



PUSHPA GUJRAL SCIENCE CITY

**Jalandhar – Kapurthala Road,
Kapurthala, Punjab**

Tender Notice: Tender/PGSC/2023/07/360 degree Immersive Room

NOTICE INVITING e-TENDER (Under Two Bid System)

For

**Supply, Installation, Integration, Testing and Commissioning of
“360 DEGREE MULTI-PROJECTOR BASED PROJECTION MAPPED
SHOW” on “Healthy Ecosystems – Healthy Citizen: A virtual
experience”(including construction of Indoor room with sound
proofing) having uniformly blended seamless projection of
especially developed software (content) on floor, ceiling & all four
walls of the Immersive room with onsite Comprehensive warranty
of one year including preventive maintenance.**

At

Pushpa Gujral Science City,

**Jalandhar - Kapurthala Road
Kapurthala, Punjab, India**

Pushpa Gujral Science City
Jalandhar – Kapurthala Road, Kapurthala

TABLE OF CONTENTS

S.No.	Particulars	Page
1.	Introduction	3
2.	Tender Notice	4
3.	Particulars of Tender	5 – 6
4.	General Information & Instructions	7 – 8

ANNEXURES

A	Instructions for Online Bid Submission	9 – 11
B	General Terms & Conditions	12 – 28
C	Particulars of Tenderer	29 – 30
D	Scope of Work and Technical Specifications	31 – 52
E	Technical Compliance Sheet	53 – 54
F	Past Experience Sheet with documentary proofs	55
G	Annual Turnover with documentary proofs	56
H	Format for Declarations	57
I	Proforma for Financial Bids	58 – 59
J	Format for Agreement	60– 62
K	Format for Bank Guarantee	63

INTRODUCTION

Pushpa Gujral Science City, Jalandhar-Kapurthala Road, Kapurthala

Pushpa Gujral Science City offers a blend of education, curiosity and fun to ensure longer and repeated visits. The project is aimed at cultivating interest in science through open-ended exploration away from text books and black boards, with a scientific approach to problem solving. The project has something for everyone, regardless of age, education, profession or social strata and is intended to make science accessible to people who are not part of the formal education system. It is a joint project of the Government of India and Government of Punjab.

Its various facilities include Galleries on Evolution, Dinosaur park (with Robotic Dinosaurs), Renewable Energy Park, Climate Change Theatre, Earthquake Simulator and Flight Simulator, Amazing Living Machine, Gallery on Health, Biotechnology & HIV, Outer Space Gallery, Virtual Reality & Cyber Space Gallery and Galleries on Fun Science, Railways, Defence, etc., as well as, Planetarium, Large Format Film Theatre (I-Max), 3D and Laser Shows, Herbal & Cactus Garden, etc. These offer information on cross cutting and inter-curricular issues and help to explain scientific concepts and their relevance to society. An Innovation Hub at Science City motivates students for 'out-of-box' thinking, which could contribute towards societal development. More information about these facilities is available at website www.pgsciencecity.org.

This is a Tender document for Supply, Installation, Integration, Testing and Commissioning of "360 DEGREE MULTI-PROJECTOR BASED PROJECTION MAPPED SHOW" on "Healthy Ecosystems – Healthy Citizen: A virtual experience" (including construction of Indoor room with sound proofing) having uniformly blended seamless projection of especially developed software (content) on floor, ceiling & all four walls of the Immersive room with onsite Comprehensive warranty of one year including preventive maintenance.

TENDER NOTICE

PUSHPA GUJRAL SCIENCE CITY

Jalandhar-Kapurthala Road, Kapurthala

Telephone: 01822 501963 / 64

On-line Digitally signed open e-tenders under 2 Bid System are invited in two Bid System from the manufacturers or their authorized registered Indian agents for **Supply, Installation, Integration, Testing and Commissioning of “360 DEGREE MULTI-PROJECTOR BASED PROJECTION MAPPED SHOW”** on **“Healthy Ecosystems – Healthy Citizen: A virtual experience”** (including construction of Indoor room with sound proofing) having uniformly blended seamless projection of especially developed software (content) on floor, ceiling & all four walls of the Immersive room with onsite Comprehensive warranty of one year including preventive maintenance.

Interested tenderers can submit online bids through <https://eproc.punjab.gov.in> by 24.05.2023 (1500 Hrs). For further details, please visit website www.pgsciencecity.org

Note:

- Corrigendum and Addendum, if any will be published online at <https://eproc.punjab.gov.in>
- PGSC reserves the right to accept or reject any bid and to annul the process at any time, without any liability and assigning any reason thereof.

PARTICULARS of TENDER

1.	Estimated Cost	INR. 3.50 Cr.
2.	Delivery Period	FIVE (5) Months from the date of award of work
3.	Tender Fee	INR. 2500/- (Rs. Two Thousand Five Hundred only)
4.	Earnest Money Deposit	INR. 14.00 Lakh. (Rupee Fourteen Lakh)
5.	Validity of Tender	6 (Six) Months from Last date of submission of Tender
6.	Bid Document Published Date	29.04.2023
7.	Bid Document Download Start Date	29.04.2023
8.	Bid Document Download End Date	24.05.2023
9.	Pre-Bid Clarification Start Date	29.04.2023
10.	Last date of submission of Pre-Bid Queries or clarifications	09.05.2023, 15:00 hrs IST only at the following email id: sciencecity@hotmail.com . The bidder who will submit the pre-bid clarification(s), if any through email shall get the intimation from PGSC to attend the pre-bid online meeting. Bidders interested to attend the meeting online should send their email address.
11.	Pre Bid Clarification End Date	As above
12.	Pre-Bid meeting Date and Place	11.05.2023 at 11:30 AM (will be conducted in Hybrid mode at PGSC, Kapurthala. For online participants, meeting link will be shared with the interested parties as mentioned above at Sr. 10)
13.	Bid Submission Start Date	13.05.2023
14.	Bid Submission End Date	24.05.2023
15.	Technical Bid Opening Date	27.05.2023
16.	Date Place of Technical Presentation	<i>To be notified later on the official email id of bidders</i>
17.	Financial Bid Opening Date	<i>To be notified later</i>

Note:

1. Tender Document can only be downloaded from portal site: <https://eproc.punjab.gov.in>
2. Corrigendum and Addendum, if any will be published online at <https://eproc.punjab.gov.in>
3. PGSC will process the tender as per PGSC norms & procedures and PGSC would not be under any obligation to give any clarification to the agencies whose bids are rejected.
4. Tenderers are advised to visit Science City and see the location during office hours on any working day.
5. PGSC reserves the right to accept or reject any application and to annul the process at any time, without any liability and assigning any reason thereof.
6. If any of the above dates is declared holiday, the activity scheduled for that day will take place on the next working day.
7. Omission, neglect or failure on the part of tenderer to obtain requisite reliable and full information or any matter affecting his / her tender, shall not relieve the tenderer, from any liability in respect of the contract.
8. **Visit of the PGSC, Kapurthala:** Bidders are advised to visit the existing Theatre at PGSC, Kapurthala, to ascertain and fully understand the nature and quantum of work before tendering. **Site inspection may be carried out one day before the scheduled pre-bid meeting at PGSC, Kapurthala. In case, the representative of the bidder is unable to attend the pre-bid meeting, the queries may be submitted through <https://eproc.punjab.gov.in>.** However, lack of knowledge of site conditions cannot be considered as an excuse for mistake/misrepresentation in the bid.
9. Details of submission of tender, etc. are indicated in the e-tender document.
10. The online bid, both Technical Bid and Financial bid should be uploaded by the due date and time as per the above schedule. The responsibility to ensure the same lies with the bidders.
11. PGSC reserves the right to amend/withdraw any of the terms and conditions in the tender Documents or to reject any or all tenders without giving any notice or assigning any reason. PGSC also reserves the right to accept or reject any or all tenders in full or part without assigning any reason whatsoever. PGSC shall also not be bound to accept merely the lowest tender but the technical suitability, capability and superiority of the concept / technology interface / system etc. shall be of prime consideration for selection of the appropriate set of concept/ technology interface /system collectively considered as a complete solution.

Place: PGSC, Kapurthala

(Administrative Officer)
PUSHPA GUJRAL SCIENCE CITY

General Information and Instructions

1. The instructions given herein will be strictly binding on the bidders and deviation, if any will make the tender or tenders liable to be considered invalid. Tenders incorporating additional conditions by the bidder are liable for rejection.
2. Bids shall be submitted online only at <https://eproc.punjab.gov.in>
Manual bids shall not be accepted.
3. The instructions given in “**Annexure-A**” for “**Instruction for Online Bid Submission**” should be strictly followed during submission of the Bid.
4. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
5. **Rejection of Bids:** Canvassing by the Bidder(s) in any form, unsolicited letter and post- tender correction may invoke summary rejection. Conditional tenders will be rejected. Non-compliance of applicable General Information and Instructions will disqualify the Bid.
6. The Bidders should have Digital Signature Certificate (DSC) for filling up the Bids. The person signing the tender documents should be authorized for submitting the on line e- tender.
7. The Bidders shall fill up the Prescribed Format for submission of **Technical Bid as per “Annexure-B, C & D”** format duly signed by the authorized signatory. The person signing the tender document should be authorised for submitting the online e-tender.
8. The Financial Bid shall be filled in and signed by the authorized signatory online as per Proforma “**Annexure-I**” available at Public Procurement Portal e-tender system website <https://eproc.punjab.gov.in>. Off line Financial Bid shall not be accepted.
9. Tender must be uploaded as **Technical Bid** and **Financial Bid/BOQ**). The contents all be as follows:-
 - A. Technical Bid**
 - i. “**Technical Bid**” (as per **Annexure-B, C & D** format) duly filled in and signed & Stamped.
 - ii. All relevant documents related to “**Technical Bid**” as per “**Annexure-D & E**”
 - iii. The scanned copy of “**General Terms & Conditions**” (**Annexure B**) duly signed by the Authorized Signatory with official stamp as a token of acceptance of the bidders.
 - iv. The scanned copy of “**Technical specifications and Scope of Work**” (**Annexure C & D**) duly signed by the Authorized Signatory with official stamp as a token of acceptance of the bidders.
 - v. “**Technical Compliance Table**” (as per **Annexure-E** format) duly filled in and digitally signed with official stamp.
 - vi. **Past Experience details** as per **Annexure-F** along with documentary proofs (Work Completion Certificates).
 - vii. **Annual Turnover** details as per **Annexure-G** along with documentary proofs (CA attested Balance Sheets).
 - viii. Prescribed **Declarations** by bidder as per “**Annexure-H**” format duly signed by the Authorized Signatory with office stamp.

- ix. The **Technical Brochures** of each equipment with technical explanation for every feature of the product offered by the bidders.
- x. Name, Address, Name of the contact person and his/her mobile number etc.

B. Financial Bid / BoQ

- i. The **“Financial Bid (BOQ)”** (as per **Annexure-I** format).
 - ii. The rates for Supply, Installation, Integration, Testing and Commissioning of **“360 DEGREE MULTI-PROJECTOR BASED PROJECTION MAPPED SHOW”** on **“Healthy Ecosystems – Healthy Citizen: A virtual experience”** (including construction of Indoor room with sound proofing) having uniformly blended seamless projection of especially developed software (content) on floor, ceiling & all four walls of the Immersive room with onsite Comprehensive warranty of one year including preventive maintenance would be quoted at Part A of financial bid.
 - iii. The rates for further five years of annual maintenance including preventive maintenance after Defect Liability period would be quoted at Part B of financial bid.
10. The format of Agreement is provided at **Annexure-J**.
11. The Technical Bid shall be opened by the PGSC, Kapurthala at the first instance and evaluated by the competent authority of the PGSC, Kapurthala. At the second stage, the Financial Bid of only techno-commercially acceptable offers shall be opened for further evaluation and ranking before awarding the contract.

