

VERHAERT New Products and Services
Hogeakkerhoekstraat 21
9150 Kruibke
BELGIUM

Antwerp, 1st of February 2021

Subject: Invitation to Open Call to Technology Transfer Proof of Concepts

Ref.: BSSC-0118-DOC-A
ESA Ref.: 4000116565/16/NL/MH

Category: Proof of Concept - Open Call 1 – deadline 11/03/2021

Dear Sir/Madam,

Verhaert New Products and Services, hereby invites you to submit a proposal for the above subject.

This Open Call has been established and will be processed following a procedure explained below.

The Technology Transfer Program of the European Space Agency, supported by Belgium Space Solutions, has established initiatives for space technologies to be identified and adapted for non-space use that result in commercially viable products. As part of efforts to promote the use of space technologies in Belgium, Verhaert New Products and Services has set up a National Proof of Concept Call.

This call aims to finance Technology Transfer Proof of Concepts in order to prove the relevance of a technology/know-how for another technology field as well as reduce the technical risk and confirm the market opportunity. Through this call, Verhaert invites the Applicants to submit proposals for proof of concepts regarding the transfer of a space technology into a non- space application.

Your proposal is required to be conform to the conditions specified in this Introduction Letter and in the applicable Appendices.

Your proposal, including annexes, shall be submitted **exclusively in electronic format (PDF) to demonstrator@verhaert.com before 11/03/2021 13:00 PM CET**

This call was published on SpaceSolutions.be on the 1st of February 2021 and is issued in English only.

Please find attached hereto the following documents:

- Appendix 1 – Proposal Template (including Introduction Letter and Detailed Proposal), accessible by using the following link: <https://spacesolutions.be/>
- Appendix 2 – Draft Contract
- Appendix 3 – Cost reporting

1) Your attention is drawn to the following:

- The present call is open to space and non-space companies (including SMEs), academic and research organizations from Belgium.

2) The subject of this call is exclusively for **The Technology Transfer Proof of Concepts activities** (hereafter referred to as “PoC”). Technology transfer refers to the use / exploitation of a space heritage technology into a new ground application domain.

A space heritage technology can be hardware, software, know-how, processes, methodologies or systems developed or adapted for space applications. Exploitation of satellite borne data, GNSS signals and satellite communication capacity are not considered as space heritage technologies in the context of technology transfer.

When the technology was not originally developed for space, but adapted and qualified to the space conditions, there should be clear benefits/added value which the adaptation for the space field brings to the new applications (e.g.: size and weight reduction, reliability, performance improvement, etc.). Added-value is understood as benefit(s) in relation to meeting the requirements in the new application domain, when compared to commercially available solutions and underlying technologies.

The space heritage technology shall significantly contribute to achieving the value proposition in the new application domain.

Market representative end-users shall be involved for specifying the use case scenario, describing and validating the problem they are facing, for generating user requirements, and for assessing and validating the technical solution & value proposition. End users shall be understood as stakeholders who are candidates to operationally use the solution. The end-user organization is referred to as “receiver”.

The receiver shall be independent in any aspect (e.g. organizationally and financially) from the donor organization which owns the technology to be transferred.

The Applicant is requested to demonstrate the technical and market feasibility before the onset of the Proof of Concept. The findings shall be summarized in the PoC proposal, according to the PoC proposal template.

The Proof of Concept consists of both a desk study (development of a business model and development plan) as well as the building and testing of a breadboard against most critical technical requirements. More specifically, the work (and report) shall address the following elements:

i Business overview

- Create a business canvass model (BCM) for your business proposition.
 see https://en.wikipedia.org/wiki/Business_Model_Canvas
 For each aspect of the BCM, several options should be proposed, traded off and the final choice should be justified.
- Identify the main challenges & critical risks related to implementing the business model & bringing the solution to the market, in relation to e.g.
 - Customer acquisition, retention, market capture
 - Financing
 - Profitability and cash flow
 - Logistics (supply, distribution, etc.)
 - Acquisition & retention of required skills
 - Sourcing of supplies
 - Partnerships
 - Industrialization & scale up
 - Physical interface constraints in user's setting
 - Etc.
- Devise a plan to mitigate those risks
- Outline the route (high level planning) to commercial operations, including the following:
 - Product development & manufacturing
 - Implementation of the business plan
 - All the risk areas listed above.

