



Open Call for Tender

for a literature survey and consultation providing the basis for the standardization of measurement methods of volatile organic compounds that are precursor substances in ambient air in support of Directive 2008/50/EC

Starting date: 2023-10-04 Deadline for tenders: 2023-11-09

I Introduction

I.1 General

The following projects require the development and validation of standardized measurement methods for ozone precursors using the following techniques:

- Automatic pumped sampling, pre-concentration and on-line gas chromatography with flame ionisation detector (FID) and/or mass spectrometer detector (MSD);
- Manual or automatic canister sampling followed by off-line gas chromatography with FID and/or MSD:
- Manual or automatic pumped sampling followed by off-line thermal desorption and gas chromatography with FID and/or MSD;
- Diffusive sampling followed by thermal desorption by off-line gas chromatography with FID and/or MSD:
- Manual or automatic pumped sampling of formaldehyde on dinitrophenylhydrazine (DNPH) followed by off-line high-performance liquid chromatography (HPLC) / ultraviolet (UV) detection;
- Diffusive sampling of formaldehyde on DNPH followed by off-line HPLC/UV detection.

For these projects, a literature survey and consultation providing the basis for the standardization for all requested methods will be contracted. These tasks (WP 2, see Section II) are subject to this call for tender.

I.2 Context

A standardization request in support of Directive 2008/50/EC on ambient air quality and cleaner air for Europe (= the Directive) has been issued. The Commission requests the European Standardisation Organisations (ESOs) to develop validated standard measurement methods for the measurement and monitoring of volatile organic ozone precursors in ambient air in order to ensure a harmonized implementation of the Directive. The Commission has requested a programme for Standard development. WG 13 has considered how best to fulfil the requirements of this standardization request, and proposes that the most appropriate way to deliver the requested standards is as follows most likely as a single standard containing multiple parts:

- Automatic pumped sampling, pre-concentration and on-line analysis by thermal desorption gas chromatography (TD/GC) with TD/GC with FID and/or MS of ozone precursors except formaldehyde
- 2. Manual or automatic pumped sampling of ozone precursors except formaldehyde followed by offline GC with FID and/or MS
- Manual or automatic canister sampling of ozone precursors except formaldehyde followed by offline GC with FID and/or MS

- 4. Diffusive sampling of ozone precursors except formaldehyde followed by offline TD/GC with FID and/or MS
- 5. Manual or automatic pumped sampling of formaldehyde on DNPH followed by offline HPLC/UV
- 6. Diffusive sampling of formaldehyde on DNPH followed by offline HPLC/UV

The European Committee for Standardization (CEN) is a business facilitator in Europe, removing trade barriers for European industry and consumers. Its mission is to foster the European economy in global trading, the welfare of European citizens and the environment. Through its services it provides a platform for the development of European Standards and other technical specifications. CEN's National Members are the National Standardization Bodies (NSBs) of the 27 European Union countries, United Kingdom, the Republic of North Macedonia, Serbia and Turkey plus three countries of the European Free Trade Association (Iceland, Norway and Switzerland). There is one member per country.

The standardization request in support of Directive 2008/50/EC on ambient air quality and cleaner air for Europe was notified to CEN with EC implementing decision in June 2019. The CEN Technical Board (BT) allocated the execution of the work to CEN/TC 264 "Air Quality". In TC 264 the standardisation and validation work are performed in WG 13 "Ambient air – Ozone precursors and benzene". DIN, the national standards body for Germany, provides the secretariat of CEN/TC 264/WG 13 and will perform the administrative management of the standardization work.

Standardized methods of analysis are of utmost importance for guaranteeing a uniform application of European legislation in all Member States.

II Objectives

The standardization request requires the drafting of six European standards. All six standards, which are subject of the standardization request, require the development and validation of measurement methods. The whole validation test programme consists of the following work packages:

Work package 2: Literature survey and consultation

WP 2 consists of a literature survey and consultation with users and manufacturers providing administrative, scientific and technical information as the basis for the successful standardization of the six methods listed in I.2. The execution of WP 2 requires cooperation with the owner of WP 1. The results of WP 2 affect the design of WPs 3 to 8.

