E-TENDER
FOR
SCRIPT WRITING, STORYBOARD &
DEVELOPMENT
OF
BILINGUAL (HINDI & ENGLISH)
MULTIMEDIA
FOR
DIGITAL INDIA: POWER TO EMPOWER GALLERY
&
COAL GALLERY
AT
NATIONAL SCIENCE CENTRE, DELHI

NATIONAL SCIENCE CENTRE
(A Unit of NATIONAL COUNCIL OF SCIENCE MUSEUMS)
NEAR GATE NO. 4, PRAGATI MAIDAN
BHAIRON ROAD, NEW DELHI – 110 00

NATIONAL SCIENCE CENTRE
(A Unit of National Council of Science Museums)
Near Gate No. 4, Pragati Maidan,
Bhairon Road, New Delhi – 110001

TENDER No. NSCD/18011/E-Tender - 25 /2023-24
NOTICE INVITING E-TENDER

On-line digitally signed E-Tenders under **QCBS (Quality and Cost Based Selection)** method are invited into two Bid System from the competent and eligible agencies who satisfy the eligibility criteria enumerated in the Tender Documents for SCRIPT WRITING, STORYBOARD & DEVELOPMENT OF BILINGUAL (HINDI & ENGLISH) MULTIMEDIA FOR DIGITAL INDIA: POWER TO EMPOWER GALLERY & COAL GALLERY AT NATIONAL SCIENCE CENTRE, DELHI as per the Centre's Scope of Work. Agencies having proven experience and capability of executing the order at a time may download the Tender Papers from Central Public Procurement Portal (CPPP): http://eprocure.gov.in/eprocure/app or from Centre's website or www.nscd.gov.in as per the following schedule:-

Bid Document Published Date	25th August, 2023 (18:30)
Bid Document Download Start Date	25th August, 2023 (18:30)
Bid Clarification Start Date	25th August, 2023 (18:30)
Bid Submission Start Date	25th August, 2023 (18:30)
Pre Bid Meeting**	28th August, 2023 (11:00)
Bid Clarification End Date	08th September, 2023 (14:00)
Bid Submission End Date	14th September, 2023 (14:00)
Technical Bid Opening Date	15th September, 2023 (15:00)
Technical Presentation (of those selected)	To be communicated later
Estimated Cost of Work	₹24 Lakh (Tax Included)
Earnest Money Deposit	₹60,000/- (Maximum)
Period of Completion of Work	30 days

Note – Pre-Bid Meeting will be held in the meeting room of National Science Centre, Delhi. The clarifications given during the meeting will be conveyed to parties through email. Technical Bid Presentation shall be held at the Conference hall.**
Both the pre-bid meeting and the Presentation may be given either in person or through video conference.

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. Off-line tenders shall not be accepted and no request in this regard will be entertained whatsoever. **Online Technical Bid will be opened at the first instance in National Science Centre, Delhi at 3:00 P.M. on 15th September, 2023 for technical evaluation as well as selection of technically acceptable offers.** In the second stage, the Financial Bids of only the selected and techno-commercially acceptable offers / system / equipment will be opened. Decision of the Centre, regarding selection of eligible and qualified vendors / firms for opening the Financial Bid shall be final and binding on the bidders.

NSC Delhi reserves the right to accept or reject any or all tenders in full or part without assigning any reason whatsoever. NSCD is not bound to accept merely the lowest tender but the technical suitability, capability and superiority of the job.

ELIGIBILITY CRITERIA FOR APPLYING

1. Agencies / film making companies / production houses that are fulfilling the following conditions will be eligible for submission of E-Tender:

- The registered company/firm should have minimum 03 year experience preceding the proposal due date, in the making of multimedia presentation. Experience in making multimedia presentations in the field of/related to Indian Science & Technology programs, corporate film and multimedia making, animated film making, motion graphics film making, receiving Awards/appreciation for their work on multimedia development will attract additional points in the selection process.

- The registered company/firm should have a well-trained production team.

- Firms / Companies should have an average annual financial turnover of Rs.50.00 lakhs during the last 3 financial years.

EVALUATION METHODOLOGY

Evaluation Methodology will have two stages:
Stage 1 – General cum Technical Bid Evaluation
Stage 2 – Financial Bid Evaluation

GENERAL CUM TECHNICAL BID EVALUATION

The evaluation will involve validating the credentials submitted in the format as prescribed in Annexure 'E'. Credentials without valid proof will be invalid and will not be considered for eligibility. NSCD reserves the right to accept or reject proof of credentials at its sole discretion without having to give reasons to the Bidders thereof. The following weightage criteria will be adopted during technical evaluation:

Sl. No.	Evaluation Criteria/Parameter	Max. Score	Bidder's Score
1	Experience - Past work experience (at least 2 Multimedia)	10	
2	Awards, Appreciation etc.	10	
3	Treatment to the story to sample multimedia(Nine pillars of Digital India)	10	
4	Presentation of storyboard of sample multimedia	10	
5	Sample Multimedia on 9 pillars of Digital India	30	

EVALUATION OF FINANCIAL BID
a)   The financial bid will be opened for only those bidders who will score a minimum of 70% in the technical bid evaluation.
b)   The bidder with the individual lowest financial bid (L1) will be awarded a 100% score.

c)   Financial Scores for other than L1 bidders will be evaluated using the following formula: Financial Score of a Bidder = {(Financial Bid of L1/Financial Bid of the Bidder) X 100} % (Adjusted to two decimal places)

d)   Only fixed price financial bids indicating total price for all the work/services specified in this bid document will be considered.

e)   Details of the taxes and duties leviable on the basic cost to be indicated clearly in the financial bid.

