VERA

General VERA Guidelines (GVGs)

Version 1.1 – February 2017

For more information, refer to: www.vera-verification.eu

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- § EN ISO 9001. Quality Management Systems Requirements
- § ISO/DIS 14034:2015 (E). Environmental Management Environmental Technology Verification (ETV)
- § ISO/IEC 17020. General Criteria for the Operation of Various Types of Bodies Performing Inspection
- § ISO/IEC 17025. General Requirements for the Competence of Testing and Calibration Laboratories
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Part A: Verification of environmental technologies in agricultural production (VERA)

A.I Introduction

To meet the environmental challenges within livestock production, new technologies are being developed within the European Union (EU) member states and elsewhere. These socalled 'environmental technologies' are designed to potentially enhance the eco-efficiency of agricultural production by reducing material inputs, emissions of pollutants and energy consumption; recovering valuable by-products; and minimising waste disposal problems. Environmental technologies for agriculture can be introduced at different stages of the production chain; for example, techniques applied in animal houses, or for manure storage, processing or land application. However, central stakeholders such as farmers and authorities only have limited information on their performance, which hampers the diffusion of these environmental technologies in the agricultural sector.

Therefore, the Danish Ministry of the Environment, the Dutch Ministry of Infrastructure and the Environment, the German Federal Ministry of Food and Agriculture and the German Federal Environment Agency, in cooperation with international technical experts, have started the development of common test protocols for the testing and verification of these environmental technologies for agricultural production.

The standardised test protocols are designed to investigate the environmental performance and operational stability of a technology, and thus provide reliable and comparable information about the performance of technologies to farmers, authorities and other stakeholders. Currently, the Verification of Environmental Technologies for Agricultural Production (VERA) test protocols are available for technologies and management systems relating to livestock production, for air cleaning technologies, land application, manure separation and manure storage covers, and other mitigation technologies. Other application areas are planned for the future. Regular revisions of the existing test protocols will achieve a constantly high scientific level to ensure they remain state of the art.

This initiative is organised within VERA. The VERA cooperation was established in 2008 to promote an international market for environmental technologies for agricultural production. The overall purpose of VERA is to fill the information gap for central stakeholders by offering independent verification of the environmental performance and operational stability of environmental technologies, which is determined by applying specific VERA test protocols, and thereby prepare the ground for the increased use of these technologies to meet the environmental challenges of agricultural production within the EU.



A.I.1 Relation to the EU ETV and other ETV Programmes

History

Throughout the globe, several countries have started approaches to verify the performance of environmental technologies – mainly for industrial applications. The USA had already created their first efforts by 1995.

At a European level, the European Commission held the first meeting on Environmental Technology Verification (EU ETV) in 2005. Like the idea behind VERA, its objective is to promote environmental technologies by providing technology developers, manufacturers and investors with access to third-party validation of the performance of innovative environmental technologies. However, the European Commission launched this voluntary scheme for EU ETV on an experimental basis: the so-called 'EU ETV pilot programme'. This covers only some application areas, and agriculture has not been within the scope.

Denmark, Germany and the Netherlands, being European countries with regions that have intensive livestock production, intended to move forward regardless on enhancing environmental technologies by verification. Therefore, VERA was born, in 2008, as an initiative by these three countries to offer a verification programme also for agricultural application areas. As with the EU ETV programme, VERA is intended to accelerate the acceptance and diffusion of environmental technologies.

Deviations from ETV

In the EU ETV scheme, the verification statements are issued by the individual competent and accredited verification bodies, whereas in the VERA scheme the statements have so far been published by the International VERA Secretariat. Similarly, in the EU ETV scheme, the verification protocols are developed by the experts of the individual verification bodies, and are subject to a consultation with the EU Commission Services Experts and the other verification bodies before they can be used as the basis for a verification statement. In the VERA scheme, the test protocols are developed by the international VERA experts on the receipt of a request from the International VERA Board. The focus of VERA is primarily on defined application areas within the agricultural sector, based on the standardised VERA test protocols, whereas the EU ETV pilot programme targets innovative technologies in three application areas.

The overall objective – to generate reliable data and gain comparable results for different technologies within an application area – is the same in both the EU ETV scheme and the VERA scheme. Also, as international product standards are rare for environmental technologies in agriculture, the overall idea behind EU ETV and VERA is very similar.

Future

The initiators of VERA are still targeting to corporate with, or even to implement VERA into the EU ETV programme later, when the pilot phase has been finished successfully. Thus, the verification process should be as close to the ETV setup as possible in order to allow for a smooth transfer. Alternatively, VERA could become a verification system according to the new ISO standard 14034:2016-11.



A.I.2 Structure of the General VERA Guidelines (GVGs)

The General VERA Guidelines (GVGs) are based on the ETV General Verification Protocol published by the European Commission in 2014 and adapted to the VERA needs.

The GVGs have been drafted to support the development and implementation of the VERA initiative. It consists of three sections, plus supporting documents within appendices, as follows:

Part A: VERA programme Part B: Verification procedure Part C: Quality management Part D: Supporting documents

The purpose of the GVGs is to provide an organisational and technical framework with clear verification procedures, enabling reliable test results. At the core of a verification process under VERA, the test results produced before or during the process are reviewed in order to assess the relevant parameters for the performance of the technology. Mutual recognition of verification results is simplified within the participating countries by following the procedures as laid down in the GVGs and the approved VERA test protocols.

A.I.3 Scope

VERA focusses on parameters being quantifiable and measurable through testing that are related to the performance of a technology with regard to its environmental added value and its operational stability. The environmental added value is considered from a process-orientated perspective. However, the manufacturer should be motivated to take into consideration the lifecycle perspective and include it in the dossiers; e.g. considering the main benefits and impacts throughout the lifecycle of the technology, such as energy use, the reuse of parts and production processes. Nevertheless, it will neither be a requirement nor be assessed, and is therefore not mentioned in the VERA Verification Statements.

An environmental technology may be presented for VERA verification by any legal entity, hereinafter referred to as 'the applicant', if the technology fulfils the following criteria:

- It is likely to correspond to the definition of an environmental technology with the potential to contribute to the efficient use of natural resources and a high level of environmental protection.
- The main target is the reduction of emissions of substances such as NH₃, dust and odours.
- It belongs to one of the technology areas contained in the list of technology areas with an existing VERA test protocol.
- It is ready for the market or is already commercially available.



A.I.4 Interim period

Being only at the starting point, not all requirements and frameworks mentioned in the GVGs may be fully enforced in the first period. In order to enhance the verification processes, make the VERA programme publicly known and gain experiences, an 'interim period' was established. Although some specifications might not be easily realised at this stage, the verification can be – under certain circumstances – performed regardless.

During the interim period, the following transitional arrangements apply, as long as the deviations are approved by the International VERA Board:

	GVGs process in brief	Deviation during interim period
Verification	Each country must have a national VERA	This does not need to be realised instantly,
body	secretariat, and should install a legal entity as the National VERA Secretariat; this will act as a verification body at the same time and fulfil all requirements in accordance with ISO 17020.	especially as the VERA cooperation is to be extended to a larger number of member countries and not all countries can nominate a candidate easily.
Accreditation of test bodies	The aim is to only allow accredited test bodies, in combination with their having	Non-accredited test bodies might be allowed if they can demonstrate sufficient
according to ISO 17025 Issuing of statements	sufficient expertise and knowledge in emission testing in agricultural applications, to perform VERA tests. (Whether the test institute should or shall be accredited according to a VERA test protocol will be clarified at a later stage.) The verification body may decide to audit the test institute. The VERA Board can decide to direct the participation in a VERA internal interlaboratory test. The verification body issues statements.	expertise and knowledge in both quality management and emission testing in agricultural applications. In addition, the laboratory needs to be audited by the verification body or another VERA entity. Analytical laboratories that perform standardised tests (e.g. for NH ₃ , dust or odour measurements) or that are acting as subcontractors, for instance, need to already be accredited in the interim period. The existing procedure with the International VERA Secretariat issuing VERA statements will remain possible until such
		time as all countries have an authorised verification body.
Cost structure and funding of experts	In the medium-term, the verification should change to a user-paid-for system. The verification bodies will produce an individual offer based on the necessary effort, including funding for the experts.	Whilst the International VERA Secretariat is located in Germany and most experts (such as in Denmark and the Netherlands) are financed by the ministry, the verification costs are covered by VERA. In cases where the experts are fully user paid for (for example, in Denmark), all requests are processed by ETA Denmark, which handles the funding of Danish experts.

Table 1 – Deviations during the interim period

The interim period ends on January 1st 2020. This should leave enough time to establish the new structures in the countries. After this interim period, the International VERA Board may decide to continue some of the deviations based on its experiences.



A.II Entities in the VERA programme

Figure 1 provides an overview of the main entities involved in the VERA programme, including their relations. The main entities of the VERA organisation are coloured in green. The entities that are involved in the verification process are marked in yellow.

The main entities and relations are also described subsequently.



Figure 1 – VERA entities and relations (green = general VERA structure / yellow = verification structure)

A.II.1 International VERA Board

A.II.1.1 Qualification and nomination

The International VERA Board acts as the steering group and advisory board for the implementation of the VERA programme, and is composed of representatives of the participating member states.

European Free Trade Association (EFTA) countries, countries that are members of the European Economic Area (EEA) and a third group of countries (Iceland, Liechtenstein, Norway and Switzerland) that have signed an Association Agreement with the EU are eligible to participate in this steering group. The International VERA Board may also accept representatives of non-participating countries and international organisations, as appropriate.



