

ESA Contract No. 4000132355/20/NL/SC

with

**Comenius University in Bratislava
Faculty of Mathematics, Physics and Informatics
Department of Experimental Physics**

**Potential solid lubricant for extreme temperatures
based on vanadium boride**

CONTRACT

Between:

The EUROPEAN SPACE AGENCY
(hereinafter called the “Agency” or “ESA”)

having its seat at: 24 rue du Général Bertrand,
CS 30798, 75345 Paris CEDEX 7,
France,

represented by its Director General, Mr Johann-Dietrich Wörner,

acting through its establishment:

The European Space Research and Technology Centre (ESTEC),

located at: Keplerlaan 1,
2201 AZ Noordwijk,
The Netherlands,

of the one part,

and:

Comenius University in Bratislava
Department of Experimental Physics,
Faculty of Mathematics, Physics and Informatics,

(hereinafter called the “Contractor” or “UNIBA – Department of Experimental Physics”
or abbreviated “UNIBA-DEP”),

whose Registered Office is at:

Šafárikovo nám. 6,
818 06 Bratislava 16,
Slovakia,

represented by its Rector, Mr Marek Števček,

of the other part,

the following has been agreed between the Agency and the Contractor hereinafter also
referred to individually as “Party” and collectively as the “Parties”:

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DEFINITIONS

“Advance Payment”

means a payment foreseen in the Contract intended to provide the Contractor with liquidity to allow the initiation of the contractual works.

means the activities and programmes undertaken by the Agency in the field of space research and technology and space applications in accordance with Article V 1(a) and (b) of the European Space Agency Convention.

“Day”

means calendar day.

“Force Majeure”

means an event which is, unforeseeable, unavoidable and external at the time of Contract signature, occurs beyond the control of the affected Party and renders the performance of the Contract impossible for the affected Party, including but not limited to:

Acts of God, Governmental Administrative Acts or omissions, consequences of natural disasters, epidemics, war hostilities, terrorist attacks.

“Intellectual Property Rights”

means all Registered Intellectual Property Rights, and all unregistered intellectual property rights granted by law without the need for registration with an authority or office including all rights in information, data, blueprints, plans, diagrams, models, formulae and specifications together with all copyright, unregistered trademarks, design rights, data base rights, topography rights, know-how and trade secrets or equivalent rights or rights of action anywhere in the world.

“Legitimate Commercial Interests”

means an interest the Contractor can demonstrate which is important to its ability to commercially exploit Intellectual Property Rights arising from work performed under the Contract for a defined period of time which includes but is not limited to an economic position vis-à-vis a competitor, loss of profits or survival of an undertaking.

| | |
|--|---|
| “Member State” | means a State which is Party to the Convention of the European Space Agency in accordance with Articles XX and XXII of the said Convention. |
| “Participating States” | means a Member or non-Member State participating in a given Agency programme according to Article V.1 (a) and (b) of the European Space Agency Convention. |
| “Participating State’s Own Public Requirements” | means a public programme in the field of space research and technology and their space applications fully funded or funded to a substantial extent by the Participating State. |
| “Persons and Bodies” | means any individual, partnership, company, research organisation or legal entity under the jurisdiction of a Participating State which, when relevant, meets the criteria set out in Article II (3) of Annex V to the European Space Agency Convention. |
| “Progress Payment” | means a payment that is made against: (a) Successful achievement, certified in writing by the Agency’s representatives, of a milestone defined in the milestone payment plan of a fixed price contract; (b) Cost reports approved by the Agency in a cost reimbursement contract for a period agreed in the Contract. |
| “Registered Intellectual Property Rights” | means all rights granted by law through registration with an authority or office (whether actually registered or in the form of applications) including all registered patents, utility models, designs, topography rights, domain names and trade marks or equivalent rights and rights of action anywhere in the world. |
| “Sub-contractor” | means the economic operator who is under contract to a Contractor of the Agency to provide supplies or services in support of a contract placed by the Agency. |
| “Third Party” | means a natural or legal person not having signed the Contract. |

ARTICLE 1 - SUBJECT OF THE CONTRACT; GENERAL TERMS OF EXECUTION

- 1.1. The Contractor undertakes to perform the activity “Potential solid lubricant for extreme temperatures based on vanadium boride” (all hereafter referred to as “the Work”) and to deliver all the items listed in Article 2 of this Contract.
- 1.2. The Work shall be performed in accordance with the provisions stated in the following documents, listed in order of precedence in case of conflict:
 - a) The specific Articles of this Contract with its PDCCP Annex;
 - b) The signed Minutes of the Negotiation Meeting held on 27 August 2020, reference “SK5_19_MoM_v2”, not attached hereto but known to both Parties;
 - c) Appendix 1 hereto: Requirements for Management, Reporting, Meetings and Deliverables and its Annex A: Layout for Contract Closure Documentation;
 - d) The Contractor’s Proposal reference “HTLubri”, dated 29 November 2019, not attached hereto but known to both Parties.

1.3 General Terms of Execution

- 1.3.1 The Contractor’s own sales conditions shall not apply.
- 1.3.2 The language of this Contract and of all communications hereunder shall be English. The substantive Law according to which this Contract shall be construed is the law of Slovakia.
- 1.3.3 The Parties shall use their best endeavours to amicably settle any dispute arising out of the Contract.

Failing an attempt towards an amicable settlement, all disputes shall be finally settled in accordance with the Rules of Arbitration of the International Chamber of Commerce by one or three arbitrators designated in conformity with such Rules. The Arbitration Tribunal shall sit in Bratislava, Slovakia. The Tribunal’s award shall be final, binding on the Parties and no appeal shall lie against it. The enforcement of the award shall be governed by the rules of procedure in force in the state/country in which the award is to be executed.
- 1.3.4 The Contractor shall be fully responsible towards the Agency for the proper execution of the Work.
- 1.3.5 Any publicity material prepared by the Contractor related to an activity performed by the Contractor in the context of this Contract shall acknowledge that the activity is/was carried out “under a programme of, and funded by, the European Space Agency”. It shall display the ESA logo if the Agency so requires. It shall also carry a disclaimer stating that the view expressed in such publications can in no way be taken to reflect the official opinion of the European Space Agency.

ARTICLE 2 - DELIVERABLES, DELIVERY REQUIREMENTS; PLACE AND DATE OF DELIVERY

2.1 General

2.1.1 Delivery shall be considered as effected only when the relevant deliverable items are in the Agency's possession.

2.1.2 Should it seem likely that the originally specified delivery date(s) may be exceeded, the Contractor shall immediately notify the Agency in writing and provide a detailed justification for the delay.

2.1.3 No price adjustment in favour of the Contractor will be applicable for the period of delay in delivery.

No penalty to be deducted from the Contract price shall apply in case of late delivery.

Should the Agency conclude that the delays in delivery have impaired the intended objectives of the Work, the provisions of Article 5.5 below shall apply.

2.1.4 The Contractor shall be responsible for the appropriate marking, packing, package labelling, insurance, freight, carriage and delivery relative to all deliverable items due hereunder and shall bear any cost relative to all of the above. Deliverable items shall furthermore be packed to guard against loss, damage or deterioration during transport and delivery. If found damaged or defective upon delivery, the Agency reserves the right to return the affected items at the Contractor's expenses.

Should in the execution of this Contract a need arise to provide the Agency with information which is subject to export control laws and regulations, the Contractor shall be responsible to ensure in all cases that such information is passed on to the Agency in strict compliance with the provisions of such export control laws and regulations.

2.1.5 In the event of an alleged delay in delivery due to Force Majeure, the Contractor shall report to Agency the Force Majeure event and its immediate consequences within one (1) week after its occurrence. The Contractor shall bear the burden of proof for the existence, duration, and consequences of Force Majeure, such proof to be provided within one (1) month from the occurrence of the Force Majeure event.

In case of Force Majeure, the Contractor shall not be considered at default and its obligations under the Contract shall be suspended during the Force Majeure event. The Contractor shall make reasonable efforts to mitigate the impact on the schedule and the performance of its contractual obligations.

In case of Force Majeure, an extension of the time-limit for execution or a postponement of delivery dates shall be granted in writing by the Agency.

If the delay due to the Force Majeure exceeds three (3) months, the Parties are entitled to terminate the Contract by giving not less than two (2) months' written

notice to the other Party, unless the Parties agree to modify the Contract in order to take into account the effects of the Force Majeure.

In case of termination due to Force Majeure the amount to be paid shall be calculated as per Articles 5.6.2 and 5.6.4. No other payments, compensation or indemnities shall be due by the Agency to the Contractor.