Instructions for Online Bid Submission

The Bidders are required to submit soft copies of their Bids electronically on the E-Procurement Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the Bidders in registering on the E-Procurement Portal, prepare their Bids in accordance with the requirements and submitting their Bids online on the E-Procurement Portal.

More information useful for submitting online Bids on the E-Procurement Portal may be obtained at website or URL: <https://eproc.punjab.gov.in>

I) REGISTRATION

- 1) Bidders are required to enroll on the e-Procurement module of the E-Procurement Portal (URL: <https://eproc.punjab.gov.in>) by clicking on the link “**Online Bidder Enrolment**” on the E-Procurement Portal.
- 2) As part of the enrolment process, the Bidders will be required to choose a unique **Username and assign a Password** for their accounts.
- 3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the E-Procurement Portal.
- 4) Upon enrolment, the Bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA (Certified Coding Associates) India (e.g. Sify / nCode / eMudhra etc.), with their profile.
- 5) Only one valid DSC should be registered by a Bidder. Please note that the Bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- 6) Bidder then logs in the site through the secured log-in by entering their user ID / password and the password of the DSC/e-Token.

II) SEARCHING FOR TENDER DOCUMENTS

- 1) There are various search options built in the E-Procurement Portal, to facilitate Bidders to search active Tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There could also an option of advanced search for Tenders, wherein the Bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a Tender published on the E-Procurement Portal.

- 2) Once the Bidders have selected the Tenders they are interested in, they may download the required Tender documents /Tender schedules. The Tender can be moved to the respective 'My Tenders' folder. This would enable the E-Procurement Portal to intimate the Bidders through SMS/e-mail in case there is any Addendum/Corrigendum issued to the Tender document.
- 3) The Bidder should make a note of the unique Tender ID assigned to each Tender in case they want to obtain any clarification / help from the Helpdesk.

III) PREPARATION OF BIDS

- 1) Bidder should take into account any Addendum/Corrigendum published for the Tender document before submitting their Bids.
- 2) Please go through the Tender advertisement and the Tender document carefully to understand the documents required to be submitted as part of the Bid. Any deviations from these may lead to rejection of the Bid.
- 3) Bidder, in advance, should make ready the Bid documents to be submitted as indicated in the Tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- 4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every Bid, a provision of uploading such standard documents (e.g. Firm's Registration Certificate, Financial Statements, Auditor certificates etc.) has been provided to the Bidders. Bidders can use "My Space" or "Other Important Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a Bid, and need not be uploaded again and again. This will lead to a reduction in the time required for Bid submission process.

IV) SUBMISSION OF BIDS

- 1) Bidder should log into the site well in advance for closing date and time for Bid submission so that they can upload the Bid in time. Procuring Entity will not be responsible for any delay whatsoever.
- 2) The Bidder has to digitally sign and upload the required Bid documents one by one as indicated in the Bidding document.
- 3) Bidder has to select the payment option as "online" to pay the **Bid security** if applicable and enter details of the instrument.
- 4) Bidders are requested to note that they should necessarily submit their financial Bids in the format provided and no other format is acceptable. If the price Bid has been given as a standard format with the Tender document, then the same is to be downloaded and to be filled by all the Bidders. Once the details have been completed, the Bidder should save it and submit it online, without

changing the filename. If the Descriptions in the file are found to be modified by the Bidder, the Bid will be rejected.

- 5) The server time (which is displayed on the Bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the Bids by the Bidders, opening of Bids etc. The Bidders should follow this time during Bid submission.
- 6) All the documents being submitted by the Bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of Bid opening. The confidentiality of the Bids is maintained using the secured Socket Layer 128bit encryption technology. Data storage encryption of sensitive fields is done. Any Bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/Bid opening officials' public keys. Overall, the uploaded Tender documents become readable only after the Tender opening by the authorized Bid opening officials.
- 7) The uploaded Bid documents become readable only after the opening of the Bids by the authorized Bid opening officials.
- 8) Upon the successful and timely submission of Bid (i.e. after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful Bid submission message & a Bid summary will be displayed with the Bid no. and the date & time of submission of the Bid with all other relevant details.
- 9) The Bid summary has to be printed and kept as an acknowledgement of the submission of the Bid. This acknowledgement may be used as an entry pass for any Bid opening meetings.

V) ASSISTANCE TO BIDDERS

- 1) Any queries relating to the Tender document and the terms and conditions contained therein should be addressed to the Bid Inviting Authority for a Tender or the relevant contact person indicated in the Tender.
- 2) Any queries relating to the process of online Bid submission or queries relating to E-Procurement Portal in general may be directed to the 24x7 E-Procurement Portal Helpdesk (0172-2970263 / 0172-2970284)

GENERAL TERMS AND CONDITIONS**1. DEFINITIONS:**

In this Contract, the following terms will be interpreted as indicated:

11. **"The Contract"** means the agreement entered into between the Purchaser and the Supplier, as recorded in the contract Form signed by the Parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
12. **"The Contract Price"** means the price payable to the Supplier under the Contract for the full and proper performance of its contractual obligations.
13. **"The Materials/Equipment"** means all of the equipment, machinery, and/or other materials which the Supplier is required to supply to the Purchaser under the Contract.
14. **"The Services"** means those services ancillary to the supply of the Materials/equipment, such as transportation and insurance, and any other incidental Services, such as installation, commissioning, provision of technical assistance, training, and other such obligations of the Supplier covered under the Contract.
15. **"GCC"** means the General Terms and Conditions of Contract contained in the section.
16. **"The Purchaser"** means the organization purchasing the Materials/equipment.
17. **"Bidder"** is a supplier who has registered with the purchaser for supply of materials/equipment.
18. **"The Supplier"** means the firm supplying the Materials / equipment and Services under this Contract.
19. **"Day"** means calendar day.

2. APPLICABILITY:

These General Conditions of contract will apply to the extent that they are not superseded by provisions of salient features of the Bid.

21. **STANDARDS:** The Materials/equipment supplied under this Contract will conform to the Standards mentioned in the Technical specifications, and, when no applicable standard is mentioned, the authoritative standards appropriate to the Materials / equipment' i.e., BIS, such standards will be the latest. All material will be of the best class and will be capable of satisfactory operation under tropical conditions without distortion or deterioration.
22. **INTERCHANGEABILITY:** All similar materials and removable/replaceable parts of similar equipment will be interchangeable with each other. A specific confirmation of this should be furnished in the bid.
23. Bidders are required to submit with the tender in Technical Bid, all the documents as per eligibility criterion mentioned in clause 3 along with schematic design, schematic drawings of proposed control room/console, mechanisms with complete technical specifications, procurement strategy, flow chart of the work, fabrication strategy on how the work shall be completed within the stipulated time as per Clause 7 of the General terms and conditions.
24. The successful Bidder shall submit the following within 15 (fifteen) days from the date of placement of the work order:

- 2.4.1. Duplicate copy of the work order duly signed and official stamp on all the pages as a token of acceptance of the order.
- 2.4.2. Non-judicial stamp paper of appropriate value for entering into an agreement as per prescribed format.

3. ELIGIBLE BIDDERS:

The following are the Qualifying Eligibility Criterion for bidder.

31. Limited Company/Corporation/Agency/Consortium/JV etc. are allowed to bid for the work.
32. **Work Experience Eligibility:** The Bidder should have completed similar works during the last 5(five) years from the date of the issue of this E-TENDER.
33. **Estimated cost of the project is INR 3.50 Crore.** The bidder should fulfill the following eligibility criteria:
 - One similar work of value not less than 80% of the estimated cost of work.**
 - Or
 - Two similar works each of value not less than 50% of the estimated cost of work.
 - Or
 - Three similar works each of value not less than 40% of the estimated cost of work.

Notes:

- 3.3.1. Here the **similar works** shall mean concept, design, supply, installation of the multi projector projection mapped show systems to provide immersive experience.
- 3.3.2. The bidder should have in-house team for development of Software/film required for the project or it should have liasoning with a software/digital film making company for development of the same.
- 3.3.3. In the case of Consortium/JV participating in this E-TENDER, the works of all the individual members of the Consortium/JV done independently will be considered as valid work experience but works that have been done in conjunction or partner of any other consortium or JV shall not be considered.
- 3.3.4. If any bidder has executed the similar work as a part of a consortium/JV in the past then the work experience of the bidder shall be considered as valid only if all the consortium/JV partners are participating together in the present E-TENDER also.
- 3.3.5. The details of qualifying works/projects shall be furnished as per the proforma in **Annexure-F** and if required, the bidder shall also facilitate inspection of the above qualifying project(s) by PGSC's officials to ascertain the performance of the system.
- 3.3.6. **Documents Required:** The bidder should submit a copy/copies of the work order(s) issued in the name of the agency as well as copies of work completion certificate of the same work, clearly indicating the value of the work of similar nature. If the

work order contains several works, only the value of the works of a similar nature shall be considered for work experience. If the value of the works of similar nature is not specifically mentioned in the cost breakup, the work experience against that work order will not be considered as valid.

- 3.3.7. The bidder should submit proof regarding the software development team members employed in his company along with their experience details or proof regarding liasoning with software/film Development Company for developing the software/film.
- 3.3.8. PGSC may inspect any of those works at its discretion to verify the credentials of the bidder for the qualifying works/ projects indicated above for which the Bidder shall provide references (including Referee names and contact details) in respect of the projects implemented.
- 3.3.9. The bidder should provide documentary proof to clearly substantiate each eligibility criteria, failing which the bid will be summarily rejected.
34. Balance sheet and profit and loss account of the bidder duly certified by the Chartered Accountant for the immediately 5(five) preceding years should be enclosed to assess the financial soundness.
35. **The Average Annual Turnover of the Bidder/manufacturer (of the lead partner in case of consortium/JV) in any three of the last five financial years (2017-18, 2018-19, 2019-20, 2020-21 and 2021-22) should be minimum INR 3.50 Crore.**
36. **Documents Required: Average Annual Turnover of the bidder (in case of consortium/JV at least 50% of lead partner and should be 100% of sum of all partners of Consortium / JV) and the duly certified document from CA clearly indicating the Turnover of the any three of last five financial years (2017-18, 2018-19, 2019-20, 2020-21 and 2021-22) as per Annexure – G**
37. **Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:**
 - 3.7.1. Made misleading or false representation in the forms, statements and attachments submitted in proof of the qualification requirements; and/or Record for poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.

Note:

1. Notwithstanding anything stated above the purchaser reserves the right to assess bidder's capability and capacity to perform the contract should circumstances warrant such an assessment in the overall interest of the purchaser.
2. Uploading unnecessary documents may lead to disqualification of bidders.
3. All the documents shall be notarized / self-attested

4. JOINT VENTURES/CONSORTIUM

- 4.1. In the event that the successful bidder is a consortium/joint venture formed, lead

partner/prime contractor in whose name the bid was issued, shall be fully and solely responsible for the performance of contract and all works designed and executed under the contract.

