

**Agreement on Lightning detection data KNMI with reference no.
TN 511298 – 31197956**

The undersigned:

The State of the Netherlands which has its seat in The Hague, represented by the Minister of Infrastructure and Water Management,

legally represented in this matter by,

Royal Netherlands Meteorological Institute (KNMI), Principal Director Prof. Dr. Maarten van Aalst,

hereinafter referred to as: 'the Contracting Authority',

and

2. <full name and legal form of Counterparty>, (statutorily) established in <place>, represented in this matter by <position> <name of signatory>

hereinafter referred to as: 'the Counterparty',

The Contracting Authority and the Counterparty hereinafter jointly referred to as 'the Parties' and separately as 'the Party'

Whereas:

Organisation and procurement requirements of the Contracting Authority

- a. The Contracting Authority is the Royal Netherlands Meteorological Institute the national institute for weather, climate and seismology;
- b. The Contracting Authority needs accurate lightning risk assessment and management to ensure public safety and critical infrastructure in the performance of its duties;

Proceedings of the tender

- c. The Contracting Authority, in connection with what has been considered above under a and b, proceeded to tender for lightning detection data by means of a public European tender;
- d. on <date> a notice was sent by or on behalf of the Contracting Authority to the Supplement to the Official Journal of the European Union (hereinafter: Official Journal) and that this notice was published under number <S number>;
- e. The contract is awarded in accordance with an open European selection tender procedure;
- f. The Contracting Authority awarded the Contract to the Counterparty on <date>.

Contents

1. Definitions	3
2. Subject of the Agreement	3
3. Contacts and reporting	4
4. Entry into force and term of the Agreement	4
5. Software	5
6. Delivery and Completion	5
7. Acceptance	6
8. Fee.....	6
9. Invoicing, indebtedness and payment	7
10. General and special conditions	7
11. Termination of the Agreement	9
12. Other provisions	9
ANNEX I - Contacts.....	11
ANNEX II - ARBIT Conditions.....	12
ANNEX III - Service level agreement (SLA).....	13

Agree as follows:

1. Definitions

In the Agreement, a number of terms are used with an initial capital letter. These terms have the meaning given to them in the Terms and, where applicable, the Processor Agreement. In addition, the terms below also apply to the Agreement.

Acceptance - Successful completion of the test performed by the Counterparty to assure the Contracting Authority that the Data Services are ready for use and working in accordance with the Specifications.

Agreed Use - Conformity to the requirements of the Agreement and its annexes. And receiving a fee as compensation.

Defects - Any non-compliance with this Agreement that prevents the operation of the Data Services as set out in this Agreement.

Maintenance - All activities aimed at ensuring the uninterrupted provision of the Data Services in accordance with the Specifications.

Software - All (embedded) software developed by the Counterparty or its Subcontractor, or provided by the Customer, required for the operation of the Data Services in accordance with the Specifications as laid down in the Descriptive Document.

Specifications - The functional, technical and operational qualities of the Data Services as set out in the Descriptive Document.

Update - A modified version of the Software, in which errors, defects, bugs, etc. are fixed or in which the logical consistency is improved.

Delivery - A shipment of products or services to the Contracting Authority.

Implementation - Transferring the products or services to an operational working status.

2. Subject of the Agreement

2.1 The Parties hereby enter into an Agreement under which the Counterparty undertakes, in return for the Fee referred to in Article 7, to perform the Performance described in the Plan of Requirements, which in outline consists of:

- performing the Assignments:

Fill-in	Subject
B1	<i>Delivery of lightning detection data</i>
B2	Implementation/Installation, support and maintenance

B3	Coverage NL25, NL23, Western Europe (WEU) and BES(S)
B4	<i>Access to raw data</i>

all this in order to enable Contracting Authority to make the Agreed Use thereof.

