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Institute for Prospective Technological Studies (IPTS)  
**Sustainable Production and Consumption Unit**  
**European IPPC Bureau**

Seville, 23 October 2009

**KICK-OFF MEETING**

**FOR THE REVIEW OF THE**

**REFERENCE DOCUMENT ON BEST AVAILABLE TECHNIQUES**

**FOR THE INTENSIVE REARING OF POULTRY AND PIGS**

**SEVILLE, 29 June-1 July 2009**

**MEETING REPORT**

**INTRODUCTION**

The Technical Working Group (TWG) on the review of the Best Available Techniques Reference Document on the Intensive Rearing of Poultry and Pigs (IRPP BREF) met for its first plenary meeting from 29 June to 1 July 2009 at the European IPPC Bureau (EIPPCB) of the Institute for Prospective Technological Studies (IPTS) of the Joint Research Centre (JRC) of the European Commission (EC). This record represents a summary of this first plenary meeting. Technical Working Groups are set up according to the work programme ratified by the Information Exchange Forum (IEF) to facilitate the exchange of information on best available techniques, associated monitoring and developments in them under Article 17.2 of Directive 2008/1/EC of the European Parliament and of the Council concerning Integrated Pollution Prevention and Control (IPPC).

The existing IRPP BREF (available on the European IPPC Bureau website at <http://eippcb.jrc.ec.europa.eu/>) was started in 1999, finalised in November 2002 and formally adopted by the European Commission in July 2003. The IRPP BREF serves as information and guidance for regulators within the procedure of issuing permits to livestock installations. The BREF is also used by other stakeholders such as the rearing farmers concerned in preparing applications for operating permits.

The task of this TWG is to carry out a detailed exchange of information (between Member States and Industry) on Best Available Techniques (BAT) and associated monitoring in order to review the BAT Reference Document on the Intensive Rearing of Poultry and Pigs, which will assist Member States in writing IPPC permits for installations.

The first plenary meeting, also called the kick-off meeting, officially started the aforementioned work.

This record does not strictly follow the chronological order of the meeting discussions but rather is structured according to issues that will help in the development of the review of the BREF.

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This document is available on the EIPPCB web site <http://eippcb.jrc.ec.europa.eu/>.

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## 1 INTRODUCTION TO THE MEETING

The meeting was chaired by the European Commission and was attended by 41 representatives from 17 Member States (all represented except Sweden, Slovenia, Luxembourg, Greece, Lithuania, Latvia, Estonia, Bulgaria, Cyprus and Malta), from non-EU countries (Norway), Industrial organisations (nine representatives of associations and individual companies), and European Commission services (DG Environment, or DG ENV).

Luis Delgado, acting head of the European IPPC Bureau, welcomed the TWG. He introduced the EIPPCB staff and subsequently allowed the participants at the meeting to introduce themselves.

The agenda of the meeting involved presentations and discussions on the exchange of information process, the definition of the scope of the work and the outline of the BREF. Those discussions were covered during the first two days of the meeting. The third day covered the information exchange tools as well as the conclusions of the meeting. In order to facilitate the meeting, a background paper highlighting the discussion topics was prepared by Paolo Montobbio from the EIPPCB and sent to the TWG members in advance.

The TWG agreed to restrict the discussion on the exchange of information to matters relevant to determining BAT and not to attempt to interpret the IPPC Directive.

The representative of DG ENV, Keir McAndrew, related to the TWG the most recent debate on the recast of the IPPC Directive, in the frame of the IED Directive (Industrial Emission Directive).

The Chairman Luis Delgado (LD) addressed the group on the BREF review and the exchange of information that underpins the work. BREFs are the published results of information exchange on BAT. They equip competent authorities, companies, the public, the Commission, etc. with information needed for their decision making. They are informative rather than prescriptive. They are a tool to drive and improve environmental performance. BREFs do not: interpret the Directive, define or alter legal obligations, suggest emission limit values, attempt to be exhaustive or contain detailed local considerations.

The review work will be conducted by Paolo Montobbio (PM) within the framework of the exchange of information and time scheduling that has been issued by the IEF body.