42. Bids submitted by a consortium or joint venture of atleast two firms including lead partner, all partners shall comply with the following requirements:
- 4.2.1. The consortium as a whole must be a sound entity technically and 100% financially with the lead partner must be a sound entity financially minimum 50%.
 - 4.2.2. The Consortium as a whole must satisfy the qualification criteria set forth herein. The turnover of the lead partner must satisfy the eligibility criteria of the tender. The bid shall contain a statement of the members of the consortium and shall provide all information necessary to satisfy Client/Employer that the Consortium fulfils the qualifying criteria.
 - 4.2.3. The Bids shall contain original copy of the Memorandum of Understanding (MOU) on Rs.100/- Non-Judicial Stamp paper (or as applicable) between the consortium members clearly identifying the lead partner, scope and responsibility and financial part of each member in the performance of the contract.
 - 4.2.4. The consortium members will obtain approval of the Client for any change in the shareholding structure and scope of work or any other terms of MOU.
 - 4.2.5. The lead partner of the consortium shall be nominated as being in-charge to represent the Consortium in all dealings with the Client/Employer and for providing any information or clarification sought from the Consortium.
 - 4.2.6. The Bid shall be signed by all the consortium firms by their authorized person. The lead partner shall be authorized to incur liabilities and receive instructions for and on behalf of any and all member(s) of the Consortium and all dealings including billing and payments, shall be done exclusively with the leader of the consortium.
 - 4.2.7. Only firms or joint ventures that have been qualified under this procedure will be eligible to bid for this project.
 - 4.2.8. All members of the Consortium shall be liable for the execution of the project in accordance with the terms of the MOA and Contract agreement.
 - 4.2.9. Any individual bidder or member of a consortium cannot be a member in another consortium and participate in this tender.
 - 4.2.10. All correspondence or communications will be done by the Lead partner (or authorized representative of Lead partner) of the consortium.
 - 4.2.11. Bidder submitting their bid shall not be under liquidation, court receivership or similar proceeding.

Notes:

The bidder has to upload the compliance letter on its letterhead duly signed by the authorized signature & other supporting documents as asked for in the bid in scanned format. Failing to submit the same or non-compliance/deviation from any bid terms and conditions, eligibility criteria or technical specifications may result in rejection of the bid.

5. EVALUATION / SELECTION CRITERIA

51. Eligibility Criteria Evaluation: Any shortcoming of the documents may lead to rejection of the bid.
52. **Technical Presentation:** The agencies qualifying on the basis of their credentials /evaluation will only be called for Technical Presentations which can be at a very short notice of even three days. The presentation should include following:
 - i. Technical details of all the hardware and the software that they are planning to use
 - ii. How they propose to place the projectors
 - iii. Maximum 2 minutes sample content along with story line.
 - iv. Two best recent installation of projection mapped show done in last five years along with copies of order and completion certificate.
53. Financial Evaluation: Only the bidders/firms securing the minimum qualifying marks based on Eligibility Criteria Evaluation and Technical/Presentation Evaluation as described in details below will be eligible for their Financial Bid Opening & Financial Evaluation.
54. **Technical Evaluation**
 - 5.4.1. The Evaluation Committee appointed by the competent authority shall carry out its evaluation applying the evaluation criteria specified in the bid document. Evaluation of the application would be done as per the documents submitted. Bidders/agencies who are in the trade and are fulfilling the eligibility criteria as per the documents required would only be called for presentation which can be at a very short notice of even three days.
 - 5.4.2. Further, during the technical presentation the evaluation would be carried out where the technical evaluation would be given upto 100 marks.
 - 5.4.3. Each responsive proposal shall be attributed a technical score. On the basis of the technical assessment, agencies securing minimum 70 marks out of 100 will be shortlisted and the financial bids of only the shortlisted agencies will be opened.
 - 5.4.4. The date and time of opening of the financial bids will be intimated to the selected /shortlisted agencies through <https://eproc.punjab.gov.in> and email provided in technical bid.
55. **Financial Evaluation Financial Bid:**
 - 5.5.1. The Financial Bids of the technically qualified bidders will be opened online through <https://eproc.punjab.gov.in>.
 - 5.5.2. The lowest financial bid complete in all respects shall be selected for award of contract.
 - 5.5.3. Only fixed price financial bids indicating total price for all the work/services specified in this bid document will be considered.
 - 5.5.4. Part A of financial bid will be only considered for financial evaluation. As the decision regarding award of AMC will be taken by PGSC after the completion of**

Defect Liability Period. Hence, AMC rates quoted at Part B of financial bid will not be considered for financial evaluation.

5.5.5. In the event the bid composite bid scores are “tied”, the bidder securing the highest technical score will be declared as the Best Value Bidder for award of the Project.

Note:

Technical Bids will be evaluated on the basis of documents as detailed above & presentations to be made by the eligible agencies before the Constituted Committee. The date and time of the presentations will be conveyed to the eligible agencies.

56. Technical Evaluation Marking Scheme

5.6.1. The Technical Bids will be evaluated on the basis of the indicated parameters in the table below:

Evaluation of bids found eligible as per eligibility criteria would be undertaken by the Technical Evaluation Committee Constituted by the competent authority as per parameters cited below.

Sl. No.	Parameter	Criteria	Max. Marks 100
1	Experience of applicant/agency in the tendered work (Immersive projection mapping projects)	3 Years - 10 Marks	15
		More than 3 years up to 5 years - Bonus 2 Marks	
		More than 5 years –Bonus 5 Marks Maximum Marks - 15 marks	
2.	Financial Soundness (Average Annual Turnover of the Bidder/manufacturer (of the lead partner in case of consortium/JV) in any three of the last five financial years (2017-18, 2018-19, 2019-20, 2020-21 and 2021-22))	i. For average annual turnover above Rs. 3.50 Crore -10 marks	15
		ii. For average turnover in excess of Rs. 3.50 Crore @ 1 mark per Rs. 1.0 Crore each Maximum Marks – 15 marks	

3.	Similar Work Experience	<p>a. For one similar completed works having value \geq Rs. 2.80 Crore - 10 marks</p> <ul style="list-style-type: none"> For any additional similar completed works each having value \geq Rs.2.80 Crore –Bonus marks : 5 <p style="text-align: center;">OR</p> <p>For every additional work (excluding the work counted at Sr. No.: a above for 10 Marks): 2.5 Mark will be given for each additional similar work(s) completed for value \geq Rs. 1.75 Cr. < Rs. 2.80 Cr. –Maximum Marks: 5</p> <p style="text-align: center;">OR</p> <p>For every additional work (excluding the work counted at Sr. No.: a above for 10 Marks): 1.5 Mark will be given for each additional similar work(s) completed for value \geq Rs. 1.40 Cr. < Rs. 1.75 Cr. –Maximum Marks: 3</p>	15
		OR	
		<p>a. For two similar completed works having value \geq Rs 1.75 Cr < 2.80 Cr – 5 marks</p> <ul style="list-style-type: none"> For any additional similar completed works each having value \geq Rs.1.75 Crore –Bonus marks: 3 <p style="text-align: center;">OR</p> <p>For every additional work (excluding the two works counted at Sr. No.: a above for 5 Marks): 1.5 Mark will be</p>	

		<p>given for each additional similar work(s) completed for value \geq Rs. 1.40 Cr. < Rs.1.75 Cr. – Maximum Marks: 3.</p> <p style="text-align: center;">OR</p> <p>For every additional work (excluding the two works counted at Sr. No.: a above for 5 Marks): 1 Mark will be given for each additional similar work(s) completed for value \geq Rs. 1.0 Cr. < Rs. 1.40 Cr. – Maximum Marks: 2.</p>	
		OR	
		<p>a. For three similar completed works having value \geq Rs 1.40 Cr < 1.75 Cr– 5 marks</p> <ul style="list-style-type: none"> ● For any additional similar completed works each having value \geq Rs.1.40 Crore – Bonus marks : 2 <p style="text-align: center;">OR</p> <p>For every additional work (excluding the three works counted at Sr. No.: a above for 4 Marks): 1 Mark will be given for each additional similar work(s) completed for value > Rs. 1.0 Cr. < Rs. 1.40 Cr. – Maximum Bonus Marks: 3.</p>	
4.	Operation and Maintenance experience for projection mapped shows (For each work where O&M has been carried out for at least 1 year)	<ul style="list-style-type: none"> ● Minimum 1 project - 3 Marks ● 1 mark for each additional project <p>Maximum Marks - 05 Marks</p>	05

5.	Technical presentation before the Technical Evaluation Committee	a. Design and execution of 360 degree Projection Mapping Show as per scope of work and technical specifications given in the tender document - 20 Marks	50
		b. Technical details of all the hardware and the software - 10 Marks	
		c. Maximum 2 minutes sample content along with story line - 10 Marks	
		d. Two best recent installations of projection mapped show done in the last five years along with copies of order and completion certificate - 10 Marks	

5.6.2. The bidder will have to enclose a presentation on the proposed solution along with the technical proposal to PGSC. The presentation shall cover the comprehensive details, approach & methodology, Organization structure, Work program, Implementation strategy, offered equipment list, technical brochures and specification sheet, timeline etc.

6. PRICE:

61. The price and rates indicated shall include all incidental charges like packing, forwarding, freight, insurance, and delivery etc. as may be applicable to this tender for Supply, Installation, Integration, Testing and Commissioning of “360 DEGREE MULTI-PROJECTOR BASED PROJECTION MAPPED SHOW” on “Healthy Ecosystems – Healthy Citizen: A virtual experience” (including construction of Indoor room with sound proofing) having uniformly blended seamless projection of especially developed software (content) on floor, ceiling & all four walls of the Immersive room with onsite Comprehensive warranty of one year including preventive maintenance.
62. The bidder should quote balanced rate. Quantities given in the schedule are tentative and may vary up to any extent. PGSC reserves the right to execute or to delete any item or increase or decrease any quantity or quantities of the bill of quantities. Rates quoted in the tender shall be binding for all such variation in quantities.
63. Materials to be used in the work shall conform to I.S. specification, if otherwise, not stated specifically.
64. The selected bidder shall be responsible for proper co-ordination with PGSC and continuous supervision of these works at site to ensure the desired quality of

- workmanship and use of specified materials and the end result.
65. PGSC has been paying concessional Custom Duty & Taxes as it is registered as Scientific Industrial Research Organization (SIRO) with the Department of Scientific & Industrial Research (DSIR) for purposes of availing customs duty exemption. Accordingly bidders are advised to quote considering the same.
 66. However PGSC shall accept offers on Delivery on site basis only. Offer(s) on High Sea Sales or through Bond to Bond transfer shall not be accepted since PGSC desires to acquire Propriety of the goods neither in transit nor in any Bonded Warehouse but after possessing the goods directly in their custody at Airport Terminal from the Airport Authority after due customs clearance. In case of overseas consignment on Delivery on site basis, transport cost from the nearest Airport / Seaport to the site shall be borne by the bidder.
 67. No GST exemption (Form C/E/D) will be issued. Prices and rates quoted shall be firm and fixed for the entire period of execution of the order and no escalation of rates on any ground whatsoever shall be accepted.
 - 68. The decision regarding award of AMC and duration of AMC will be taken by PGSC after the completion of Defect Liability Period. Hence, AMC rates quoted at Part B of financial bid will not be considered for financial evaluation.**

7. TIME OF COMPLETION:

71. Time is the essence of the work. The entire work comprising Supply, Installation, Integration, Testing and Commissioning of “360 DEGREE MULTI-PROJECTOR BASED PROJECTION MAPPED SHOW” on “Healthy Ecosystems – Healthy Citizen: A virtual experience” (including construction of Indoor room with sound proofing) having uniformly blended seamless projection of especially developed software (content) on floor, ceiling & all four walls of the Immersive room shall be completed within **5 (FIVE)** months from the date of placement of confirmed order.
72. Every effort should be made to complete the entire work by the successful bidder within the specified time. In case the successful bidder fails to comply with the specified time schedule as per the approved bar chart and accepted terms and conditions, and where the progress of work is not found satisfactory, and commensurate with the expected progress as per the bar chart, PUSHPA GUJRAL SCIENCE CITY reserves the right to cancel the order. The decision of PGSC in this regard shall be final and binding on the successful bidder. The successful bidder cannot claim any compensation for such cancellation or determination of contract.