Combined Evaluation of Technical & Financial Bids

a) The technical and financial scores secured by each bidder will be added using a weightage of 70% and 30% respectively to compute a Composite Bid Score.

b) The bidder securing the highest Composite Bid Score will be declared as the Best Value Bidder for award of the Project.

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

C H E C K L I S T

Check list of Tender **No. NSCD/18011/E-Tender-25/2023–24** for **SCRIPT WRITING, STORYBOARD & DEVELOPMENT OF BILINGUAL (HINDI & ENGLISH) MULTIMEDIA FOR DIGITAL INDIA: POWER TO EMPOWER GALLERY & COAL GALLERY AT NATIONAL SCIENCE CENTRE, DELHI:**

Sl. No.	Description	Yes	No
1.	Whether E-Tender uploaded on Centre Public Procurement Portal of Govt. of India in Two parts (i.e. Technical & Commercial) separately. Please note that one set of original signed bids must be delivered at NSC Delhi before the time of opening the bid.		
2.	Whether Tender documents are carefully studied & understood.		
3.	Whether Tender documents duly signed and stamped on all pages is scanned and uploaded as Part – I of the Tender in Central Public Procurement Portal.		
4.	Whether Earnest Money of ₹60,000/- submitted by online / vide Demand Draft No. ……………. dated……………… and Scanned copy of DD uploaded as Part – I of the Tender. Please note that the original DD should be couriered /hand delivered to NSC Delhi / online payment details shall be sent to NSCD before the last date of submission of the tender document.		
5.	Whether Declaration regarding Non-relation, duly signed and stamped, and scanned copy of the same uploaded as **Declaration-I** of the Tender in central public procurement portal. **ANNEXURE C**		
6.	Whether Declaration certifying that there are no extra conditions quoted in the Offer Form duly signed and stamped, and scanned copy of the same uploaded as **Declaration–II** of the Tender in central public procurement portal. **ANNEXURE C**		

Date: Signature of the Tenderer

Place: Official Seal

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 CPPP website: https://eprocure.gov.in/eprocure/app 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. An agent of foreign OEM, for submitting the offer on behalf of the OEM, would be required to produce a copy of their legal bid agreement with their principal as an Indian agent failing which their bid would be disqualified.

6. Bid should be submitted along with the **Earnest Money calculated based on the table given in Annexure-G** by way of crossed Demand Draft / Pay Order on any of the commercial banks or payment online by NEFT / RTGS payable in favour of **"NATIONAL SCIENCE CENTRE"**, payable at Delhi. <u>Any mistake in calculation of the amount of Earnest Money will be the responsibility of the Bidder and the tender will be rejected if the amount is found to be less than the number of films for which the tender has been submitted.</u> Earnest Money deposit in the form of Bank Guarantee /Bond or any other instrument shall not be accepted and shall be rejected straightway. Earnest Money deposits in respect of such offers which are not accepted will be returned to the bidders within 30 working days from the date on which the final decision is taken about the source from which the items under tender are to be procured or within 2 (two) months from the date of the opening of the tenders, whichever is earlier. No interest will be paid on the Earnest Money deposited with the Council. Earnest Money deposit in respect of the successful bidders will be retained with the NSCD until entire execution of the order as per terms of the tender. If the successful bidder fails to execute the order strictly as per the NSCD's drawing & specification in full or part within the stipulated delivery period of the purchase order, the Earnest Money deposit retained with the NSCD shall be forfeited forthwith after cancellation of the concerned order.

7. No exemption will be allowed for submission of Security Deposit/Retention Money to NSIC/MSME certified firms. However, concession for submission of EMD shall be applicable to the Tenderers/Bidders registered with NSIC/MSME as per prevailing Govt. guidelines. The Tenderers/Bidders should upload documents of the firm for claiming such exemption. Tenderer/Bidder must upload signed **Annexure–C-1**, if the bidder is registered under NSIC/MSME.

8. **Validity of Bids**: **The Bids should remain valid for 90 days from the date of opening of Financial Bid.**

9. **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.

10. 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 online e-tender.

11. The Financial Bid (BOQ) shall be filled in and signed by the authorized signatory online as per proforma **"Annexure- G"** available at Central Public Procurement Portal e-tender system website http://eprocure.gov.in/eprocure/app. off line Financial Bid shall not be accepted.

12. **Tenders must be uploaded on-line in two separate sets - namely Part – 1 (Technical) and Part – 2 (Financial) on Central Public Procurement Portal. The contents of Cover shall be as follows: -**

Sl. No.	Description	Yes	No	Remarks
01	**Technical (Techno-Commercial) BID duly filled-in and signed with official stamp. (as per Annexure-E format)**			
02	**Sample touch based interactive multimedia on the topic "Nine pillars of Digital India" in portable media.**			
03	**General Terms & Conditions (as detailed in Annexure-B) duly signed with official stamp as a token of acceptance**			
04	**Copies of documents showing last 3 years' financial turnover of the firm.**			
05	**Scanned Copy of the current and valid Tax Clearance Certificate.**			
06	**The 'Declaration' duly signed with an official stamp (as detailed in Annexure-C).**			
07	**Scanned copy of Demand Draft / details of online payment for Earnest Money Deposit**			

Part– 2 (Financial)

    i. **The Financial Bid (as per Annexure-G) i.e. Schedule of Price Bid in the form of attached BOQ Performa shall be duly filled in, digitally signed and uploaded online by the bidder.**

N.B.: The bidders shall consider the prevailing tax rates while quoting the rates. However, in the event of any changes in the statutory taxes and duties, the rates applicable at the time of payment shall be made by the competent authority of the NSC, Delhi against submission of supporting documentary evidence.

12.   Order shall be placed in favour of **CONSOLIDATED** cost arrived in BOQ as **per Annexure-G.**

13.   The authorities of National Science Centre, Delhi who do not bind themselves to accept the lowest tender, reserves the right to reject or accept any or all tenders wholly or partially without assigning any reason whatsoever.