Work Package 1: Consultant for planning, coordination and conceptual design for all requested methods

The task of the consultant is to ensure (in cooperation with the secretariat) a harmonised preparation of the standards. The consultant is (in cooperation with the secretariat) responsible for the preparation of the specifications which serve as the basis for the call for tender procedures for the validation tests (WP 3, 4, 5 and 6). This will involve identifying and reviewing any and all existing EN and/or ISO standards and other available measurement guidelines that are concerned with the measurement of volatile organic compounds in ambient air.

Work Package 3: Evaluation of parameters associated with analytical instrumentation

WP3 consists of a series to tests to evaluate parameters associated with the analytical instrumentation of the requested analytical methods (GC-FID and GC-MS for ozone precursors and HPLC for formaldehyde). The tests will determine the performance characteristics of the analytical methods and will be determined to provide the validation for the technical specifications developed in WP1. These tests will evaluate, for example, the limit of detection, carry over or memory effects, zeros, span drift, calibration technique and repeatability, cold trap efficiency, removal of analytical interferences: ozone, humidity, MS parameters, chromatographic resolution.

Work package 4: Evaluation of specific parameters associated with the sampling method WP4 consists of a series to tests to evaluate the performance characteristics of the requested sampling methods. The range of tests will be dependent on the sampling method and will be determined to provide validation for the technical specifications developed in WP1. These tests will evaluate, for example, breakthrough volumes, adsorption efficiency and back diffusion.

Work package 5: Testing under laboratory conditions

WP5 consists of a series of validation tests to evaluate each sampling method under controlled laboratory conditions. The efficiency of collection of ozone precursors and formaldehyde onto any sorbent, diffusion tube or canister, will be influenced by the prevailing amount fraction known environmental interferences

in the sampled air. These studies will quantify the effects and also assess the effectiveness and practicalities of known mitigation methods. The results will be used in the uncertainty budgets for final results and for define best practice in the case of mitigation approaches. The test programme will need to be assessed for each of the requested sampling methods to assess the effects. Tests will be performed at a range of ozone and water vapour concentrations, either by dynamic dilution or by sequential gas injection onto the sorbent trap or into a sampling canister.

Work package 6: Testing under field conditions

WP6 consists of a series of validation tests to evaluate each sampling method under field conditions and will serve to show reproducibility under field conditions and to compare results from different methods in field conditions. The field tests will be undertaken by a number of accredited test laboratories. The results of the field tests will be discussed within WG13 and based on the outcome the technical specifications will be finalized.

Work package 7: Data evaluation

The Data Coordinator (DC) will collate all the data from all the validation tests (WP3 to WP6) and will perform the data evaluation tests with support from the expert laboratories that conducted the validation tests. For each method, the results of all the test programmes will be reviewed and used to modify, if necessary, the text of the technical specifications to produce the standard method text. Individual test components will be assessed for their contribution to the total uncertainty budget and clear instruction for how to undertake the tests will be provided.

Work package 8: Project coordination

The Project Coordinator (PC) will ensure a harmonized performance of all validation tests. This involves the following tasks:

- Coordination of overall validation programme
- Timely and successful delivery of each of the subheadings
- Delivery to prescribed quality objectives
- Timely preparation of reports for WP 3, 4, 5, 6 and 7 and preparation of the interim report and final test validation report
- · Optimization of procedures and techniques
- Attending meetings scheduled by WG 13

III Execution

III.1 Tasks of work package 2

The execution of the standardization request will be divided into several work packages (see Section II). This call for tender refers only to WP 2.

VDI/DIN will carry out the procedural work and sign the contracts with the selected subcontractors following authorization by EC.

The successful contractor will be required to join WG 13 and will be expected to actively take part in the meetings and discussions of WG 13 and to contribute to the development of the standard.

Expected outcome of work package 2 (literature study and consultation)

WP 2 consists of a literature survey and consultation with end users and manufacturers and will address the following:

- Shall comprehensively review all the requested techniques to
 - i. identify examples of how these methods have been applied to cover defined objectives (e.g., emission characterization, source attribution, long-term trends) of Annex X of the 2008/50/EC Directive:
 - ii. the extent of their use;
 - iii. identify the range of precursors that can be practically measured with each technique.
- Shall determine the practical amount fraction levels of ozone precursor VOCs observed and at what type of measurement sites (e.g., urban, urban background, rural etc.).
- Shall describe what, if any, mandatory measurement requirements already exist for established networks regarding data quality objectives, time resolution and QA/QC procedures.
- Shall determine how comprehensive the VOC list in section B of Annex X of Directive 2008/50/EC currently is and what compounds are not included that should be considered for inclusion in the future as a result of their atmospheric abundance and ozone formation potential.