8. INSPECTION:

- 8.1. The successful bidder shall also mandatorily arrange for inspection of the equipment including its accessories at the site on completion of supply, whenever desired by the authorized officials of PUSHPA GUJRAL SCIENCE CITY. Any /all defect(s) pointed out to the successful bidder by the competent representative of PUSHPA GUJRAL SCIENCE CITY

during such inspection shall be promptly rectified at the cost (including material cost) of the successful bidder to meet the desired quality, and specification as per requirement of PUSHPA GUJRAL SCIENCE CITY failing which penal action shall be taken as deemed fit by PUSHPA GUJRAL SCIENCE CITY. The decision of PUSHPA GUJRAL SCIENCE CITY in this regard shall be final and binding on the successful bidder.

9. GENERAL TERMS OF PAYMENT

91. The payment terms shall be as follows:

- 9.1.1. **60% (Sixty percent)** of the total sum of the items on delivery of the entire materials/consignment and submission of bill of quantities.
- 9.1.2. **30% (Thirty percent)** of the total sum of the items quoted in INR after successful installation and commissioning of the “360 DEGREE MULTI-PROJECTOR BASED PROJECTION MAPPED SHOW” at site.
- 9.1.3. **Balance 10% (Ten percent)** of the total sum of the items quoted in INR on successful operational training and handing over the equipment to the authorized representative of PGSC, Kapurthala and satisfactory running of the entire “360 DEGREE MULTI-PROJECTOR BASED PROJECTION MAPPED SHOW” for a minimum period of 10(ten) consecutive days and on submission of a certificate issued by PUSHPA GUJRAL SCIENCE CITY stating that installation of the ordered system has been done satisfactorily and also on submission of warranty certificate.
- 9.1.4. **Prior to release of balance 10% (ten percent)** payment of the total value of the items quoted the successful bidder shall arrange for an irrevocable Bank Guarantee acceptable to PGSC equal to **TEN %** of Gross Quoted Value will be deducted and retained as Retention Money / Performance Bank Guarantee for Defect Liability Period as security for fulfilment of warranty/ defect liability obligations. Training of PGSC, Kapurthala personnel in operation and maintenance of the entire ordered system shall be organized by the successful bidder at every stage of installation and also after satisfactory commissioning of the equipment at site and before the final 10 % (ten percent) payment is released as per terms stated above.

92. For annual maintenance contract for five years(beyond the warranty period of one year), the payment shall be made half-yearly on satisfactory completion of the work and this payment schedule shall continue for the entire duration of the contract.

93. Taxes and Levies as applicable time to time will be deducted from payments by PGSC.

10. SECURITY DEPOSIT:

- 10.1. The Security Deposit shall be 10% as applicable of the gross value of work ordered and shall be submitted by the successful tenderer in the form of Bank Guarantee within 15 days from the date of award of contract. In case, the gross value of the work executed is more than the ordered value, the successful tenderer shall submit additional Bank Guarantee for the differential amount before the release of final payment.

102. The security deposit shall be released after expiry of the defect liability period of 1 year from the date of satisfactory completion of the installation and commissioning of the system. In case of cancellation of the contract, the Security Deposit submitted by the tenderer in the form of Bank Guarantee shall be revoked and the amount necessary to make up this amount shall be recovered from any money due to the successful bidder under this or any other contract with PGSC.
103. Earnest Money Deposit (EMD) of successful bidder will be adjusted in the Security Deposit.
104. In case of death of successful bidder, Security Deposit shall be returned /refunded to the legal heir of the successful bidder after adjustment of dues, if any, post the actual completion of the work & upon expiry of the specified guarantee/defects liability period.

11. PENALTY CLAUSE

- 11.1. In case of non-completion of the entire work within the stipulated time, and the delay is not attributable to site requirements, Liquidated Damage (L.D.) @ 0.5% of the tendered value per week shall be recovered from the bill of the successful bidder subject to a maximum of 10% of the tendered value.

12. DELAYS

- 12.1. Within one fortnight of the occurrence of any of the following, which the contractor might regard as impediments in the progress of work, the contractor shall apply in writing to the Director General, PGSC for extension of time, setting out the reasons for delays sought to be condoned
 - 12.1.1. Addition, alteration or substitution ordered in the work, which could have a significant time impact and issued to the contractor under an official change order only.
 - 12.1.2. Act of god or Force Majeure, i.e. a situation arising out of any occurrence totally beyond the control of the contractor such as war, hostilities, revolution, riots, civil commotions, strikes, lockouts, epidemic, explosion, flood, earthquake or because of any law and other proclamation, regulations or ordinance of any government or sub-division thereof or because of any act of God or any other cause beyond the control of the concerned party which could not have been foreseen or avoided by the exercise of due diligence and so it becomes impossible to perform,
 - 12.1.3. Forced closure of the works by a general political strike and unrest not related to contractor's labour or personnel.
- 12.2. The contractor's application for extension of time in any of the above circumstances shall be considered by Director General, PGSC and his decision shall be final and binding.
- 12.3. The granting of any extension of time shall not entitle the contractor to claim any additional remuneration or consideration whatever for costs incurred as a result of such delays or due to cost escalation.

13. WARRANTY AND AMC:

- 13.1. Warranty: The successful bidder shall provide Single Window Onsite Comprehensive Warranty inclusive of preventive maintenance on all the items supplied under the purchase order as has been enumerated in details below. The Warranty period for the entire installation is for one year for all the components of the system from the date of issue of acceptance certificate by PGSC.
- 13.2. Bidders shall quote for comprehensive annual maintenance charges (AMC) along with applicable taxes for five years, after expiry of warranty period of one year from the date of commissioning and handing over to PGSC on year to year basis.
- 13.3. During defect liability period of one year and subsequent comprehensive maintenance contract, comprising of five years, the following terms shall be applicable:
 - 13.3.1. Preventive Maintenance for all the equipment and peripherals supplied by the bidder. The bidders shall submit a schedule for such preventive maintenance and shall form part of the agreement.
 - 13.3.2. Repair of faulty / defective parts and peripherals.
 - 13.3.3. Replacement of faulty parts and peripherals. All replaced parts shall remain as property of PGSC, Kapurthala.
 - 13.3.4. All the parts including networking cables, connectors, etc. that may be required to maintain the system shall be supplied by the bidder at their own cost.
 - 13.3.5. Any break-down, failure or malfunctioning of the system shall be attended to and put back in service within 48 hours. However, all round efforts must be made to set right the system in shortest possible time. Service shall be available for at all times for 364 days in a year.
- 13.4. The selected bidder will maintain the minimum essential spares at their own stores and the required tools / test equipment / software so as to reduce the break-down time.
- 13.5. Spare parts manufactured by Original Equipment Manufacturer (OEM) will be preferred. However in unavoidable situations spares manufactured by equivalent manufacturers may be used with prior approval of PGSC stating appropriate reason and justification.
- 13.6. In case of any requirement for replacement of any supplied spares by the bidder, PGSC shall not be responsible for re-export of the damaged components and that will be replaced by the successful bidder.
- 13.7. The decision regarding award of AMC and duration of AMC will be taken by PGSC after the completion of Defect Liability Period.**

14. DEFECT LIABILITY PERIOD:

- 14.1. The Defect Liability period shall be One year from the date of certification of the completion of satisfactory installation and commissioning of the system. The successful bidder shall be responsible for all defects of the installed equipment, manufacturing or other defects of components, playback and associated software etc. for a defect liability period from the date of satisfactory completion of the installation and commissioning of the system. The successful bidder, shall at their own cost, rectify the defects and / or

replace the defective parts/equipment, up to the complete satisfaction of the competent authority of the PUSHPA GUJRAL SCIENCE CITY/PGSC, Kapurthala within reasonable time. The successful bidder shall maintain an inventory of all necessary components to reduce downtime.

142. Specifications of the items under tender are enclosed for guidance. However, if any ambiguity in the specification is detected, it shall be promptly brought to the notice of the PUSHPA GUJRAL SCIENCE CITY for clarification. The successful bidder should obtain written approval of PUSHPA GUJRAL SCIENCE CITY for any deviation from the approved specifications, if required due to site conditions or for betterment and safety of visitors and installations.
143. The authorities of the PUSHPA GUJRAL SCIENCE CITY reserve the right to amend, alter or modify the terms and conditions, specifications of the items if necessary for betterment and safety of visitors. No additional cost shall be borne by PUSHPA GUJRAL SCIENCE CITY for such amendments.
144. In case the successful bidder refuse to accept the offer after finalization or does not compile with clauses of General Terms & Conditions within 07 (seven) days from the date of placement of the order as per the finalized and accepted terms & conditions, earnest money deposit would be automatically forfeited and the order shall be cancelled forthwith. In case the bidder starts the work and does not complete the project then the security deposit will be forfeited.
145. The authorities of PUSHPA GUJRAL SCIENCE CITY do not bind themselves to accept the lowest tender and reserve the right to accept or reject any or all tenders wholly or partially without assigning any reason whatsoever.
146. The successful bidder shall obtain necessary trade and other licenses/permissions as may be required to carry out the tendered job at PGSC, Kapurthala and shall also be responsible for Compliance of all statutory rules and regulations which may be in force time to time from the appropriate authorities at their own cost.
147. PUSHPA GUJRAL SCIENCE CITY shall not be liable for any injury or death of an employee who is deployed by the successful bidder within/outside the work site during the time of execution of the work order.

15. PATENT RIGHTS AND ROYALTIES

151. The tenderer shall indemnify the PGSC against all third party claims of infringement of patent, copyrights, royalties, trademarks or industrial design rights arising from use of the goods, drawing or any part thereof.
152. The Contractor/ Agency will declare and guarantees that all copyrights and author's rights etc. of all third parties shall be duly purchased and obtained and the royalties paid and by this agreement these rights of third parties, unencumbered in any respect, shall be transferred to PGSC. No such right would be only for one time use specifically for this job.

If, however, any dispute of claim preferred by the third parties arises, Agency shall indemnify the PGSC against any such claim whatsoever.

153. The Contractor/ Agency hereby agrees that no claim whatsoever shall be made against the PGSC in respect of any proprietary rights on the part of any other party relating to the plans, designs, models, drawings, photographs, scripts or any other such items, which they have used in the display of the work. The Agency shall indemnify the PGSC of all costs and expenses, which may have called upon to do so against such claims.

16. INSURANCE IN RESPECT OF DAMAGE TO PERSONS AND PROPERTY

161. The contractor shall be responsible for all injury to persons, animals or things, and for all structural and decorative damage to property which may arise from the operation or neglect of himself or of any nominated sub-contractor's employees, whether such injury or damage arises from carelessness, accident or any other cause whatever in any way connected with the carrying out of his contract. This clause shall be held to include inter-alia any damage to buildings, electrical work, whether immediately adjacent or otherwise, and any damage to roads, street, footpaths, bridges or ways as well as all damages caused to the buildings and works forming the subject of this contract by inclement weather.
162. The contractor shall indemnify the PGSC and hold it harmless in respect of all and any expenses arising from any such injury or damage to person or property as aforesaid and also in respect of any claim made in respect of injury or damage under any Act of Government or otherwise and also in respect of any award of compensation or damages consequent upon such claim.
163. The contractor shall reinstate all damages so as to deliver the whole of the contract work complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of third parties.
164. The contractor shall indemnify the PGSC against all claims which may be made against the PGSC by any member of the public or other third party or any employee of the contractor or subcontractor in respect of anything which may arise in respect of the work or in consequence thereof and shall at his own expense arrange to effect and maintain, until the completion of the contract, a Policy of Insurance against such risks may be purchased by Contractor for this contract.
165. The PGSC shall be at liberty and is hereby empowered to deduct the cost of any damage, compensation, costs, charges and expenses arising or accruing from or in respect of any such claim or damage from any sum or sums due to or become due to the contractor.