A.II.1.2 Roles and responsibilities

The International VERA Board will advise the International VERA Secretariat on the implementation of the VERA programme; in particular, on:

- 1. agreeing a general structure within the VERA framework, specifically by approving the GVGs and other reference documents where appropriate;
- 2. defining the technology areas to be covered by the VERA programme;
- 3. initiating the preparation of new test protocols or their revisions;
- 4. prioritising the activities of the International VERA Committees (IVCs), specifically on approval of guidance documents such as test protocols;
- 5. nominating national experts for the IVCs and the International Expert Groups (IEGs);
- 6. establishing a National VERA Secretariat in all participating countries;
- 7. nominating Verification Bodies;
- 8. promoting the acceptance of VERA Verification Statements in all relevant markets;
- 9. evaluating the VERA programme;
- 10. keeping in contact with the EU ETV, and other regulatory or verification processes;
- 11. inviting new member countries; and
- 12. any other strategic or organisational subjects.

A.II.2 International VERA Secretariat

A.II.2.1 General tasks

The International VERA Secretariat ensures the overall coordination and support of the VERA programme.

As well as convening and organising all internal VERA meetings, it will promote any public relations activities. In the verification process, it will ensure the involvement of the IEGs and observe the compliance of all parties with the quality management procedures laid down in these GVGs and on behalf of the International VERA Board. For the interim period, it may also act as a Verification Body for VERA applications.

A.II.2.2 Qualification

The International VERA Secretariat shall:

- 1. be nominated by the International VERA Board;
- rotate to another member country every four years in order to share the costs of the international coordination of the VERA cooperation, if not otherwise reorganised by the International VERA Board;
- 3. have sufficient qualification for the verification activities in relation to the VERA process and management;
- 4. be independent and free of any conflicts of interest; and
- 5. observe professional secrecy with regard to all information obtained by carrying out its tasks during any VERA activity.

A.II.2.3 Roles and responsibilities

The International VERA Secretariat shall implement these GVGs following any guidance provided by the International VERA Board.



This includes, in particular:

- 1. realising decisions and assignments of the International VERA Board;
- 2. drafting the rules governing the VERA programme, including the general guidelines;
- 3. convening and organising all internal VERA meetings;
- 4. reporting regularly to the International VERA Board on all activities within the VERA framework;
- 5. supporting and organising the VERA expert groups (IVCs and IEGs), including convening and documenting meetings, summarising decisions and supporting revisions, and preparing VERA test protocols;
- 6. providing advice to the applicants in the context of the VERA procedures;
- 7. stimulating the communication between the verification bodies and National VERA Secretariats;
- 8. supporting applications for verification according to its responsibilities as laid down in Part B of these GVGs;
- 9. ensuring the involvement of VERA experts (IEG), and supervising international approval of the test plan, test results and VERA Verification Statement by all members of the IEG in each verification process (in the case of disagreements within the IEG, it can support the Verification Body in finding solutions);
- 10. registering and publishing VERA Verification Statements on the official VERA website;
- 11. completing follow up in the post-verification phases (e.g. control of the appropriate use of the VERA Statements in the market);
- 12. ensuring any verification bodies and test bodies involved in the verification comply with the quality management requirements of these GVGs (e.g. by auditing or organising ring tests in consultation with the VERA expert groups on behalf of the International VERA Board);
- 13. handling complaints from any internal or external stakeholders; and
- 14. where appropriate, consult with the European Cooperation for Accreditation on matters relating to the harmonisation of accreditation procedures, consistency of verification procedures across member bodies, and the mutual recognition of VERA Verification Statements.

For the interim period, it may also act as a Verification Body for VERA applications, undertaking the roles and responsibilities as listed in Section A.II.3.2.

A.II.3 National VERA Secretariats (Verification Body)

A.II.3.1 Qualification

A National VERA Secretariat – even if it is not acting as a Verification Body – shall:

- 1. be nominated by the International VERA Board;
- 2. have sufficient qualification for the activities in relation to VERA;
- 3. be independent and free of any conflicts of interest; and
- 4. observe professional secrecy with regard to all information obtained by carrying out its tasks during any VERA activity.

The National VERA Secretariat **as a Verification Body** shall be/do the following:

1. It shall be authorised as a Verification Body by the International VERA Board.



- 2. It shall have sufficient qualification for the verification activities in relation to the VERA process.
- 3. It shall be established under national law and have legal personality.
- 4. It shall be a third-party body independent of the applicants (developers, vendors, purchasers and users of environmental technologies) submitting technologies to this body for verification. It should meet the requirements for Type-A inspection bodies as defined in the normative Annex A of ISO/IEC 17020, especially by demonstrating its independence and the absence of any conflicts of interest.
- 5. It shall not be directly involved in the design, manufacture, construction, marketing, installation, use or maintenance of the specific environmental technologies submitted to this body for verification, or represent the parties engaged in those activities. This pertains to the Verification Body, its top level management and the personnel responsible for carrying out verification tasks. This shall not preclude the use of any environmental technologies that are necessary for the operations of the Verification Body or the use of environmental technologies for personal purposes.
- 6. It shall not be engaged in any activity that may conflict with its independence of judgement or integrity in relation to the verification activities. This pertains to the Verification Body, its top level management and the personnel responsible for carrying out verification tasks, and shall also apply when summarising experts' opinions.
- 7. It shall ensure that the activities of its subsidiaries, subcontractors and experts do not affect the confidentiality, objectivity or impartiality of its verification activities.
- 8. It shall carry out the verification activities with the highest degree of professional integrity and the requisite technical competence. It shall be free from all pressures and inducements, particularly financial, which might influence its judgement or the result of its verification activities, especially as regards persons or groups of persons with an interest in the results of those activities, such as test laboratories and members of the VERA expert groups.
- 9. It shall be capable of carrying out all the tasks assigned to it under Section A.II.3.2.
- 10. It shall have in place a system of quality management and quality assurance documentation, with coordinating and monitoring of the measures taken to ensure that verification activities are implemented in conformity with the requirements of Part C of these GVGs. In particular, at all times, and for each verification procedure and each technology group, the Verification Body shall have in place the necessary personnel with appropriate technical knowledge, and sufficient and appropriate experience to perform the verification tasks:
 - If the personnel referred to in this point includes external experts, it shall arrange the necessary agreements or conventions to ensure the availability of the personnel concerned with VERA procedures.
 - It shall have a description of the procedures in accordance with which the verification is carried out, ensuring transparency and the ability to reproduce those procedures.
 - It shall have appropriate policies and procedures in place to distinguish between the tasks it carries out as a VERA Verification Body and other activities.
 - It shall have in place appropriate reviewing and recording procedures for the products of verification and its activities, ensuring a high level of quality and reliability. The aforementioned documents shall be made available upon



request to the International VERA Secretariat and the International VERA Board.

- 11. It shall ensure that the personnel responsible for carrying out verification activities have the following qualifications and skills:
 - Sound technical and vocational training covering all the verification activities.
 - Good knowledge of the requirements of the verification procedures it carries out and the adequate authority to carry out these procedures.
 - Appropriate knowledge and understanding of the potential environmental impacts associated with the use of the technologies and of the main technical factors influencing environmental impacts.
 - Expertise in test methods and appropriate knowledge of the statistical methods used in the context of tests, measurements and the related calculations.
 - Appropriate knowledge of the market aspects of the technology, including users' needs and usual practices in the sector, the main actors, and the regulatory framework.
 - The ability to draw up reports, records and VERA Verification Statements, demonstrating that the verification procedures have been carried out and the VERA requirements have been satisfied.
- 12. It shall guarantee impartiality for carrying out the verification activities. The remuneration for the management of the Verification Bodies and the personnel responsible for carrying out verification activities shall not depend on the number of verifications carried out or on the results of those verifications.
- 13. It shall take out liability insurance for the verification activities.
- 14. It shall observe professional secrecy with regard to all information obtained in carrying out its tasks during verification activities, according to Part B of these guidelines, except in relation to the International VERA Board, the International VERA Secretariat, the European Court of Auditors, the VERA expert groups defined in Section A.II.4, and the competent authorities of the member states in which its activities are carried out. Proprietary rights shall be protected.
- 15. It shall take full responsibility for the tasks performed by subcontractors or subsidiaries, wherever they are established.

A.II.3.2 Roles and responsibilities

The National VERA Secretariat where <u>not</u> a Verification Body shall:

- 1. ensure the national coordination and supervision of the VERA programme;
- 2. help to implement the VERA programme on a national level in consultation with the national members of the International VERA Board; and
- 3. support the International VERA Board, the International VERA Secretariat and other National VERA Secretariats in general questions on national requirements.

If the National VERA Secretariat is **authorised to be a Verification Body**, its responsibilities also include:

1. Receiving and processing applications for verification, according to its responsibilities laid down in Part B of these GVGs, up to the publication and post-verification phases and concluding contracts for verifications.



 Organising an international VERA test, following the official procedures according to these GVGs, by involving the International VERA Secretariat to ensure the international approval of the test plan, test results and VERA Verification Statement by all members of the IEG.

Important: Verifications that are not approved and commented on by the whole IEG cannot be an official VERA Statement and therefore may not carry a VERA logo. This measure is to prevent disturbances in the market and to promote mutual recognition.

- 3. Ensuring the compliance of any test bodies involved in the verifications with the quality management requirements of these GVGs, taking account of the possible accreditations of the test bodies, as provided under Section A.II.5.1. During the interim period (see Section A.I.4), this will alternatively be done by auditing non-accredited test bodies.
- 4. Assessing and summarising the test data provided by a test body in compliance with the requirements set in these GVGs and the specific VERA test protocol, and sharing them with the International VERA Secretariat for further distribution to the IEG.
- 5. Giving advice and suggestions for improvement to other VERA partners, relating activities and sharing the relevant information required for the work of the groups, including any documentation developed under VERA.
- 6. Providing technical advice to the applicants in the context of VERA procedures, and in particular with regard to the choice of test bodies and the use of the VERA Verification Statement.
- 7. Informing the International VERA Secretariat of any ongoing verification requests and the status of the verifications.
- 8. Annually reporting to the International VERA Board on the activities implemented in the framework of the VERA programme, including in post-verification.