2.2 The following documents jointly constitute the Agreement. Insofar as these documents contradict each other, the previously mentioned document prevails over the subsequently mentioned one:

- 1) this document;
- 2) Notice(s) of Information (in the event of several, the latest will prevail)
- 3) The Tender Documents, including the Descriptive Document and Program of Requirements and all other appendices
- 4) The ARBIT 2022 Terms and Conditions (see Annex 7, Terms and Conditions, of this tender);
- 5) the other Annexes
- 6) the tender submitted by the Counterparty to the Contracting Authority dated <date>, with reference (<characteristic>).

3. Contacts and reporting

- 3.1 The persons liaising on the execution of the Agreement are listed in the ANNEX Contact Persons.
- 3.2 The Counterparty will report annually on the manner of execution of the Agreement. This reporting includes at least:
 - Monitoring of the Critical Performance Indicators (KPIs);
 - Deviations from mandatory requirements;
 - Trends and developments in lightning detection data
 - Organisational developments;
 - Options and extensions;
 - Extension moments.

4. Entry into force and term of the Agreement

- 4.1 The Agreement enters into force at the time it is signed by both Parties. The Agreement has a maximum term of ten (10) years, including extensions.
- 4.2 The initial term of the Agreement is five (5) years. The Contracting Authority may extend the Agreement under the same conditions two (2) times. Once for a period of three (3) years and once for a period of two (2) years. Renewal of the Agreement takes place automatically at the end of the first two periods.

- 4.3 If the Contracting Authority does not wish to exercise this right, it will notify the Counterparty of this in writing no later than three (3) months before the end of the term referred to in Article 4.2.
- 4.4 The Agreement can be terminated by the Contracting Authority immediately if the Verification is not successful as described in the Descriptive Document (annex 01) under 5.6 Verification . In that case, the Counterparty is not entitled to any compensation or fees according to art. 8 and/or art. 9 .

5. Software

- 5.1 The Contracting Authority has the right of use of all data/software delivered pursuant to this Agreement, including all related documentation, within the limitations of the licence conditions and/or copyright restrictions, which are delivered with the data/software, if applicable. Conformity to the requirements and desirables as stated in Annex 01 will be secured. This right of use shall apply as long as the Contracting Authority does not cease to use the Software and shall not be terminated in the event of a breach of the provisions of this article by the Contracting Authority.
- 5.2 Subject to the licence conditions and/or copyright restrictions provided with the data/software, the use referred to in paragraph 5.1 includes the following:
- 5.2.1 All acts, including the permanent or temporary reproduction of all or part of the Software or of a modified version of the Software, which are necessary or useful in view of the use referred to in the previous paragraph;
- 5.2.2 Executing and storing the data/software or modified versions thereof for such purposes, all this also for the purpose of scientific research, maintenance, error correction, virus control, linking and/or making the data/software interoperable with other equipment and software, modifying user parameters, introducing, modifying or removing security measures for user access, making and storing and modifying backup copies and examining and testing the data/software.

6. Delivery and Completion

In the event of Assignments or the granting of Rights of Use.

- 6.1 The Counterparty shall ensure Delivery in the manner, date and place specified in the table below. Said dates are Vital Deadlines.

Fill-in	Subject	Wijze van Oplevering	Adress and date
B1	Supply lightning detection data	<i>Continuous during Agreement</i>	<i>Digital</i>

B2	Software installation	One-off (on location or digital)	KNMI, De Bilt, Start of Agreement
B3	Support (helpdesk)	Available during Agreement during working hours	Online/telephone

7. Acceptance

7.1 The Acceptance of the Performance shall take place as follows:

Fill-in	Subject	Acceptance	Last date of notification of (non-) Acceptance
A1	Lightning detection data delivery	Acceptance procedure (see Plan of Requirements)	Entire term of Agreement
B1	Support/helpdesk	Acceptance procedure (see Plan of Requirements)	Entire term of Agreement
B2	Implementation/installation	Acceptance procedure (see Plan of Requirements)	30 days after implementation/installation