17. SUSPENSION OF WORK

171. The PGSC reserves the right to suspend and reinstate execution of the whole or any part of the works without invalidating the provisions of the contract. The PGSC Administration will issue orders for suspension or reinstatement of the work to the

Contractor in writing. The time for completion of the works will be extended for a period equal to duration of the suspension.

172. Any necessary and demonstrable costs incurred by the contractor as a result of such suspension of the works will be paid by the PGSC provided such costs are sustained to the satisfaction of the PGSC. The PGSC shall not be responsible for any liabilities if suspension or delay is due to some default on the part of the Contractor or his sub-contractor.

18. TERMINATION FOR INSOLVENCY

PGSC may at any time terminate the contract by giving written notice to the contractor without compensation to the contractor, if it becomes bankrupt or otherwise insolvent, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will occur thereafter to the PGSC.

19. TERMINATION FOR CONVENIENCE

In the event both the parties want to abandon the above said work at any stage due to reason beyond the control of either party with mutual consent. In such case of termination no further payments, except the payment or payments which has or have been already made or which may be payable for work already done plus balance Concept and design fees in accordance with provisions as per this contract, prior to the date of such abandonment or suspension, as the case may be, shall be made by the PGSC to Contractor/ Agency. The Contractor/ Agency will be, liable to transfer to PGSC all works at such stage of completion, inclusive of all materials procured for the purpose of the project at the time of such termination.

20. The successful bidder shall not transfer wholly or partially the order of supply, installation, testing and commissioning of the equipment to any other person(s) / firm / company for any reason whatsoever and in which case the order shall automatically stand cancelled.

21. ARBITRATION

211. All questions and disputes of any kind whatsoever between PGSC and the contractor **arising out of this agreement** entered into or in relation thereto or regarding the interpretation of any clause, terms and conditions thereof shall be referred to the Director General, Pushpa Gujral Science City acting as such at the time of reference or any other person as may be nominated by the Director General, PGSC who will be the sole arbitrator and his/her decision will be final and binding. In case the nominated Arbitrator is unable to commence or continue with the Arbitral proceedings for any reason whatsoever, the DG shall nominate / appoint another officer of PGSC who shall commence the proceedings and decide the reference. The provision of Arbitration and Conciliation Act 1996 shall apply.

212. The place for arbitration will be Kapurthala, Punjab, India.

22. LEGAL JURISDICTION

District Courts at Kapurthala, Punjab, India.

23. SET OFF

Any sum of money due and payable to the Bidder/Supplier/Contractor (including security deposit refundable to him) under this contract may be appropriated by the Buyer (PGSC) to set off the same against any claim of the Buyer (PGSC) for payment of a sum of money arising out of this contract made by the Bidder/Supplier/Contractor with Buyer (PGSC)

Particulars of Tenderer

Note: ALL PARTICULARS / INFORMATIONS SHOULD BE GIVEN IN THE FOLLOWING FORMAT WITH COMPLETE DETAILS.

I	Name of the Bidder	:	
ii	Mailing address of the Bidder with PIN/ZIP Code	:	
iii.	Contact details	:	
	Telephone numbers(s)	:	
	Mobile	:	
	Fax number(s)	:	
	E-mail address	:	
iv.	Website	:	
	a. Background details of the Bidder (State whether original manufacturer / authorised Registered Indian Agent of the manufacturer).	:	
	b. In case of authorised Registered Indian Agent, submit certified copy of the Bidder Agreement with the manufacturer.	:	
	c. Name and Address of the Vendor to whom the order will be placed (PGSC would like to procure the entire system from a single source)	:	
v.	Whether capable to supply and install the 360 degree multi projector based projection mapped show as per minimum requirement/and Technical Specification given in Annexure-D (Please mention "YES" or "NO" in Annexure- E)	:	
	a) If it is mentioned "NO" above, submit detailed deviation to be made from enclosed Technical Specification.(Attach extra sheet, if required)	:	

	b) submit the detailed specifications of the offered product including copies of Product brochure	:	
vii.	Single point contact details for all post-installations service related issues with hierarchy levels (if any)	:	
viii.	Please provide detailed address and set up link from where support for maintenance during post warranty shall be offered by the firm	:	
xii.	Submit technical brochures indicating the detailed technical specifications of the system as given in the table below:-.	:	Detailed Information to be submitted by the Bidders as per following table

I / We hereby declare that the above statements are true. I / We also declare that I / we shall abide by the decision of PUSHPA GUJRAL SCIENCE CITY regarding selection of eligible firm(s).

Dated Official Seal & Signature of the Bidder/Constituted Attorney

Scope of work and Technical Specifications

This is a two part bid (Part: 1 - Technical bid without Price and Part: 2 - Price bid).

This is a Tender document for Supply, Installation, Integration, Testing and Commissioning of “360 DEGREE MULTI-PROJECTOR BASED PROJECTION MAPPED SHOW” on “Healthy Ecosystems – Healthy Citizen: A virtual experience” (including construction of Indoor room with sound proofing) having uniformly blended seamless projection of especially developed software (content) on floor, ceiling & all four walls of the Immersive room with onsite Comprehensive warranty of one year including preventive maintenance.

The Immersive projection room will have a uniformly blended seamless display on floor, ceiling & all four walls of the room including auto image stitching and auto blending. Visitors will enter the room and will get immersed in the virtual environment created using customized software based film on Healthy Ecosystems of minimum 5 minute duration. The script of the film will broadly cover the origin of the universe, Blue planet, Ecosystems of the world, Ecosystems of the India and Punjab cropland.

The virtual experience would simplify complex ecosystem functions in an immersive environment where the viewer will be able to see, hear and feel the environment in global ecosystems like the tundra, taiga, evergreen, subtropical and tropical forests, deserts and freshwater and marine ecosystems and understand how, on one hand, human activities can impact life and lead to climate vulnerabilities, and on the other hand, contribute to universal health and prosperity. The immersive projection room would be a self-contained area that gives the illusion of being surrounded by a fictional world, providing a fully interactive, scientific visualization. It will allow the visitors to move around with a fair degree of freedom replicating a real-world experience. Specific features associated with these ecosystems will be displayed as immersive scenes being part of film with associated sounds, odours, climate features, bio resources, etc. The impact will be enhanced by accompanying weather effects.

I. Construction of Immersive Room and Hardware/Software setup:

Fully integrated “360 Degree Multi-Projector Based Projection Mapped Show” ON “healthy ecosystems – healthy citizen: a virtual experience” having uniformly blended seamless projection of customized software film on floor, ceiling & all four walls of the room consists of long life DLP Laser phosphor High-Lumen projectors with necessary lenses, Media Server for projection mapping with backup, Projection Mapping software/system with respective licensees, design & construction of room, HDMI Extender receiver/transmitter, Network Switch, Show control system, 5.1 Surround Sound System with DSP, Decoder & Speakers, projectors mounting provision (without disturbing the aesthetics of the hall) and cabling for projectors and lighting and other setup etc.

The scope of work will be as under:

1. Construction of rectangular room within the available area as per drawing in Annexure-B1 having minimum room size 35' X 17' shall be designed and constructed for the show. The show will be walkthrough based. No seating arrangement for visitors is to be provided. The entire work related to creating the desired projection mapped show including supply of equipment (such as projectors, media servers, show control engine, sound systems, accessories, cables, software) and the allied works such as construction of the room including related Civil, Mechanical, Structural, Electrical work, placement and installation of equipment, Lighting & Fixtures, integrating the entire equipment and content development as per the storyline are in the scope of the work.
2. Supply and installation of projectors and mapping of projectors on the given area should be in the scope of work.
3. Supply and installation of high performance multi-channel media server and playback system to playback digital content and static imagery shall be in the scope of work. The vendor shall provide a user friendly Graphical User Interface to control the entire system, including audio system, etc. from the same interface.
4. Supply and installation of projection mapping software Engine complete with necessary software & hardware interfaces with perpetual license capable of handling projection mapping based formats of contents of desired format and resolution. Auto Edge blending and Auto geometric correction software and hardware for seamless display and accurate mapping to screen geometry shall have to be executed.
5. The immersive projection room will have an interactive floor with a minimum of four interactive scenes such as walking on water in marine, grass in forests and sand in deserts ecosystems & virtual interaction with animals/insects in different ecosystems.
6. Software Development for 360 degree Immersive Projection Show (Includes 4 walls + Floor + Ceiling) of minimum 5 minute duration including script writing, Creative Direction: Designing and drafting of visual storyboard, storytelling, testing and finalization of script, 2D and/ or 3D animation, graphics, and video-timeline with frames, voiceover and music, Creative Production: Integration of all projections with 2D/3D modelling if any, shooting or recreation shot required to create content for projection mapping show and Narration by professionals in two languages.
7. Supply, Installation, Testing & Commissioning of weather effects related to ecosystems, surround sounds, odours, climate features, bio resources in synchronization with the script.
8. Supply and installation of Data cabling to carry lossless video signals from amongst the sources viz. Media Servers and playback systems to projectors and/or video players and high speed data path network (if any) among computing and storage elements through fibre optic cables are also in the scope of the work. Any other cable/connector/adapter/repeater/audio/video cable etc. if any required shall be in the scope of work

9. Proper dressing up of power and data cabling for all systems and devices so as not to cause interference with video signals and data networks shall be ensured by the successful vendor and shall be in the scope of work.
10. A multi-channel audio system with minimum 5 speakers and 1 subwoofer with total power of about 1KW for about 30 visitors in the room complete with amplifier, mixer and high quality speakers etc. shall be in the scope of work.
11. Detailed design, material specifications, supply and installation of general illumination inside room with DMX controller, to be controlled through show control system as given shall be under the scope of the agency.
12. The agency shall provide site plan document with plan, elevation and mounting details for placement of Projectors, speakers in the visitors' area, Rack Mounted assemblies for Media Servers and Playback system, audio amplifier, mixer, mic , AC vents, hardware for weather effects, sensors and other allied system. The air-conditioning at the vents will be provided by PGSC.
13. Touch panel based show control systems shall be provided for controlling general audio, projectors, video server etc. Touch panel based show control system shall be located in the control room for operation of the show. The system should be designed keeping in view that it must be manageable from a single control system (the show controller)
14. All metallic structures for mounting of projectors, speakers, Media server etc shall be coated with anti-corrosive treatment and painted such that they are made inconspicuous. All safety measures shall be considered while designing for safety of people and equipment.
15. Integration of all subsystems as indicated above to configure the "360 degree immersive projection room" shall be the responsibility of the bidder.
16. PGSC, shall provide electrical power source at one point for electricity power further distribution to various equipment and installation of electric distribution panel will be in the scope of Vendor.
17. The detailed specification of all the equipment and content is provided in Annexures D-1 to D-13.
18. The specifications of the complete hardware system are provided in sections below.
 1. **Design & construction of Room**- Details given in Annexure D-1
 2. **DLP Laser Phosphor Projectors** with necessary lenses and mounting provision – Detailed specifications attached as Annexure D-2
 3. **Media Servers**– Detailed specifications attached as Annexure D-3
 4. **Projection Mapping Software** – Detailed specifications attached as Annexure D-4
 5. **Show Control Manager** – Detailed specifications attached as Annexure D-5
 6. **Software/Content development** : Details given in Annexure D-6
 7. **Weather Effects**- Details given in Annexure D-7
 8. **Interactive Floor setup**- Detailed specifications attached as Annexure D-8