It was clarified that the aims of the kick-off meeting were:

- to get to know one another as members
- to discuss and to conclude on the proposal made by the Bureau regarding the wishes expressed by the TWG members
- to agree on the type and format of the data and information which are needed for the review
- to set a deadline for the provision of new information
- to agree on a forward plan for the BREF review in general.

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## 2 MEETING STRUCTURE

The meeting discussion was structured according to the content of the Background Paper, sent three weeks prior to the meeting to all members listed in the TWG at the date of mailing.

The discussion covered 40 subjects, the last one being the 'Data collection' topic. All other subjects were derived from the 458 wishes sent by the TWG, where "wish" in this context stands for idea or comment provided by the TWG to modify the current BREF. A subject was hence a collection of a number of wishes sharing more or less the same idea or field of application. The organisation of the subjects was made up of the main lines of interest, and in the Background Paper was as follows:

1. the BREF document in general
2. housing techniques and types of floors
3. techniques applied in the production process
4. systems and techniques for manure management
5. management of resources and energy consumption
6. available or emerging techniques not included in the original document
7. other issues
8. data collection.

Each subject was discussed in the same way. PM gave a short presentation summarising the idea behind the group of wishes, and sometimes the wishes themselves; then he provided the group with the proposal of the Bureau of the action to take in order to satisfy these wishes, comprehensive of what is needed from the TWG members. Then the TWG members had the opportunity to discuss each subject. The meeting ultimately reached conclusions on each discussion topic. Subsequently, members identified the information that they already knew they could collect to share with the whole TWG in order to review the IRPP BREF.

As previously reported, the last subject dealt with the collection and exchange of information and data to consider for the review process. It was made clear since the beginning that collecting accurate, reliable and well-structured data is not a wish, but rather a requirement of the TWG to support the development of the document, and hence a specific discussion on the topic was necessary.

This record reflects the structure the meeting had, without relaying it exactly. For each subject, a brief summary of the discussion is reported, if necessary. The conclusions reached during the meeting for each issue are also given, along with the information identified or promised by members to be delivered to the Bureau for the information exchange.

The presentations given during the meeting are not repeated here, therefore, reference should be made to the copies of the slides that were provided at the meeting.

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### 3 GENERAL CONCLUSIONS

The group initially decided to discuss the methodologies of data collection and economic considerations at a later stage of the meeting, along with the point 8 of the Background paper. Opinions were presented on how to express aggregated emission data. The opportunity to integrate the revision outcome with documents released under other regulations was also discussed.

It was agreed that all conclusions having a general character that were taken along the different topic discussions would be grouped together. Therefore, a number of conclusions agreed during the flow of the meeting are reported here:

- the BREF structure will be based on the IEF document 'BREF Outline and Guide' <http://eippcb.jrc.ec.europa.eu/ief/>
- the review process of the IRPP BREF will be carried out according to the categories and thresholds established by the existing IPPC Directive 2008/1
- the user-friendliness of the document will be improved.

Data and information gathering will be organised:

- on all aspects that were not covered in the existing BREF
- especially from countries not in the EU at the time of issue of the previous BREF
- only for techniques having environmental impacts (e.g. feeding management and good agricultural practices).

Data will be collected according to the IEF 20-4 Guidance document on improving the collection and submission of data for the review of the BREFs (<http://eippcb.jrc.ec.europa.eu/ief/>). The data gathering will also be carried out:

- on techniques currently being applied in installations under the IPPC scope
- reporting emission performances for each technique
- describing environmental benefits, cross-media effects, economics and applicability
- describing best-performing installations
- specifying local condition affecting the applicability of the techniques (driving force for implementation)
- reporting management details for techniques that are applied within systems.

Economic data will be provided in order to:

- describe costs for retrofitting existing installations with new techniques
- define the economic feasibility of techniques and to assess their affordability.

Regarding technique descriptions:

- generic considerations on climate and other local conditions will be given
- techniques that are applied in combined systems or needing operational complementary management (e.g. manure treatments, nutrition management) will be described with additional information on:
  - management needs
  - how to run controls and inspections for systems
- nitrogen excretion factors can be used for environmental descriptions and for the estimation of emissions

- 
- techniques that do not comply with animal welfare requirements cannot be selected as BAT. Achievable animal welfare advantages will be reported in the description of the techniques
  - benchmarking referring to data will be carried out from the ‘best performing installations’
  - developments in the sectors will be followed, describing emerging techniques
  - overlapping interests with other working groups will be identified and conclusions will be shared, keeping in mind the IPPC Directive objectives. For nitrogen-related issues, the documents from the Task Force on Reactive Nitrogen in the framework of the Gothenburg Protocol can be helpful
  - emission levels and economic data on the whole production cycle will be provided.