8. Fee

8.1 The parties agree the following Fee:

Fill-in	Subject	Price	Price incl. VAT
A1	Lightning detection data	Fixed total price per year	Fixed total price per year
B1	Support/helpdesk	Fixed total price per year	Fixed total price per year
B2	Implementation/installation	One-off fixed total price	One-off fixed total price
B3			

Total Fee	Fee
-----------	-----

- 8.2 From the year 2028 onwards, the Fee may be adjusted once a year in January by a percentage up to the 'CBS price index category: Producer prices; output prices, industry SBI 2008, index 2015=100, sector 27 Electrical equipment industry. The first two years may not be indexed.
- 8.3 If the Performance, delivery of lightning detection data, as a result of an attributable shortcoming of the Counterparty is not delivered at the requirements, as stated in the Plan of Requirements (Annex XXX) during the entire term of the Agreement, a percentage of up to 100% of the annual fee will be deducted on the basis of the Critical Performance Indicators as included in the Service Level Agreement (SLA, Annex XXX of the Agreement).
- 8.4 If the Delivered Performance is permanently rejected by the Contracting Authority, an amount of up to 100% of the annual fee will be deducted from the Fee for as long as the detected Defects remain unrepaired.

9. Invoicing, indebtedness and payment

- 9.1 The Fee referred to in article 7 is due after Delivery and/or Acceptance.
- 9.2 An invoice must contain the following information:
- invoice date
 - amount of the Fee
 - VAT due
 - contract number
 - obligation number
- 9.3 The Counterparty will submit invoices using e-invoicing: this requirement follows on from the Government Procurement Conditions. For information on the various e-invoicing options, see the Logius website (www.logius.nl/diensten/e-factureren).

10. General and special conditions

- 10.1 This Agreement is subject to the Terms and Conditions. A copy of the Terms and Conditions is attached to the Agreement.
- 10.2 The applicability of general and special terms and conditions of the Counterparty or of third parties to be involved by the Counterparty in the performance of the Deliverable are excluded.
- 10.2 In the case of 'shrink-wrap' and 'click-wrap' licences the Contracting Authority will not be bound to applicable terms and conditions. The Counterparty indemnifies the Contracting Authority that such acceptances lead to any restriction on the Agreed Use.

- 10.3 The Counterparty must regularly verify that the Parties and sub-suppliers engaged by it comply with the set Requirements.
- 10.4 The Counterparty will, if applicable, keep conclusive records of hardware and software for the Agreed Services.
- 10.5 All changes in the hardware and software of information systems must be handled and recorded in accordance with established procedures (Change Management). If applicable, all Computers and e-mail systems must also have up-to-date antivirus software. Backups should be made daily to another physical location. Recovery procedures should be tested annually following relevant changes.
- 10.6 Measures should be taken to secure ICT components against attacks. Accessible systems and applications must be periodically tested for vulnerabilities through penetration tests and/or web application scans and/or vulnerability tests.
- 10.7 The Counterparty must have a formally defined process for handling security incidents. The Counterparty must also maintain a prioritisation in the turnaround time of incident resolution or escalation based on information classification.
- 10.8 Where no specific security guidelines have been laid down for the order, the Counterparty must at least take measures that meet the requirements for Basic Security Level 2 of the most current version of the Baseline Information Security Government (BIO). https://bio-overheid.nl/media/1572/bio-versie-104zv_def.pdf.
- 10.9 The Counterparty must demonstrate that the security requirements are met. This can for instance be done by submitting appropriate certification in the field of information security and cyber security. The Contracting Authority reserves the right to conduct its own audit if necessary.
- 10.10 The Counterparty must have a defined and tested fall-back procedure in case of emergencies.
- 10.11 In the event of (premature) termination of the Agreement, the Counterparty will do everything reasonable and necessary to ensure that a new Counterparty or the Contracting Authority itself can continue or transfer the services without any hindrance to a new agreement. The Counterparty will also provide documentation, software and/or other items required for the service provision.