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Instructions for Online Bid Submission

1. The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

2. More information useful for submitting online bids on the CPP Portal may be obtained at https://eprocure.gov.in/eprocure/app

REGISTRATION

1. Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: https://eprocure.gov.in/eprocure/app) by clicking on the link "**Online Bidders Enrolment**" on the CPP Portal which is free of charge.

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 CPP 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 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. Bidders may then log-in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

SEARCHING FOR TENDER DOCUMENTS

1. There are various search options built in the CPP Portal to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is 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 CPP Portal.

2. Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective "My Tenders" folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.

3. The bidders 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.

PREPARATION OF BIDS

1. Bidders should take into account any corrigendum published on CPPP in connection with the tender document before submitting their bids.

2. **Please go through the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of sets in which the bid documents have to be submitted, the number of documents - including the names and content of each of the documents that need to be submitted. Any deviations from these may lead to rejection of the bid.**

3. Bidders, in advance, should get 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. PAN card copy, annual reports, 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 the bid submission process.

SUBMISSION OF BIDS

1. Bidders should log-in to the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidders will be responsible for any delay due to other issues.
2. The bidders have to digitally sign and upload the required bid documents one by one as indicated in the tender document.
3. Bidders have to select the payment option as "offline" to pay the requisite Earnest Money Deposit (EMD) and enter details of the instrument.

4. **Bidders should submit the EMD as per the instructions specified in the tender document. The original instrument should be posted/couriered/given in person to the Tender Processing Section at the above address, latest by the last date of bid submission. The detail of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.**

5. A standard Price Schedule format (BOQ) has been provided with the tender document to be filled by all the bidders. 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 BOQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BOQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidders). No other cells should be changed. **In case no rate value is required to be quoted in any particular cell, that cell may be kept blank, figure "0" (zero) shall not be entered in such cell(s). Once** the details have been completed, the bidders should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidders, the bid will be rejected

6. The server time (which is displayed on the bidders" dashboard) will be considered as the standard time for referring to the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.

7. 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 128-bit 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 opener's public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.

8. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.

9. Upon the successful and timely submission of bids (i.e. after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message and a bid summary will be displayed with the bid number and the date & time of submission of the bid with all other relevant details.

10. 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.

ASSISTANCE TO BIDDERS

1. Any enquiries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority or the relevant contact person indicated in the tender.

2. Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal helpdesk. The contact number for the helpdesk is 1800 233 7315.

3. Any queries relating to the Tender may be addressed to nscdelhi10@gmail.com, ashis.mondal07@gmail.com with proper credentials of the bidders before the bid clarification date thereafter no queries will be entertained.

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GENERAL TERMS AND CONDITIONS FOR SUBMISSION OF TENDER

For **SCRIPT WRITING, STORYBOARD & DEVELOPMENT OF BILINGUAL (HINDI & ENGLISH) MULTIMEDIA FOR DIGITAL INDIA: POWER TO EMPOWER GALLERY & COAL GALLERY AT NATIONAL SCIENCE CENTRE, DELHI** the tenderers are required to submit the tender in two parts i.e. Part-I and Part – II as per the details given in the point 11 of **General Information and Instructions**.

1. **PRICE:** The rates quoted/indicated shall include cost as per the details specified in **Annexure-D** "Technical specification and Scope of Work", in the tender document. **The rates of GST and other taxes/levies to be imposed on the quoted rates shall have to be clearly and separately mentioned.** Price and rate quoted shall be firm and fixed for the entire period of execution of the work and no escalation of rate on any ground whatsoever shall be allowed. The overall lowest bidder shall be awarded the tender.

2. The bidders shall consider the prevailing tax rates while quoting the rates. However, in the event of any changes in the statutory taxes and duties, the rates applicable at the time of payment shall be made by the competent authority of the NSC Delhi against submission of supporting documentary evidence.

3. The successful tenderer shall submit the following documents within 07 (Seven) days from the date of placement of Letter of Intent.
   a) Duplicate copy of Letter of Intent duly signed and stamped as a token of acceptance of the work order.
   b) Non-judicial stamp paper of appropriate value for preparing the Agreement governing the terms and conditions of the Contract.
   c) Security Deposit as detailed in Clause No. 06 of General Terms & Conditions.

4. **TIME OF COMPLETION:** Time is the essence of the tender. The entire work of final film supply shall be completed in a time bound manner. The entire work shall be completed within **30 (Thirty) days** from the date of placement of Letter of Intent. The tenderer may please note that all the films ordered shall have to be completed in the same time frame

5. For non-compliance of any of the above terms and non-delivery of the tendered item complete in all respects within the above stipulated period, the Centre shall either cancel the order or impose penalty as detailed in Clause 6 below. The Centre reserves the right to cancel the order and no payment will be made under such conditions. Decision of the Centre in this regard shall be final and binding on the successful tenderers.

6. **PENALTY CLAUSE:** The successful Tenderer shall strictly observe the time allowed for carrying out the job as detailed in Clause No. 3. The job shall, throughout the stipulated period of the order be proceeded with all the diligence (time being deemed to be the essence of the order) and the successful Tenderer shall pay to the Centre, an amount equal to 1% of the amount of the order value for every week that the delivery may remain incomplete as per delivery schedule as stipulated in Clause no. 3, subject to a maximum compensation of 10% of the order value and after that period appropriate action will be taken by the Centre, as it will deem fit.

7. The Centre may extend the time of delivery of the tendered job at its discretion on the application of the successful tenderer for such purpose provided that it considers the reasons for such extension as good, sufficient, acceptable and unavoidable.