A.II.4 VERA expert groups

A.II.4.1 Qualification and nomination

Two VERA expert groups, an International VERA Committee ('IVC') and an International Expert Group ('IEG'), exist for each application area of the VERA programme. They have been established in order to ensure a prevailing and highly scientific level of testing in terms of the performance identified in the concluded verification results, in particular the VERA Verification Statements.

The members of the IEG can be identical to those of the corresponding IVC. The expert groups are split to be able to distribute the workload for the national experts to several people.

a) International VERA Committee (IVC)

These are established in order to develop the harmonised test protocols, which define all test parameters, the test regime and the test conditions. The VERA test protocols ensure the same level of performance in terms of the verification results.



b) International Expert Group (IEG)

The IEGs act as the scientific evaluation bodies in terms of addressing technical questions within the individual verification processes. They ensure the highest level of technical competence in the verification process.

The members of the VERA expert groups shall meet the requirements of independence, absence of conflicts of interest, professional impartiality and professional secrecy, as is required from the personnel of the Verification Bodies, and the National and International VERA Secretariat.

A.II.4.2 Nomination

The VERA expert groups should include experts from all participating countries – normally one or two per committee or group and country. Each participating country can nominate and delegate the experts it finds appropriate for the corresponding committee or group based on their fields of experience.

Experts from other countries can be invited as guests, but with no right to vote in case of decisions. Guests have to sign a confidentiality agreement before a meeting.

The list of permanent IVC and IEG members shall be approved by the International VERA Board.

A.II.4.3 Roles and responsibilities

The role of **all VERA experts** is to provide:

- screening of potential environmental impacts associated with the use of technologies in the scope of the VERA programme, identification of relevant key environmental aspects and technical factors influencing these impacts;
- an exchange of good practice and experience concerning the implementation of VERA, offering mutual advice, sharing of information on relevant market aspects for the technology area and dialogue with relevant stakeholders;
- initiatives for their own research projects on VERA related topics; and
- consultation to the International VERA Board on guidance documents.

In particular and in addition, the role of the **IVCs** is to:

• draft the VERA test protocols to ensure standardised VERA tests, which will provide comparable results based on a well-defined test setup and validated test methods.

In particular and in addition, the role of the **IEGs** is to provide:

- assessment and approval of VERA test plans during any VERA verification process;
- assessment and approval of VERA test results for a VERA verification process, focussing on environmental performance and operational stability; and
- approval of the VERA Verification Statement.



In the case of a disagreement between a Verification Body and an applicant or another stakeholder, the relevant IEG shall give an expert opinion on specific cases or procedures, upon request from the International VERA Secretariat or one of the parties concerned.

The International VERA Secretariat shall inform the International VERA Board regularly about the activities of all VERA expert groups.

In the case of disagreements within the IVCs, the International VERA Secretariat will help to find a suitable compromise. If that is not possible, the International VERA Secretariat will summarise the information and inform the International VERA Board, which will act as an arbitration board for the topic.

A.II.5 Accreditation bodies

A.II.5.1 Qualification and nomination

A national accreditation body is to be established under law in each of the EU member states in application of Regulation (EC) No. 765/2008. They shall comply with the requirements of ISO/IEC 17011, and hold signatory status in the multilateral agreement for the accreditation of test laboratories to ISO/IEC 17025 and of inspection bodies to ISO/IEC 17020.

A.II.5.2 Roles and responsibilities

The role of national accreditation bodies in the VERA programme is to accredit test bodies and analytical laboratories for applying ISO/IEC 17025 and these GVGs, and to accredit verification bodies for applying ISO/IEC 17020. This has the following consequences, amongst others, regarding VERA. It will:

- ensure the technical competence and capacity to follow VERA procedures;
- ensure that an adequate quality management system is in place, in order to guarantee the required levels of quality and reliability for VERA deliverables; and
- ensure the due recognition of test laboratories in the EU, in order to strengthen the acceptance of VERA Verification Statements in all relevant markets.

A.II.6 Test bodies

Test bodies are organisations responsible for performing and reporting the testing of an environmental technology in accordance with the specific VERA test protocol. A test body may subcontract to qualified analytical laboratories for performing specialised laboratory analyses of test samples when required.

A.II.6.1 Qualification

The test body or organisation of which it is part shall be an entity that can be held legally responsible. Test bodies shall fulfil the relevant requirements described in Part C of this document (quality management), with respect to their role in the verification process (C.I) and quality assurance (C.III), as well as the quality management and general test requirements of these GVGs.



The quality management and general test requirements of these GVGs are those requirements of ISO/IEC Standard 17025 (general requirements for the competence of testing and calibration laboratories) that are considered relevant for the tests to be performed. The Verification Body is responsible for ensuring that the testing quality of the test body meets the requirements of ISO/IEC 17025, the relevant VERA test protocol and these GVGs.

If tests consist of analyses with standardised methods, the test body performing those analyses shall be accredited to ISO/IEC 17025 for the relevant analytical methods. Routine analytical quality control data, participation in proficiency tests for the analysis used and the relevant period shall be made available to the Verification Body upon request.

The Verification Body shall control the fulfilment of all requirements of these GVGs, including the quality management and general test requirements, through a test system assessment in accordance with Part C, including a test system audit where applicable. Where a test body proves its conformity by way of receiving accreditation for ISO/IEC 17025 with respect to the methods of testing and calibration relevant for the verification process, it can be presumed to comply with the requirements of these GVGs for quality management and for the general test requirements for those methods.

All test bodies shall demonstrate their competence and experience in testing in an agricultural environment. The International VERA Board may ask the test body to take part in an interlaboratory test to evaluate their performance in fulfilling specific VERA demands.

The staff of the test body shall not be the same as those responsible for the evaluation of the test results in the Verification Body and they shall not be dependent upon these. This is to be controlled by the International VERA Secretariat.

A.II.6.2 Selection

Test bodies shall be designated by the applicant to perform tests in consultation with the Verification Body. The consultation of the International VERA Secretariat is intended to facilitate the control of the qualification of designated test bodies.

Where the analysis of test samples is required for a verification process, analytical laboratories shall be designated by the applicant, in consultation with the test body and verification body concerned, or it can be subcontracted by the test body.

The applicant is responsible for contracting with test bodies and analytical laboratories, as well as for payment for the services provided by them.

A.II.6.3 Roles and responsibilities

A **test body** is responsible for:

- drafting the test plan, in accordance with the relevant procedures of these GVGs, the relevant VERA test protocol in agreement with the applicant and in consultation with the Verification Body;
- performing the tests according to the test plan, ensuring the level of quality required in the specific VERA test protocol and, in case of measurements, also ensuring the requirements of ISO/IEC 17025 are met;



- performing analyses according to ISO/IEC 17025; and
- drafting the report on the tests performed, for transmission to the applicant and to the Verification Body; where applicable, the report of analytical data shall include the relevant measurement uncertainties and limits of detection.

A.II.7 Applicant

A.II.7.1 Qualification

The applicant can be any legal entity or natural person, which can be the technology owner, the technology manufacturer or an authorised representative of either. If the concerned technology owners and manufacturers agree, the applicant can be another stakeholder that is undertaking a verification process involving several technologies (e.g. as part of preprocurement procedures).

A.II.7.2 Roles and responsibilities

The applicant initiates and supports the verification of a technology from the first contact with the VERA Secretariat until the use of the VERA Verification Statement after completion of the VERA process, or earlier termination of this process, where appropriate.

The **applicant** is responsible for:

- applying for a verification, and providing all data and information necessary to plan and implement the verification process;
- contracting with the Verification Body for the verification process, and with test bodies, where appropriate, and paying for contracted services;
- reviewing and approving the test plan;
- reviewing the test report(s) and VERA Verification Statement;
- providing timely access to a working example of the technology, accessories, user manuals, and training for the verification and test bodies; and
- complying with the rules for using the VERA Verification Statement.

If further tests are needed after the assessment of already existing test data, the applicant may need to perform additional tests following these GVGs.



Part B: Verification procedure

B.I Introduction

The verification procedure is divided into a number of sequential steps or phases. Figure 2 shows the general procedure as a brief illustration.

The exact requirements are explained in the following chapters.



Figure 2 – Steps of the VERA verification procedure



More detailed flow charts of the verification process are provided in the following figures:

- **Figure 3** demonstrates the process during the interim period, as defined in Section A.1.4, for cases when the verification is performed by the International VERA Secretariat acting as a Verification Body.
- **Figure 4** shows the verification process when handled by the National VERA Secretariat acting as the Verification Body.



Figure 3 – Flow chart of VERA Verification via the International VERA Secretariat (interim period)



Figure 4 – Flow chart of VERA Verification via the National VERA Secretariat





B.II Application

B.II Application

As the starting point for the verification, the applicant contacts the Verification Body, and fills in the application form for starting the eligibility assessment.

B.II.1 Application form and eligibility assessment

Before sending the full documentation for the verification, the applicant sends the application form with details of the main characteristics of the technology to be verified, following the template as provided in Appendix 3.

The Verification Body will decide if the technology meets the scope of the VERA framework and if it can be accepted for a VERA verification by using the following eligibility criteria:

- ✓ Is the technology description sufficiently clear?
- ✓ Does the technology fall within the scope of VERA, and is it verifiable under VERA?
- ✓ Does the technology present any environmental added value?
- ✓ Is the technology ready for the market? I.e. is the technology available on the market, or if not, is it available at a stage where no change affecting performance is likely to be implemented before introducing the technology onto the market?
- ✓ Does the technology meet user needs in terms of functionality, claimed performance and environmental added value?
- ✓ Can the technology confirm sufficient operational reliability?
- ✓ Does it perform in line with the applicable legal requirements?