Throughout the debate it was made clear that it is important to collect data on greenhouse gas emissions, with the exception of CO<sub>2</sub> (carbon dioxide is out of the scope of the IRPP BREF). Agricultural activities are also considered non-impacting for CO<sub>2</sub> emissions. Conclusions regarding greenhouse gases were the following:

- data to quantify greenhouse gases emissions relevant to the IRPP will be collected
- cross-media effects for related techniques will be identified
- BAT-AEL will not be given for CO<sub>2</sub>
- greenhouse gases will be considered when assessing techniques for BAT conclusions.

*Information identified or promised to be delivered by the TWG:*

- data will be given by Austria, Belgium-Wallonia, The Netherlands, Denmark, Spain and France (for green-house gases and NH<sub>3</sub>).

A set of wishes pointed out that the previous BREF was somewhat lacking in information on non-chicken poultry categories and on poultry parental lines. It was concluded that every category of poultry intensively reared in installations covered by the IPPC directive, including parental lines and pullet rearing will be covered.

*Information identified or promised to be delivered by the TWG:*

- information from France (ITAVI) and the Netherlands has been confirmed
- Germany will also contribute referring to housing of ducks, turkeys and pullet.

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## **4 HOUSING TECHNIQUES AND TYPES OF FLOORS**

### **4.1 General**

The difficulty of measuring the housing environmental effects separately from the effects of other techniques, especially of nutrition management was observed. A discussion followed on the importance of knowing emissions from different types of housing, which are very numerous.

Regarding these subjects, there was not much discussion, because the need for collecting data for describing techniques was essentially expressed.

General conclusions were taken, especially regarding collecting data, and they are included in the 'General conclusions' section.

Additional conclusions were the following:

- the interactions of factors determining emissions will be studied
- the possibility of combining techniques (floors, manure collection and removal) in order to reduce the number of systems to describe will be considered.

*Information identified or promised to be delivered by the TWG:*

- on interactions between factors determining emissions, information will be provided by Germany, and methodology will be provided by the BAT Support Project
- information from Belgium-Wallonia, Denmark and Spain.

Especially for Poultry, it was concluded that a section will be created on furnished cages as it can serve as a reference in the near future,

### **4.2 Housing poultry**

#### **4.2.1 Techniques for the cage housing of laying hens**

*Information identified or promised to be delivered by the TWG:*

- Poland (on cages), France (ITAVI, INRA, and FEFANA), Spain, Germany and the Netherlands
- scientific literature (World's Poultry Science Association)
- possibly more information will be provided by Denmark on actual farms, and by Italy on a scientific project.

#### **4.2.2 Techniques for non-cage housing**

*Information identified or promised to be delivered by the TWG:*

- Italy has an experiment in progress that can eventually provided
- Austria can contribute data
- Germany will contribute on non-cage and floor housing.

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### **4.2.3 Littered systems for poultry**

*Information identified or promised to be delivered by the TWG:*

- experimental data from Italy and UK were confirmed.

### **4.2.4 Other techniques/aspects of housing**

*Information identified or promised to be delivered by the TWG:*

- from Poland on perforated flooring
- site-specific data from Italy and France (ITAVI).

## **4.3 Housing pigs**

### **4.3.1 Sows**

*Information identified or promised to be delivered by the TWG:*

- data will be provided by Spain, France (IFIP) and Germany.

### **4.3.2 Growing and fattening pigs**

*Information identified or promised to be delivered by the TWG:*

- information from: France (IFIP), Spain, Italy (experiments for slatted floors), Germany and Poland.

### **4.3.3 Littered systems for pigs**

*Information identified or promised to be delivered by the TWG:*

- data will be submitted by Poland, Germany and France (the IFIP and CORPEN)
- the Danish industry member will provide information about the reduction of available nitrogen.