- Shall describe performance requirements (e.g., as repeatability, drift and measurement uncertainties) and test procedures (e.g., blank determination, stability, trapping efficiency) currently in use.
- Shall describe minimum requirements for on-going quality assurance/quality control (QA/QC) of VOC monitors deployed in the field, including monitoring of relevant ambient parameters. These requirements are necessary to ensure that uncertainties of measured concentrations are kept within the required limits during extended periods of continuous monitoring in the field, and include procedures for maintenance, calibration and control checks.
- Shall describe requirements and procedures currently in use for the treatment and validation of raw measurement data that is used for the aggregation of daily or yearly average concentration values.
- Shall describe what if any interferences (e.g., ozone, water vapour) could affect the sampling or analytical parts of the measurement system and what corrective actions are employed to minimise the impacts of these interferences on the acquired data.

III.2 Timeframe

The service contract shall enter into force on the date on which it is signed by the last contracting party. The contract with the selected candidate will be signed following the approval of the selection by EC.

The execution of the tasks may not start before the contract has been signed.

The project shall be finalized within 3 months from the signing of the contract. Detailed time frames for the respective projects are given in the Annex 1.

The owner of WP2 shall respect the deadline of the deliverable.

IV Financial support

The European Commission and EFTA have decided to provide financial support to the measurement method validation and the standardization work. The financial support from the European Commission and EFTA is based on the SMP 'Single Market Programme Regulation' (including its Financing Decision) and the MGA (Multi or mono beneficiary(ies) Grant Agreement). Unless specified otherwise, costs of external subcontractors such as laboratories or Consultants are generally funded at 100%, with approx. 95% being borne by EC and 5% by EFTA. Costs have to qualify as eligible as defined in MGA ESOS/2021/3111/12525-AG and also in compliance with EC Financial Regulation, and be justified. The payment is usually divided into several instalments after completion of defined milestones and approval of the interim/final reports and the justification of costs. The subcontractors shall fulfil the conditions of the MGA ESOS/2021/3111/12525-AG, including those relating to liability, ownership of results, confidentiality, conflict of interests, publicity, evaluation, assignment, checks and audits.

The service contract is given in the Annex 2.

The payment of the work is divided in two instalments:

- 50 % initial prefinancing
- 50 % after submission of the of the contractually agreed reports (see III.1).

The subcontractors' costs shall be justified with copies of the relevant invoices. All relevant evidence shall be kept in view of future payments (reports, work, drafts and deliverables, contracts & invoices, time sheets, tickets, boarding cards, hotel invoices, attendance lists with signatures, meeting agendas & reports, invoices for any consumables, purchase orders, etc...).

Costs incurred before the Grant Agreement is signed (unless, exceptionally differently agreed with the EC) and before the selection procedure is finalized, will not be considered as eligible for EU financial support.

V Selection criteria

The applicants shall comply with the following requirements:

- at least five years' relevant experience in the topic of measurement of ozone precursors;
- experience in the operation of air quality monitoring stations;
- experience in the field of analysis and data processing and/or number of completed projects/publications conforming related technical experience and activities;

- experience in the development and validation of measurement methods;
- experience in European and international standardisation procedures (including validation aspects) and related national mirror groups;
- experience in the management of task groups (working groups);
- experience in the organisation of interlaboratory tests and field tests;
- adequate academic background.

VI Award criteria

The selection of contractors will be made on the basis of the following criteria (with weighting in percent):

- i. at least five years' experience in performing relevant measurement work (30 %);
- ii. experience with comparable projects on the development and validation of test methods (25 %);
- iii. demonstration of high quality of work (e.g. by a formal quality management system) (30 %);
- iv. ability to submit agreed deliverables at specified dates (15 %).

Scores from 0 to 4 are possible. Tenders scoring less than 70 % of the overall total points or less than 50 % of the points awarded for a single criterion will be excluded from the remaining assessment procedure.

The selection panel shall select the candidate with the highest score. In the case of two or more candidates of equal qualification, the tender providing the best value for money shall be taken into consideration by the selection panel.

VII Eligibility criteria

The following candidates will be excluded:

- Candidates who were the subject of a non-likely judgment of recourse for a professional infringement
- Candidates who are in an irregular tax situation or in an irregular special taxation situation
- Candidates who provide incomplete or erroneous information.
- Candidates who submit their application after the submission deadline.
- · Candidates with any conflict of interest.