After the eligibility check, the Verification Body makes a recommendation on whether to perform a full verification or not, and a first indication of the range of costs.

The Verification Body shall exclude a technology from verification if it does not fall within the scope of VERA, if it is not ready to market, or if its performance and environmental added value are obviously too low and would harm the reputation of VERA. Aside from these cases, the decision to proceed is made by the applicant, even when the Verification Body does not recommend performing the verification.

B.II.2 Full application

If the technology is considered to be eligible and if the applicant decides to perform the verification, the full application follows. In this step, the applicant provides all data and the information needed by the Verification Body to conclude a verification contract.

It should be noted that if the information provided at this stage leads the Verification Body to change its assessment of the technology's eligibility, the Verification Body shall revise this assessment, and inform the applicant and the International VERA Secretariat of this and of the consequences for the verification process.

The full application shall include:

✓ The name and address of the applicant, and if the application is lodged by the authorised representative of the technology owner or manufacturer, the authorised representative's name and address.



- ✓ Technical documentation. The technical documentation will make it possible for the Verification Body and the VERA experts to understand the technology. It must be in the English language, if not requested otherwise. It shall contain at least the following elements:
 - a general description of the technology, including its unique identifier, e.g. the commercial name under which the technology shall be available on the market;
 - the user manual (in English and the local language);
 - the conceptual design, and if it is necessary to explain this in more detail, the technical or scientific principles, manufacturing drawings and schemes of components, sub-assemblies, circuits, etc.;
 - the descriptions and explanations necessary for the understanding of those drawings and schemes, and the operation of the technology;
 - where relevant, the standards or technical specifications applied in full or in part;
 - the description of the development goals related to national norms and regulations;
 - the results of the design calculations made, examinations carried out, etc.;
 - a description of the measures taken to ensure the quality and traceability of the technology under the normal conditions of production when the technology is / will be available on the market;
 - an explanation of the necessary frame conditions for the proper function of the technology; and
 - all test reports and details of tests, including a confirmation of the qualification of the test body or analytical lab.
- \checkmark The intended VERA test protocol to be applied on the technology.
- ✓ The main environmental effects, consisting of a set of parameters and values, which:
 - describe the functioning or performance of the technology, mentioning any relevant assumption made;
 - are related to the technology itself, and not, for example, to the environmental management of the company, to the origin of raw material or to the information provided to users (unless this information is the purpose of the technology);
 - highlight the advantages and features of the technology, in terms of the environmental added value as well as the other advantages relevant for users of the technology;
 - reflect the direct environmental impacts of the technology and, to the degree possible, include the relevant indirect impacts on the environment from a lifecycle perspective; and
 - are quantifiable and verifiable through tests, when they relate to the purpose and operational conditions of the technology, and are measurable, as far as possible, when they relate to the environmental impacts or other aspects.
- The available information and data on the environmental added value, focussing on those stages of the technology lifecycle where environmental pressures are significant or significantly different from a relevant alternative identified for comparison in the case where a relevant alternative is available.



- ✓ The supporting evidence for the adequacy of the technology design. The supporting evidence shall mention any document that has been used or results from the tests carried out by the applicant, or by a test body on the applicant's behalf and under his/her responsibility.
- ✓ The legal requirements applicable to the technology in the target market for which the verification is performed and evidence that the technology performs in line with these requirements.
- ✓ If the technology has already been evaluated under VERA or verified under another environmental technology verification programme, a research or pilot project implementing all or part of the procedures provided under VERA, or another evaluation or certification programme implementing the same or similar procedures, then the applicant is invited to provide all related documents (including information on quality assurance and management) as supporting evidence; this will be used by the Verification Body to simplify the VERA procedure as much as possible.

B.II.3 Pre-scan

The Verification Body shall review the application on the basis of the technical documentation, implementing:

- ✓ an assessment of the completeness of the data set;
- \checkmark the relevant provisions of these GVGs and the related VERA test protocol; and
- ✓ where relevant, the guidance prepared by the VERA experts (IEG) in question, taking due account of the appropriate technical standards or reference documents for the related technology group, and the performance of state-of-the-art alternative technologies.

Based on the pre-scan, the Verification Body may request that the applicant revise or complete the application. If the review does not lead to the halting of the verification process, the preparation and conclusion of the contractual agreement will follow.

At this stage the Verification Body shall inform the International VERA Secretariat and the National VERA Secretariats about the start of the new VERA verification process.

The National VERA Secretariats can give advice or recommendations in a case where there are national restrictions or special regulations on the applied technology. This information could be important and valuable for the manufacturer and further testing. The Verification Body shall collect all feedback, if any, and inform the manufacturer.

B.II.4 Contractual agreement

If the applicant decides to proceed with verification, the Verification Body may provide a detailed cost estimate for the verification procedure (excluding tests) together with a list of the potential tests and analyses to be performed. Based upon the cost estimate, a verification contract is drafted, and signed by the applicant and the Verification Body, and, subsequently, the verification procedure can be initiated.

The verification contract shall, in any case, cover the following items:



- ✓ The limitations of the VERA Verification to the specific technology, and the conditions of verification; they cannot be considered as an endorsement or guarantee of the technology. Therefore, the applicant has to sign the terms and conditions form, as provided in Appendix 4, and agree to respect these GVGs.
- ✓ The obligation of the applicant to inform the Verification Body of any changes made to the technology before the conclusion of the verification process.
- ✓ Any confidentiality issues, including the access to information by the International VERA Secretariat, the IEG and, if there are any, other external experts, and the publication of the VERA Statement. Before signing the verification contract, any communication of information except to the IEG and the International VERA Secretariat requires the explicit consent of the applicant.
- ✓ Intellectual property rights (IPR) issues; if some parts of the technology are owned by other organisations (e.g. used under licence), this should be mentioned. It is recognised that some proprietary elements may not be protected through patents, but have to be respected as intellectual property nevertheless.
- ✓ Post-verification issues; the use of the VERA Verification Statement and VERA logo; reporting by the applicant on the impact of VERA; handling of changes to the technology, to the application or other changes potentially affecting the conditions of verification; and how these changes have to be reported and evaluated. The cost of evaluating these changes may be left to future agreements.
- ✓ Provisions on the legal regime applicable and the relevant legal authorities in the case of a dispute related to the verification procedure.

For the interim period, a contract for verification with the International VERA Secretariat acting as a Verification Body is not necessary due to the fact that no verification fee is charged. However, the manufacturer has to be informed about and agree to all the items listed above to proceed with the verification.

B.II.5 Assessment of existing data

As part of the development process and market implementation activities, the applicant may already have at its disposal a set of test data that is relevant to the verification procedure and that may serve (in full or in part) as the basis for the verification. These data can be submitted to the Verification Body for assessment in view of determining their acceptability to the verification process.

This shall include sufficient information for assessment (e.g. in addition to the data itself), and the full address and status (independent/dependent, certifications and accreditations, etc.) of the data supplier and of any third parties involved (test design, witnesses, etc.). The data, test plan and test report must be supplied in a format that allows assessment against the requirements of the relevant VERA test protocol. The necessary quality control for existing data is described in Section C.II.

In order to facilitate the acceptability of the existing test data, it is necessary that tests carried out before a VERA application are performed by organisations accredited as complying with the requirements of ISO/IEC 17025 for the relevant test methods.



The Verification Body shall assess the existing test data against the parameters, methods, quality requirements and target values defined in the relevant VERA test protocol. After consultation with the International VERA Expert Group, the Verification Body shall conclude whether additional tests are needed to comply with the requirements of the VERA protocol. The accepted existing data are summarised in the format to be used when reporting test data.

B.III Testing

After the evaluation of existing data and the decision whether additional tests are required, the testing phase is entered.

The steps to be undertaken as part of the testing phase are as follows:

- 1. Test site selection
- 2. Test planning
- 3. Testing
- 4. Test reporting

The applicant shall designate one or more test bodies to perform the tests in accordance with Section A.II.6.2.

The tests shall be planned and performed in accordance with the relevant VERA test protocol and these GVGs. The test plan and the test report must be written in English.

B.III.1 Test site selection

The test sites shall be defined by the test body after consultation with the applicant in accordance with the requirements set in the corresponding VERA test protocol.

The test plan, as provided in section B.III.2, shall include a description of the test sites, enabling the reader to understand the selection of the site in relation to the purpose and operation parameters defined for the verification. The description will also include any information required for the test staff to access the site.

The test body shall ensure that the selection of the site will result in no commercial or other interests possibly influencing the test results. In particular, the test site shall not be dependent upon the applicant. If a site that is dependent upon the applicant is the only option available, the use of that site shall be justified in the test plan, and precautions such as access logging shall be applied to ensure and document that the test results were not achieved under undue influence.

In a case where there are any doubts, the Verification Body should be consulted to prevent unnecessary costs arising from testing at an inappropriate test location.

B.III.2 Test plan

The test plan documents the implementation of the VERA test protocol in the tests used to produce the required measurements and data. The test plan is unique for each test occasion, and gives the exact information required by the test staff to conduct the tests. Reference to the version of the relevant VERA test protocol used shall be given. A table of contents for the



test plan is given in the appendix of the VERA test protocol and a template is provided on the VERA website, and this shall be followed.

The test plan shall be drafted by the test body, and approved by both the applicant and the Verification Body. In addition, the IEG will have the opportunity to comment and will approve the test plan as well. This measure aims to ensure the correct application of the VERA test protocol on the test setup, and thus save costs by preventing the taking of unnecessary additional measurements.

The test method(s), and appropriate selection and use of statistical procedures used shall be given in reference to the standards or equivalent public references in accordance with the VERA test protocol.