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## 5 TECHNIQUES APPLIED IN THE PRODUCTION PROCESS

### 5.1 Good agricultural practices

Wishes were expressed regarding several topics that are commonly considered agricultural practices.

Among those, the handling of disease outbreaks, emergency and rescue planning, the use of shelterbelts of trees and the proper site selection and the treatment of site drainage were mentioned.

Agreed conclusions were the following:

- good agricultural practices associated with the intensive rearing of poultry and pigs will be identified
- the description level will be kept general.

*Information identified or promised to be delivered by the TWG:*

- data will be provided by: France (IFIP and CORPEN), the Netherlands and Finland.

### 5.2 Nutritional strategies

In general an update of the entire section was requested. An interest on expanding the information on phosphorus was raised from the discussion along with the effect of castration and the role of heavy metals.

For this topic the following conclusions were taken:

- the BREF will be updated and enhanced with more information on the environmental effects of diet and nutritional strategies
- emissions related to nutritional strategies will be investigated separately from other factors as much as possible
- the following issues will be explored in depth:
  - castration and protein efficiency
  - heavy metals
  - the real applicability of techniques
- relevant sections will be adapted according to legislation restrictions on meat and bone meal.

*Information identified or promised to be delivered by the TWG:*

- information has been confirmed from France (FEFANA), the Netherlands, Germany, Denmark, Spain, Ireland and France
- Finland will provide information on phosphorus excretion.

### 5.3 Feed Additives

A discussion developed about the need for dealing in the BREF with only additives having environmental effects, and on the need to establish methodologies to assess the effects of additives.

- 
- the focus will be kept on the environmental benefits, potential cross-media effects, economics and on-farm availability
  - A new section on benzoic acid may be added if enough information is provided and discussion within the TWG confirms the need.

*Information identified or promised to be delivered by the TWG:*

- information from the Belgian Federation of Feed Additives FRANA (possibly via FEFANA), FEFANA, ITAVI, INRA, Spain, Belgium, Czech Republic, Slovakia and Austria
- the Netherlands, Denmark and Germany will provide data.

## **5.4 Frequency of manure/slurry removal**

The discussion confirmed the importance of the topic, especially regarding odour creation, that is more important in pig rearing, and regarding the climatic differences that affect emissions.

It was concluded that:

- data on cross-media effects and economics aspects are particularly relevant
- within cross-media effects, focus will be given to ammonia, methane and odour
- data will report descriptions for odour sources and odour offensiveness.

*Information identified or promised to be delivered by the TWG:*

- information and data have been confirmed from Spain, France (IFIP), and UK (MAFF studies).

## **5.5 Techniques of ventilation**

During the discussion, it was agreed to assess ventilation techniques for more parameters than odour, especially ammonia and energy demand.

Conclusions on data to be collected were:

- environmental benefits, cross-media effects and economics will be described
- techniques for substances in addition to odour will be assessed.

*Information identified or promised to be delivered by the TWG:*

- data from France (ADEME, IFIP, CORPEN), Italy (CRPA) and Germany will be provided.

## **5.6 End-of-pipe techniques for the abatement of emissions**

From the discussion, a great variability on seasonal parameter variations, on sizing and technical use and also on misuses emerged. It was reported that air treatments are sometimes applied in a series, and thus a description of these systems is needed, as well as the principles for their control.

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It was decided that:

- multistage and multi-substance treatments will be included
- seasonal effects, if relevant, will be described.

*Information identified or promised to be delivered by the TWG:*

- Germany, Denmark, Italy and France (IFIP) will provide information.

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## **6 SYSTEMS AND TECHNIQUES FOR MANURE MANAGEMENT**

### **6.1 Techniques for the reduction of emissions from storage**

The TWG decided to aggregate conclusions on the subjects of manure storage structures and manure covers that were initially presented as separate items, as they refer to complementary structures. Specific detailed information was however requested for describing types of manufacture and types of covers.

It was agreed that:

- whether the storage is intended for solid or liquid manure will be specified
- emission data and reduction figures for each covering technique, along with applicability information will be provided
- a definition for the natural crust cover will be expressed.

*Information identified or promised to be delivered by the TWG:*

- Belgium-Wallonia, France (ADEME/CEMAGREF) and Spain on storages
- UK on poultry litter
- Germany on construction and leakage control.