8. **SCOPE OF WORK:** As per **Annexure "D"**

9. **PAYMENT TERMS:**
   i. No advance payment shall be made by the Centre under any circumstances. Payment shall be released after satisfactory completion of the entire job and within 60 (sixty) days from the date of receipt of Tax Invoice duly supported by received challan and satisfactory inspection/work completion certificate issued by the competent authority of the Centre.
   ii. Payment shall be released through NEFT/RTGS for which details of bank account shall be mentioned in their bill.

10. **COPYRIGHT:** The script provided to the bidders for quoting their rates and the finally developed Multimedia will be the sole property of National Council of Science Museums. The successful Tenderer under no circumstances will sell, lease, use, lend or donate the script and films, wholly or partly, to any other client. Also, the images, videos and other material to be used in the Multimedia should be copyright free.

11. In case, the successful Tenderer refuses to accept the offer after finalization or does not comply with the **Clause No. 3** as per the finalized and accepted terms and conditions, the order shall be cancelled forthwith without any further reference and the EMD will be forfeited.

12. Technically the lowest successful tenderer shall deposit 5% of the total amount of work awarded at National Science Centre as refundable security deposit in the form of DD after adjusting the EMD already deposited with this NIT, after getting the confirmed order and before the commencement of work. The security deposit shall be refunded to the successful tenderer 3 months after the completion of work.

13. Every effort should be made to complete the work by the successful Tenderer within the specified time schedule. In case the successful tenderer fails to comply with Clause No.4 i.e., the specified time schedule as per the finalized and accepted terms and conditions the Centre shall have the rights to either impose Penalty Clause or cancel the order forfeiting the EMD. The decision of the Centre in this regard shall be final and binding on the successful Tenderer.

14. Bad quality of work will not be accepted and if carried out is liable to be rejected and should be rectified by the successful Tenderer at his cost as per specifications and directions given by the authorized representatives of the Centre. The decision of the Centre, as to items of bad quality and proper rectification, will be final and binding on the successful Tenderers.

15. Any ambiguity in the specification / scope of work is detected; it shall be promptly brought to the notice of the Centre for clarifications. The successful tenderer without written approval/permission of the Centre shall make no deviation from the approved specifications.

16. The successful Tenderer shall submit necessary trade and other licenses as may be required to carry on the tendered job and shall also be responsible for compliance at his/her own cost of all rules and regulations, enforced from time to time by the appropriate authorities.

17.   The successful Tenderer shall not under any circumstances whatsoever transfer wholly or partly the contract/agreement/Purchase Order to any other person(s)/firm/company or assign the agreement or benefits of this agreement to any other party for any reason whatsoever. Otherwise the order/ agreement will automatically stand cancelled.

18.   The authorities of the Centre, reserve the right to amend, alter or modify the terms and conditions mentioned above, if necessary, from time to time and also cancel the tender without assigning any reason.

19.   Income Tax and Work Contract Tax shall be deducted at source, if applicable, from each bill/claim of the firm as per prevailing Government rules.

20.   Incomplete offers, i.e. offers received without prescribed "Offer Form" (BOQ), "General Terms of Conditions", Technical Specifications" duly signed on all pages with official seal may be rejected straightway without reference to the tenderer.

21.   Party must have a valid TIN/PAN/GST Registration number and attach a documentary proof with the Tender.

22.   The agency shall take care of all statutory obligations as are required under the Contract Labour Regulation Act, etc.

23.   The offer shall be valid for a minimum period of 3 months from the date of opening of the tender.

24.   The agencies participating in the tender and bidding, may obtain on specific request, details about the outcome of the tender and other related details, if any.

25.   All disputes and differences between the successful tenderer and the Centre of any kind, except quality of workmanship and materials, whatever arising out of or in connection with the order on carrying out of the work (whether during the progress of the work or after their completion and whether before or after the determination, abandonment or breach of the terms and conditions of the order) shall be referred to the sole arbitration of a person nominated by the Director General, National Council of Science Museums, whose decision in this regard will be final and binding on both the parties – the successful Tenderer and the Centre. The provisions of the Arbitration and Conciliation 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's proceedings under this Clause.

26. In the event of either party being rendered unable by Force Majeure to perform any obligation required to be performed by them under the contract, the relative obligation of the party affected by such Force Majeure shall be suspended for the period during which such cause lasts. The term "Force Majeure" as employed herein shall mean acts of God, War, Civil Riots, Fire directly affecting the performance of the MOU, Flood and Acts and Regulations of the government. Upon the occurrence of such cause and upon its termination, the party alleging that it has been rendered unable as aforesaid thereby, shall notify the other party in writing, the beginning of the cause amounting to Force Majeure as also the ending of the said cause by giving notice to the other party within 72 (seventy-two) hours of the alleged beginning and ending of the cause respectively. If performance under the MOU is suspended by Force Majeure conditions lasting for more than 2 (two) months, either party shall have the option of canceling the MOU, in whole or its part, at its discretion without any liability on its part. Time for performance of the relative obligation suspended by Force Majeure shall stand extended by the period for which such cause lasts.

27. Make in India (MII)
The tender abided by GOI order dated 15th June 2017 to give purchase preference to Make In India (MII) product mentioned in order. Document link as follows:

https://www.meity.gov.in/writereaddata/files/PPP_MII_Order_dated_16_09_2020.pdf

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TENDER No. : NSCD/18011/e-Tender- 25 /2023-24

DECLARATION-I

This is to certify that I/We have no close relative as an employee of the National Council of Science Museums (close relatives means: Father, Mother, Brother, Sister, Son, Daughter and Spouse) nor any such close relatives are associated with us as proprietor/partner/shareholder/ director and like.