The test plan shall describe the quality assurance for the specific test planned, as provided in C.III.3.

The test schedule shall be given.

The description of the test operations shall allow the test staff to perform the tests as required under the VERA test protocol and to replicate operations with the least possible variation during the testing. In addition, it shall allow the tracing of any errors back to their source in terms of equipment, methods, operations or staff.

B.III.3 Testing

Testing shall be done according to the test plan as provided in Section B.III.2, based on the relevant VERA test protocol.

Amendments to and deviations from the test plan shall be recorded and approved by the applicant and the Verification Body. The amendments and deviation reports shall be documented as part of the testing records.

B.III.4 Test report

The format of the test report to be used is given in the VERA test protocol. It must be written in the English language, but the raw data can be in a local language. The test report is drafted by the test body, and communicated to the applicant and to the Verification Body.

The format and location for archiving the raw data shall be indicated in the test report. The list and summary of any amendments to the test plan, and deviations recorded during tests shall be included.

The test data report shall include all analytical and calculated data, as well as a reference to the staff that performed the test. The methods of calculation, measurements and performance parameters from the raw data shall be described, including a comprehensive appraisal of measurement uncertainty. A thorough description of the test set up, including details on the equipment and software, used shall be given. A checklist, which is available on the VERA website, might provide some guidance.

B.IV Verification

Upon completion of the testing phase and the collection of all relevant data, the assessment and verification phase is entered. It consists of two steps:

- 1) Assessment of the data and review of the test procedure
- 2) Verification

When the performance data are considered accurate and complete by the Verification Body, it undertakes a general assessment of these data, reviews the procedures and includes the approval by the IEG before the verification is confirmed.

B.IV.1 Assessment of the data and review of the test procedure

B.IV.1.1 Assessment by Verification Body

The Verification Body shall collect all data relevant for the verification, including:

- existing data that is accepted after assessment, as provided in the final application;
- test data from the test report, as provided in Section B.III.4;
- Data on operational and environmental performance and additional parameters, as provided in the full application, if they are not already included under existing data or test data above.

The Verification Body shall collect and evaluate all reports and documentation for the verification procedure in order to check that they are complete and consistent with each other. It shall assess whether the collected data satisfy the data quality requirements, as provided in the VERA test protocol, and the requirements of these GVGs. This includes the quality assurance requirements described in the VERA test protocol and provided in Section C.III. For data from the test report, this includes a review of the procedures followed during testing and the assessment of the test data quality based on the test quality assurance described in the test plan.

The Verification Body shall assess the appropriateness and usefulness of the additional information for the VERA Verification Statement, and draft the necessary caveats to avoid confusion or a misleading interpretation of this additional information.

The Verification Body shall conclude whether there is a defendable and complete data set for verification and reporting. If this is not the case, the assessment of the existing data and the testing phase may be iterated in consultation with the applicant.

Any deviations to the VERA test protocol, the test plan, the test methods and the quality assurance procedures of the test body shall be described and summarised by the Verification Body in order to ease the following evaluation by the IEG.

B.IV.1.2 Experts' evaluation

When the Verification Body reaches a positive conclusion on the assessment of all data, they are ready to be sent to the IEG for commenting and approval.



The Verification Body informs and provides all documentation, including their assessment and recommendation, to the International VERA Secretariat. The International VERA Secretariat, in its role as the guardian of the general process and requirements laid down in these GVGs, will further distribute the documentation to the relevant IEG.

The relevant IEG will have at least four weeks' time to comment on the data and give a recommendation for each individual verification. If an IEG member does not respond before the deadline of the commenting period, it is considered to be an agreement.

The main focus for the experts' assessment is the determination of compliance with the VERA test protocol in terms of:

- environmental added value (emission reduction);
- operational stability;
- the application of the correct measurement and statistical methods allowed by the VERA test protocol;
- fulfilment of the test requirements and conditions set out in the VERA test protocol; and
- plausibility of the data and results.

The experts can use the IEG evaluation form if it is helpful for them to do so.

The Verification Body may have already decided to include the draft of the VERA Statement text in the documentation for the experts' evaluation. Then the experts need to be contacted only once, and the two approval steps for the data and the VERA Statement text can be combined. This can be helpful to speed up the process, especially in cases where the application data appear to provide a solid basis without any obvious indications that the application might be rejected by the experts.

If the experts distinguish dangerous side effects or other severe issues of any kind in relation to the tested technology, these aspects will be summarised by the International VERA Secretariat for further consideration. To give an example, although a technology might be suitable for reducing emissions, it might be harmful to people, livestock or the environment as a result of producing toxic by-products.

In a case where there are disagreements within the expert group about the severity of the side effect, the International VERA Board may decide if this technology can be verified at all and may exclude this type of technology from VERA verification. It is a case-by-case decision of the VERA experts on how to handle side-effects and if the International VERA Board should be involved. In any case, the side effects shall be described and highlighted in the VERA Verification Statement, including the measurement data and any known measures taken to prevent these side effects; e.g. by applying specific conditions during use of the technology. It must be possible to decide whether the side-effects are too severe or not.

Solely national requirements and restrictions may be added as a comment in the verification report / VERA Verification Statement, but, as such, cannot lead to an overall rejection of a verification.

B.V Reporting



The Verification Body shall record the experts' evaluation in the verification documentation and share it with the applicant as described in Section B.V.1. Any additional questions related to the technology to be verified and to the test setup shall be clarified to assure a holistic view and a reliable assessment by the experts.

For the interim period, the funding of the experts is to be organised at a national level. Later, the experts' efforts should be user paid for and included in the verification costs, which should be handled via the Verification Body.

B.IV.2 Verification

After the general evaluation of the technical files by the Verification Body, and the approval of the testing and technical data by the relevant IEG, the assessment is considered to be final. The result of this stage shall be the complete documentation justifying that the verified technology evaluation is considered to be complete, appropriate, and based on reliable test methods and test results.

In the case of unsolvable disagreements within the IEG, the topic has to be clarified by the International VERA Board representing the mediation body. The International VERA Secretariat will coordinate the exchange of information, and will provide a summary of the different issues and points of view in cooperation with the Verification Body involved.

In a case where the evaluation leads to the conclusion that the data and documentation does not fulfil the requirements of the VERA test protocol or these GVGs, the Verification Body will consult with the applicant to start additional measurements. If the applicant is not willing to do so, the verification process is then considered to be 'rejected' and ends immediately. If remeasurements are conducted, the process continues with the testing as described in Section B.III.

B.V Reporting

Based on the outcome of the assessment of the data and verification, and provided that the verification procedure is not interrupted by the applicant, the relevant IEG or the Verification Body, the next phase includes both drafting the VERA Statement and creating all documentation.

The test results should be given in terms of absolute numbers and also in relation to a common reference system, if it is applicable. The overall VERA Verification Statement should provide an emission reduction rate expressed as a percentage and may state an emission factor, if determined.

The Verification Body shall draw up a verification report giving all the steps taken and the results obtained in the implementation of the verification contract, and shall draft the VERA Verification Statement. After possible revisions, and **with the agreement of the applicant and the approval of the corresponding IEG**, the Verification Body shall submit the final VERA Verification Statement and the verification documentation to the International VERA Secretariat.



B.V.1 Verification documentation

At the end of each verification, the Verification Body shall compile all records and produce a verification report. This will be archived for at least 15 years by the Verification Body for quality assurance. The archive may be digital files and/or hard copies. In addition, it will be shared with the International VERA Secretariat and the applicant.

The verification report shall be compiled from all information relevant for the verification, as provided under Section B.IV, and it shall include all relevant documents produced during verification, such as the:

- pre-scan;
- application (including all technical descriptions of the technology);
- contract and any agreements;
- test plan (if it is not part of the test report issued by the test body);
- all test reports;
- experts' evaluation and summary;
- important correspondence with the applicant or any other partner involved (e.g. approvals or other agreements); and
- history of the verification process (i.e. a document that lists all individual steps and any incidents relating to the verification).

B.V.2 VERA Verification Statement

B.V.2.1 Content

Upon completion of the verification procedure, the Verification Body shall issue a VERA Verification Statement. It shall summarise the verification report and include:

- a summary description of the technology verified, complete with the denomination or reference number, purpose and conditions of use;
- the verified parameters, including the field of application, conditions and assumptions under which the verified performance is met;
- the specific VERA test protocol applied, including its version; and
- a summary of the test set up, test procedures and results stated by the test bodies, including the relevant statistical parameters as described in the specific VERA test protocol.

The cover page and the following pages of the VERA Verification Statement shall follow the template provided in Appendix 5. Each VERA Verification Statement shall be serially numbered and shall be signed by the Verification Body. The serial number for the VERA Verification Statement is provided by the International VERA Secretariat, which registers all VERA verifications.

B.V.2.2 Approval process

Before the final approval, the IEG will have the opportunity to approve the final VERA Verification Statement. If no response is received from an IEG member within 14 days, it is considered to be an approval.



If the Verification Body considers preliminary consultation with the IEG before drafting the VERA Verification Statement to not be necessary, the Verification Body may submit all data and technical documentation, and the draft of the VERA Verification Statement at the same time, and thus combine into one the two steps for gaining approval from the IEG. The commenting period shall then be at least four weeks to allow sufficient time for evaluating the data and documentation.

After the final approval, the VERA Verification Statement shall be submitted to the applicant. The applicant should approve the publication of the statement in terms of the protection of his/her intellectual property.

In a case where there are any disagreements or deviations from these GVGs, the International VERA Secretariat, in its coordinating function, can approach the International VERA Board for further inspection and clarification.