Data on covers will be provided by:

- Spain and Italy (experimental results)
- ITAVI, IFIP and CEMAGREF from France
- Finland (equipment suppliers)
- UK (sheet covers).

### **6.2 On-farm manure processing**

#### **6.2.1 Manure composting**

The group essentially agreed with the proposal of the Bureau to enlarge the covering of techniques of manure composting as long as they concern matters and by-products derived from the most common activities related to a farm.

Descriptions of composting processes of manure will be kept in a general way.

Other conclusions were:

- the range of practices of on-farm composting will be enlarged, considering the use of by-products and matters produced on site
- focus will be placed on the composting procedures, end products and the loss of nitrogen from the mass.

*Information identified or promised to be delivered by the TWG:*

- data from France (ITAVI and CEMAGREF) will be provided
- European Compost Network (ECN) has been suggested as a source of information
- data from Czech Republic, UK and Spain.

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## 6.2.2 Anaerobic treatments

During the discussion, a necessity emerged to better separate issues dealing with biogas production from issues dealing with anaerobic treatments. This is because the latter has different production purposes, and more specifically aims at improving the manure manageability.

More specifically it was concluded that:

- overall costs/benefits balances will be run for techniques and chains of operations
- each technique will be specified if it is to be intended for biogas production or manure processing
- thus for biogas production techniques, focus will be particularly on energy production, resources balance and air emissions reduction
- for other anaerobic treatments, focus will be especially on matters manageability and the displacement of nitrogen through media (manure/air/water).

*Information identified or promised to be delivered by the TWG:*

- information by ADEME and IFIP (France), Germany, Austria and Italy
- literature references have been mentioned
- UK will provide data on plug flow.

## 6.2.3 Additives

The debate dealt with many aspect of the management of substances that are added to manures. It was reported that additives can be used to reduce not only ammonia emissions but also those of greenhouse gases. A methodological approach to assess the results for this reduction is known to be under development, though it is unknown when it will be available. It was also expressed that additives management and application may need complementary operation and equipment, hence chains of operations need to eventually be described.

Specifically it was decided that:

- substances need to be evaluated in particular on applicability, availability, associated costs and environmental implications
- the methodology used for collecting and comparing results should be clearly indicated.

*Information identified or promised to be delivered by the TWG:*

- France announced contributions (IFIP, ITAVI)
- results from a UK trial are expected
- data from Austria and Denmark.

## 6.2.4 Treatments and processing

Contributions to the debate came especially regarding by-products and incineration processes. All treatments, gasification included shall be covered. Emissions related to incineration and gasification techniques need to be reported, since in the BREF emission limits could be set at a lower level than those reported in the Waste Incineration Directive.

Specific conclusions were:

- 
- the manageability of final products will be focussed on
  - for manure incineration:
    - the text will be adapted to the Waste Incineration Directive
    - indications on dioxins emissions will be given.

*Information identified or promised to be delivered by the TWG:*

- many data sources have been identified in France (ITAVI, IFIP, ADEME, CEMAGREF), the Netherlands and Belgium-Wallonia.

## **6.3 Techniques for the reduction of emissions from application of manure to land**

### **6.3.1 Manure application systems, equipment and incorporation to land**

The need to know all parameters related to manure spreading was clearly expressed, from the type of emission to the local conditions and type of soil.

It was concluded that:

- emission reduction for each technique will be clearly determined
- additional information on bandspreading of pig slurry (split view) will be obtained
- all relevant environmental parameters in addition to emissions (land characteristics, impact on water flows, etc.) will be considered
- A section in Chapter 4 for spreading on cultures will be added.

*Information identified or promised to be delivered by the TWG:*

on equipment:

- data have been announced from Italy, France (IFIP), Spain and Belgium-Flanders (VITO/VLM)
- useful information can be obtained from the revision of Annex IX of the Gothenburg Protocol

on incorporation:

- data is available from Spain and France (IFIP)
- possibly more data from the Netherlands will be available.

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## **7 MANAGEMENT OF RESOURCES AND ENERGY CONSUMPTION**

### **7.1 Cleaning water**

Once it was clarified that the control of water flows to centralised waste water treatments plants is out of the scope of the document, the attention was given to consumption levels.