ii Verification tests

- Outline the technical requirements for the breadboard and/or simulation S/W
- Build breadboard and/or simulation S/W
- Outline test requirements & procedures
- Implement test plan
- Analysis of test results and draw conclusions

iii Technical design and demonstration plan

- Iterate system design and requirements as necessary
- Provide a system architecture (physical and functional)
- Outline the subsystem requirements
- Provide a demonstration plan towards technical maturity, including an estimate of costs

The PoC must be carried out within six months from the kick-off meeting. This should be reflected in the proposal schedule.

- 3) The contents of your proposal consists in the Introduction Letter and Proposal (templates provided in MS Word format and attached hereto as Appendix 1). Please note that the captions in red colour are meant to guide you in correctly filling in the template and that such captions are to be removed from your Applicant once it is ready for submission.

- Please complete the part of the template labelled **“Introduction Letter”** by filling in the blank spaces and deleting any options which are not applicable or not relevant (all such options are identified in red colour);
- As part of the Applicant submission process, you will be required to make declarations in relation with **“Declaration of Compliances”** and **“Key Acceptance Factors”** (the latter are mirrored herein).
 1. The Applicant confirms that the Applicant’s Introduction Letter and the Detailed Proposal (appendix I) contain a binding price;
 2. The Applicant confirms that the Introduction Letter and the Detailed Proposal contain a price type compliant with the one requested in the Call;
 3. The Applicant confirms that the Applicant is compliant with the budgetary limit applicable to the Call;
 4. The Applicant confirms that the Applicant Introduction Letter contains the confirmation of the validity period required in the subject Call;
 5. The Applicant confirms that the Applicant Introduction Letter is signed by the authorised representative(s) of the Applicant.
 6. The Applicant confirms that the proposal pertains to the transfer (ie. the use for a new ground application) of a space heritage technology (i.e. the space heritage technology is a piece of hardware, software, know-how, process, methodology or system developed or adapted for space applications). The proposal does not concern the exploitation of satellite borne data, GNSS signals and satellite communication capacity;
 7. The Applicant confirms that the Technology Description is fully;
 8. The Applicant confirms that a target non-space application has been identified (including identification of industry, end-users, and description of use case scenario)
 9. The Applicant confirms that the Added Value of the Space heritage for the new application is clearly identified in the proposal [appendix 1];
 10. The Applicant confirms that the market opportunity has been validated (validation of the problem and of the value proposition)
 11. The Applicant confirms that the proposal shows the technical feasibility based on desk research which evidence the feasibility of the considered solution.;
 12. The Applicant confirms the participation of a non-space receiver in the activity [appendix 1];

13. The Applicant confirms that the donor of the space heritage technology is independent (organisationally and financially) from the end-user organisation involved in the activity;

If any of the above Key Acceptance Factors, or if any other element specifically required in the conditions of this Call is missing and that omission is such as to render the proposal substantively incomplete, then the proposal shall not be admitted at the TOB for evaluation or shall be eliminated at the TEB during the preliminary assessment.

- Please complete the part of the template labelled “**Detailed Proposal**” in all its parts by filling in the information relevant to the various chapters, sections and sub-sections (using exactly the same headings, same subject matters, same order, same numbering);
- Your Application and all correspondence relating to it, shall be in English;
- Please ensure that your Application complies with the following essential requirements:
 - a) You are required to clearly state that you accept all terms and conditions stated in the documents expected to form together the Contract (ref. points 7 and 8 of the Introduction Letter of the Proposal Template).

Should you consider that a management requirement included in this Call is not feasible, you are required to include a clear statement in this regard in your Applicant with due explanation and justification and with a proposal for alternative(s), if any (Appendix 1 Introduction Letter and Proposal Template”).

The Intellectual Property Rights (IPR) required for the activity or/and that could be generated out of the activity must be **described** in the proposal.