B.V.2.2 Languages

All VERA Verification Statements must be issued and published in the English language to ensure the transparency of each VERA verification. The results need to be easily accessible for all partners and stakeholders. On special request, the manufacturer can order VERA Verification Statements in any language of interest. In the case of a dispute, the English version of the VERA Verification Statement is the legally binding document.

All translations of VERA Verification Statements into local languages, no matter if translated by the company or by a professional translator (at a cost), have to be approved by at least one VERA expert from the relevant country.

Translated VERA Verification Statements can solely be approved and published via the International VERA Secretariat to prevent misunderstandings and the misreading of results. The issue date of each statement is the date of issue for the respective language version.

B.VI Publication

The full VERA Verification Statement, cover page and test summary shall be registered and published by the International VERA Secretariat on the official VERA website: http://www.vera-verification.eu.

The complete verification documentation, including the verification reports, remains within the VERA organisation and may not be made publicly available to protect proprietary rights.



B.VII Post verification

B.VII.1 Use of the VERA statement and VERA logo

B.VII.1.1 General terms when communicating about VERA

The name and logo of VERA may be used without restrictions when reporting on the VERA programme as a whole; i.e. when it is not about the verified performance of a specific technology. Therefore, an article in the press, or a post in a blog or on a website may use the VERA logo to advertise the programme.

In a case where someone wants to report on the verification of a certain technology, especially when publicising its performance, all of the following elements must be included and mentioned:

- the name of the technology and manufacturer;
- the application area;
- the verified performance, including specific operational conditions; and
- an explicit reference to the VERA Verification Statement (number, date of verification and website).

The VERA name and logo may <u>not be used</u>:

- as part of a company name, product name, service name, domain name or website title – with the exception of VERA Verification Bodies, which are allowed to use them in the context of their VERA activities; or
- in association with a company or technology that has not obtained a VERA verification.

B.VII.1.2 Use of the VERA Verification Statement and logo by the applicant

The VERA Verification Statement may be used by the applicant in any dealings with other organisations, for marketing purposes and for official approval. It may be included in the technical documentation of the verified technology. The applicant shall make the statement available in full only and shall not use parts of the statement for any purpose.

The applicant may refer to the VERA Verification Statement as follows: 'The technology XX was verified in the framework of the VERA programme for the application AA (including the purpose and application conditions) by the VERA Secretariat/Verification Body on DD.MM.YYYY. The VERA Statement has been registered under number NN and is accessible at the following address: <u>http://www.vera-verification.eu</u>.'

The applicant shall not use the **VERA logo** alone, either on products or on published (printed, website or other) matter, other than the VERA Verification Statement itself. The VERA logo may be used on publications together with the reference to the VERA Verification Statement, as detailed above, as long as the meaning of VERA is correctly reflected by the publication, avoiding, in particular, any confusion with endorsement or approval of the technology. The VERA logo should be reproduced according to the official artwork. The colour code is R=19, G=165, B=56.



The applicant shall ensure that the verified technology conforms to the published VERA Verification Statement. If any of the following **changes to the verified technology** have occurred, the applicant shall report this to any VERA Secretariat or the Verification Body with the data needed to evaluate whether the conditions for verification have changed:

- Change of ownership.
- A design change, or a change to the intended application or operational conditions.
- Other changes likely to modify the performance results reported in the VERA Verification Statement. Substitution of one part for another with the same documented specifications is not considered to be a change, unless it affects the environmental performance or one of the parameters reported in the VERA Verification Statement.

The Verification Body shall evaluate the reported changes and data at the cost of the applicant. If, after evaluation and where necessary in consultation with the IEG, the Verification Body concludes that the conditions for verification have changed, a new verification procedure shall be initiated by the applicant for this technology or, alternatively, the VERA Verification Statement shall be withdrawn.

The VERA Verification Statement shall be withdrawn by the International VERA Secretariat if misused by the applicant. '**Misuse**' is defined as the violation of the conditions of the VERA verification. In the case of **withdrawal**, the VERA Verification Statement shall be removed from the Internet.

The applicant may also ask for the VERA Verification Statement and associated report to be withdrawn from the Internet; for example, if the technology is no longer on the market. This should be requested by a letter sent to the Verification Body or to the International VERA Secretariat directly, with a commitment to not use the VERA Verification Statement, any reference to it and the VERA logo anymore. The Verification Body shall transmit this request to the International VERA Secretariat, and the VERA Verification Statement shall consequently be withdrawn from the VERA website.

B.VII.2 Follow-up on performed verifications and improvement management

Customers' feedback on the usefulness of VERA when applying verified technologies and associated environmental performance, and applicants' feedback on the added value of VERA in the marketing of verified technologies and the economic benefits are needed to contribute to the continuous evaluation and improvement of the VERA system. All VERA partners shall seek and collect such feedback. The Verification Body shall survey applicants systematically one year after completion of the verification process and report the results to the International VERA Secretariat.

In addition, a platform for gathering ideas for further improvements to VERA in any direction, organisational, scientific or with regard to contents, will be provided in a manner that is easy for any stakeholder to access; e.g. on the VERA website.



B.VII.3 Complaint management

Complaints related to the quality of a VERA verification should be addressed to the relevant Verification Body or any VERA Secretariat. In the case of a disagreement on a technical issue between the Verification Body and another party in relation to the VERA programme, an opinion may be asked of the relevant IEG by the International VERA Secretariat. In a case where the Verification Body decides not to follow the opinion of the IEG, a detailed report justifying this decision should be addressed to the International VERA Secretariat. The International VERA Secretariat, in consultation with the International VERA Board, may decide on appropriate measures on the basis of this report.

The legal regime and relevant legal authorities for the relations between the Verification Body and the applicant should be indicated in the contractual agreement signed by the two parties.

Complaints related to the competence or qualification of a VERA partner or **complaints related to VERA procedures** should be addressed to the International VERA Board via the International VERA Secretariat.

B.VII.3 Outreach

VERA strives to support verified technologies in agricultural applications. Verified technologies are published by the International VERA Secretariat and are included in other VERA outreach materials. VERA will conduct targeted outreach activities, and further encourage and support the member states and other contact points in outreach activities at a national level. On a regular basis, activities will be implemented to evaluate the success and effectiveness of the programme, its bodies and procedures.



Part C: Quality management

In order to ensure confidence in the verification results, strict quality management of the involved organisations and quality assurance of the verification process are required. All bodies involved in verification (Verification Body, test body and subcontractor) shall have implemented a quality management system meeting at least the principles of EN ISO 9001 (Quality Management Systems – Requirements) or an equivalent standard, and shall conform to the requirements of these GVGs.

The common language within VERA and for documentation is English.

Verification Bodies shall be authorised and approved by the International VERA Board and meet the requirements listed in Section A.II.3.1 of these GVGs. An accreditation according to ISO/IEC 17020 is desirable but not obligatory, if the Verification Body fulfils all requirements described in these GVGs.

Test bodies performing standardised analyses shall be accredited according to ISO/IEC 17025 (General Requirements for the Competence of Testing and Calibration Laboratories) for the relevant methods of analysis, if any. For other test bodies, analogous to the Verification Bodies, accreditation according to ISO/IEC 17025 is desirable but not obligatory (yet), if the body fulfils all requirements described in Sections A.II.6.1 and A.II.6.2 of these GVGs. Requiring obligatory accreditation for all test institutes with VERA test protocols in their scope of accreditation is still under discussion.

The following process map (Figure 5) indicates the major processes and gives an overview of the system.



Figure 5 – Process map of the VERA programme



C.I Quality assurance of the verification process

The principles of quality assurance in all steps for verification, testing and analysis are shown in Figure 6.



Figure 6 – Principles of quality assurance in VERA

The **national accreditation bodies** shall ensure that the test bodies and analytical laboratories conform to the requirements of ISO/IEC 17025 for the relevant methods of testing and calibration. If applicable, the national accreditation bodies shall assess if the Verification Bodies conform to the requirements of ISO/IEC 17020 for inspection bodies, and to these GVGs.

The Verification Body (i.e. the authorised National VERA Secretariat) has the overall responsibility to ensure that the verification is conducted according to these GVGs. The Verification Body shall warrant that the test body performs test planning, execution and reporting according to the procedures of these GVGs and the relevant VERA test protocol.

The Verification Body shall ensure that the test bodies involved in a verification meet the quality management requirements and the general test requirements of these GVGs. A test body can demonstrate meeting the quality management requirements and the general test requirements of these GVGs through their accreditation according to ISO/IEC 17025 for the relevant methods of testing and calibration. In order to ensure that all quality requirements provided in these GVGs are met, the Verification Body may have to supervise or implement specific audits in addition to or instead of the proof of compliance provided through accreditation.

The **International VERA Secretariat** may audit the performance of Verification Bodies in its role as 'controller of the verifier' on behalf and upon the request of the International VERA Board. The International VERA Board may decide to advise an interlaboratory test or similar quality assessment tools for test bodies that perform VERA tests.


The **test body** has the overall responsibility to ensure that the tests are done according to these GVGs, and the requirements for test design and data quality of the relevant VERA test protocol. The test body shall warrant that the analytical laboratory performs planning, performance and reporting of analyses according to the requirements of these GVGs and the relevant test plan, and provides sufficient quality assurance.

If deviations from the previously stated requirements are observed by any of the entities involved in a verification, the causes shall be investigated; the effects assessed, mitigated and reported; and measures taken to avoid repeated deviations.

C.II Quality control for existing data

The quality of the existing data shall be evaluated by the Verification Body by checking the documentation, raw data and quality control data from the data production. All actions and reasons for approval or rejection have to be clearly described and documented. Only data calculated without testing is not acceptable for verification.

The existing data shall meet the requirements on test design and data quality as set in the relevant VERA test protocol and these GVGs. The test plan and test report shall be provided and any other information covering in substance the content as defined in the VERA test protocol.