It was agreed that:

- benchmarking for consumptions and emissions will be performed
- focus will be on practices for the minimisation of water consumption
- the CWW BREF (Reference Document on Best Available Techniques in Common Waste Water and Waste Gas Treatment / Management Systems in the Chemical Sector) will be referred to for the on-site treatment of waste water.

*Information identified or promised to be delivered by the TWG:*

- France (IFIP) and Germany will provide data
- UK will provide data on water consumption.

### **7.2 Drinking water**

Mention was made of the great importance of resource management efficiency.

It was concluded that:

- benchmarking will be carried out but also local condition for water consumption will be considered
- no information on quality of water is needed
- information will be collected on new drinking systems for both poultry and pigs.

*Information identified or promised to be delivered by the TWG:*

- Italy, France (ITAVI, IFIP) and Germany
- Portugal on water consumption from drinking systems.

### **7.3 Energy**

A lively debate developed around the need of assessing balances of consumptions with energy recovery or production. A desire of producing clear and scientifically strong conclusions in this area was also expressed. It was agreed that:

- the ENE BREF (Reference Document on Best Available Techniques for Energy Efficiency) in particular for energy management: consumption and production (biogas, heat-exchangers, etc.) will be referred to
- information describing specific climatic conditions affecting energy consumption will be provided.

*Information identified or promised to be delivered by the TWG:*

- from Italy, France (ITAVI, IFIP), Finland and Austria.

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## 8 OTHER ISSUES

### 8.1 Non-ammonia emissions

A debate arose on how the subject of flies should fit into the document: some UK competent authorities consider them as an emission, while some others consider them pests along with rodents.

Conclusions were taken that:

- PM 2.5 will be included
- techniques for the control of flies will be described under the Chapter on Good Agricultural Practices even though some local regulations consider flies to be an emission
- information will be collected on carcass incinerators.

*Information identified or promised to be delivered by the TWG:*

- from Belgium-Wallonia and France (ITAVI, CORPEN, AFSSA).

### 8.2 Monitoring

The difficulties related to setting up monitoring practices in this productive sector were pointed out. It was recalled that in the current Directive, monitoring obligations can be dependent upon a cost/benefit analysis. It was mentioned that a nitrogen balance can perform an easy efficiency check.

Improvements in measurement for air and energy were reported since the last BREF was released.

The consistency and quality of data have been mentioned as primary interests, as well as the need for monitoring protocols.

Data will be collected in order to comply with the following:

- emission monitoring principles will be clearly defined
- consumption recording will also be covered
- reliable emission indicators and relevant parameters protocol will be used to give consistent and quality data
- all emission data will indicate the monitoring procedures according to the document on collection and the submission of data
- examples of mass balances for the determination of emissions will be included.

*Information identified or promised to be delivered by the TWG:*

- France will provide information (ADEME, CEMAGREF, IFIP, ITAVI)
- Italy will provide data on mass balances for nitrogen emissions (CRPA)
- measurement reports from Denmark, the Netherlands and Germany will be provided.



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### **8.3 Available or emerging techniques not included in the original document**

It was agreed that techniques that were not previously included in the BREF can be included in Chapter 4 or in Chapter 5, it being too early a stage to say exactly where. Regardless, techniques that have an environmental benefit and are used in productive installations will be described.

In general it was concluded that:

- a new chapter on emerging techniques will be created
- win-win techniques will be identified.

#### **8.3.1 Techniques for energy saving**

*Information identified or promised to be delivered by the TWG:*

- France (ADEME, Project CASDAR, IFIP)
- Poland (heat pumps)
- UK (heat exchangers).

#### **8.3.2 Techniques for nutrition management**

*Information identified or promised to be delivered by the TWG:*

- FEFANA will provide data and information regarding all proposals received.

#### **8.3.3 Techniques for housing systems**

*Information identified or promised to be delivered by the TWG:*

- Belgium-Wallonia and France (IFIP)
- Austria (free-ranging systems)
- Germany (poultry systems: wintergarden and free-range)
- UK (farrowing).

#### **8.3.4 Other techniques and operations**

*Information identified or promised to be delivered by the TWG:*

- France (ITAVI, IFIP, AFSSA studies), Czech Republic, Slovakia and Finland
- Spain has ongoing research to provide
- the Netherlands to provide data.