9. **Multi-channel surround sound system (5.1)** with 1KWatt continuous power and mixing unit – Detailed specifications attached as AnnexureD-9
10. **Other Accessories-** Detailed specifications attached as Annexure D-10
11. **Spares** – Details given in Annexure-D-11
12. **Brochures** - Details given in Annexure-D-12
13. **Training-** Details given in Annexure-D-13

II. **Warranty and AMC**

Warranty: The successful bidder shall provide Single Window Onsite Comprehensive Warranty on all the items supplied under the purchase order as has been enumerated in details below:

1. The Warranty period for the entire installation is for one year for all the components of the system from the date of issue of acceptance certificate by PGSC.
2. AMC: The comprehensive annual maintenance contract will be for a period of five years, after expiry of the warranty period of one year.
3. During defect liability period of one year and subsequent comprehensive maintenance contract, comprising five years, the following terms shall be applicable.
4. Preventive Maintenance for all the equipment and peripherals supplied by the bidder. The bidders shall submit a schedule for such preventive maintenance and shall form part of the agreement.
5. Repair of faulty / defective parts and peripherals.
6. Replacement of faulty parts and peripherals. All replaced parts shall remain as property of PGSC, Kapurthala.
7. All the parts including networking cables, connectors, etc. that may be required to maintain the system shall be supplied by the bidder at their own cost.
8. Any break-down, failure or malfunctioning of the system shall be attended to and put back in service within 48 hours. However, all round efforts must be made to set right the system in the shortest possible time. Service shall be available at all times for 364 days in a year.
9. The selected bidder will maintain the minimum essential spares at their own stores and the required tools / test equipment / software so as to reduce the break-down time.
10. Spare parts manufactured by Original Equipment Manufacturer (OEM) will be preferred. However in unavoidable situations spares manufactured by equivalent manufacturers may be used with prior approval of PGSC.
11. In case of any requirement for replacement of any supplied spares by the bidder, PGSC shall not be responsible for re-export of the damaged components and that will be replaced by the successful bidder.

NOTE w.r.t. AMC:

- a. Bidders shall quote for comprehensive annual maintenance charges along with applicable taxes for five years, after expiry of warranty period of one year from the

date of commissioning and handing over to PGSC on year to year basis. The tax break-up for all such rates shall be clearly spelt out as on the date of submission of the tender.

- b. The AMC rates to be quoted at PART B of financial bid and would not be considered for financial evaluation.
- c. **The decision regarding award of AMC and duration of AMC will be taken by PGSC after the completion of Defect Liability Period.**

General Note:

All civil, mechanical and electrical works relating to construction of room and installation of the 360 Degree Multi-Projector Based Projection Mapped Show including mounting of projectors array are to be taken up by the selected bidder, and all necessary materials, machines and any other machine tools required for the construction and installation are to be arranged by the selected bidder at their own cost. The selected bidder will provide design, drawings, details and complete specifications for installation of projectors array, media server, audio system, AC inlet points, weather effects hardware as described earlier.

All safety precautions and compliance of statutory obligations shall be taken care of by the selected bidder during execution of the entire project at site.

Client's responsibilities:

- 1. PGSC, KAPURTHALA shall provide electrical power for execution of the work.
- 2. To provide Air Conditioning facility to the AC vents in the Immersive Room
- 3. To provide UPS to the system
- 4. To provide lockable space for storage of materials by the selected vendor.

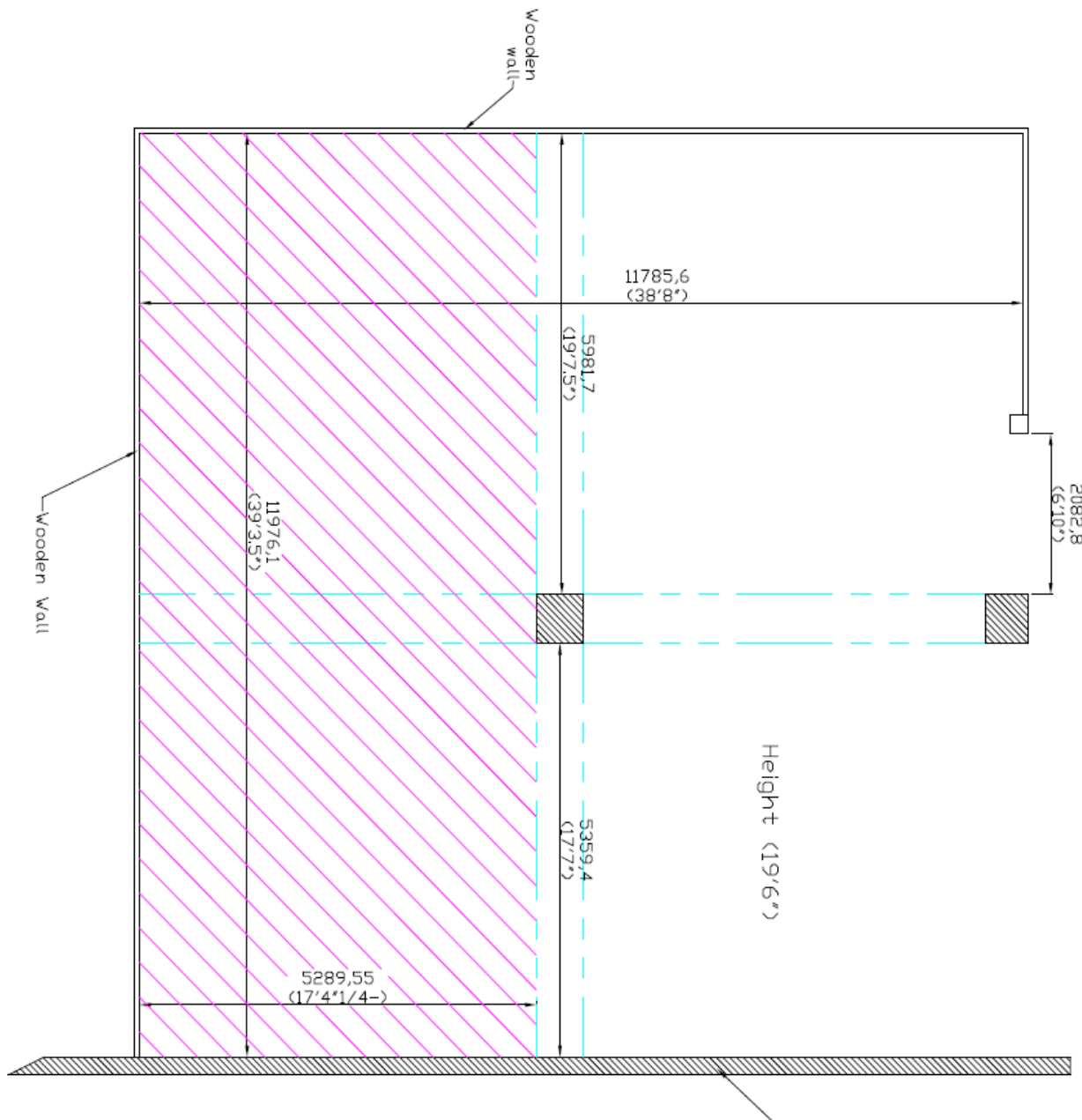
1. Construction of Room

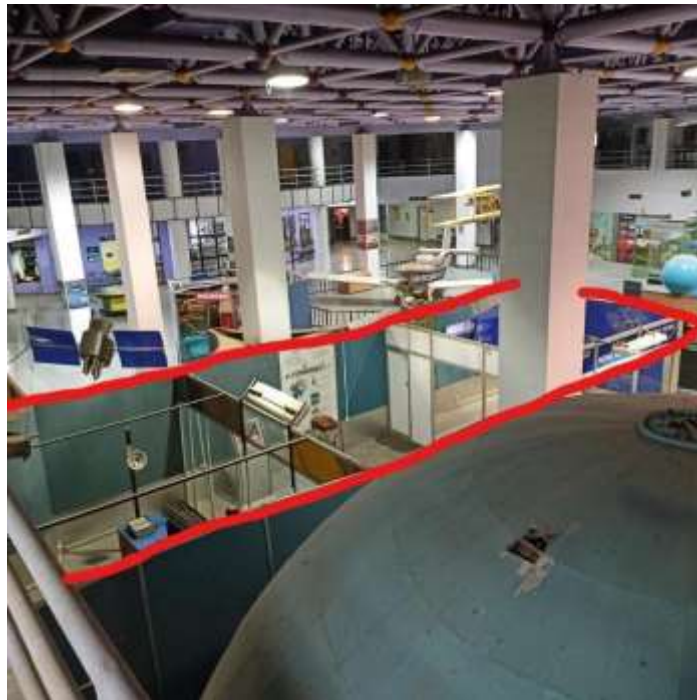
The work includes conceptualization, Design and construction of 360 degree immersive projection room along with control room for media server/audio system etc. including related Civil, Mechanical, Structural, Electrical work and integration and Lighting & Fixtures. The total area available at the site is 663 sq feet with length of 39' and width of 17'. Height up to 19' is available at the site. The fabrication of room of minimum size 35' X 17' including ancillary works like Scaffolding & False Ceiling, Wall Paneling for 360 Degree Projection, Flooring work for Floor Projection, Floor Paneling for Interactive Projection. The drawing of the location is attached in Annexure B-1.

The broad Specifications for construction of Room is as under:

- 1.1 Walls: Metal RHS(Rectangular Hollow sections) with Gypsum Partition Panels(with vertical studs and runners) with Glass wool insulation
- 1.2 Ceiling: Metal framework with perimeter R.H.S. beams framing and secondary R.H.S. beams
- 1.3 Floor: Raised floor with cable management(grided metal framework) made with metal pedestals clamped to existing slab finished with floor panels
- 1.4 Acoustics: Partition clad with Acoustic wool and acoustic panels
- 1.5 Doors: Solid laminated Door with hardware
- 1.6 Providing of AC vents, location of vents should be shown in the layout plan.

Location of the Room





The existing exhibits installed at the location will be shifted by PGSC

2. DLP Laser Phosphor Projectors with necessary lenses and mounting provision Make: Panasonic, Christie, Barco or equivalent approved reputed brand

Specification:

Item	Desired Minimum Technical Specifications	Qty.
DLP Laser Phosphor Projectors with necessary lenses and mounting provision	<ul style="list-style-type: none"> ● Brightness: 7000 Lumens or more ● Lamp Life: 20,000 hrs. ● Resolution: WUXGA (1920 x 1200) ● Throw distance: as per site condition ● Aspect ratio: 16:9-10 ● Contrast Ratio: 1200000:1 or more ● Display Technology: DLP ● Lamp Type: High efficiency Laser Phosphor ● Lens Shift: Horizontal & Vertical ● Digital Keystone: Horizontal & Vertical ● Edge Blending: Yes ● Inputs: HDBaseT, HDMI, DVI-D ● Warranty: 1 YEARS ONSITE <p>Please quote the number of projectors after carefully understanding the site conditions, the number and sizes of the surfaces to be mapped and the scope for installation of projectors. Also, submit the sketch proposing the placement of the projectors during your technical presentation. It is highly recommended to visit the site before quoting.</p>	Comprising of 10 Nos. or More projectors to achieve the required mapping of defined area.