Signature of the tenderer

Address:

Official seal with date

DECLARATION-II

We, do hereby accept the General Terms and Conditions as provided by the National Science Centre, Delhi along with tender documents for **SCRIPT WRITING, STORYBOARD & DEVELOPMENT OF BILINGUAL (HINDI & ENGLISH) MULTIMEDIA FOR DIGITAL INDIA: POWER TO EMPOWER GALLERY & COAL GALLERY AT NATIONAL SCIENCE CENTRE, DELHI** and also undertake to execute the job strictly as per the specifications of NSC, Delhi as provided along with the tender documents. National Science Centre, Delhi shall be at liberty to cancel the order in full or in part and forfeit the Earnest Money Deposit or Security Deposit retained with them in the event of failure of any of the declaration made by us.

Signature of the tenderer / Constituted Attorney

(With date and Official Seal)

Bid Security (Earnest Money Deposit) Declaration in respect of MSMEs

(Format for Certificate /Declaration to be typed on the letter head of the bidder with rubber seal and to be submitted in Part –I

(TECHNICAL ENVELOPE) of the e-tender document)

We hereby declare that we .... (name of the bidder) are registered under Micro and Small & Medium Enterprises (MSME) and eligible for exemption for submitting Bid Security (EMD) for participating in the e-tender for SCRIPT WRITING, STORYBOARD & DEVELOPMENT OF BILINGUAL (HINDI & ENGLISH) MULTIMEDIA FOR DIGITAL INDIA: POWER TO EMPOWER GALLERY & COAL GALLERY AT NATIONAL SCIENCE CENTRE, DELHI

We further declare and accept that if we withdraw or modify our bid during the period of validity, or if we are awarded the contract and we fail to sign the contract, or to submit a Performance Security (Security Deposit) before the deadline defined in the e-NIT, we will be suspended for the period of time specified in the e-NIT from being eligible to submit bids for contract in Museum/Centre.

(Signature of the tenderer)

with seal/rubber stamp

Date:

Scope of Work:

Concept, Design and Development of 'Interactive Multimedia Presentation' interfaces for the Gallery on 'Digital India: Power to empower gallery & Coal Gallery' at National science centre Delhi as per the following details:

All the multimedia presentations will be developed using Unity/ Python/ Visual studio (C#), Adobe AIR, Adobe animate additional technology like HTML5, JQuery, Video editing tools, Sound editing and mastering tools may be required for developing the digital artifacts. This software takes inputs from the touch screen and delivers pre-stored information to the user. Animation, Graphics, Text and Audio will elaborate the relevant data to the user, and the development of all the elements will come under the developer's scope.

These multimedia presentations (as per Table A) will be played on Windows operated computers with a touch screen / display with specially integrated hardware with electronic interfacing having a minimum of 8GB RAM and a storage space of 1GB allotted for the multimedia. National science center Delhi will provide the hardware. The developer has to provide the executable software.

All artworks and graphics used in the software are included within the scope of work. Necessary music and other Foley audio will be used.

The bidder (agencies/individuals/consortium etc.) must quote for development of Multimedia and production charges including all charges for the following: The work/ cost includes -

Language of the Multimedia/ Video presentation	Bi-lingual (English and Hindi)	
Script & StoryBoard for the Multimedia	*Script of all Multimedia will be provided the bidder and bidder/agency needs to prepare a storyboard by their own*	*Approval to be taken in all the step*
Voice-Over	*Needs to be used where it is necessary (to be specified by NSCD)*	*Approval to be taken*
Script for Voice-Over	*To be prepared by the bidder/agency*	*Approval to be taken in all the step*
Hindi Translation	*To be done by the bidder/agency*	*Approval must be taken before finalization*

Technical Specification of the multimedia:

Development Platforms and Compilation Software (s)	*The project is supposed to be developed in Unity, Python and Visual studio, Adobe AIR, adobe Animate etc. using animation, image, video and audio, which serve all functionalities. If necessary, any other suitable technique may be used for better* *results.*
Programming Languages to be used	*Action Script 3, Python, C# (if necessary, we can/will customize as per our requirement)*
Final compilation	**.exe or any other extension as applicable (with all resources, if possible, text and graphics/video etc. may be loaded through an external *.xml)*
Source file	*To be supplied to the NSCD (order will not be accepted without source file and source codes)*
Delivery Date	*30 days from placement of firm order (may be altered depending upon the job requirement)*
Delivery	*All the finished products to be delivered to National Science center Delhi, Kolkata Office (in a Pen-drive or HDD etc.)*

*N.B - **The bidder needs to submit his own design and plan for the said work.**

Brief story-line (see **Annexure – D1**) for all these Multimedia or mixed media is attached herewith for a better understanding of the work. This will be evaluated by the expert committee. This will be decided by the competent authority of NSCD.

Brief details of the Work (Multimedia interfaces to be developed for Digital India: Power to Empower Gallery:

Interactive Multimedia for touch screen kiosk and other modes of presentations (such as Dual Screen Multimedia Presentation, etc.) are to be designed on the following subjects and title