Either Party may implement Article 2.1.5 should unknown consequences of the Covid-19 outbreak at the time of signature of the present Contract affect the performance of its obligations, despite such event being known to the Parties at the time of Contract signature.

2.2 Deliverable Documents

The Contractor shall, during the performance of this Contract, deliver all documentation and reports specified in the Applicable Documents under Article 1.2, in the format specified therein.

Progress Reports shall be delivered every six months in a searchable, exchangeable and storable electronic format via email to the Agency's Technical Officer specified herein.

These shall be sent to the Agency's Technical Officer mentioned in Article 5.1, unless otherwise specified, in accordance with the following specific provisions:

2.2.1 The draft versions of the Final Report and Executive Summary Report, as defined in Appendix 1, shall be submitted for approval, in electronic searchable, indexed and not encrypted PDF and original (WORD) format, to the Agency's Technical Officer specified in Article 5, Clause 5, Sub-Clause 5.1 a) of the Contract, not later than 15 December 2021.

2.2.2 The finalised versions thereof shall be issued in electronic searchable, indexed and not encrypted PDF and original (WORD) format not later than four (4) weeks after the Agency's approval of the draft versions and shall be sent by email to:

- the Agency's Technical Officer specified in Article 5, Clause 5, Sub-Clause 5.1 a) of the Contract and
- the ESA Information and Documentation Centre – ESTEC Library (email: [_____](#))

2.2.3 At the same time as delivery of the final documents, the Technical Data Package, containing all approved Technical Notes, shall be delivered by email in an electronic searchable, indexed and not encrypted PDF and original (WORD) format to the Agency's Technical Officer specified in Article 5, Clause 5, Sub-Clause 5.1 a) of the Contract.

2.2.4 The Contract Closure Documentation (Appendix 1, Annex A) shall be delivered in one (1) signed set of documentation each, to the Agency's Authorised Representatives not later than the time of submitting the invoice for the Final Settlement (Article 4.1.3 here below).

2.3 Other Deliverables

2.3.1 Hardware

The hardware specified in the Applicable Documents under Article 1.2 shall be delivered to the Agency's Technical Officer specified herein, not later than 15 December 2021.

2.4 Acceptance and Rejection

The acceptance by the Agency of the deliverables shall be declared upon verification, by the Agency, that the Work has been performed in compliance with the agreed requirements and that the required results have been achieved. The said deliverables shall be considered as accepted in the absence of an explicit reaction in respect to the same, by the Agency, within one (1) calendar month counting from the time of submission for acceptance. The provisions of Article 5.5 below shall apply in this respect.

ARTICLE 3 - PRICE

3.1 The total price of this Contract amounts to:

39.486 EURO,
(thirty-nine thousand and four hundred eighty-six Euro),

broken down as follows:

| Company Name | ESA Entity Code | Type P/Prime | Country (ISO Code) | Total Amount in Euro |
|---|-----------------|--------------|--------------------|----------------------|
| Comenius University in Bratislava, Faculty of Mathematics, Physics and Informatics (FMPI), Department of Experimental Physics | 1000017 309 | P | SK | 39.486 |

The Agency may decide that certain items produced or purchased under the Contract during its implementation (see Article 7 below) shall become ESA Fixed Assets. Such items shall be identified as becoming ESA Fixed Assets through the means of a Contract Change Notice.

The abovementioned price is hereby defined as a Firm Fixed Price and as such, it shall not be subject to any adjustment or revision by reason of the actual costs incurred by the Contractor in the performance of this Contract.

- 3.2 Any amount stated above does not include any added value taxes or import duties in the Member States of the Agency.
- 3.3 The price is stated as being “Delivery Duty Paid” (DDP) for all deliverables, exclusive of import duties and VAT in accordance with the Incoterms® 2020, to the addressee(s) mentioned, or referred to, in Article 5 of this Contract. Reference to the Incoterms® in this provision is exclusively for the purpose of price definition. The price furthermore includes all costs relative to the Contractor’s obligations under Article 2.1.4 above.

ARTICLE 4 - PAYMENTS AND INVOICING

4.1 Payments

Payments shall be made within thirty (30) calendar days of receipt of the required documents and fulfilment of the requirements specified in at ESA-ESTEC Finance, Central Invoice Registration Office Articles 4.1.1 – 4.1.3 below¹. Only upon fulfilment of these requirements shall the Agency regard the invoice as due.

Requirements to be fulfilled:

4.1.1 Advance Payment:

- Advance Payment Request (APR) (if any): to be submitted after signature of this Contract by both Parties. The Advance Payment constitutes a debt of the Contractor to the Agency until it has been set-off against subsequent milestone(s) as shown in Article 4.2 here below.

4.1.2 Progress Payment(s)²:

- Milestone Achievement Confirmation (MAC) (hereinafter referred to as “confirmation”) with supporting documentation as necessary, submitted by the Contractor and attached in esa-p. The supporting documentation shall justify the actual achievement of the milestone(s) as defined in the Payment Plan specified in Article 4.2 here below;

and

- Invoice.

4.1.3 Final Settlement:

- Confirmation, submitted by the Contractor with supporting documentation as necessary attached in esa-p. The supporting documentation shall justify the actual achievement of the milestone(s) as defined in the Payment Plan specified in Article 4.2 here below;

and

- Invoice;

and

- Delivery, and acceptance by the Agency, of all due items and fulfilment of all other obligations in accordance with the terms of this Contract;
- Signed Contract Closure Documentation using the template provided in Appendix 1, Annex A.

¹ This is reflected in esa-p as “30 days upon receipt by ESA, in esa-p, of both the confirmation and the invoice” see in esa-p GUIDE Frequently Asked Questions & Answers for Suppliers at [_____](#)

² For detailed information on how to submit and approve confirmations, invoices, and APR in esa-p you may consult the following two Quick Guides:

Payments shall be made according to the provisions hereunder:

4.1.4 The Agency shall credit the account of the Contractor to the Contractor's benefit.

The Agency shall be afforded all the necessary visibility, whether remotely or by means of inspection of the Contractor's premises, in order to ascertain the progress of the Work prior to authorising the relevant payment.

4.1.5 If applicable, invoices shall separately show all due taxes and/or duties.

4.1.6 In the event that the achievement of a milestone is delayed but the milestone is partially met at the milestone planning date foreseen, the Agency may as an exception, effect a payment against an approved confirmation of the partially achieved milestone, not exceeding the value of the Work performed at the date of payment.

4.1.7 When releasing the payment for a given milestone, if applicable, the Agency's payment shall be made after due deduction of the corresponding off-set of the Advance Payment(s) as per conditions of Article 4.2 here below.
In case of partial payment(s), the Agency shall deduct from the corresponding invoice(s) relative to the same milestone any outstanding amount of the Advance Payment(s) still to be off-set.

4.1.8 All invoices shall be submitted to the Agency in electronic form through the esa-p on-line system.

- a) The Contractor shall ensure that the APR (if any), all invoices and all confirmations are submitted for payment exclusively through the Agency's esa-p system. If the Contractor has no access to the Agency's esa-p system at the time of signature of this Contract, an immediate request for an esa-p user account shall be made by the Contractor to the ESA Helpdesk (mail to: _____ specifying a contact name, the company name, and the ESA Contract Number.
- b)
 - i) Should the Contractor find the Agency's esa-p system technically inoperative at the moment of submission of the invoices, the Contractor may submit invoices in paper format in five (5) copies to the ESA-ESTEC Finance, Central Invoice Registration Office, together with justifying documentation as required by this Contract.
 - ii) In cases where the Agency's esa-p system is inoperative at the moment of submission of the confirmation, the Contractor may submit the confirmation in paper format in three (3) copies to the Agency's Technical Officer mentioned in Article 5.1.1 a) of the present Contract. A template confirmation form can be obtained upon request to _____
- c) The Contractor undertakes to complete invoices and confirmations, and to strictly adhere to the instructions (including those for billing taxes and duties, where applicable) contained in esa-p.

In the case of invoices submitted by the Contractor which are free of VAT, reference shall be made to the number indicated on the VAT Exemption Form which the Agency provided to the Contractor when forwarding the present Contract for signature. On invoices submitted via esa-p, the number shall be put in the respective field 'VAT Exemption Number'.