3. Media Server (MS) specification:

Industrial grade computers with latest graphic cards, Intel based processors, solid state hard drives, backup hard drives, all necessary hardware and software having following minimum specifications:

Make: Asus, MSI, Gigabyte, corsair, coolermaster or equivalent approved brand

Item	Desired Technical Specifications	Qty.
Media Server (MS)	<ul style="list-style-type: none"> ● Intel i7 Xeon / AMD Thread Ripper Processor; ● RAM: minimum 64GB ● GPU: NVidia Quadro / AMD FirePro with 8GB VRAM; minimum 4 outputs supporting 7680x4320@60Hz ● Full HD output on each display out ● 256 GB SSD primary drive ● 256 GB SSD secondary drive ● Operating system: Microsoft Windows 64bit with perpetual license ● Unlimited Video Layers ● Unlimited Graphics Layers ● motherboard supporting 1 gpu at x16 or 2 at x8 or 2 gpu at x16 depending on software ● Full HD output on each display out ● Images: BMP, JPEG, PNG ● Audio: MP2, MP3, AAC, FLAC, OGG, and WAV ● Rugged cooling system ● MS shall have sufficient number of channels of full HD resolution to drive projector, monitor ● 23/24 " Flat Panel LED Monitor with HDMI display port ● Please mention the brand in the quote, else the tender will be rejected ● Media server configuration is up to the party. Master - slave configuration, number of system required for manager and slave needs to be presented by the party ● This mapping system needs to be designed to create an integrated projection mapping show with 8 or more wuxga projectors edge blended together ● Backup Media Server, if required (depending upon the software used): To be clearly mentioned in the technical presentation ● Warranty: 1 Yrs. Onsite 	<p>Media Server to support 10 or more projectors</p> <p>Party may increase or decrease the qty. as per their setup plan which needs to be clearly mentioned in the technical bid.</p>

**Additional SSD and RAMs may be configured to meet the overall specifications, if necessary.*

4. Projection Mapping Software specification:

Make: Coolux, Resolume, Watchout, Disguise D3 or equivalent brand

Item	Desired Technical Specifications	Qty.
Projection Mapping Software	<ul style="list-style-type: none"> ● Unlimited Timelines ● Unlimited Multichannel tracks ● Window 10 pro OS compatible ● Multi-Projector soft edge blending, image warping ● Matrix DMX Pixel Mapping ● Real-Time Keystone ● FHD multiple Video Playback Support for 10 or more Projectors ● DMX Via Art-Net/ MA-NET/ SACN/ CIP ● MIDI/ Midi Show control MSC ● Integrated Media - Encoder ● Synchronised Playback ● Multi-Channel Audio ● Ethernet based IP control system to switch between primary and backup server ● Lifetime software license validity 	1 No.

5. Show Control Manager

Item	Technical Specifications	Quantity
5.1 Show control system	Ethernet based IP control system to trigger the show through an android/apple tablet, control signals to the projectors. communication support for Ethernet, RS-232/422/485, IR/Serial, USB, relay ports iPhone®, iPad®/Android control app support Make: Crestron, Extron, Krammer	1 Set
5.2 Tablet for switching control	Tablet of Min specification of 9.7 inch, 32GB with Wi-fi support, Apple, Samsung or approved reputed brand	1

6. Software/Content development:

The software film will be of minimum 5 min duration, mapped on all four side walls, floor and ceiling of a rectangular room. The development of software film may require extensive 3D modelling and animation clubbed with 2D animation, depending upon the demand of the script.

The entire script is required to have voiceover in Hindi and English by using high quality voiceover, duly approved by the authorities. There may be more than one voiceover in the story depending upon the script. The film will also have background scores that are required to be especially created for the script and it should be free from any copyright violation.

The story line of the software film will be as under;

Section number	Associated text	
Origin	Origin of universe – big bang and origin of Earth - only known planet presently believed to harbour a wide diversity of life, even though scientists are still looking for life in other galaxies.	
Blue planet	Welcome to the Blue Planet. Life on this planet is due to its conducive atmosphere, enough water and soil which have together created a wide variety of biogeographic ecosystems. It took intricate interactions between the various components and millions of years for life to evolve and reach its present state of biodiversity which is adapted to living in various ecosystems.	
Ecosystems of the world	<ul style="list-style-type: none"> ● Tundra ● Forests : Taiga/ Boreal , Evergreen, ● Deciduous, Subtropical, Tropical ● Grasslands : Savanna, Tropical ● Desert ● Fresh Water ● Coastal and Marine 	<ul style="list-style-type: none"> ● Climate ● Distribution ● Flora & fauna ● Impact of Climate change
<ul style="list-style-type: none"> ● India 	<ul style="list-style-type: none"> ● Biogeographic zones – Climate, life, coldest (Alpine) to warmest, N East, Hotspots ● Climate change can lead to accelerated melting of snow and 	

	causing flash floods in our rivers.
● Punjab Cropland	● Located in the Indus river basin, alluvial soil, fertility CC impact on productivity, food crisis.
Ending lines- responsibility of citizen	

In case the content of the film demands to increase the duration of the film by 1 to 2 minutes that would be done without any additional cost by the tenderer.

The details of the work required in the software/content development is as under:

Specifications	Detailed description
Minimum 5 minute Script writing for 360 degree Immersive Projection Show (Includes 4 walls + Floor + Ceiling)	<ul style="list-style-type: none"> ● Creative Concept Note ● Narration Script ● Dialogue Script ● Visual Storyboard ● Creative Visual Direction ● Design & Artwork ● (Including photos & Videos & Illustrations) ● Music Composition & arrangement ● (Including musicians, instruments, singers, chorus artists) ● Sound Effects ● Sound Mixing ● 2D Animations ● 3D projection Animations ● Motion graphics ● Visual Effects (VFX) ● Voice Over recording supervision ● (Including Voice Over Artists in Single Language) ● Editing ● Rendering as per media server formats

The successful bidder will be required to take necessary approval/implement suggestions of PGSC at every stage during development of software/film.

7. Weather effects

During projection of content, all specific features associated with a particular ecosystem will be displayed as weather effects e.g. Cold air, snow & polar bear in Tundra ecosystem leading to flowers interspersed with the grasses & grazing animals in Grasslands ecosystem, dense and tall trees with lianas, dark understory vegetation birds and animals in tropical rainforests, falling leaves in deciduous forest ecosystem, hot wind blows and shifting sand with desert snakes/ animals/vegetation in desert ecosystem, rivers, springs, ponds, lakes in Freshwater ecosystem, corals and deep sea animals in marine ecosystem etc. The impact will be enhanced by accompanying sounds.

Sr. No.	Effects	Equipment	Brand	Qty	Installation /Hanging Arrangement
7.1	Cold Air	Blower with Air Displacement of 500 CFM	ISI marked or any other approved reputed brand	4	ducts in the walls
7.2	Hot Air	Heater, Blower with Air Displacement of 500 CFM	ISI marked or any other approved reputed brand	4	ducts in the walls
7.3	Smell	DMX based variable speed fan minimum 6kw power, noiseless and DMX controllable operation	ISI marked or any other approved reputed brand	2	Smell sprays from ceiling

8. Interactive Floor setup

The interactive floor will have four touch points :

1. Virtual walking on Water
2. Virtual walking on deserts
3. Virtual walking in Forest/grass fields
4. Interaction with fishes/other creatures in different ecosystems

The minimum specification of the interactive media server will be as under:

Make: Asus, MSI, Gigabyte, corsair, cooler master or equivalent approved brand

Item	Desired Technical Specifications	Qty.
Media Server (MS)	<ul style="list-style-type: none"> ● Intel i7 Xeon / AMD Thread Ripper Processor; ● RAM: minimum 64GB ● GPU: NVidia Quadro / AMD FirePro with 8GB VRAM; minimum 4 outputs supporting 7680x4320@60Hz ● Full HD output on each display out ● 256 GB SSD primary drive ● 256 GB SSD secondary drive ● Operating system: Microsoft Windows 64bit with perpetual license ● Unlimited Video Layers ● Unlimited Graphics Layers ● motherboard supporting 1 gpu at x16 or 2 at x8 or 2 gpu at x16 depending on software ● Full HD output on each display out ● Images: BMP, JPEG, PNG ● Audio: MP2, MP3, AAC, FLAC, OGG, and WAV ● Rugged cooling system ● MS shall have sufficient number of channels of full HD resolution to drive projector, monitor ● 23/24 " Flat Panel LED Monitor with HDMI display port ● Please mention the brand in the quote, else the tender will be rejected ● Media server configuration is up to the party. Master - slave configuration, number of system required for manager and slave needs to be presented by the party ● This mapping system needs to be designed to create an integrated projection mapping show with 10 or more 	Media Server for interactive floor Party may increase or decrease the qty. as per their setup plan which needs to be clearly mentioned in the technical bid.

	<p>wuxga projectors edge blended together</p> <ul style="list-style-type: none"> ● Backup Media Server, if required (depending upon the software used): To be clearly mentioned in the technical presentation ● Warranty: 1 Yrs. Onsite 	
Sensor	Infrared Sensors for creating minimum of four interactive scenes	Party may increase or decrease the qty. as per their setup plan which needs to be clearly mentioned in the technical bid

**Additional SSD and RAMs may be configured to meet the overall specifications, if necessary.*

9. Multi-channel surround sound system (5.1) with 1KWatt continuous power and Mixing Unit

A multi-channel audio system of **Harman Kardon, JBL, Bose, Sony, Yamaha, Shure or equivalent reputed brand** shall be an integrated part of the overall system. It shall be fully controlled by the Show Control Manager.

Specification

Item	Desired Technical Specifications	Qty.
Multi-channel surround sound system (5.1) with 1KWatt continuous power and Mixing Unit	A special spatial multi-channel audio processor is to be used for controlling and programming of the audio soundscape for this setup. Amplifier/mixer is to be solid state and network controlled. The audio system shall be fully integrated with the show control manager. The amplifier should be able to handle various media like Blu-ray, SD, DVD etc. Audio system shall consist of 5 speakers and 1 subwoofer mounted suitably in the visitor's area.	1 set
	Warranty: 1 YEARS ONSITE (Full equipment)	

10. Other Accessories:

Item	Sr. No.:	Desired Technical Specifications	Qty.
Other Accessories	10.1	<ul style="list-style-type: none"> ● HDMI Extender/Wires: Should be able to transmit and receive signals distance ranging from 30 to 600 feet (Creston, Extron, Kramer or equivalent approved make) 	As per site requirement
	10.2	<ul style="list-style-type: none"> ● Network Switch: 16 port or higher managed switch with 1000 mbps speed (Cisco, Linksys, D-link or equivalent approved) 	1 No.
	10.3	<ul style="list-style-type: none"> ● HDMI Cables for Video Data transmission ● Power cables for Projectors- CAT6UTP 	As per site requirement
	10.4	<ul style="list-style-type: none"> ● Custom Rig for projector mounting, speaker mounting ● Clamps and Stands ● Server Rack for Media Server and Sound System Amplifier 	As per site requirement
	10.5	<ul style="list-style-type: none"> ● 802.11ac based WIFI router with high speed of 3000 mbps Cisco, Linksys, D-link, netgear TPLink 	1 No.
	10.6	<ul style="list-style-type: none"> ● IR sensor for interactive setup 	As per site requirement

11. Spares

- 11.1 Projector without lens Quantity: 1 Number; Specifications as per Annexure B-2.
- 11.2 Media server Quantity: 1 Number; Specifications as per Annexure B-3.
- 11.3 Video Graphic Card (preinstalled in the media server) Quantity: 1 Number; Specifications as per Annexure B-3.