	Title of the Multimedia	Brief description	Remarks (if any)
1	Nine pillars of digital India	*This touch based interactive multimedia will present information about 9 pillars of Digital India. Digital India aims to provide the much needed thrust to the nine pillars of growth areas, namely Broadband Highways, Universal Access to Mobile Connectivity, Public Internet Access Programme, e-Governance: Reforming Government through Technology, e-Kranti - Electronic Delivery of Services, Information for All, Electronics Manufacturing, IT for Jobs and Early Harvest Programmes*	*This multimedia will contain 50% animation, 30% Video and 20% image content (approximately) and text content to be in English and Hindi* ***Reference story is attached in Annexure D-1***
2	CDot RAX A day	*This touch based interactive multimedia will present information about Rural Automatic exchange (RAX) developed by CDOT and its working. Through this multimedia platform visitor can able to dial a number through RAX*	*This multimedia will contain 30% animation, 30% Video and 30% image content (approximately) and text content to be in English and HIndi* ***Software: Unity only*** ***Reference story is attached in Annexure D-1***
3	Mobile Network	*This is a touch based interactive animation based multimedia where it will show how Mobile network works. How a mobile connected to a tower thereby calling & internet facility is accessible.*	*This multimedia will contain 100% animation* *And text content to be in English and Hindi* ***Reference story is attached in Annexure D-1***
4	Tailor made medicine & mRNA Vaccine	*This touch based interactive multimedia will present information about how digital technology is helping developing various vaccines & medicine by analyzing genome, analyzing past data. How this digitally developed vaccine helps to curb out covid-19. What is the future scope etc.*	*This multimedia will contain 50% animation, 30% Video and 20% image content (approximately) and text content to be in English and Hindi* ***Reference story is attached in Annexure D-1***

5	Digital technology in medical field	*This touch based interactive multimedia will present information about Digital health, or digital healthcare, is a broad, multidisciplinary concept that includes concepts from an intersection between technology and healthcare. Digital health applies digital transformation to the healthcare field, incorporating software, hardware and services. Under its umbrella, digital health includes mobile health (mHealth) apps; electronic health records (EHRs), electronic medical records (EMRs), wearable devices, tele surgery, telehealth and telemedicine, as well as personalized medicine.*	*This multimedia will contain 50% animation, 30% Video and 20% image content (approximately) and text content to be in English and Hindi* ***Reference story is attached in Annexure D-1***
6	Digital technology in Finance	*This touch based interactive multimedia will present information about the digital revolution in the finance sector such as GST, Direct tax filing, banking system, payment system, primary & secondary market, Demat, bond market.*	*This multimedia will contain 50% animation, 30% Video and 20% image content (approximately) and text content to be in English and Hindi* ***Reference story is attached in Annexure D-1***

Brief details of the Work (Multimedia interfaces to be developed) for Coal Gallery:

Interactive Multimedia for touch screen kiosk and other modes of presentations (such as Dual Screen Multimedia Presentation, etc.) are to be designed on the following subjects and title

Sl.No.	Title of the Multimedia	Brief description	Remarks (if any)
1	**Birth of India (dual display based interactive multimedia)**	*550 million years ago, when the supercontinent Gondwanaland was formed, India was part of this supercontinent - as were Africa, Australia, Antarctica and South America. 270m years later Gondwanaland collided with the Euramerican continent to form an even bigger supercontinent called Pangea.* *Gondwanaland later disintegrated, which meant India broke off and began to move northwards-crossing 9000 kilometers in 70 million years - all the way from the South Pole to its position in the north today.*	*This multimedia will contain 50% animation, 30% Video and 20% image content (approximately). This multimedia is displayed on a dual display consisting of a 32 inch touch screen and projection. Text content to be in English and Hindi.*
2	**Gondwana Supergroup**	*Gondwana Supergroup comprises of a thick sequence of fluviatile and lacustrine sediments* *Studied extensively by H. B. Medlicot.* *Derived from the Gond Kingdom of the Narmada river, Madhya Pradesh, where the supergroup was first studied by him.* *Similar rocks are present in South America, South Africa, Australia, Antarctica and Madagascar.* *The Lower Gondwana Group is characterized by the presence of Glossopteris flora while Upper Gondwana is characterized by Dicroidium-Ptilophyllum flora.*	*This multimedia will contain 30% animation, 30% Video and 30% image content (approximately) and text content to be in English and Hindi.*

| 3 | **Indian Coal Basins (Multi touch based interactive multimedia)** | *India has several coal basins that are important sources of coal for the country's energy needs. These basins are geologically distinct regions where coal has accumulated over millions of years. Here are some brief descriptions of the major coal basins in India:*

Gondwana Coalfields: These are the most significant coal-bearing regions in India, located in eastern and central parts of the country. The Gondwana coalfields include the Damodar Valley, Jharia, and Raniganj fields. They are known for producing high-quality bituminous coal and are critical for industries and power generation in the region.

Tertiary Coalfields: Found in the northeastern states of Assam, Meghalaya, and Arunachal Pradesh, these coalfields are part of the tertiary geological age. The coal quality varies from sub-bituminous to bituminous. Environmental and social concerns surround coal mining in this region.

Godavari Valley Coalfield: Located in the southern state of Andhra Pradesh, this coalfield contains sub-bituminous coal and lignite. It contributes to both thermal power generation and industries in the state.

Son Valley Coalfield: Situated in the central state of Madhya Pradesh, this coalfield has bituminous coal deposits. The Singrauli and Sohagpur coalfields within this basin are vital for electricity generation and industrial use.

Mahanadi Coalfields: Located in the state of Odisha, this basin produces bituminous coal and is a major supplier to power plants in eastern and southern India.

North Karanpura Coalfield: This basin, located in the state of Jharkhand, is known for bituminous coal deposits. It's significant for industries and power generation in the region.

Sathyamangalam–Gudalur Basin: Found in Tamil Nadu and Kerala, this basin contains sub-bituminous and bituminous coal. Mining activities are limited due to environmental and ecological concerns.