The existing test data must be produced under quality assurance compliant with ISO/IEC 17025. Suitable and sufficient documentation, in terms of quality assurance, is to be provided on procedures and records; in particular, relating to staff training and qualifications, the calibration of instruments, measurement and data logs, tractability sheets, non-conformities, test methods and method validation reports, etc. If such documentation is not available, is not suitable or not sufficient, the data cannot be accepted.

In addition to checking the documentation and data in an in-depth desk review, the Verification Body may undertake one or more of the following actions to evaluate the quality, reliability and acceptability of the existing data; particularly, in the absence of accreditation:

- *Spot checks*; i.e. the random checking of a certain portion of the data, including all steps with potential errors. In a case with several mistakes, a complete check may eventually be necessary.
- *Witness checks*; i.e. an onsite audit with evaluation of the performance of the testing, focussing on accuracy of measurement, measurement devices/methods, repeatability, etc.
- *Conditional acceptance of existing data,* in which case the conditions for acceptance shall be approved by the IEG; these conditions may include re-testing.



C.III Quality assurance

C.III.1 International VERA Secretariat

The International VERA Secretariat shall have and apply the appropriate procedures for ensuring that any relevant VERA activity is reported to the International VERA Board. For VERA verifications, it must ensure that the required level of quality and reliability is applied by all parties involved; i.e. how the VERA Secretariat plans quality assurance in terms of review, audit or initiating interlaboratory tests. The selection of measures, its frequency and limitations have to be approved by the International VERA Board.

The International VERA Secretariat involves the experts of the IEG for reviewing documents. The experts shall not belong to an organisation hosting or having a financial interest in the VERA Secretariat, or in the applicant and its technology to be tested. Their competence shall be documented in a list of experts by the International VERA Secretariat. The national members of the International VERA Board must demonstrate that the recruited experts are free from any undue commercial, financial or other pressures that may adversely influence the judgement of the experts. The experts shall be nominated by the International VERA Board, as laid out in Section A.II.4.

The reviewing process followed by the international experts shall be documented to ensure an adequate level of quality and reliability. This document file shall be archived and made available for the Verification Body to include it in the individual verification dossier.

C.III.2 Verification Body: National VERA Secretariat

The Verification Body shall have and apply the appropriate procedures for ensuring that the plans, performance and products of verification activities meet the required level of quality and reliability; i.e. how the Verification Body plans quality assurance in terms of review, assessment and audit. This shall include the reviews, assessments and audits detailed in Table 2 - Quality assurance steps for the Verification Bodies. The procedure shall describe the process of test body audits and audit evaluations, including audit responsibilities and planning, auditor training and competences, and audit reporting.

Entity	Object Verification Body		External
		(Internal Auditor)	Auditor
Test body	Test plan	Review	National
Test body	Test system and test body	Assessment (with or	accreditation
	quality management system	without system audit)*	body or
Test body	Test report	Review	International
Verification	Verification report and VERA	Review	VERA
Body	Verification Statement		Secretariat

Table 2 – Quality assurance steps for the	e Verification Bodies

*The test system assessment shall include a test system audit for test activities that are not covered by an ISO/IEC 17025 accreditation, if the test body has not already been audited by the Verification Body in the same year.



The quality assurance planned for a specific verification must be described, providing the names of personnel and internal auditors – including their competences, as well as the timing of reviews and audits – where applicable. This may require amendment following the assessment of existing data.

The reviewing process by internal and external audits, and assessments shall be documented to ensure an adequate level of quality and reliability. Complaints by applicants, or by or about test bodies shall be addressed in accordance with the relevant procedures. A summary of all quality-assurance- and quality-management-related measures and activities shall be shared with the International VERA Secretariat on behalf of the International VERA Board in an annual report.

C.III.3 Test body

The test body shall have and apply appropriate procedures for ensuring that the plans for the performance and products of test activities are of the required level of quality and reliability, i.e. how the test body plans quality assurance in terms of review and audit. This shall include the reviews and audits detailed in Table 3 – Quality assurance steps for test bodies, unless provided differently in the VERA test protocol. Where appropriate, the procedure shall also describe the process for a performance review for subcontractors.

Entity	Object	Verification Body	Responsible test body staff
Test body	Test plan	Review	-
Test body	Test system and test body quality management system	Test system control, via audit(s) if appropriate	-
Test body (analyses)	Method performance		Validation **
Test body (analyses)	Analytical performance		Quality control and review **
Test body	Test report	Review	-

Table 3 – Quality assurance steps for test bodies

** This shall be part of the quality management system of the test body

The quality assurance planned for a specific test must be described in the test plan, and must provide the names of experts and auditor, as well as the timing of reviews and audits, if any.

The review of analytical performance shall include:

- Laboratory-stated measurement uncertainties and limits of detection;
- analytical quality control data; and
- information on participation in proficiency tests for the analysis used and the relevant period.



The reviewing process shall be documented to ensure an adequate level of quality and reliability. A description of the method for documenting reviews shall be included in the quality manual or in a dedicated quality plan.

Non-standard measurement methods have to be clearly described in the test plan, including required calibration and quality control procedures. Non-standard test methods have to be validated as per ISO/IEC 17025 section 5.4.5., if not described as a possible testing method in the specific VERA test protocol.

The records for test data (raw data) shall be stored, transferred, maintained and controlled in order to ensure data integrity, for a period defined in the test plan, which is not shorter than ten years from the completion of the test.

Applicant complaints shall be addressed in accordance with the relevant procedures of the test body and reported to the Verification Body.



Part D: Supporting Documents (Appendices)

Appendix 1: Glossary of terms and definitions

Accreditation	This shall have the meaning assigned to it by Regulation (EC) No. 765/2008.
Additional parameter	Information on a technology, not covered by performance, operational or environmental parameters, but considered a part of the verification process because of its usefulness and relevance for technology users.
Amendment	This is a change to a test plan before the verification or test step is performed.
Deviation	This is a change to a VERA test protocol or a test plan that is done during the performance of a verification or test step.
Environmental added value	The reduction of an environmental pressure or a positive impact on the environment, including, but not limited to, the removal, prevention, reduction or mitigation of pollutants released to the environment; the restoration of environmental damages; or use of natural resources in a more efficient and sustainable manner.
Environmental	These are measurable parameters related to potential
parameters	environmental impacts or the environmental added value.
Environmental	These are all technologies that provide an environmental added
technologies (ET)	value compared to the relevant alternatives.
General VERA	This is the description of the principles and general procedures
Guidelines (GVGs)	to be followed when the VERA programme verifies an environmental technology in agriculture.
Harmonised standard	This is a standard adopted by one of the European standardisation bodies listed in Annex I to Directive 98/34/EC, on the basis of a request made by the European Commission in accordance with Article 6 of that directive.
International Expert Group (IEG)	This is a group of nominated experts from the participating countries for each VERA test protocol who will comment the VERA verifications.
International VERA Board (IVB)	This is the steering group of the VERA programme, composed of representatives of the participating member states.
International VERA Commission (IVC)	This comprises the nominated experts from the participating countries who develop and review the VERA test protocol. A corresponding IVC exists for each VERA test protocol.
National accreditation body	This shall have the meaning assigned to it by Regulation (EC) No. 765/2008.
Operational parameters	These are measurable parameters that define the application, and the verification and test conditions.
Performance claim	This is a set of quantified and measurable technical specifications, which are representative of the performance of a



	technology in a specified application and under specified
	conditions of use.
Purpose	This is the measurable property that is affected by the
	technology and details how it is affected.
Ready to market	This means that the technology is available on the market or is
	at least available at a stage where no change affecting its
	performance will be implemented before introducing the
	technology onto the market.
Spot check	The auditing of a laboratory through the random checking of a
	certain portion of test data, including all steps with potential
	errors.
Technology	This is the practical application of technical or scientific
0,	principles to achieve a given purpose. The term 'technology'
	covers products, processes, systems and services.
Technology group	This is a class of technologies serving the same or closely related
0,0 1	purposes; i.e. used for the same application.
Test performance audit	This is the quantitative evaluation of a measurement system as
•	used in a specific test; e.g. the evaluation of laboratory control
	data for relevant periods, results from interlaboratory tests and
	the control of calibration of measurement devices.
Test system	This is a system in which tests are carried out; e.g. the
	qualification of personnel, the calibration of instruments,
	sampling procedures, data handling, documentation, etc.
Test system	Determining the suitability of the test system and quality
assessment	management system of a test body in the form of a risk
	assessment associated with the test protocol and the general
	verification guidelines. A remote and/or onsite audit can be a
	part of it.
VERA test protocol	This is the test protocol elaborated by the IVC and approved by
	the IVB, which describes the specific process of testing a certain
	technology, and applying the principles and procedures of the
	GVGs.
Verification	This is the provision of objective evidence that the technical
	design of a given environmental technology will ensure the
	fulfilment of a given performance claim in a specified
	application, taking any measurement uncertainty and relevant
	assumptions into consideration.
Verification Body	An organisation that is authorised as such by the IVB to perform
vermeation body	the verifications and issue the VERA Verification Statement. It
	can be identical to the National VERA Secretariat.
Witness checks	An onsite audit with the evaluation of the performance of the
	testing, focussing on the accuracy of measurement.



Appendix 2: List of Templates

Templates may be modified by the IVC, the IEG or IVB, and published as a guidance document, without the need to update the GVGs.

The templates are a suggestion, and are not mandatory if not stated otherwise in these GVGs or in the VERA test protocol.