- 4.1.9 Payments shall be made by the Agency in EURO to the account specified by the Contractor. Such account information shall clearly indicate the IBAN (International Bank Account Number) and BIC/SWIFT (Bank Identification Code). The Parties agree that payments shall be considered as effected by the Agency on time if the Agency's orders of payment reach the Agency's bank within the payment period stipulated in Article 4.1 above.
- 4.1.10 Any special charges related to the execution of payments shall be borne by the Contractor.
- 4.1.11 Any questions concerning the operation of esa-p shall be addressed to the ESA Helpdesk (mail to: _____)
- 4.1.12 Any questions concerning the latest status of due invoices can be addressed to the ESA Payment Officer (mail to: _____)

4.2 The following payment plan is agreed for this Contract:

| Milestone (MS) Description | Schedule Date | Payments from ESA to (Prime) Contractor (in Euro) | Country (ISO code) |
|---|---------------|---|--------------------|
| Progress (MS 1): Upon successful completion of WP2 and/or successful review and acceptance by the Agency of all related deliverables. [TN1, TN2, TN3, TR1 and HW1] | March 2021 | 15.000 | SK |
| Progress (MS 2): Upon successful completion of WP3.1 task 2 and successful review and acceptance by the Agency of all related deliverables. [TR2 and HW2] | July 2021 | 14.486 | |
| Final Settlement (MS 3): Upon the Agency's acceptance of all deliverable items due under the Contract and the Contractor's fulfilment of all other contractual obligations including submission of the signed Contract Closure Documentation. | December 2021 | 10.000 | |
| TOTAL CONTRACT | | 39.486 | |

Advance Payment and other Financial Conditions:

| Prime (P) | Company Name | ESA Entity Code | Country (ISO code) | Advance Payment (in Euro) | Offset against ³ | Offset by Euro | Condition for release of the Advance Payment |
|-----------|---|-----------------|--------------------|---------------------------|-----------------------------|----------------|--|
| P | Comenius University in Bratislava, Faculty of Mathematics, Physics and Informatics (FMPI), Department of Experimental Physics | 1000017309 | SK | 3.900 | MS 1 | 3.900 | Upon signature of the Contract by both Parties |

³ An SME has the right to request offset of the 35% advance at the end of the Contract, i.e. the two last milestones (ideally 25% at the last milestone and 10% at the preceding milestone), if this can be justified in view of the economic progress in the Contract.

ARTICLE 5 - SPECIFIC PROVISIONS

5.1 Approval / Representatives of the Parties during Contract Execution

For the purpose of this Contract, the authorised representative of the Agency’s Director General is:
Mr Stephen Airey, Head of New, Cooperating & Associate States Section

The Agency’s representatives are:

- Technical Officer: Mr Stephen Airey (IPL-IPS) for technical matters, or a person duly authorised;
- Contracts Officer: Ms Sandy Courtois (IPL-PTS) for contractual or administrative matters, or a person duly authorised.

5.1.1 All correspondence for the Agency shall be addressed as follows:

The European Space Research and Technology Centre (ESTEC),
Keplerlaan 1,
2201 AZ Noordwijk,
The Netherlands,

a) for technical matters as follows:

| | | | |
|----------------|------------------|-------------------|--------------------|
| | To: | With copy to: | |
| Name | Mr Stephen Airey | Ms Sandy Courtois | Ms Kay Van De Made |
| Telephone No. | | | |
| e-mail address | | _____ | _____ |

b) for contractual and administrative matters (with the exception of invoices as mentioned in 4.1 above) as follows:

| | | | |
|----------------|-------------------|------------------|--------------------|
| | To: | With copy to: | |
| Name | Ms Sandy Courtois | Mr Stephen Airey | Ms Kay Van De Made |
| Telephone No. | | | |
| e-mail address | _____ | _____ | _____ |

- c) Personal Data Protection matters shall be addressed to the ESA Data Protection Officer at the following email address:
- _____

5.1.2 Contractor's Representatives:

All correspondence for the Contractor shall be addressed as follows:

Comenius University
Faculty of Mathematics Physics and Informatics,
Department of Experimental Physics,
Mlynska dolina,
842 48 Bratislava,
Slovak Republic,

- a) for technical matters as follows:

| | To: | With copy to: |
|----------------|---------------|------------------|
| Name | Mr Tomáš Roch | Mr Marián Mikula |
| Telephone No. | | |
| e-mail address | _____ | _____ |

- b) for contractual and administrative matters as follows:

| | To: | With copy to: |
|----------------|---------------|---------------|
| Name | Mr Tomáš Roch | Mr Jiří Šilha |
| Telephone No. | | |
| e-mail address | _____ | _____ |

- c) Personal Data Protection matters shall be addressed to the Data Protection contact point as follows:

| | To: |
|----------------|--|
| Name | Data Protection Officer (DPO) |
| e-mail address | _____ |
| Mail Address | Centrum informačných technológií UK Šafárikovo námestie 6, P.O. BOX 440, 814 99, Bratislava I, Slovak Republic |

- 5.1.3 Communications related to the Contract affecting its terms and conditions shall only bind the Parties, if signed by the Agency's and the Contractor's duly Authorised Representatives.

The Parties agree that electronic signature of this Contract shall have the same force and effect as hand-signed originals and shall be binding on both Parties to this Contract.

5.2 Infringement of the Law – Infringement of third party rights

5.2.1 The Agency shall not be responsible if the Contractor infringes the laws or statutes of his country or of any other country whatsoever.

5.2.2 In the event of a reasonable suspicion of infringement of any patent rights and other Intellectual Property Rights of third parties, the Work being performed under this Contract shall be stopped immediately. Assessment of the suspicion shall be performed by the Contractor and if confirmed, both Parties shall agree on a new approach to achieve the objectives of this Contract, either by obtaining the applicable licence(s) from third party(ies) by the Contractor and/or by signing a Contract Change Notice (CCN) agreed upon between both Parties, in order to avoid the infringement. The purpose of the CCN shall be either to restart the Work, if plausible due under the changed circumstances; or to terminate the Contract, in accordance with Article 5.5.4 hereunder, if the infringement cannot be avoided.

Notwithstanding the above, the Contractor shall indemnify the Agency from and against all claims, proceedings, damages, costs and expenses arising from infringement or alleged infringement of any patent rights and other Intellectual Property Rights of third parties with respect to the Work under this Contract. This obligation does not extend to infringements resulting from the use of documents, patterns, drawings or items supplied by the Agency or from a modification or combination of the deliverables due hereunder made by the Agency after their acceptance.

5.3 Liabilities

5.3.1 Claims between the Parties in respect of damages to staff and goods occurring during the execution of the Contract shall be settled in the following manner:

5.3.1.1 Claims for injuries, including death, sustained by the Parties' representatives or employees (staff) by virtue of their involvement in the Contract shall be settled in accordance with the Law governing the Contract.

5.3.1.2 Claims for damage caused by one of the Parties to goods owned by the other Party shall be settled in accordance with the Law governing the Contract. The liability of either Party for damage to goods owned by the other Party, except in cases of gross negligence or wilful misconduct, shall however not exceed the amount which is quoted in the Contract as the total Contract price.

5.3.2 Except in case of gross negligence and wilful misconduct, the Parties shall not be liable towards each other for consequential damages sustained by the Parties, arising from and during the execution of the Contract. For the sake of clarity and as an example, consequential damages include, but are not limited to: loss of contract; income or revenue; loss of profit or interests; loss of financing; loss of

customer; loss of availability and use of facilities; loss of availability and use of employees' productivity or loss of services of such persons; loss of opportunity; loss of rental expenses.

5.4 Items made available by the Agency

It is not foreseen that the Agency will make any items available to the Contractor.

5.5 Agency's Rights in Case of Contractor's Under-Performance

5.5.1 Should any of the results of the Work fail to meet the agreed requirements and/or specifications, the Agency reserves the right to reject such results and require their resubmission following an iteration of the relevant work by the Contractor at no additional charge.

5.5.2 Should any of the results of the Work fail to meet any of the agreed requirements and/or specifications to such an extent as to seriously jeopardise the performance of this Contract and/or to defeat its objectives, the Agency reserves the right to terminate this Contract.

5.5.3 Should the Contractor fail to obtain an export authorisation from the competent national authority, the Agency shall have the right to terminate this Contract without further notice.

5.5.4 Termination of this Contract as specified above shall entail no compensation being due to the Contractor other than the amounts corresponding to the Milestone Payments already made hereunder at the time of serving of the termination notice. Any amounts corresponding to Advance Payments not entirely offset hereunder shall remain payable to the Agency.

5.5.5 Additionally, the Agency reserves the right not to further proceed with this Contract at the end of a technical phase, if any, as specified in the Applicable Documents under Article 1.2. The Agency shall exercise such right by serving a termination notice to the Contractor within thirty (30) calendar days counting from the completion of the preceding phase.

