google.com/open?id=1gWNEUOISUQN6-C0di5dsOg-XdjF0ba0C

A3. ANSWERS TO THE QUESTIONNAIRE,

BaseCamp link:
https://impeleu.basecamphq.com/projects/14560238/file/255270049/Analise11.xlsx
GoogleDocs link:
https://drive.google.com/open?id=1GKWXhhIR5HHcLPly1Qyrrjrq5SLQH1Hk

A4. SANTIAGO MEETING SYNTHESIS

BaseCamp link:
https://impeleu.basecamphq.com/projects/14560238/file/254605693/IRPP%20Syntesis%20SantiagoWorkshop20191022.pptx
GoogleDocs link:
https://drive.google.com/open?id=1AE8neFy69aDNm9GTA7aI9KiAiiD69Hh9

A5. MINUTES OF JANUARY TELECONFERENCE

BaseCamp link:
https://impeleu.basecamphq.com/projects/14560238/file/256112149/20200122Minutes%20ofTeleconference%20on%20IRPP_BATs.docx
GoogleDocs link:
https://drive.google.com/open?id=1ezXPBw2tBt9oArNBnvy3ZcYk3uTeUbCH

A6. MINUTES OF SEGOVIA WORKSHOP

BaseCamp link:
https://impeleu.basecamphq.com/projects/14560238/file/256112150/Minutes%20IRPP%20BATs%20working%20group%20MEETING27F.docx

GoogleDocs link:
https://drive.google.com/open?id=12umQiU1IUhpgo2m67VWTNHt8U6TA5jOL