VIII Tenders

Tenders shall be sent to secretary of CEN/TC 264/WG 13, Mr Norbert Höfert, as soon as possible, to be received at the latest by 2023-11-09.

Tenderers shall place a bid inside a sealed envelope clearly marked CONFIDENTIAL, placing the sealed envelope in an envelope which is posted to the address indicated.

The tender shall be in English and contain:

- Curriculum Vitae of each relevant person participating in the project, demonstrating the necessary expertise for the 'Advertised position';
- Any required accreditation certificates;
- A schedule and a description of the execution of the tasks which will be carried out in the project as such:
- · A table with detailed information on the costs;
- Appropriate documentation to prove the economic and financial capacities;
- Any further documents to prove the qualification required in the above Clauses on Selection and Award criteria;
- A signed declaration, by which the candidate(s) certifies not to be subject to one of the exclusion criteria as described in Clause "Eligibility criteria" and the veracity of the adjoining documents.

Please note that, to ensure equal treatment of all tenders, it is not possible to modify offers after their submission in relation to the technical and financial proposals. Therefore, incompleteness in this section can only result in negative impact for the evaluation of award criteria. Please note also that proposals deviating from the technical specifications may be rejected for non-conformity.

The selection of the candidate will be conducted by a selection panel composed of the chairman and the secretary of CEN/TC 264, the secretary of CEN/TC 264/WG 13 and a representative of DIN. Where a conflict of interest occurs a suitable deputy may be appointed.

Tenders should be sent by legal representative, i.e. to be considered, any possible association has to be formalized according to the local legislation before submitting the tender. Working teams, partnerships and other groups of people, particularly under the aegis of an institute qualify as contractors for the service contracts awarded in the course of this CfT (Call for Tender). Partnerships or joint ventures and other legally binding co-operations regardless of their organizational form qualify as well, provided they are recognized entities under the applicable national laws. Potential candidates may come from the public sector as well as from the private industry. It is essential however that the qualifications and experience of the individual fulfilling the tasks are properly described.

Regarding question concerning the information provided in this call for tender or in case of need for clarification or additional information please contact the secretary of CEN/TC 264/WG 13, Mr Norbert Höfert (e-mail: hoefert@vdi.de).

If due to queries or other reasons supplementary information to this call for tender is required, this will be published on the website of the VDI/DIN Commission on Air Pollution Prevention – Standards Committee (http://www.krdl.de).

Please send your application to

VDI Verein Deutscher Ingenieure e.V.
VDI/DIN-Kommission Reinhaltung der Luft (KRdL) – Normenausschuss
Norbert Höfert
VDI-Platz 1
40468 Düsseldorf
Germany

E-mail: hoefert@vdi.de

Annex 1: Time frame of the whole validation and standardisation program as laid down in the Specific Agreement

Time frame of the validation program consisting of eight Work Packages (WPs)

Action	Scheduled date	Adjusted date
Start date of the Specific Agreement	2022-08	
Call for WP1 Tender (repeated) start	2023-05	
Call for WP1 Tender (repeated) finish	2023-06	
Call for WP1 Tender (repeated) evaluation and contracting	2023-07	2023-09
WP 1: Consultant for planning, coordination and conceptual design for all requested methods	2023-08	2023-10
Call for WP2 Tender start	2023-05	2023-10
Call for WP2 Tender finish	2023-07	2023-11
Call for WP2 Tender evaluation and contracting	2023-08	2023-12
WP 2: Literature survey and consultation	2023-09	2024-01
Call for WP3 - 8 Tender start	2024-09	
Call for WP3 – 8 Tender finish	2024-11	
Call for WP3 - 8 Tender evaluation and contracting	2025-02	
WP 3: Evaluations of parameters associated with analytical instrumentation	2025-03	
WP 4: Evaluation of specific parameters associated with the sampling instrumentation	2025-03	
WP 5: Testing under laboratory conditions	2025-03	
WP 6: Testing under field conditions	2026-03	
WP 7: Data evaluation	2025-09	
WP 8: Project Coordination	2025-03	
Interim report (technical)	2026-11	

Time frame of the standardization programme consisting of six Standards (TS and EN)