These coal basins play a crucial role in India's energy sector by providing coal for power generation, industries, and domestic consumption. However, coal mining and its environmental impact | *This is a multi-touch interactive multimedia. The multimedia will contain graphics and videos. Text content to be in English and Hindi.* |

4	**Coal Chemistry : Coal Versus Diamond**	*Coal and diamond are both carbon-based substances, but they have significant differences in their composition, structure, and properties.*	*This multimedia will contain 30% animation, 30% Video and graphics content. Text content to be in English and Hindi*
		Composition: Both coal and diamond are composed mainly of carbon, but their arrangements of carbon atoms differ. Coal is made up of amorphous carbon, meaning its atoms are randomly arranged. On the other hand, diamond is composed of a tightly packed crystalline lattice structure of carbon atoms.	
		Structure: Coal has an irregular and non-crystalline structure, which makes it relatively soft and brittle. In contrast, diamond has a highly ordered crystal lattice structure, making it the hardest known natural substance.	
		Formation: Coal forms from the remains of plants and organic matter that undergo decomposition and pressure over millions of years. Diamond, however, is created under immense pressure and high temperatures deep within the Earth's mantle, usually from carbon subjected to extreme conditions over billions of years.	
		Properties: Due to its amorphous structure, coal is a poor conductor of heat and electricity. It burns and reacts with oxygen when exposed to air, making it a source of energy. Diamond, being a perfectly arranged crystal, is an excellent thermal conductor and does not conduct electricity. It is renowned for its brilliance, durability, and exceptional optical properties, making it a prized gemstone.	
		In summary, while both coal and diamond are composed of carbon, their distinct structures and formations result in vastly different properties and uses. Coal is primarily used as a source of energy, while diamonds are valuable gemstones and also have industrial applications due to their hardness.	

5	**Coal Reserves in India**	*Because of exploration carried out up to the maximum depth of 1200m by the GSI, CMPDI, SCCL and MECL etc, a cumulative total of 352 Billion tonnes of Geological Resources of Coal have so far been estimated in the country as on 1.4.2021. Jharkhand topped the list with 86.2 Billion tonnes. This reserve will play a major role in ensuring a safe and secure energy future For India in decades to come.*	*This multimedia will contain animated charts, 30% Video and 20% image content. Text content to be in English and Hindi.*
6	**Alternate usage of coal**	*In India about 80% coal is used in thermal power plants.Coal gasification is considered a cleaner option as compared to burning of coal and has diversified use of coal in other forms of energy.* *Syngas can be used to produce Gaseous Fuels such as Hydrogen, Substitute Natural Gas (SNG or Methane), Di-Methyl Ether (DME), Liquid Fuels* *Coal Bed Methane (CBM) is an excellent and clean source of Gaseous fuel that is extracted from the Coal seams and is being used commercially for growing energy needs of the Nation.*	*This multimedia will contain 50% animation, 30% Video and 20% image content. Text content to be in English and Hindi.*
7	**Exploration**	*Traditional method of Coal exploration involved only Drilling of Boreholes for resource estimation.* *In an alternative approach, Drilling is being supported by 2D/3D Seismic surveys, Geophysical Logging, Resistivity surveys etc., to save on the time and money involved in exploration activity.*	*This multimedia will contain 50% animation, 30% Video and 20% image content. Text content to be in English and Hindi.*

8	**Emission Standards**	*This will give information about coal mine environment standards in India. The Ministry of Environment, Forest and Climate Change (MoEFCC) targeted significant reduction of particulate matter (PM), sulphur oxide (SOx) and nitrogen oxides (NOx) emissions from coal fired power plants by 2022.*	*This multimedia will contain 50% animation, 30% Video and 20% image content. Text content to be in English and Hindi.*
9	**Clean Coal Technologies**	*Raw coal contains elements such as carbon, sulphur, nitrogen, and other elements. Due to the coal combustion process, coal-fired power plants are one of the main sources of sulphur dioxides (SO2), nitrogen oxides (NOx), and dust (also known as particulate matter, PM) emissions, which have serious impacts on the environment and human health. In order to limit the emissions of SO2, NOx, and PM, emission control technologies have been developed and deployed in the coal-fired power generation industry. These techniques include low-NOx burners (LNBs) and selective catalytic reduction (SCR) for NOx control, electrostatic precipitator (ESP), or fabric filter (FF) for PM control, and flue gas desulfurization (FGD) for SO2 control.*	*This multimedia will contain 50% animation, 30% Video and 20% image content. Text content to be in English and Hindi.*

| 10 | **Disaster Management: Coal Safety Tools** | *Safe coal mining is of paramount importance to ensure the well-being of miners and the sustainability of the coal mining industry. Various tools and technologies have been developed and employed to enhance the safety of coal mining operations. These tools aim to mitigate risks associated with underground and surface mining, prevent accidents, and protect miners from hazards such as roof collapses, gas leaks, and fires. Here are some key tools and technologies used for safe coal mining:*

Gas Detectors and Monitors: Gas detectors are essential tools for detecting the presence of dangerous gases, such as methane and carbon monoxide, which can accumulate in coal mines. These detectors provide real-time readings and alarms, enabling miners to evacuate or take appropriate measures to prevent explosions or suffocation due to gas leaks.

Roof Bolters and Roof Supports: Roof bolters are used to secure the roof of underground mine tunnels by installing bolts to prevent roof collapses or "roof falls." Roof supports, such as roof jacks and roof mesh, are also utilized to reinforce the stability of mine roofs and prevent accidents.

Personal Protective Equipment (PPE): Miners are equipped with PPE, including helmets, respirators, gloves, goggles, and reflective clothing, to protect them from falling debris, airborne particles, gases, and other potential hazards.

Remote-ControlledMachinery: Remote-controlled equipment and machinery allow miners to operate machines from a safe distance, reducing their exposure to dangerous areas. This is especially valuable in situations where there's a risk of roof falls or gas leaks.

Ventilation Systems: Proper ventilation is crucial to maintaining a safe environment in underground coal mines. Ventilation systems circulate fresh air and remove harmful gases, dust, and heat generated during mining activities.

Seismic Monitoring: Seismic monitoring systems detect ground movements and vibrations, which can indicate potential rock falls or other instabilities. This technology helps in predicting and preventing | *This multimedia will contain 50% animation, 30% Video and 20% image content. Text content to be in English and Hindi.* |

collapses.