11. Termination of the Agreement

11.1 Without prejudice to any other rights or claims, the Counterparty and the Contracting Authority may terminate this Agreement in whole or in part by written notice if:

- The Counterparty fails to fulfil any obligation under this Agreement;
- The Counterparty is temporarily or permanently unable to fulfil any obligation under this agreement;
- Counterparty is declared bankrupt or is granted suspension of payment, whether provisional or not;
- any benefit is or has been offered or provided by the Counterparty or one of its employees to a person forming part of a body of the Counterparty or to one of its employees or representatives;

11.2 If this Agreement is terminated by the Counterparty pursuant to any provision of paragraph 11.1, the Counterparty shall repay to the Contracting Authority all amounts already paid to it, plus statutory interest on those amounts from the day on which they were paid, provided that the Services cannot be used or operated by Contracting Authority as a result of such default by the Counterparty. If only part of this Agreement is dissolved, the obligation to repay only exists in respect of the amounts relating to the dissolved part of this Agreement, without affecting the guarantee and maintenance of the remaining Services.

11.3 The Contracting Authority may also suspend the performance of this Agreement in full or in part or dissolve this Agreement in full or in part in situations other than those provided for by law or by paragraph 11.1, provided that the Contracting Authority compensates the Counterparty in full for the damage it suffers as a result in that case.

12. Other provisions

12.1 Confidentiality as provided for in Article 17 of the ARBIT-2022 does not include information about (the progress of) the Assignment which the Contracting Authority is required to provide for the National ICT Dashboard.

12.2 Articles 22.1, 22.2 and 22.4 of the ARBIT-2022 do not apply. The Counterparty may replace persons charged with the performance of the Agreement. The Contracting Authority cannot refuse the substitute(s).

12.3 In articles 3, 12.3 and 31 of the ARBIT-2022, 'in writing' includes electronic communication.

12.4 This Agreement shall be governed by Dutch law.

- 12.5 Any dispute concerning the conclusion, interpretation or execution of this Agreement or of further Agreements resulting from it, as well as any other dispute relating to or arising in connection with this Agreement, whether of a legal or factual nature, none excepted, will be submitted for settlement to the relevant court in the Hague. However, the Contracting Authority and the Counterparty will not apply to the court before they have made every effort to achieve a private settlement of the dispute.
- 12.6 Parties may agree to submit a dispute as referred to in the previous paragraph to arbitration in accordance with a deed of compromise to be drawn up, or to seek binding advice in respect of a dispute.
- 12.7 A dispute has arisen as soon as either party notifies the other by registered letter.

Done on <date> and signed in duplicate by:

For the contracting Authority

For the Counterparty

The Minister of Infrastructure and
Water Management
On behalf of,

Name:

KNMI Principal Director

Prof. Dr. M. van Aalst

Signature:

Signature:

Date:

Date:

ANNEX I - Contacts

Principal

The <function>, now <name> is authorised to bind the Contracting Authority as far as the performance of the Agreement is concerned.

Counterparty

The <function>, now <name> is authorised to bind the Other Party as far as the performance of the Agreement is concerned.

DRAFT

ANNEX II - ARBIT 2022

See Annex 7, of this tender

DRAFT

ANNEX III - Service level agreement (SLA)

The SLA forms part of the Maintenance Agreement and norms the agreed service level. A proper fit between the SLA and the Conditions requires that the Service Levels that are most important for the Performance be included in the Agreement. Important Service Levels are at least those on the basis of which a discount is deducted from the Fee in accordance with Article 7.3. Finally, the terms below from Article 68 of the ARBIT-2022 must be used in the SLA:

Availability: the period during which the Performance is free of Defects.

Corrective Maintenance: the detection and repair by the Counterparty of Faults, which the Contracting Authority has reported to it or which have otherwise become known to the Counterparty.

Functional Repair Time: the period, expressed in Service Hours, between the moment a Failure is reported to the Other Party and the moment it is remedied.

Innovative Maintenance: the provision by the Other Party to the Contracting Authority of New Versions or newly developed parts of Products and/or new Documentation.

Preventive Maintenance: the taking of measures by the Other Party to prevent Faults and other related services.