5.6 Termination without fault of the Contractor

5.6.1 The Agency shall have the right at any time to terminate this Contract either wholly or in part by giving written notice by registered mail. In the case of termination of a Contract by the Agency without fault of the Contractor, the Contractor shall on receipt of the Agency's instructions, forthwith take the necessary steps to implement them. The Parties shall use their best efforts to mitigate the consequences of the termination. The period to be allowed to implement them shall be agreed between the Parties but shall not exceed three (3) Months.

5.6.2 Subject to the Contractor conforming with the instructions referred in Article 5.6.1, the Agency shall take over from the Contractor at a fair and reasonable price all finished parts not yet delivered to the Agency, all unused and undamaged material, bought-out components and items in the course of manufacture in the possession

of the Contractor and properly obtained by or supplied to the Contractor for the performance of the Contract, except such materials, bought-out components and items in the course of manufacture as the Contractor shall, with the agreement of the Agency, elect to retain.

5.6.3 a) The Agency shall indemnify the Contractor against such part of any loss of profit as is attributable to the termination of the Contract and against any damage resulting from the termination of the Contract, in particular against any commitments, liabilities or expenditure which are reasonably and properly chargeable by the Contractor and are related to the Contract, in so far as the said commitments, liabilities or expenditure would otherwise, subject to the conditions stated in Article 5.6.1, represent a loss by the Contractor by reason of the termination of the Contract.

b) The amount of compensation payable under Article 5.6.3 a) shall be fixed on the basis of evidence produced by the Contractor and accepted by the Agency. It shall take account of the proportion of the Contract completed and shall be consistent with the provisions of Article 5.6.4.

5.6.4 The Agency shall in no circumstances be liable to pay any sum which, when added to the other sums paid, due or becoming due to the Contractor under the Contract, exceeds the total price for the work set forth in the Contract.

5.7 Changes to this Contract

5.7.1 The Agency reserves the right at any time to request a change to the requirements covered by this Contract. The Agency may also accept changes proposed by the Contractor. The requesting Party shall communicate all change requests to the other Party in writing through the Parties' Representatives indicated in Article 5.1 above.

5.7.2 The cost impact relative to any change resulting from a request, by the Agency, to modify the requirements covered by this Contract shall be borne by the Agency. The Contractor shall be responsible for the consequences and shall bear the cost of any other change.

5.7.3 When responding to a change request issued by the Agency or as a means to propose changes to the Agency, the Contractor shall submit a committing change proposal including a detailed quotation of the effects of the change on the contractual work, price, schedule, deliverable items and any other contractual terms and conditions.

5.7.4 Upon evaluation and acceptance by the Agency of a change proposal, any amendment to this Contract shall be introduced in the form of a Contract Change Notice (CCN form attached hereto in Appendix 3). In case of rejection, the Agency shall inform the Contractor accordingly, together with the reasons for the rejection.

ARTICLE 6 - INTELLECTUAL PROPERTY RIGHTS

6.1 Information to be provided by the Contractor – Protection of information

6.1.1 Information, data, reports and results arising from Work performed under this Contract shall be delivered to the Agency. The Agency shall have the right to make such information, data, reports and results available to the Participating States in the Programme and any Persons and Bodies under their jurisdiction, to use on the terms set forth in the following clauses.

6.1.2 For the purpose of this Contract “Proprietary Sensitive Information” shall mean information corresponding to business related information (e.g. businessplans) and/or Intellectual Property Rights vesting in an entity, the uncontrolled dissemination of which is likely to impair the entity’s long-term ability to use and exploit the aforesaid and/or to maintain a competitive advantage.

The Contractor shall not mark any (electronic) documentation as Proprietary Sensitive Information, unless agreed in advance with the Agency. Any request from the Contractor shall be submitted in writing accompanied by an appropriate justification.

6.1.3 Neither Party shall disclose any documentation obtained from the other Party, and which both Parties recognise as being Proprietary Sensitive Information without the other Party’s previous written authorisation. Without prejudice to the foregoing and limited to the purpose and scope of this Contract, both Parties may circulate such documentation to their employees or collaborators that require the said documentation for the sole purpose of complying with, or inspecting the progress of, this Contract.

6.1.4 The obligations provided in Articles 6.1.2 and 6.1.3 shall not apply to (electronic) documentation:

- which at the time of circulation has already entered in public domain or which after circulation enter in public domain other than through a breach of the Contract;
- which at the time of circulation is already known by the receiving party and is not hindered by any obligation not to circulate;
- which is later acquired by the receiving party from another source and is not hindered by any obligation not to circulate;
- which is required to be circulated by law or order of a court of competent jurisdiction.

6.2 Ownership and Use of Intellectual Property Rights

6.2.1 Ownership of Intellectual Property Rights

The Contractor shall own all Intellectual Property Rights and have the right to apply for, and to own, any registered Intellectual Property Rights arising from Work performed under this Contract. He shall as soon as possible report to the Agency any results arising from such a Work which may in his opinion be protected as registered Intellectual Property Rights and state whether he intends to apply for such protection. At the Contractor's specific request in order to allow for filing of patent applications the Agency shall not disclose any relevant information and results for a period of twelve (12) months from the date it was reported to the Agency.

The Contractor shall subsequently inform the Agency of any application to register such results arising from Work performed under this Contract and within two (2) months of the date of filing, provide the Agency with all details on that application. The Agency shall have an irrevocable right to use the information used in that application, for its own requirements on the terms set out in Article 6.2.2 below but, unless agreed otherwise with the Contractor, the Agency shall not disclose such information until publication of the registration application.

6.2.2 Use of Intellectual Property Rights

All Intellectual Property Rights arising from Work performed under the Contract shall be available to:

the Agency, to use on a free of charge, worldwide licence, with the right to disseminate and/or to grant sub-licences, for the Agency's own requirements.

For the avoidance of doubt, the term "use" for the purposes of software and/or hardware (design) shall include, but not be limited to, use to operate, integrate, validate, maintain, modify and upgrade items developed under the Contract.

6.3 Background Intellectual Property

6.3.1 Background Intellectual Property - Definition

For the purpose of this Contract, "Background Intellectual Property" means all Intellectual Property, belonging to the Contractor or to a third party, which:

- a) has not been generated under contract with the Agency either prior to or during execution of this Contract, and
- b) is relevant to the work carried out under this Contract, and
- c) the Contractor uses to achieve the objectives of this Contract, and
- d) is delivered to the Agency to enable it to use, operate, copy, distribute and sub-license the deliverable items due under this Contract as specified in the Agency's requirements, and
- e) is duly identified as such in this Contract.

Conversely, “Foreground Intellectual Property” means all Intellectual Property generated through work carried out under, or directly or indirectly funded through, this Contract.

6.3.2 Use of Background Intellectual Property

The Contractor has confirmed that all results of this Contract (or any part thereof) shall be deemed and treated as not containing any Background Intellectual Property.

Nevertheless should the Contractor unilaterally decide to use existing Intellectual Property to achieve the objectives of this Contract, all results of this Contract (or any part thereof) shall be deemed and treated as Foreground Intellectual Property not containing any Background Intellectual Property. The Contractor shall grant to the Agency, and/or ensure that the Agency be granted, all the necessary rights in this respect.

6.4 The free licences provided for the benefit of ESA

The free licences provided on Intellectual Property arising from Work performed under this Contract and/or Background Intellectual Property indicated in 6.3 for the benefit of ESA shall be deemed granted through signature of the present Contract and without the need to implement a separate licence.

6.5 Transfer outside Slovakia

6.5.1 Any transfer of Intellectual Property arising from work performed under the Contract by the Contractor to any entity outside Slovakia shall comply with all applicable laws including all export control laws, regulations, rules and procedures and any relevant international agreements relating to the export of goods and services.

Property owned by the Contractor

6.5.2 The Contractor shall not transfer any Intellectual Property Rights arising from work performed under the Contract which the Contractor owns to any entity outside Slovakia without seeking the prior written authorisation of the Agency. If The Contractor intends to transfer any such Intellectual Property Rights, to an entity outside Slovakia, it shall at its earliest convenience and in any event before making any unconditional commitment provide the Agency with a written request accompanied by a Statement setting out details of:

- a) the proposed transferee outside Slovakia;
- b) the terms of the transfer (together with all countries of destination) and the intended use of the subject matter to be transferred;
- c) any further information required by the ESA Division for Industrial Policy Implementation.