Action	Scheduled date
Start date of the Specific Agreement	2022-08
Preparation TSs	
Decision on preliminary WIs Proposals	2023-01
Decision on WI Proposals	2023-05
Preparation EN(s)	
Decision on preliminary WI Proposal(s)	2024-09
Decision on WI Proposa(s)I	2025-12
StC 20.60 1st working draft to TC 264	2026-04
StC 30.99 Doc. dispatch for CEN Enquiry	2026-08
StC 45.99 Doc. dispatch for Formal Vote	2027-12
StC 60.60 Doc. definitive text available	2028-06

Annex 2: Service contract for the standardization request

Service contract

Between

DIN Deutsches Institut für Normung e. V. Am DIN-Platz, Burggrafenstr. 6 10787 BERLIN GERMANY hereinafter referred to as "DIN"

and



hereinafter referred to as the "CONTRACTOR"

Introduction

The European Commission/EFTA has decided to fund Standardisation Request M/561 to the European Committee for Standardisation as regards methods for the measurement of volatile organic compounds that are ozone precursor substances in ambient air in support of Directive 2008/50/EC of the European Parliament and of the Council. This project is dealt with by CEN/TC 264 "Air Quality", the secretariat of which is held by DIN. DIN assures the organizational coordination work on behalf of CEN/TC 264.

1. Object of the Service contract

The CONTRACTOR agrees to produce the deliverable according to work package 2 for a cumulative amount of <contract value> (in EUR) and over a time period of 3 months starting on the day of the signing of the contract.

2. Duties of the CONTRACTOR

The CONTRACTOR's duties will include the duties for WP 2 as described in III.1 "Tasks of work package 2"

The CONTRACTOR undertakes to perform its duties with reasonable care and skill applying recognized practices. The CONTRACTOR is not entitled to subcontract any rights and obligations of this Service contract without the prior written consent of DIN.

The selection procedure documented in Section VI and VII of the call for tender document selected the CONTRACTOR on the basis of its personal qualification and experience. All man days under this Service contract shall therefore be performed by the CONTRACTOR in person. Any deviations from this shall be justified in writing and authorized by the European Commission before any related funds can be disbursed.

In particular, the following target dates for each step shall be adhered to. In case of non-adherence to the target dates, the Commission/EFTA is entitled to cancel the funding.

All relevant reports for WP 2 shall be provided 3 months after the day of the signing of the contract at the latest.

The CONTRACTOR has to record the expenses for material and human resources (including exact date and hours). These records have to be kept for 10 years for possible inspection by DIN or a charged legal institution. Upon request, DIN or a charged legal institution shall have

unhindered access to the accounts and documents which may be required for auditing purposes.

3. Obligations of DIN

DIN will send the CONTRACTOR on its request the final report of the project the CONTRACTOR participated in.

4. Invoicing and Payment

In consideration of the work carried out according to this Service contract, the CONTRACTOR shall invoice to DIN contract value (in EUR). Invoicing shall be done as follows:

- 50 % initial prefinancing
- 50 % after submission of the of the contractually agreed reports.

The invoice shall state the following VAT numbers:

DIN: UST-ID-Nr: DE 136 622 143 DIN: UST-Nr: 27/640/50470

CONTRACTOR VAT identification number:

The aforesaid sum shall be understood to cover all expenditure incurred by the CONTRACTOR in the performance of this contract.

The payments are due only if the CONTRACTOR has fulfilled the tasks within the given time schedule, DIN has approved the results and the CONTRACTOR has sent a detailed invoice (material, cost for staff, travel etc.) that fulfils the requirements described below. All items shall be based on real costs as actually incurred. Estimated costs shall not be invoiced.

DIN has the right to demand invoices and documentation of work done before paying.

Payments will be made to the CONTRACTOR with the following Bank details:

[Name of the Bank]
[Full address of Bank]

€ (EUR) Account No ...

IBAN (International Bank Account Number): ...

BIC or SWIFT CODE (Business Identifier Code): ...

Each invoice shall comply with the requirements listed in the annexed document from EC, and be accompanied by a declaration of the work performed clearly stating the extent to which the tasks have been fulfilled.

The declaration:

- shall be signed;
- shall specify that 'working days' means 'full working days'
- shall specify the period within which the tasks were performed.

The total amount that the CONTRACTOR will in fact receive depends on whether the defined tasks of the CONTRACTOR have been completed (the number of days actually spent by the CONTRACTOR in the context of this service contract, or the extent of tasks fulfilled if the number of man days was not specified).