- b) Your price quotation shall meet the following conditions:
 - Applicants are invited to submit proposals for the maximum price of **38,000 EURO (Thirty Thousand Euros)**. The selected activities, after successful negotiation, will result in cost-reimbursement principle and is max. 100% funded by Verhaert New Products and Services.
 - The breakdown of the quoted amount(s) shall be shown and reported via the Cost reporting format [appendix 3] and should be mentioned in the Proposal template.
- c) Your Applicant is valid during a period of three (3) months from the time limit for Applicant submission.
- d) The total number of pages shall not exceed 25 pages, excluding annexes.
- e) When preparing the proposal the Applicant shall use the Proposal Template attached herewith as Appendix 1.

- 4) In relation to the evaluation of your Applicant by Verhaert New Products and Services and The European Space Agency and Belspo, please note that the quality of your Applicant will be evaluated on the basis of the following criteria and associated Weighting Factors (WFs):

No.	Evaluation Criterion	Weighting Factors %
1	Suitability of the space heritage technology (space connection, relevance in relation to problem, maturity, feasibility) for the transfer, and quality of presentation thereof in the proposal.	25
2	Market opportunity and quality of presentation thereof in the proposal.	30
3	Suitability of the implementation approach; Adequacy of involved resources (key personnel, facilities, receiver) for the execution of the work; Quality of presentation thereof in the proposal.	30
4	Quality of the management plan and financial proposal; Compliance with the administrative Applicant conditions of the Announcement of Opportunity and acceptance of the draft contract.	15

- 5) The following steps will be used to evaluate and select proposals:
- a) Applicant Opening Board. The proposals which do not include all Key Acceptance Factors and Declarations of Compliance, are rejected and excluded from further evaluation.
 - b) Please note that after opening of the Applicants but prior to a qualitative assessment, Verhaert New Products and Services will make a preliminary assessment of each proposal. Non-compliant proposals will be excluded from the evaluation (see section 4 above).
 - c) The evaluation of your proposal by the Verhaert and ESA's Applicant Evaluation Board (TEB) according to the Evaluation Criteria and associated Weighting Factors (WF) defined above (see section 4 above).

- d) Corresponding marking and recommendations by the TEB.
 - e) The Applicant Evaluation Board will select the highest ranked proposals with a minimum overall weighted mark of 60, within the available budget. In case of non-successful negotiation with any of the selected Applicants, Verhaert reserves the right to enter into negotiation with the next lower ranked Applicant. In the event there is only budget available for one remaining contract, and the two next highest ranked proposals have an equal ranking, the proposal which has scored the highest under criteria 3 will have precedence. In the event of equal scoring under the above mentioned criteria, the Chairman of the Applicant Evaluation Board shall have a casting vote for which proposal will be selected.
 - f) For recommended proposals, Verhaert will start the negotiation process to place a contract with the Applicant on the basis of the submitted proposal and the comments from the TEB.
 - g) The contact person of the Prime Contractor mentioned in the proposal will be informed in writing of the result of the Call after a decision has been taken. If the proposal has been unsuccessful, the Applicant may request Verhaert to advise him of the reasons why the proposal has not been retained in a verbal debriefing. Any information will be limited to the Applicant's own proposal.
 - h) Communication to Applicants (non-successful proposals) may be expected approximately one month after the closing date.
- 6) This Call explicitly excludes activities promoting, or being related to, alcohol, tobacco, religion, politics, intolerance, violence, firearms, pornography, obscenity, gambling or illegal drugs.
 - 7) Any questions relating to this Call (clarifications and/or extensions requests) shall be made exclusively via Verhaert New Products and Services via the National broker Luisa Leroy via Luisa.Leroy@verhaert.com
 - 8) The TOB reserves the right to assign a FS study to the Applicant to evaluate the business or technical feasibility prior to committing the PoC financial support.
 - 9) Your Applicant and all supporting documents must be submitted not later than **11th of March 2021 at 13:00 hours CET**.

Yours faithfully,

VERHAERT NEW PRODUCTS AND SERVICES