- 6.5.3 The Contractor shall identify in the Statement all relevant national approval or consent procedures which need to be obtained for the said transfer to comply with national legislation and whether any such approvals or consents have been applied for or granted.
- 6.5.4 The Contractor shall wait 5 weeks from submission of the written request to the Agency before entering into any unconditional commitment.
- 6.5.5 The Agency shall not Disclose the Contractor's written request or Statement but shall promptly circulate the request and Statement to the Government of Slovakia for approval.
- 6.5.6 If the Contractor has assigned Intellectual Property Rights arising from work performed under the Contract to a Third Party, the Agency may request that the Contractor shall ensure that the assignee complies with clauses 6.5.2-6.5.7.

Recommendation

- 6.5.7 The Agency's recommendation and decision of the Government of Slovakia shall be communicated to the Contractor.

The request for a transfer outside Slovakia shall be addressed to,
New, Cooperating & Associate States Section,
Industrial Policy and SME Division,
Attn.: Mr. Stephen Airey,
ESA/ESTEC,
Keplerlaan 1,
2201 AZ Noordwijk,
The Netherlands,

with a copy to the technical and administrative representatives of the Agency identified in Article 5.5.1.

ARTICLE 7 - MANAGEMENT AND CONTROL OF INVENTORY ITEMS/FIXED ASSETS UNDER THE CONTRACT

The following provisions apply to any items other than those items which fall within the scope of Article 2 of the Contract.

The Contractor shall specify, record, manage and control any and all Customer items and ESA Fixed Assets under Construction (reference is made to Article 3.1 above) that are subject of this Contract. Such items are:

- i. items produced or purchased under the Contract, including electronic components, special jigs, tools, test equipment, and which are paid for under the Contract with an individual or batch value (value of group of items) in the national currency equivalent to, or above five-thousand (5,000) Euro;
- ii. if any, items identified as becoming ESA Fixed Assets in Article 3 above or in a subsequent CCN;
- iii. if any, Customer Furnished Items and/or Items made available by the Agency (see Article 5.4 of the Contract).

The Contractor shall operate an inventory control system of all above mentioned items and shall mark them as falling under this Article of the Contract.

The Inventory Control System shall:

- record the existence, location, operational status and condition of all inventory items, and
- record the value and estimated life duration of all inventory items, and
- record changes in inventory value, and
- enable financial reconciliation to be made and status reports to be prepared for incorporation of the relevant data into the Agency's annual financial accounts.

The Contractor shall, as part of the Inventory Control System, maintain an Inventory/Fixed Asset Record (in an electronic tool of its choice) which shall, as a minimum, contain the information as shown in Appendix 2 to this Contract.

The Inventory/Fixed Asset Record shall be kept updated by the Contractor. It shall be made available to the Agency upon request but as a minimum yearly during the execution of the Contract (and at completion of each Project Phase as per ECSS-M-ST-10 if applicable). A final consolidated record shall be submitted with the final contractual deliverables as foreseen in Appendix 2 to this Contract.

If the Inventory/Fixed Asset Record also includes any of those items which fall within the scope of Article 2 of the Contract, these items are to be clearly set apart.

Items, for which no place of delivery has been identified in Article 2 of this Contract, are subject to the following provisions.

Upon completion of the Work specified in the Contract, the Agency shall take decisions regarding the final destination and final ownership of each item listed in the Record. The

Agency shall be free to choose amongst the following options with respect to final destination and final owner of each such item:

- a) the right to claim delivery to the Agency and transfer of ownership (the latter if applicable) - with issue of appropriate instructions concerning packing and shipment (at the Contractor's expense),
- b) the right to claim or retain ownership and to negotiate with the Contractor a loan agreement if the Contractor is interested in keeping and using an item, with loan conditions making the Contractor responsible for the custody, the delayed delivery and the risks involved (at the Contractor's expenses),
- c) the right to extend the custody of an item to the Contractor and to postpone its delivery to the Agency and the associated transfer of ownership – on conditions to be negotiated,
- d) the renunciation of any rights to claim delivery and to claim transfer of ownership, leaving definitively the item in the possession and in the ownership of the Contractor, with or without financial compensation for the Agency (e.g. repurchase by the Contractor) and with or without special instruction,
- e) the right to request the Contractor to dispose of an item on conditions to be negotiated.

Should the Agency decide to transfer an ESA Fixed Asset to a Third Party or to dispose of the Fixed Asset, the Contractor shall provide the full inventory information of the Asset to the Agency and complete the transfer or disposal forms to be provided by the Agency upon request by the Contractor. The information to be given by the Contractor in the forms shall be agreed with the Agency.

The decisions taken by the Agency shall lead to instructions or negotiations, as the case may be and the results shall be recorded in the relevant sections of the Contract Closure Documentation (CCD) as found in Annex A to Appendix 1 to the Contract. The CCD shall not be finalised and signed before a disposition of all items has been given by the Agency and recorded in the documentation.

Electronically signed and /or hand-signed and scanned by each Party to this Contract,

In Bratislava,

In Noordwijk,

On

On

For Comenius University in Bratislava

For the European Space Agency (ESA)

Mr Marek Števček
Rector

Mr Stephen Airey,
Head of New, Cooperating & Associate
States Section

Personal Data “Controller to Controller” Annex (the “PDCC”) of the European Space Agency (“ESA” or the “Agency”)

This “Controller to Controller” Annex governs the processing of Personal Data exchanged by the Parties, acting as separate Controllers, in the frame of the Contract. Such Annex forms an integral part of the Contract. In case of conflict between the terms and conditions of the Contract and the terms and conditions of this Annex, the terms and conditions of this Annex shall prevail. This Annex survives the expiration or termination of the Contract for as long as the Personal Data are protected by the Data Privacy Regulations.

1. DEFINITIONS

The following specific definitions apply:

- (i) “Agreed Territory” (of Processing) means:
 - a) ESA Member States, as they are listed in the ESA website at URL: http://www.esa.int/About_Us/Welcometo_ESA/New_Member_States;
 - b) European Union;
 - c) countries recognized by the European Commission as ensuring an Adequate Level of Protection of Personal Data under the European Union’s legal framework.
- (ii) “Data Privacy Regulations” means respectively:
 - a) ESA PDP Framework, i.e. the Personal Data Protection Framework applicable to ESA and available on ESA website at URL: http://www.esa.int/About_Us/Law_at_ESA/Highlights_of_ESA_rules_and_regulations
 - b) the Personal Data protection laws and regulations applicable to the Contractor in the Agreed Territory of Processing which provide an Adequate Level of Protection under the ESA PDP Framework (e.g. EU Regulations in the field of personal data protection, including but not limited to Regulation (EU) nr. 2016/679).
- (iii) “Personnel” means:
 - a) with respect to the Contractor: any employee, agent or representative acting under the responsibility of the Contractor or, if subcontracting is permitted, of Contractor’s subcontractors;
 - b) with respect to ESA: any employee, agent or representative acting under the responsibility of ESA (e.g. staff members and seconded agents, consultants experts or employees of third parties).

With respect to terms used with capitals in this Annex (e.g. “Controller”, “Personal Data” etc.) but not defined above, reference is made to the definitions set forth in the Data Privacy Regulations applicable according to Article 2 below.

2. GENERAL

- 2.1 Each Party is individually and separately responsible for complying with the level of protection resulting from its Data Privacy Regulations in relation to Personal Data, being recognised that:
 - a) the Contractor is governed by the Personal Data protection laws and regulations applicable to the Contractor in the Agreed Territory of Processing, which provide an Adequate Level of Protection under the ESA PDP Framework (e.g. EU Regulations in the field of personal data protection, including but not limited to Regulation (EU) nr. 2016/679).

- b) ESA is governed by PDP Framework, i.e. the Personal Data Protection Framework applicable to ESA and available on ESA website at the URL: http://www.esa.int/About_Us/Law_at_ESA/Highlights_of_ESA_rules_and_regulations

- 2.2. The Parties are considered separate Data Controllers of the Personal Data, with each Party being able to determine the purpose and means of Processing the Personal Data under its control in accordance with its privacy statement.

- 2.3 The Personal Data exchanged by the Parties in the frame of this Contract will only be processed for:

- a) the performance of the Contract, including implementation, management, monitoring, audits and the fulfilment of the obligations set out in this Annex;
- b) the management of the relationship of the Parties in relation to the Contract, notably for administrative, financial, audit or for communication purposes;
- c) the compliance with any legal or regulatory obligation to which a Party is subject;
- d) the compliance, in case the performance of the Contract requires access to the Parties’ premises, with the health, safety and security requirements, legal or regulatory obligations applicable to the respective Party in such matters.