Payment by DIN does not constitute acceptance of performance and is subject to the complete and due performance of the contract.

5. Provisions relating to fiscal charges

The CONTRACTOR will remain responsible for all taxes imposed on it and other related obligations that arise as a result of this Service contract.

6. Responsibility and Liability

DIN shall in no case, and under no circumstances, be held responsible for claims arising out of the present Service contract and relating to damages caused by the CONTRACTOR, its employees or a third party. No request of indemnity or re-instatement relating to such claims may be addressed to DIN.

The CONTRACTOR shall, in respect of the staff designated for the performance of this Service contract, observe all regulations of labour law, in particular the regulations of social security and fiscal law.

Notwithstanding anything to the contrary express or implied herein, the maximum liability of the CONTRACTOR under or otherwise in connection with this Service contract or its subject matter shall not exceed amount of <contract value> (in EUR) in aggregate.

7. Confidentiality

The CONTRACTOR undertakes to maintain confidentiality as regards all actions necessary to fulfil the contracted duties. Both parties commit themselves to mutual loyalty.

8. Copyright

The CONTRACTOR undertakes to assign to DIN (or as DIN may direct) its patrimonial rights of exploitation and all and any intellectual property rights in the works developed by it under the scope of this Service contract.

Such assigned rights include reproduction rights including the publication, distribution, adjustment, translation, renting, loan, the remuneration rights for duplication and loan, as well as the rights of communication to the public of the works, in total or in part, in summary or with comments, and including the right to transfer all exploitation licences and to authorise all sub-licences.

The transfer of rights covers all languages and covers all forms of exploitation known at present and non-restrictively; publication by all means and via all graphical support systems, by print, press, photocopy, microfilms and via all magnetic, computerised and numerical support systems, memory cards, CD-ROMs, films, photographs, slides, teledistribution, cable, satellite, disks and online document servers.

For all and each of the assigned exploitation modes, the transfer is granted free of charge, for all countries and for the total duration of the intellectual property rights.

9. Termination

Regardless of other claims, in the case of serious disrespect of the terms of the Service contract by the CONTRACTOR (inter alia where the work is not provided in accordance with the terms of this Service contract, or not completed within the time limits according to this Service contract), DIN may cancel the contract at any time without notice.

Should the performance of the project as a whole be obstructed or jeopardized by circumstances beyond the control of the parties, DIN may cancel the Service contract giving six weeks' notice.

10. Withdrawal

DIN is entitled to withdraw from this Service contract if the European Commission/EFTA does not pay the funds to DIN or retroactively reclaims funds already paid to DIN under the Specific Grant Agreement, as any such payment is dependent on EC's acceptance of the interim and final reports defined in the Specific Grant Agreement.

11. Administrative provisions

With the exception of invoices, all correspondence with DIN concerning the performance of this Service contract shall be addressed as follows:

VDI Verein Deutscher Ingenieure e.V.
VDI/DIN-Kommission Reinhaltung der Luft (KRdL) – Normenausschuss
Dr. Norbert Höfert, Secretary CEN/TC 264/WG 13
P.O. box 10 11 39
40002 DÜSSELDORF
GERMANY

E-mail: hoefert@vdi.de (valid until 2023-12-31, afterwards: krdl@vdi.de)

All invoices to DIN shall be addressed as follows:

DIN Deutsches Institut für Normung e. V. DIN/FCO Am DIN-Platz Burggrafenstraße 6 10787 Berlin

All invoices have to be sent via email to DIN to the following email address: oeffentlichehand@din.de

All correspondence with the CONTRACTOR shall be addressed as follows: << Mr/Ms NN Phone: , email>>

12. Assignment

The CONTRACTOR shall not assign, transfer, subcontract or in any other manner make over to any third party the benefit and/or burden of this Service contract without the prior written consent of DIN.

13. Alterations to the Service contract

Subsidiary agreements and modifications to this Service contract are only legally binding when in written form and signed by both parties. This applies also to any agreement by which such written form requirement is to be contracted out.

14. Validity

If any of the provisions of this Service contract shall become or be held invalid or unenforceable, this shall not affect any part of the remaining contract.

15. Place of jurisdiction

Place of jurisdiction for all disputes arising out of or in connection with this Service contract shall be Berlin.

16. Applicable Law

This Service contract shall be governed by and interpreted in accordance with German Law.