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## 9 DATA COLLECTION

In order for the TWG to perform a clear classification of techniques for BAT determination, it is necessary to obtain information in such a way that techniques can be compared with one another. The provision of data and descriptive information during the exchange of information is a vital part of reviewing a BREF. Consumption and emission data in particular are important for identifying the best performing installations and to identify a range of performance data that can be associated with the use of BAT.

As it has been identified in many wishes, the adopted IRPP BREF contains limited data and information on consumption and emission levels and on the performance of techniques to consider in the determination of BAT, especially regarding the achievable emission and consumption levels (AELs). Similarly, the document needs major improvements with respect to economic information (i.e. the cost of techniques).

Performance data supplied to the European IPPC Bureau in the past were often aggregated from several installations and were rarely accompanied by the necessary supporting operational information. Therefore, performance data had limited use in the process of determining BAT and practically no BAT associated emission levels (BAT-AELs) were expressed.

The recommendations for future work in the original BREF included a collection of more data on emission and consumption levels and on the performance of techniques to be considered in the determination of BAT.

Therefore data shall be collected on effectively applied techniques. Subsequently, the TWG will discuss and decide if each technique is applicable, and whether or not it is a candidate to be BAT, or shall be still considered emerging.

During the debate on data collection, it was observed it would not be possible in every case to describe a commercial installation. It is known that much of the data could also come as experimental data. The Bureau requested that data be supplied on a farm basis and describing good and best performers.

Information should be submitted to the European IPPC Bureau preferably using a common template. Templates are particularly useful for gathering a great deal of information, for enabling the comparison of data and for identifying gaps and anomalies through the possibility of obtaining standardised data.

With the Background Paper, the Bureau proposed a set of templates to collect data.

A brief presentation of the 'BAT Support Project' was also given, this being a project carried out by a consortium of European partners involved in technical and scientific activities in the agricultural and environment sectors. The general project, the methodology to collect and assess data that the project aims to deliver and the on-line tool to allow guided data input were presented.

A debate regarding what data to collect and the instruments to use for gathering data evolved. It was agreed that further discussions on BAT definition will benefit from well collected data, therefore it is worthwhile to put some effort into developing a well-structured documentation system.

A decision was taken to allow one month to express opinion on the proposed templates and to improve them or even redraft new ones, after which the TWG would meet again, possibly in a reduced number on a voluntary basis, to define the data to collect and the instruments to use for their gathering and submission for the exchange of information.

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It was concluded that:

- data will be collected and reported according to the Guidance document on improving the collection and submission of data (document IEF 20-4, <http://eippcb.jrc.es/ief/>)
- TWG Members within four weeks time would send to the Bureau their comments and suggestions to review the templates that have been proposed by the Bureau
- a meeting for the interested members would be organised by the Bureau to adopt the definitive set of templates to be used for the gathering of information and to decide on the use of the on-line tool that will be provided by the BAT Support Project
- the data gathering process could start immediately even though templates for providing data have not been agreed upon yet
- Spain would supply in six weeks time an improvement of the methodology of the section described in the current BREF on economic data
- if a BAT Support Project assessment tool is available in the future, it would be possible to use it to support the decision of the group on BAT
- the Netherlands, Denmark and Germany would shortly provide data of a complete installation from the BAT Support Project to serve as an example for the decided set of templates
- the Bureau would maintain confidentiality: any information submitted by members will be kept confidential if this request is made
- data would be preferably supplied on a farm basis, reporting emissions depending of what unit of measure is available (e.g. emission per kg meat, or emission per area or emission per animal place per year)
- data would be provided on good and best performing plants and a description would be given as to the conditions (e.g. climate) at which performances are achieved
- the point of reference to judge a specific technique and to identify the achievable environmental improvements would be the level of emissions prior to the application of the technique
- food-safety implications, working conditions, animal welfare and bio-security information would also be provided in the section on good agricultural practices.

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## **9.1 Definitive method of data collection for the IRPP BREF revision**

As was agreed upon at the kick-off meeting, an additional meeting was held in Seville on 8 September 2009 to adopt the definitive set of templates to be used for the gathering of information and to decide on the use of the on-line tool.