3. PERSONAL DATA EXCHANGED BY THE PARTIES

In the performance of this Contract each Party may disclose to the other Party data which may qualify as “Personal Data” under its Data Privacy Regulations as follows:

- a) the Agency shall communicate to the Contractor only the Personal Data concerning ESA representatives/contact persons including name, work address, email and telephone numbers;
- b) the Contractor shall communicate to the Agency only:
 - (i) Personal Data concerning the Contractor’s representatives/contact persons including name, work address, email and telephone numbers;
 - (ii) Personal Data concerning the Contractor’s key Personnel, including title, name, work address, email, telephone numbers, education, professional experience, description of the person’s job and responsibilities and the precise assignment of the person to the activity under the Contract.

4. PARTY’S OBLIGATIONS

- 4.1. Each Party is individually and separately responsible for complying with the level of protection resulting from its Data Privacy Regulations in relation to Personal Data, including the collection and update of the Personal Data that it communicates to the other Party, the lawfulness and the quality of such Personal Data and for the means by which they were collected. Should the legal basis for the collection of the Personal Data cease to exist or the quality of the Personal Data be affected, the Party will inform the other Party without undue delay.

- 4.2. The Parties shall preserve the rights and legal remedies of the Data Subject as recognised and protected in the Data Privacy Regulations applicable respectively to each Party. In particular, the Data Controller which disclosed the Personal Data to the other Party will respond to enquiries from Data Subjects and, as the case may be, from any competent authority concerning the data processing of the relevant Personal Data.

4.3. In case the Parties engage Processors to support their internal operations, including the Processing of the Personal Data exchanged, it is the responsibility of that Party to ensure that its Processors assume obligations consistent with the Data Privacy Regulations applicable to the respective Party, in order to guarantee an adequate level of protection of Personal Data.

4.4. The Party having received the other Party's Personal Data under the Contract shall Process such Personal Data only in the Agreed Territory of Processing.

5. DATA RETENTION

5.1. The Parties shall not retain or process the Personal Data exchanged longer than is necessary to carry out the purpose described in Article 2.3 herein, unless required otherwise:

- a) under the Data Privacy Regulations, (e.g. in the frame of audits, inspections and incidents) or
- b) under the Party's statutory obligations.

5.2. The retention period shall be defined in the privacy notices of the Parties.

5.3. All Personal Data must be, effectively destroyed/deleted upon expiration of the retention period, unless conservation of such data is required for compliance with any legal or regulatory obligation to which the Party having received the Personal Data from the other Party is subject.

6. CONFIDENTIALITY

The Parties shall ensure the confidentiality of the Personal Data processed by protecting them against unauthorized or unlawful access, acquisition, use and disclosure, in particular by:

- a) limiting access to the Personal Data of the other Party only to their Personnel, that:
 - are required or authorized to access such Personal Data;
 - have committed themselves to confidentiality or are under a statutory obligation of confidentiality;
 - have received the appropriate Personal Data protection training.
- b) taking into consideration, in terms of IT tools, product, applications, the principles of personal data protection by design and by default.

7. SECURITY

The Parties shall adopt appropriate technical and organisational security measures, giving due regard to the risks inherent in the Processing and to the nature, scope, context and purpose of the Processing, in order to ensure the following as appropriate:

- a) the on-going confidentiality, integrity, availability and resilience of Processing systems and services;
- b) measures to protect Personal Data from accidental, unlawful or unauthorized access, use, destruction, loss, modification or transfer.

8. DATA PROTECTION OFFICER/CONTACT POINT

For any Personal Data protection matters, the Parties shall involve their specific contact points identified in the Contract.

9. TRANSFER

The Party having received the other Party's Personal Data under the Contract shall Process (and have processed by its authorised subcontractors or sub-processors) such Personal Data only in the Agreed Territory of Processing. No transfer of Personal Data outside the Agreed Territory is allowed without prior written approval of the other Party.

10. SUB-CONTRACTORS

10.1 The Contractor is authorised to disclose Personal Data received from the Agency to its Sub-contractors provided that:

- a) sub-contracting is specifically authorised by Contract and the Sub-contractors are indicated in the Contract;
- b) all the general conditions set forth in this Annex are fulfilled ; in particular the Processing of the Personal Data by the Sub-contractors is performed for the purpose described in Article 2.3 herein and the Personal Data are not transferred outside the Agreed Territory.

10.2 Disclosure of the Agency's Personal Data to other third Parties requires prior approval of the Agency.

11. PERSONAL DATA BREACHES

11.1 After becoming aware of a Personal Data Protection Breach falling in its area of responsibility, and affecting the Personal Data communicated by the other Party, the Party shall notify the other Party within 48 hours.

11.2 The Parties will provide each other reasonable assistance to facilitate the handling of the Personal Data Breach and accurate information about the breach, in particular (but not only) in case a complaint is, or likely to be, lodged by a Data Subject in relation to the Breach.

12. LAW – DISPUTE RESOLUTION

Concerning Personal Data protection matters, notwithstanding any other provisions on the governing law set forth elsewhere in the Contract, the provisions set forth in the Data Privacy Regulations, as defined herein, will apply as mentioned in Article 2 herein and will prevail in case of conflict. Without prejudice to the foregoing, disputes between the Parties on Personal Data protection matters shall be settled in accordance with Article 1.3.3 of the Contract.

APPENDIX 1

INVENTORY/FIXED ASSET RECORD

1.1. Content of Electronic Inventory/Fixed Asset Record

The Contractor shall establish an electronic Inventory/Fixed Asset Record with, as a minimum, the following information:

For all items:

- Contract number / subcontract number if applicable
- unique item number
- confirmation that the item has been marked with the unique item number
- description of item
- part number/serial number/type code
- quantity
- system/subsystem
- property owner
- manufacturer
- classification (category – see section 1.2 below)
- acquisition value (i.e. original purchase price or price at Contract signature as applicable)
- date of purchase or production (“in service date” if not corresponding with date of purchase/production)
- in-service date
- foreseen useful life (to be agreed with ESA)
- physical location (e.g. facility, building, room)
- entity responsible for care and custody
- related WBS code or other identifier to be coordinated with the Agency)
- description and date of any change to the property item
- planned method of disposal (if applicable)

In addition to the above, the following information shall be added to those items that are identified as becoming ESA Fixed Assets in Article 3 of the Contract, as applicable.

- Acquisition value
 - revision of this value as a result of change(s) to the asset
- Impairment report of each ESA Fixed Asset remaining in the custody of the Contractor after its acceptance by ESA (using the template that will be provided by the Agency upon announcement by the Contractor that the item has been impaired)
- date of acceptance by ESA (planned date of acceptance)

- foreseen handling after ESA acceptance (e.g. transfer to ESA, continuing in custody of the Contractor)

1.2. Classification of Inventory/ Fixed Assets items

For the purpose of Inventory/Fixed Asset Control, items shall be classified into five (5) categories, according to the source and intended use of the items, as follows:

| Source / Purpose | Supplier-acquired Items | Customer-furnished Items |
|--|--------------------------------|---------------------------------|
| Consumable items (e.g. parts, materials, supplies) | Class 1 | Class 2 |
| Capital items/production support equipment and tools (e.g. instruments, jigs, fixtures) | Class 3 | Class 4 |
| Items purchased by the Supplier or his lower tier suppliers on their own account but amortised under the Contract. | Class 5 | |

Note 1: Consumable items are parts, materials, supplies, components, modules, minor expendable tools, assemblies, units and subsystems which through the production process lose their identity and are absorbed directly or indirectly by the system/product to be provided under the Contract.

Note 2 Consumable items in principle are not capitalised per item, however, before consumption they are identified as assets of the Agency under the collective term “Consumable”.

Note 3: Capital items/production support equipment and tools are jigs, fixtures, devises, apparatus, instruments, machines, installations, technical facilities, buildings, computer programmes, documentation, models, samples or any other item which, after their use in or in conjunction with the production process under the Contract, are expected to have a residual utility or other value for the Agency.

Note 4: Capital items have a useful life of more than one (1) year and are identified as individual items in the Supplier and its lower tier suppliers list of Agency’s assets.

APPENDIX 2 Standard Requirements for Management, Reporting, Meetings and Deliverables

The following are the requirements for Management, Reporting, Meetings and Deliverables applicable to the present activity.

1.1 Management

1.1.1 General

The Contractor shall implement effective and economical management for the project.

The nominated Project Manager shall be responsible for the management and execution of the work to be performed and, in the case of a consortium, for the coordination and control of the consortium's work.

1.1.2 Communications

All communications to the Agency, affecting technical terms and conditions of the activity, shall be addressed in writing to the Agency's representatives nominated in the Contract.

1.2 Access

During the course of the Contract the Agency shall be afforded free access to any plan, procedure, specification or other documentation relevant to the programme of work.