For DIN Deutsches Institut für Normung e. For the CONTRACTOR V.

(Stamp)	<-Name, Position>>
	(Stamp)
(Date)	
	(Date)

Annex A

EC Mandatory Content of an Invoice

Annex A: EC Mandatory Content of an Invoice

Content of an invoice – 2016-03-14 – EC DG GROW

□Supplier information

Compulsory information for an invoice for all or majority of member states	Compulsory information for an invoice for certain member states only
Full name of the supplier	
Full address of the supplier	
The VAT identification number of the supplier in accordance with ISO Standard under which he supplied the goods and services (for all member states except Bulgaria)	For Bulgaria, Cyprus, Germany, Greece, Romania, Slovakia: Tax reference number of the supplier, in other cases, where your country refrains from allocating a VAT identification number in accordance with ISO Standard for certain cases
	For Belgium, Cyprus, Denmark, Estonia, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Netherlands, Poland Portugal, Romania, Slovenia:
	Full name of tax representative (if any) of the supplier where the person liable to pay VAT is the tax representative, Full address of the tax representative (if any) of the supplier where the person liable to pay VAT is the tax representative, VAT identification number of the fiscal representative in accordance with ISO Standard (if any) of the supplier where the person liable to pay the VAT is the tax representative.

□Customer information

Compulsory information for an invoice for all or majority of member states	Compulsory information for an invoice for certain member states only	
Full name of the customer		
Full address of the customer		
The VAT identification number of the customer in accordance with ISO Standard where the customer is liable to pay the VAT or in case of intra-Community supplies (except for Bulgaria)	For Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Germany, Greece, Latvia, Lithuania, Malta, Poland, Portugal, Romania, Slovak Republic, Spain: The VAT identification number of the customer in other cases than general rule.	
	For Belgium, Cyprus, Estonia, Greece, Hungary, Italy, Latvia, Lithuania, Netherlands, Poland, Portugal, Romania, Slovenia:	
	Full name of the tax representative (if any) of the customer where the person liable to pay VAT is the tax representative Full address of the tax representative (if any) of the customer where the person liable to pay VAT is the tax representative VAT identification number of the fiscal representative (if any) the customer where the person liable to pay the VAT is the tax representative	

□Content information

Compulsory information for an invoice for all or majority of member states	Compulsory information for an invoice for certain member states only
Sequential number based on one or more series, which uniquely indentifies the invoice Date of issue of the invoice Date on which the supply of goods or services was made or completed or the date on which the payment on account was made before any supply, insofar as that a date can be determined and differs from the date of issue of the invoice (except for Bulgaria) Description/nature of the goods or services Quantity of the goods supplied or the extent and nature of the services rendered Price per unit (excluding VAT) (except for Germany) Any discounts or rebates, not included in the unit price (except for Austria)	Where an exemption is involved or where the customer is liable to pay the tax further information should be given accordingly:
	Reference to the appropriate provision of the Sixth directive for:
	Austria, Belgium, Cyprus, Denmark, Estonia, Finland, France Germany, Ireland Lithuania Luxembourg, Netherlands, Poland, Portugal, Sweden, Spain, UK
	OR
	Reference to the corresponding national provision for:
	Czech Republic, Greece, Hungary, Italy, Latvia, Malta, Slovak Republic, Slovenia, Austria, Belgium, Cyprus, Denmark, Estonia, Finland, France Germany, Ireland Lithuania Luxembourg, Netherlands, Poland, Portugal, Sweden, Spain, UK
Taxable amount per VAT rate or exemption VAT rate(s) applied	OR
Total VAT amount	Any indication that the supply is exempt or subject to the reverse charge procedure for:
	Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Finland, France Germany, Greece, Hungary, Ireland, Luxembourg, Malta, Portugal, Romania, Netherlands, Poland, Sweden, Spain, UK
	For Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France Greece, Hungary, Ireland, Italy, Malta, Netherlands, Latvia, Lithuania, Luxembourg, Poland, Portugal, Romania, Slovak Republic, Slovenia, Sweden, Spain, UK:
	Obligation to mention the amounts on the invoice in the local currency
	For Bulgaria, Greece, Hungary, Lithuania, Poland, Romania, UK:
	Obligation to issue the invoice in one of the official languages

<u>WARNING:</u> the issuer of the invoice should follow the VAT legislation in force at the time the invoice is issued