At the meeting, the content of the data to collect for the exchange of information was determined in the form of templates. It was at the same time agreed that the online tool is a more user-friendly data collection method than the templates alone and therefore is the preferred data collection method.

The on-line tool will integrate the complete set of information that was decided by the TWG. Due to the time schedule that was agreed upon the IRPP BREF revision, it was decided that the on-line tool should be finalised before the 1 November 2009.

Once the on-line tool has been filled in, two files can be generated: a PDF file and an XML file. Both files produced need to be posted in BATIS by TWG members for the exchange of information.

The group strongly recommends the use of the on-line tool, while the Excel templates can be used as an alternative or as a backup data collection method

A guideline to be used when filling in the questionnaires is also under development. The purpose of the guideline is to avoid misunderstandings and the collection of unreliable data. It is under development with the contribution of the members, and should be ready by 1 November, together with the on-line tool.

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## 10 EXCHANGE OF INFORMATION COMMUNICATION

An effective information exchange is dependent on the active involvement of all TWG members. The TWG is expected to collaborate fully and to use objective scientific communication to support the views expressed. Information submissions may take the form of quantitative data or qualitative descriptions, but must be made by 26 February 2010. Earlier submissions are obviously very welcome. There is no guarantee that late information will be taken into account.

The exchange of information necessarily involves public disclosure, but there is a provision for accepting confidential submissions. In this case, this request should be clearly communicated to the European IPPC Bureau.

Any data referring to installations, techniques, equipment, etc. should be exchanged through BATIS, the EIPPCB information tool (BATIS = BAT Information System). A presentation on the basic use of the system was provided by EIPPCB staff.

The TWG have access to the IRPP forum within BATIS for exchanging information. The forum is accessible by members of the IRPP TWG and EIPPCB staff only. A personal invitation to join BATIS was sent by e-mail to all TWG members shortly after the meeting.

Registering, logging into the system, posting and reading documents need to be followed by each TWG member and cannot be carried out by the EIPPCB.

Should any member request assistance in the use of BATIS, they should not hesitate to contact the European IPPC Bureau secretariat (email: [jrc-ipts-eippcb@ec.europa.eu](mailto:jrc-ipts-eippcb@ec.europa.eu); tel.: +34 954 488 284; fax: +34 954 488 426).

The e-mail and the EIPPCB forum within BATIS both play an important role in the information exchange. Any short communication and regular or minor information should be transmitted via e-mail.

Site visits constitute a good method for understanding the sector, identifying specific issues and gathering and validating information. Some TWG members (from the Netherlands, U.K. and Germany) have already offered their help to organise site visits for the BREF author. TWG members may also be invited to participate in visits if possible.

Visits will be prepared in advance so that the topics to be discussed can be selected and studied.

Comments will also be available through the BATIS system.

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## 11 POSSIBLE TIME LINE

The time line for the review of a BREF was agreed upon at the 21<sup>st</sup> meeting of the IPPC Information Exchange Forum (IEF) on 1 April 2009.

The adapted time line for the IRPP review as it could be foreseen at the meeting is given in the table below.

	<b>BREF review milestones</b>	<b>review of IRPP BREF</b>
1	Reactivation of the TWG	EIPPCB e-mail dated 13/03/2008
2	Call for wishes	EIPPCB e-mail dated 16/05/2008. The deadline for sending wishes to the EIPPCB was set at 31/07/2008. The compiled list of TWG wishes was sent by e-mail to the TWG on 08/05/2009
3	<b><i>Kick-off meeting</i></b>	29/06/2009 – 1/07/2009
4	Collection of information	The deadline to provide new information was set at the kick-off meeting as February 2010
5	Draft of the revised BREF	July 2010 was suggested
6	TWG comments on the draft	October 2010 was suggested
7	Elaboration of a second draft	January-February 2011 was suggested
8	TWG comments on the second draft	Spring 2011 was suggested
9	Final meeting	Summer 2011 was suggested
10	Final draft	Autumn/Winter 2011 was suggested
11	Presentation of the revised BREF at the IEF meeting	Spring 2012 at the earliest

These presented dates represent the expected milestones. They are indicative periods and strongly dependent on the amount of information provided and the difficulty of the topics.