1.3 Reporting

1.3.1 Minutes of Meeting

The Contractor is responsible for the preparation and distribution of Minutes of Meetings held in connection with the Contract. Electronic versions shall be issued and distributed to all participants, to the Agency's Technical Officer and to the Agency's Contracts Officer, not later than ten (10) days after the meeting concerned.

The minutes shall clearly identify all agreements made and actions accepted at the meeting.

1.3.2 Bar-chart Schedule

The Contractor shall be responsible for maintaining the bar-chart for work carried out under the Contract, as agreed with the Agency.

The Contractor shall present an up-to-date chart for review at all subsequent meetings, indicating the current status of the contract activity (WP's completed, documents delivered, etc.).

1.3.3 Progress Reports

Every six month, the Contractor shall provide a Progress Report in electronic format to the Agency's representatives, covering the activities carried out under the Contract. This report shall refer to the current activities shown on the latest issued bar-chart and shall give:

- Action items completed during the reporting period;

- Description of progress: actual vs schedule, milestones and events accomplished;
- Reasons for slippages and/or problem areas, if any, and corrective actions planned and/or taken, with revised completion date per activity;
- Events anticipated during the next reporting period (e.g. milestones reached);
- Milestone payment status.

1.3.4 Problem Notification

The Contractor shall notify the Agency's representatives (Technical Officer and Contracts Officer) of any problem likely to have a major effect on the time schedule of the work or to significantly impact the scope of the work to be performed.

1.3.5 Technical Documentation

As they become available and not later than the dates in the delivery plan, the Contractor shall submit for the Agency's approval Technical Notes, Task/WP Reports, etc.

Technical documentation to be discussed at a meeting with the Agency shall be submitted electronically two weeks prior to the meeting.

Technical documents from Sub-contractors shall be submitted to the Agency only after review and acceptance by the Contractor and shall be passed to the Agency via the Contractor's formal interface to the Agency.

1.4 Meetings

The negotiation meeting shall take place by video- or tele-conference.

Progress Meetings shall be held at approximately 2- to 3-monthly intervals, as agreed at the Kick-Off/Negotiation Meeting and recorded in the Minutes of Meeting.

The final presentation shall take place at the Agency's premises, to a public audience, within twelve (12) months of Contract closure. During the course of the activity the Agency will decide on the format for the final presentation (e.g. dedicated meeting, conference, specific event). Preference shall be given to a specific event where technologies related to a specific technology domain or technology theme are presented together.

Additional meetings may be requested either by the Agency or the Contractor.

With due notice to the Contractor the Agency reserves the right to invite Third Parties to meetings to facilitate information exchange.

For each meeting the Contractor shall propose an agenda in electronic form and shall compile and distribute hand-outs of any presentation given at the meeting.

1.5 Deliverable Items

In addition to the documents to be delivered according to section 1.3 here above, the documentation and other deliverable items defined in the Applicable Documents under Article 1.2 of the Main Contract shall also be deliverables.

All documentation deliverables mentioned therein (including all their constituent parts) shall also be delivered in electronic form in a format agreed by the Agency (PDF format, the native format and in other exchange formats where relevant).

All the documentation shall be delivered on computer readable media (e.g. USB key) as agreed with the Agency.

All documents shall bear the appropriate copyright notice. In all cases, this shall include the title, ESA contract number, deliverable number, date, status (draft), version and/or revision number. The information shall be repeated consistently in the header or footer of every page.

Definition of Deliverable Documents

- **TDP TECHNICAL DATA PACKAGE**
The Technical Data Package consists of the final versions of all approved technical documents delivered during the execution of the activity.
- **ESR EXECUTIVE SUMMARY REPORT**
The Executive Summary Report shall concisely summarise the findings of the Contract. It shall be suitable for non-experts in the field and should also be appropriate for publication. For this reason, it shall not exceed 5 pages of text and 10 pages in total (1500 to 3000 words).
- **FR FINAL REPORT**
The Final Report shall provide a complete description of all the work done during the study and shall be self-standing, not requiring to be read in conjunction with reports previously issued. It shall cover the whole scope of the study, i.e. a comprehensive introduction of the context, a description of the programme of work and report on the activities performed and the main results achieved.
The Final Report is a mandatory deliverable, due upon completion of the work performed under the Contract. For the avoidance of doubt, “completion of the work performed under the Contract” shall mean the finalisation of a series of tasks as defined in the Applicable Documents under Article 1.2.
- **CCD CONTRACT CLOSURE DOCUMENTATION**
The Contract Closure Documentation is a mandatory deliverable, due at the end of the contract. Work performed under Contract Change Notices adding new tasks with respect to the original Contract shall require separate Contract Closure Documentation. The contents of the Contract Closure Documentation shall conform to the layout provided in Annex A hereto.

**ANNEX A: LAYOUT FOR CONTRACT CLOSURE DOCUMENTATION
 (v2018-10)**

Contract Closure Documentation
 For
 ESA Contract No. 4000132355/20/NL/SC
 Potential solid lubricant for extreme temperatures based on vanadium
 boride,
 hereinafter referred as the “Contract”

Section 1 – Parties, Contract Duration and Financial Information

| | | | |
|--|--|--|----------|
| Contractor | | Department of Experimental Physics, Faculty of Mathematics, Physics and Informatics, Comenius University in Bratislava, Slovak Republic | |
| Sub-contractor(s) <i>(state if not applicable)</i> | | NOT APPLICABLE | |
| Contract Duration <i>(insert the dates agreed for kick-off and end of contract)</i> | | From: To: | |
| Total Contract Price <i>(including all CCNs, Work Orders, Call of Orders)</i> and Total Contract Value <i>(in case of co-funding; state if not applicable)</i> | | EUR EUR | |
| Broken down as follows: | Original Contract Price | XXX EUR (XXX EUR) | |
| | and original Contract Value <i>(in case of co-funding; state if not applicable)</i> | EUR | |
| | CCN x to n | EUR | in total |
| | Work Order x to n | EUR | in total |
| | Call-Off Order x to n | EUR | in total |

Section 2 – Recapitulation of Deliverable Items

2.1 Items deliverable under the Contract

If any of the columns do not apply to the item in question, please indicate “n/a”.

Table 2.1.1 - Items deliverable according to the Applicable Documents under Article 1.2 and Article 2 of the Contract

| Type | Ref. No. | Name / Title | Description | Replacement Value (EUR)/ Other | Location ⁽⁴⁾ | Property of | Rights granted / Specific IPR Conditions ⁽⁵⁾ |
|----------------------|-----------------|---------------------|---|---------------------------------------|--------------------------------|--------------------|--|
| Documentation | | | | | | | |
| Hardware | | | | | | | |
| Software | | | <i>(Delivery in Object code / Source code?)</i> | | | | |
| Other | | | | | | | |

⁴ *In case the item is not delivered to ESA, please indicate the location of the deliverable and the reason for non-delivery (e.g. loan agreement, waiver, future delivery, etc.)*

⁵ *e.g. IPR constraints, deliverable containing proprietary background information (see also Table 2.1.3 below)*

Table 2.1.2 – Items deliverable under Article 7 of the Contract (if applicable)

The Contractor, after agreement with the Agency with respect to the disposal/transfer of Inventory Items/Fixed Assets under the Contract, shall submit the Inventory/Fixed Asset Record as attachment to the CCD. For each Item/Fixed Asset, the information as requested by Appendix 3 to the Contract shall be provided in the Record.

Table 2.1.3 – Customer Furnished Items and Items made available by the Agency

[Option 1]

There was no Customer Furnished Items or Items made available by the Agency.

[Option 2]

Any Customer Furnished Items and/or Items made available by the Agency to the Contractor and/or its Subcontractor(s) under the Contract, are listed in the following List of Customer Furnished Items and Items made available by the Agency. The following tables certify which of the Items have been returned to the Agency and which of the Items remain in the custody of the Contractor, and/or a Subcontractor(s) and/or a Third Party(ies) for further ESA work or for other purposes.