12. Brochures and complete specifications

12.1 Bidders shall provide printed brochures and detailed specifications for various OEM products. The brochures, documents and engineering drawings have to be provided along with the technical bid. The bidders have to respond within stipulated time for additional information/clarifications sought afterwards, if any.

12.2 Bidders will be required to present maximum 2 minutes sample content along with story line during technical presentation after opening of Technical Bids, if decided by PGSC. The decision of the PGSC in respect of technical evaluation of the tender and selection of qualified and eligible vendors for opening of Financial Bid shall be final and binding on the bidders.

12.3 **Table: Information to be submitted by the bidders in Technical Bid:**

1. Detailed description
Brochures and specifications for Projectors, Lenses, Mounts, Blending and Geometric Correction Units, Display Management System, etc.
Brochures and specifications for media server, projection mapping software etc.
site plan document with plan, elevation and mounting details for placement of Projectors, speakers in the visitors’ area, Rack Mounted assemblies for Media Servers and Playback system, audio amplifier, mixer, mic , AC vents, hardware for weather effects, sensors and other allied system.

13. Training and Documentation

Basic as well technical training of five days for 5 PGSC staff members is required to be organized at PGSC, Kapurthala. **Training material and complete installation manual in both hard and soft copies is to be provided (two sets of each).**

TECHNICAL COMPLIANCE TABLES

Sr. No.	Specifications	Descriptions as per Annexure D - Technical Specifications	Information to be provided by Bidder		
			Compliance (Yes/No)	Description of the item supplied or attach brochures (please mention page Number)	Reasons for deviation, if any, with complete justification
1	Design & Construction of Room	Annexure – D1			
2	DLP LASER Phospor Projectors	Annexure – D2			
3	Media Servers	Annexure – D3			
4	Projection Mapping Software	Annexure – D4			
5	Show Control Manager	Annexure – D5			
6	Content	Annexure – D6			
7	Weather Effects				
7.1	Cold Air Blower Qty 4	Annexure – D7			
7.2	Hot Air Blower Qty 4	Annexure – D7			

7.3	Heater Qty 4	Annexure – D7			
7.4	DMX based Smell Sprays Qty 2	Annexure – D7			
8	Interactive Floor Set up	Annexure – D8			
9	Multi-Channel surround System (5:1)	Annexure – D9			
10	Other Accessories	Annexure – D10			
11	Spares				
11.1	Projector without lens Qty 1	Annexure – D11			
11.2	Media Server Qty 1	Annexure – D11			
11.3	Video Graphic Card Qty 1	Annexure – D11			
13	Training	Annexure – D13			
14	Warranty	As per clause II of Annexure D			
15	AMC after one year Warranty	As per clause II of Annexure D			

Past Experience in supply, installation, testing and commissioning of 360 Degree Multi-Projector Based Projection Mapped Show system.

Agency Experience (Limited Company/Corporation/Agency/Consortium/JV Projects)

S. No	Name of the project	Cost of the Order awarded in INR (*)	Name of the Client	Phone of Contact Person of Client	Starting Date of Project	Completion Date of Project	Details/ Scope of work

FORMAT FOR ANNUAL TURNOVER AS PER THE AUDITED ACCOUNTS

TOWARDS THE QUALIFYING EXPERIENCE

S. No.	Financial Year	Turnover in Indian Rupees(INR)
1.	2017-18	
2.	2018-19	
3.	2019-20	
4.	2020-21	
5.	2021-22	

(In case of Consortium, the Turnover of only lead partner as well as the other partners is required in case the turnover of lead partner is less than 100% of the requirement)

(Signature of Authorised Signatory)

This is to certify that the above information has been examined by us on the basis of relevant documents; books of accounts & other relevant information and the information submitted above is as per record and as per details annexed.

Signature, Address, Seal & Membership No of Chartered Accountant.

DECLARATIONS

Declaration – I

In strict accordance with specifications, schedules of quantities and upon the terms set out in the annexed form of Contract, instructions to tenderers, tender document and its enclosures at the rates entered in the attached Schedule of Quantities and rates.

- i. I/We undertake to complete the whole work within stipulated time period is given to us by the Pushpa Gujral Science City.
- ii. In the event of my/our tender being accepted, we also agree to enter into a contract in the form annexed hereto with such alterations or additions thereto, which may be necessary to give effect to the acceptance of this tender and such contract shall contain and give full effect to instructions to tenderers, the Specification, schedule of quantities and rates schedule of materials to be supplied by the Pushpa Gujral Science City and drawings attached to the tender.
- iii. The PGSC shall be at liberty to cancel the order in full or in part the event of failure of any of the above declaration made by us.

Signature of the Bidder

Declaration – II

This is to certify that I/We have no close relative as an employee of Pushpa Gujral Science City (PGSC), Kapurthala (close relative means: Father, Mother, Brother, Sister, Son, Daughter and Spouse) nor any such close relatives are associated with us as proprietor / partner / share holder / director and like.

Signature of the Bidder

Declaration – III

This is to certify that our Firm has not been blacklisted by any Govt., Semi-Govt. Deptt. or any other organization.

Signature of the Bidder

PART A**Format for Financial Bid to be submitted online only**

Currency: INR

S. No.	Description	Specifications as per Annexure – D	Total Amount Including Taxes
1	Design & Construction of Room	Annexure – D1	
2	DLP LASER Phosphor Projectors	Annexure – D2	
3	Media Servers	Annexure – D3	
4	Projection Mapping Software	Annexure – D4	
5	Show Control Manager	Annexure – D5	
6	Software/Content development	Annexure – D6	
7	Weather Effects		
7.1	Cold Air Blower Qty 4	Annexure – D7	
7.2	Hot Air Blower Qty 4	Annexure – D7	
7.3	Heater Qty 4	Annexure – D7	
7.4	DMX based Smell Sprays Qty 2	Annexure – D7	
8	Interactive Floor Set up	Annexure – D8	
9	Multi-Channel surround System (5:1)	Annexure – D9	
10	Other Accessories	Annexure – D10	
11	Spares		
11.1	Projector without lens Qty 1	Annexure – D11	
11.2	Media Server Qty 1	Annexure – D11	
11.3	Video Graphic Card Qty 1	Annexure – D11	
13	Training	Annexure – D13	
	Total		

PART B AMC

Format for Financial Bid to be submitted **online only**

Currency: INR

S. No.	Description	Specifications as per Annexure – D	Total Amount Including Taxes
14	AMC for 5 years after one year of Warranty Period	As per clause II of Annexure D	
14.1	AMC for 1 st year		
14.2	AMC for 2 nd year		
14.3	AMC for 3 rd year		
14.4	AMC for 4 th year		
14.5	AMC for 5 th year		
	Total		

NOTE:

1. These AMC rates will not be considered for Financial Bid Evaluation
2. The decision regarding award of AMC and duration of AMC will be taken by PGSC after the completion of Defect Liability Period.

FORMAT FOR CONTRACT AGREEMENT

ARTICLES OF AGREEMENT made at (Place)..... this
 day of(Date)(Month & Year)..... between the
 PUSHPA GUJRAL SCIENCE CITY, a Society registered under the Societies Registration Act of Punjab,
 hereinafter referred to as PGSC which expression shall include its successors and assigns on the one part
 and

.....(Name of the successful e-
 tenderer).....

.....(complete address of the successful e-tenderer).....
 hereinafter referred to as the successful e-tenderer which expression shall include his/their respective
 heirs, executors, administrators and assigns on the other part.

WHEREAS the PGSC is desirous of getting the work of **Supply, Installation, Integration, Testing and Commissioning of “360 DEGREE MULTI-PROJECTOR BASED PROJECTION MAPPED SHOW” on “Healthy Ecosystems – Healthy Citizen: A virtual experience” (including construction of Indoor room with sound proofing) having uniformly blended seamless projection of especially developed software (content) on floor, ceiling & all four walls of the Immersive room with onsite Comprehensive warranty of one year including preventive maintenance.**

Notice Inviting E-tender (Including appendix), drawings, schedule of quantities and specifications describing the work and conditions of contract.

AND WHEREAS the said NIT (including appendix), specifications and the priced schedule of quantities and conditions of contract have been signed by or on behalf of the parties hereto. AND whereas the Successful e-tenderer has deposited in Bank Draft/Pay Order/ NEFT/RTGS

..... (Exact amount in
 words).....

NOW IT IS HEREBY AGREED AND DECLARED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS:

1. In consideration of the payments to be made to him as hereinafter provided the successful e-tenderer shall upon and subject to the conditions herein contained execute and complete the

work within months from the date of issue of letter of intent / Work Order / opening of LC (as defined in the NIT) and described in the said specifications and the said priced schedule of quantities along with the progress of the work.

2. The PGSC shall pay to the successful e-tenderer such sum as shall become payable hereunder at the time and in the manner specified in the said conditions.
3. Time is the essence of this agreement and the successful e-tenderer shall proceed with the work, throughout the stipulated period of this contract, strictly according to the Terms & Conditions of NIT. At any stage during execution, if any work lags behind the for reasons directly attributable to the successful e-tenderer, he shall pay or allow the PGSC to deduct the same from the Security Depositor from any money due to him liquidated damages as mentioned in NIT
4. This agreement comprises the work above and all subsidiary works connected therewith, even though such works may not be shown on the drawings, or described in the said specifications or the priced Schedule of Quantities.
5. The PGSC through the Engineer / Scientist In-charge reserves to itself the right of altering the specifications and of adding to or omitting any item of work or of having portions of the same carried out departmentally or otherwise and such alterations or variations shall not vitiate this agreement.
6. After successful completion of works in all respect, successful e-tenderer will hand over all the materials including equipment and machineries, brochures, drawings etc. to the end-user PGSC, Kapurthala in presence of PGSC representative and shall also render all services such as maintenance of the systems, provide warranty of the equipment, machineries etc. at the finalized rates, terms & conditions of the tender documents.
7. All disputes and differences of any kind whatever, arising out of or in connection with the contract on the carrying out of works (Whether during the progress of the work or after their completion and whether before or after the determination, abandonment or breach of the contract) shall be referred to arbitration as per Clause mentioned in NIT. In case of any legal dispute, other than the arbitration, the court of jurisdiction shall be at the place written in the first line of this agreement.
8. The provisions of the Arbitration & Reconciliation Act 1996 or any statutory modification or re-enactment thereof and of the rules made there under for the time being in force shall apply to arbitration proceedings under this clause.

In witness whereof the parties have set their respective hands the day and the year and the place hereinabove written.

Signed by for and on behalf of the PGSC

In the presence of

Seal

1.

2.

Signed by the said Successful e-tenderer

In the presence of

Seal

1.

2.

Performance Security (Bank Guarantee)

[Guarantor letterhead]

Beneficiary: [insert name and Address of Procuring Entity/

Date:[Insert date of issue]

Performance Guarantee No..... . [Insert guarantee reference number]

Guarantor: [Insert name and address of place of issue, unless indicated in the letterhead]

We have been informed that-----[**insert name of Supplier which in the case of a joint venture shall be the name of the joint venture**] (hereinafter called "the Applicant") has entered into Contract No.[**insert reference number of the contract**] dated..... [**insert date**] with the Beneficiary, for supply of..... [**insert name of contract and brief description of Goods/Services/works/**] (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of Rupees.....[**insert amount in figures**]..... [**insert amount in words**], such sum being payable upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for the demand or the sum specified therein.

This guarantee shall expire, no later than the..... and any demand for payment under it must be received by us at PGSC indicated above on or before.

[signature(s)]