Response time: the time within which Counterparty Personnel must adequately respond to a notification by the Customer of a Malfunction and other requests by the Customer for services.

Service levels: requirements laid down in the Agreement with regard to the performance of Maintenance and other agreed forms of service provision.

Service hours: hours falling within the agreed service period.

Malfunction: a technical problem that occurs when using the Performance.

Critical Performance Indicators (KPIs)

The Critical Performance Indicators (KPIs) below apply to the agreed performance from Plan of Requirements (Annex XX) and are monitored periodically to continuously. Annually, the results of the KPI values are drawn up, assessed and discussed. The Contracting Authority would like to see this reflected annually in a report by the Counterparty.

Based on the achieved performance results, it is decided whether the KPIs have been achieved. If the established KPIs are achieved, the annual determined costs will be paid in full (100%) to the Counterparty. In case of failure to achieve the established KPIs, i.e. actually the requirements, a discount percentage is applied to the established annual costs, up to a maximum of 100% of the amount. Some KPIs have a fixed graduated scale for this and for some KPIs it is determined by mutual agreement.

1. Always up

The other party guarantees an availability of 99.8% based on 8,760 hours per year (365 x 24).

The maximum annual system downtime is set at 18 hours. This includes planned and unplanned system maintenance, with a maximum continuous downtime of 6 hours. The calculations are based on a calendar year (e.g. 1 January - 31 December). The first, incomplete year is calculated proportionally.

The year starts when both parties agree to the start of delivery of operational data and acceptance by KNMI.

The downtime is set at the moment KNMI receives no data or significantly less data. It starts when the tenderer's helpdesk is informed by KNMI and ends when the helpdesk confirms to KNMI that the system is operating normally.

If the 99.8% availability is not achieved, KNMI has the right to impose a penalty of up to 100% of the contractual annual fee at a downtime of 1%. The penalty is calculated as follows:

Annual working hours = 8,760 h (AWh)

Accepted downtime = $(100\% - 99.8\% = 0.2\%) \times 8,760 = 17.52\text{h}$, rounded to 18h (ADT)

Maximum penalty is reached at 1% of AWh = 87.6 h (MPh) (rounded to 88 h)

This results in a penalty of 1% for every 0.7h of downtime that exceeds the ADT.

	Downtime in hours	% Penalty
Acceptable downtime	18	0
Penalty/minimal per fase	18.7	1
	19.4	2
	20.1	3
	20.8	4
	21.5	5
	22.2	6
	25	10
	32	20
	39	30
	46	40
	53	50
Penalty/maximal	88 and more	100

2. False alarm rate (FAR).

The false alarm rate, to be understood as the fraction of reported lightning events that cannot be attributed to a flash, should be less than 1%.

3. Localisation accuracy (LA)

The KNMI Lightning Detection Network (KLDN) must be able to localise ground flashes with an accuracy of 1.0 km. Both requirements below apply:

1. 70% of detected CG lightning strikes shall be located within a distance of less than 1.0 km from the origin of the strike and
2. 95% of detected CG lightning strikes should be located within 2.0 km of the strike origin.

4. Cloud-to-cloud detection capabilities (CC)

The KLDN is required to detect cloud-to-cloud discharges. Light events are classified into CG and CC groups. This classification should be correct in more than 80% of recorded cases.

Unwanted response

The KLDN does not display lightning events when no lightning is present. This unwanted response can be caused by signals other than lightning, such as radio broadcasts, railway traffic or electric fencing. The system should have an unwanted response of less than 1 lightning event per 100,000 km² of covered area per 24 hours.

5. Daily uptime and delivery reports

KLDN will issue a daily report containing:

1. A summary of the uptime achieved per sensor and of the Lightning Product Processor.
2. The numbers of products generated and sent to the KNMI dispatch systems.

This report takes the form of a table with one line per day. The report is built incrementally so that at the end of the year it contains 365/366 lines. On 1 January, a new table is built with a name that reflects the year.