Customer Furnished Items

| Item Name | ESA Inventory Number | Location | Insurance Value | ESA DECISION | | |
|-----------|----------------------|----------|-----------------|-------------------------|-------------------------------------|--|
| | | | | Confirmation of Receipt | Deliver to ESA or to another entity | Leave at (Sub-) Contractor's Disposal under a loan agreement |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Items made available by the Agency

| Item Name | ESA Inventory Number | Location | Replacement Value | Deliver to ESA or to another entity | Leave at (Sub-) Contractor's Disposal under a loan agreement |
|-----------|----------------------|----------|-------------------|-------------------------------------|--|
| | | | | | |
| | | | | | |

Table 2.1.4 – Background information used and delivered under the Contract (see Article 6.3 of the Contract)

The following background information has been incorporated in the deliverable(s):

| Proprietary Information <i>(title, description)</i> | Owner <i>(Contractor / Sub-contractor(s)/ Third Party -ies)</i> | Affected deliverable <i>(which documents, hardware, software, etc.)</i> | Description impact on ESA’s rights to the deliverable (6) | Other comments |
|---|---|---|--|-----------------------|
| | | | | |

⁶ if not explicitly stated otherwise, the contractual stipulations shall prevail in case of conflict with the description provided in this table

Section 3 – Statement on Intellectual Property Rights generated under the Contract

[OPTION 1: NO INVENTION]

In accordance with the provisions of the Contract [Contract Number], The Department of Experimental Physics, Faculty of Mathematics, Physics and Informatics, Comenius University in Bratislava, hereby certifies both on its own behalf and that of its consortium/Subcontractor(s), that no Intellectual Property Right(s) (as defined in the Contract, under the section 'Definitions') has(ve) been generated in the course of or resulting from work undertaken for the purpose of this Contract. **[END OPTION 1]**

[OPTION 2: INVENTION]

In accordance with the provisions of the Contract [Contract Number], The Department of Experimental Physics, Faculty of Mathematics, Physics and Informatics, Comenius University in Bratislava hereby certifies both on its own behalf and that of its consortium/Subcontractor(s) that the following Intellectual Property Right(s) (as defined in the Contract, under the section 'Definitions') has(ve) been generated in the course of or resulting from work undertaken for the purpose of this Contract:

- Intellectual Property Rights (“IPR”) suitable for registration (i.e. “Registered Intellectual Property Rights” as per definition in the Contract) and their current status (Registered – In the process of being registered – Foreseen for registration – Not foreseen for registration)

.....

Should any Intellectual Property Rights be indicated as being foreseen for registration or in the process of registration, the Contractor undertakes to notify the Agency's Technical Officer when:

- registration of any such IPR(s) is rejected
- registration of any such IPR(s) is obtained (and will provide the registration details)

- Intellectual Property Rights ("IPR") not suitable for registration (i.e. not being "Registered Intellectual Property Rights" as per definition in the Contract)

.....

The Agency's rights on such Registered Intellectual Property Rights shall be in accordance with the above Contract. **[END OPTION 2]**

Section 4 – Output from / Achievements under the Contract

4.1 Technology Readiness Level (TRL)

Indicate the TRL of the technology developed under the Contract using the classification given below (for additional information on definitions, please refer to ECSS-E-AS-11C):

| Initial TRL | Planned TRL as activity outcome | Actual TRL at end of activity |
|-------------|---------------------------------|-------------------------------|
| | | |

| | |
|---|---|
| 1 | Basic principles observed and reported |
| 2 | Technology concept and/ or application formulated |
| 3 | Analytical and experimental critical function and/ or characteristic proof of concept |
| 4 | Component and /or breadboard validation in laboratory environment |
| 5 | Component and /or breadboard critical function verification in a relevant environment |
| 6 | Model demonstrating the critical functions of the element in a relevant environment |
| 7 | Model demonstrating the element performance for the operational environment |
| 8 | Actual system completed and accepted for flight ‘flight qualified’ |
| 9 | Actual system ‘flight proven’ through successful mission operations |

Note: The TRL shall be assessed by ESA. The Agency’s responsible Technical Officer shall verify TRLs 1-4 while TRLs 5-9 shall be assessed through an ESA-internal formal procedure.

4.2 Achievements and Technology Domain

.....
Provide a concise description (max 200 words) of the achievements of the Contract and its explicit outcome (including main performances achieved): please refer to the final documentation (e.g. Final Report).

Please indicate the Technology Domain (TD 1 to 25) of the development (*please tick off*):

| | | | |
|----|---|----|------------------------------------|
| 1 | On-Board Data Systems | 14 | Life & Physical Sciences |
| 2 | Space System Software | 15 | Mechanisms & Tribology |
| 3 | Spacecraft Electrical Power | 16 | Optics |
| 4 | Spacecraft Environment & Effects | 17 | Optoelectronics |
| 5 | Space System Control | 18 | Aerothermodynamics |
| 6 | RF Payload and Systems | 19 | Propulsion |
| 7 | Electromagnetic Technologies and Techniques | 20 | Structures & Pyrotechnics |
| 8 | System Design & Verification | 21 | Thermal |
| 9 | Mission Operations and Ground Data Systems | 22 | Environmental Control Life Support |
| 10 | Flight Dynamics and GNSS | 23 | EEE Components and Quality |
| 11 | Space Debris | 24 | Materials and Processes |
| 12 | Ground Station System & Networking | 25 | Quality, Dependability and Safety |
| 13 | Automation, Telepresence & Robotics | | |

4.3 Application of the Output/Achievements

Please tick off as appropriate:

Possible use in programme:

.....
Please indicate the service domain (see table) relevant to a possible application

| | |
|---|-------------------------------------|
| 1 | Earth Observation |
| 2 | Science |
| 3 | Human Spaceflight and Exploration |
| 4 | Space Transportation |
| 5 | Telecommunications |
| 6 | Navigation |
| 7 | Generic Technologies and Techniques |
| 8 | Security |
| 9 | Robotic Exploration |

Actual use in programme:

.....
Please describe the specific programme and application or mission for which the output of this Contract is or will be used.

4.4 Further Steps/Expected Duration

Please tick off as appropriate:

No further development envisaged.

Further development needed:

.....
Please describe further development activities needed, if any, to reach TRL 5/6 including an estimate of the expected duration and cost.

4.5 Potential Non-Space Applications

.....
Describe any potential non-space applications or products that may benefit from the technology that has been developed. Emphasize potential markets and customers where known.

.....
Describe the principle features of technology that would be required in a technology demonstrator for any identified non-space application. Include an estimate of the resources in time and money that would be required.

The above statements provided in the various sections of this Annex A "Layout for Contract Closure Documentation" for ESA Contract No. **4000132355/20/NL/SC** have been made after due verifications.

The Contractor furthermore certifies that all its obligations with regard to Fixed Assets, if any, have been fulfilled.

If required by ESA, an updated version shall be provided for incorporating amendments requested by ESA.

Name of Contractor:
Department of Experimental Physics,
Faculty of Mathematics, Physics and Informatics,
Comenius University in Bratislava

Authorised signatory:

Professor JUDr. Marek Števček,
PhD.

[signature of the Authorised signatory]

Date:

[insert date]

APPENDIX 3 CONTRACT CHANGE NOTICE

For submission of a change, the Contractor shall submit his proposal in the format of a CCN using the cover page included below. The form shall be filled with the following information as a minimum:

- The Contractor's name and the Contract number
- The title of the area affected by the change (Work Package reference, new work, etc.)
- The name of the initiator of the change (Contractor or ESA)
- The description of the change (including Work Package Descriptions, Work Breakdown Structure, etc.)
- The reason for the change
- The price breakdown in €, if any (breakdown by company, Phase, etc., including PSS-A2 and PSS-A8 forms)
- The Milestone Payment Plan for the CCN if any
- Effect on other Contract provisions
- Start of work - end of work (including contractual delivery dates and overall planning, milestones, etc.)
- A CCN Form, as per the format below, signed by the Contractor's representatives.

The Contractor shall, on request of the Agency, provide additional documentary evidence. At the request of either Party, the proposed change may be discussed at a Change Review Board, consisting of both the Contracts Officer and the Technical Officer of each Party.

| | | |
|---|---------------------------------|--------------------------------------|
|  | DIRECTORATE: | Contractor: UNIBA-DEP |
| | | Contract No.: 4000132355/20/NL/SC |
| CONTRACT CHANGE NOTICE No. | | DATE: |
| TITLE OF AREA AFFECTED (WORK PACKAGE ETC): | | WP REF: |
| | | INITIATOR OF CHANGE: |
| DESCRIPTION OF CHANGE | | |
| REASON FOR CHANGE | | |
| PRICE BREAKDOWN (Currency)/PRICE-LEVEL | | |
| EFFECT ON OTHER CONTRACT PROVISIONS | | START OF WORK |
| | | END OF WORK |
| CONTRACTOR'S PROJECT MANAGER: | CONTRACTOR'S CONTRACTS OFFICER: | |
| DATE: | DATE: | |
| [DISPOSITION RECORD OR OTHER AGREED CONDITION RECORDED WITH THE CCN APPROVAL] | | |
| ESA TECHNICAL OFFICER: | ESA CONTRACTS OFFICER: | |
| DATE: | DATE: | |