Template	File documentation (with latest versions)	
Application form	VERA website	
	Content in Appendix 3	
Terms and conditions for VERA	VERA website	
application	Content in Appendix 4	
VERA Verification Statement	Content in Appendix 5	
IEG evaluation form	Shared with all IEG members	
Checklists for the test report for:	VERA website	
- Air cleaners		
 Housing systems 		
 Land-applied manure 		
- Manure separation		
- Covers		
Test plan for:	Part of the VERA test protocol	
- Air cleaners		
 Housing systems 		
- Land-applied manure		
- Manure separation		
- Covers		
Contract – test site – for:	Part of the VERA test protocol	
- Air cleaners	VERA website	
 Housing systems 		
- Land-applied manure		
- Manure separation		
- Covers		



Appendix 3: Application form (template)

Application for a VERA Verification Statement

Application date:				
Applicant				
Company				
Contact person				
Address				
ZIP Code				
City				
Phone				
Email				
Website				
Manufacturer				
Test	1			
Applied test protocol		□ Housing and management systems □ Air cleaner		
		□ Covers □ Slurry separation □ Land application		
□ The test is pre-approv	ved by			
□ The technology was applied for VERA before				
Date:	•••	itution:		
Existing test data available?		🗆 Yes 🗆 No		
<u> </u>		If yes, add the test plan/summary, including a		
		description of test methods, sampling days and the		
		qualification of test institute(s)		
Date of completed test				
Test institute(s)				
Contact person				
Test institute accredited?		□ Yes to ISO 17025 □ Yes to□ No		
Technology				
Product name				
Basic principle				
Animal category		Pigs Cattle Poultry Fur Other:		
Level of production		□ Finishing pigs □ Piglets □ Dairy cows □ Calves		
		□ Laying hens □ Broilers □ Others:		
Main environmental effects		🗆 Ammonia 🗆 Odour 🗆 Dust 🗆 Other		
Necessary conditions for environmental				
performance				
Limitations				
Side effects (e.g. noise, electricity				
consumption or GHG)				
Other benefits				
Relevant alternatives				



Appendix 3: Application form (template)

Natural resources (water, energy or other) are under direct control?	□ Yes	□ No	
Main technical standards, regulations or references applicable to this technology			
Is the technology operationally stable?	□ Yes	□ No	
Is the technology available on the market?	🗆 No	□ Yes, since ('year')	
is the technology available on the market?	Prototype	Pilot scale demonstration unit	
If prototype/pilot: list planned changes			
Intellectual property rights:			
Sole and full owner of technology?	□ Yes	□ No	
Are there any intellectual property rights' issues in respect of this technology, or any part or aspect			
of the technology, that might prevent its development and/or which could result in any legal or			
other issues for the VERA programme?	🗆 Yes	□ No	

Technology list

□ Should the technology be admitted to the Danish Technology list?

□ Should the technology be admitted to the Dutch Rav list?

Appendix

Please add the following documents to your application:

- 🗆 User manual
- □ Test report(s), if available
- □ Additional documents

(e.g. technical documentation, licence/intellectual property rights, health and safety requirements and statements of fulfilment of regulatory requirements)

Conditions

□ Applicant has read and agreed to the terms and conditions for the submission and processing of the application for a VERA Verification Statement, and the General VERA Guidelines.

Please note that, once a verification contract is concluded, the main process documents, including the application form and verification documents, will be shared with the International VERA Commission (IVC), the VERA Expert Group (IEG) and the national VERA Secretariats in a confidential manner. The purpose of information sharing is the harmonisation and improvement of a VERA Verification. All members of VERA have the same confidentiality obligations as the VERA Secretariat and any Verification Body.

Please tick here to authorise the Verification Body to share the information provided in a confidential manner with the VERA expert groups and the National and International VERA Secretariats.

Please send the completed application form together with the necessary documents either by email to <u>info@vera-verification.eu</u> or on a data CD by standard postage to the International VERA Secretariat or your National VERA Secretariat.



Appendix 4: Terms and conditions (template) Terms and Conditions for a VERA application

1. General terms

- 1.1. The VERA organisation does not endorse, certify or approve technologies. VERA verifications are based on an evaluation of the technology's performance under specific, predetermined criteria and the appropriate quality assurance procedures. VERA makes no expressed or implied warranties as to the performance of the technology, and does not certify that a technology will always operate as verified.
- 1.2. The end user is solely responsible for complying with any and all applicable federal, state and local requirements. Furthermore, the end user must be aware that the countries involved in VERA have different legal requirements, which will influence the status and use of this verification statement in each country.

2. Validity

- 2.1. A VERA Verification Statement is only valid for the specific verified product/technology and the tested animal category. There is no time limit for the validity of a VERA Verification Statement as long as the product/technology stays unmodified. The International VERA Secretariat can, however, at any time, invalidate the VERA Verification Statement if it is found to have been misused or if significant modifications have been made to the product/technology that are estimated to have a negative effect on the environmental efficiency or operational stability. With regard to the latter, the International VERA Secretariat can require that a new VERA test must be performed.
- 2.2. A VERA Verification Statement provides access to the admission of the specific technology onto the Danish Technology List of environmentally efficient technologies for agricultural purposes, which is administered by the Danish Environmental Protection Agency, and to the Dutch Rav list administered by the Dutch Ministry of Infrastructure and the Environment, provided that the VERA test shows adequate operational stability and sufficient environmental efficiency. The final evaluation for admission onto these lists is solely a decision made by the individual ministries in question.

3. Processing an application

- 3.1. When the Verification Body receives the application, the applicant will be notified if the application meets the formal requirements and if the required documents are included.
- 3.2. The application is evaluated by the Verification Body in collaboration with the International VERA Secretariat and a group of international experts. The involved parties are obliged to handle all information confidentially. Potential Intellectual Property Right issues have to be clarified together with the Verification Body when submitting the application.
- 3.3. The duration of the evaluation procedure depends on the quality of the application and the attached documentation. If additional information is needed, the processing period can be prolonged. The Verification Body aims to keep the applicant continuously informed about the status of the evaluation.
- 3.4. A VERA verification can be granted when it has been verified that a test has been carried out according to the demands in the applicable VERA test protocol. The VERA Verification Statement is ready for issuing after approval by the International VERA Expert Group, the International VERA Secretariat and the Verification Body handling the application. The applicant has five days to comment before the final VERA Verification Statement can be issued.



- 3.5. The VERA Verification Statement describes among other things which technology the statement is concerning, a description of the technology, the results from the test, focussing on the environmental efficiency and operational stability and the terms and conditions for using the VERA Verification Statement.
- 3.6. The VERA Verification Statement issued in English is the legally binding document. Statements in other languages are only possible after approval and publication by the International VERA Secretariat.

4. Terms of Use of the VERA Verification Statement

The use of this VERA Verification Statement must be in compliance with Section B.VII of the General VERA Guidelines (GVGs), amongst others:

- 4.1. The applicant must inform the International VERA Secretariat or the VERA Verification Body if any modifications are applied to the technology that may significantly influence the environmental efficiency and/or the operational stability.
- 4.2. This verification cannot be considered to be an endorsement, approval, authorisation or warranty of any kind, and the performance parameters provided cannot be extended to other applications or to other technologies.
- 4.3. The applicant agrees not to use the VERA Verification Statement or the test reports, or to refer to those for any other technology than the one specified in the statement.
- 4.4. The VERA Verification Statement will be made available for public access on the VERA website: <u>www.vera-verification.eu</u>. This also relates to any VERA-approved statements in any language besides English.
- 4.5. All other documentation obtained or produced during the verification process is considered confidential, and will not be made available to anyone outside the VERA organisation.

5. General terms when communicating about VERA

- 5.1. The name and logo of VERA may be used without restrictions when reporting on the VERA programme as a whole, i.e. when it is not about the verified performance of a specific technology. Therefore, an article in the press, or a post in a blog or on a website can use the VERA logo to advertise the programme.
- 5.2. In a case where the verification of a certain technology is to be reported, especially when publicising its performance, <u>all</u> of the following elements must be included and mentioned:
 - The name of the technology and manufacturer
 - The application area
 - The verified performance, including specific operational conditions
 - Explicit reference to the VERA Verification Statement (number, date of verification and website)
- 5.3. The VERA name and logo may <u>not</u> be used:
 - as part of a company name, product name, service name, domain name or website title – with the exception of VERA Verification Bodies using them in the context of their VERA activities; or
 - in association with a company or technology that has not obtained a VERA verification.

I agree to the terms and conditions for a VERA verification and the General VERA Guidelines.

Date

Signature and stamp of applicant

Appendix 5: VERA Verification Statement (template)

Cover page

(Half VERA logo, transparent, covering the left of the cover page)

VERA VERIFICATION STATEMENT

VERIFICATION OF ENVIRONMENTAL TECHNOLOGIES FOR AGRICULTURAL PRODUCTION

> It is hereby stated that TECHNOLOGY

XYZ MANUFACTURED BY

ABC

has been tested according to the VERA Test Protocol for [application area] (Version X, year).

The following main results have been documented as a result of the test:

Verified environmental efficiency

[Substance] emission reduction efficiency at XX % when applied in [...]

Verified operational stability

The technology, XYZ, has demonstrated a satisfactory operational stability.

Date

Signature of verification body VERA Logo and logo of verification body

VERA Verification no. 999. This VERA Verification Statement is only valid when included in the full document. This is page 1 of N. A copy of all valid VERA statements can be found at www.vera-verification.eu



Format of all other pages of the VERA Verification Statement:

- Footer: VERA Verification Statement Technology XYZ page x of n
- **<u>Headlines:</u>** 'VERA green': R=19, G=165, B=56.

Table of Contents:

- ✓ Cover page
- ✓ Page 2: Exemption of liability
- ✓ The VERA Organisation
- ✓ Applicant data (table)
- ✓ Technology description
- ✓ Test design
- Test results for environmental performance, operational stability and identified side effects
- ✓ Additional results
- ✓ Additional information
- ✓ Test institute(s)
- ✓ Validity and terms of use
- ✓ Contact information for the VERA Verification Body