Fire Suppression Systems: Coal mines can be susceptible to fires due to the presence of flammable materials like coal dust. Fire suppression systems, including water sprinklers and foam systems, are installed to quickly extinguish fires and prevent their spread.

Emergency Communication Systems: Reliable communication systems are critical for coordinating evacuation procedures and responding to emergencies. These systems include two-way radios, mobile phones, and underground communication infrastructure.

Mine Mapping and Digital Models: Advanced mine mapping and digital modeling technologies create accurate 3D representations of mine layouts. These models help miners plan their activities and avoid potentially hazardous areas.

Ground Control Monitoring: Ground control tools, such as inclinometers and extensometers, are used to monitor the stability of the mine walls and roofs. This information helps in identifying potential collapses and taking preventive measures.

Training Simulators: Mining simulators provide virtual training environments for miners to practice operating machinery and responding to emergency scenarios, enhancing their preparedness for real-life situations.

Drones: Drones equipped with cameras and sensors can be used to assess the condition of mine roofs, walls, and other inaccessible areas. They provide valuable data without risking human safety.

These tools and technologies collectively contribute to creating a safer environment for coal miners and improving the overall safety record of coal mining operations. Ongoing research and innovation continue to drive the development of new tools aimed at enhancing safety in the coal mining industry.

11.	**BRIEF DESCRIPTION AND SCOPE OF WORK OF THE EXHIBIT** **"DRAGLINE EXCAVATOR SIMULATION", COAL GALLERY**	*This interactive exhibit has been proposed for visitors to experience working mechanism of Dragline Excavator machine used during coal mining. The proposed exhibit consists of dashboard hardware with controls and software interface. We will provide the desktop and 55-inch display.* *There will a room with seating facility for a visitor. Inside the room, visitor will get the feel of seating on the driver seat of the dragline excavator machine. The dashboard (provided by the agency), consist of machine controls synched with the 3D model of the machine shown in the 55 inch monitor (provided by us) installed in front of the seat. The moving gears, push button etc. programmed to demonstrate the working movement of the machine.*	*The agency will arrange to provide following to National Science Centre, Delhi* *Providing binaries and project files for the code written to perform the tasks as mentioned above. All the licenses for the third party modules/SDKs used, if any, shall be purchased in the name of National Science Centre, Delhi. Such purchase agreement shall be based on one time purchase and not on subscription basis. If however there is no alternative but to go for subscription, such subscription shall be for a minimum of five years. The binary file for the project shall run in a local environment and no internet shall be used for any purpose whatsoever for running of the binaries.* *Providing the software and the dashboard of the dragline excavator machine must suitably designed. The design & size of the dashboard shall be finalized in consultation with the authorities of the National Science Centre, Delhi.* *The software must demonstrate full working of the Dragline Excavator machine used in Coal Mining.* *The 3D model developed for demonstrating the working mechanism of the dragline excavator must feel like actual dragline excavator with true textures and colors.* *The physical model of dashboard consist of controls must be of metallic finish and give actual feel of the machine.* *Integration of driver's chair with the dashboard and controller is under the scope of the agency. NSC, Delhi, will provide the driver's chair & 55-inch display.* *The integrated software will have five controls e.g. "UP", "Down", Rotate Left", "Rotate Right" and "Rotate 360 degree". Necessary placement of gears and buttons to control the simulation be installed the tested successfully with*

			software.
			The agency will enlist all hardware & software used for the project along with detailed technical specifications. The project will carry one-year warranty.
			The software will be the copyright of National Science Centre, Delhi and the successful vendor shall not be able to use the same for whatsoever reasons, without permission from National Science Centre, Delhi.

Brief Story-Line for Digital India power to Empower gallery.

S/N.	Title of the Multimedia	Storyline
1	Nine pillars of digital India	Digital India is an umbrella programme that covers multiple Government Ministries and Departments. It weaves together a large number of ideas and thoughts into a single, comprehensive vision so that each of them can be implemented as part of a larger goal. Digital India aims to provide the much needed thrust to the nine pillars of growth areas, namely Broadband Highways, Universal Access to Mobile Connectivity, Public Internet Access Programme, e-Governance: Reforming Government through Technology, e-Kranti - Electronic Delivery of Services, Information for All, Electronics Manufacturing, IT for Jobs and Early Harvest Programmes.
2	C DOT RAX A day	In order to successfully replace the delicate imported telephone switches, which were not suitable for Indian hot and humid conditions, Sam Pitroda started the C-DOT and successfully came up with RAX. The Villages of the world. The vast majority of which have fewer than 2000 inhabitants and are in remote areas. Where communication has forever been a major problem. The world, as we know it, has been progressing rapidly, leaving these villages and more importantly, the villagers bereft of substantial social and economic gains. Introducing the C-DOT 256P RAX. The world class, cost-effective communication solution for rural areas. Developed with the sole purpose of transforming the villages. Removing natural barriers to progress through its versatility in any environment- subzero mountain ranges, tropical forests, vast deserts and coastal regions.

3	Mobile Network	Mobile phones work by sending and receiving low power radio signals, much like a 2 way radio system. The signals are sent to and received from antennas that are attached to radio transmitters and receivers, commonly referred to as mobile phone base stations. The base stations are linked to the rest of the mobile and fixed phone network and pass the signal/call on into those networks.
		As the number of mobile phone and broadband user's increases and the level of network traffic increases, then pressure is put on mobile network operators to continue to provide the level of service people have come to expect. The rate of change in mobile network technology is rapid and these advances have led to enormous growth in the uptake of mobile broadband. Users accessing the internet via mobile internet and broadband devices place considerable additional demand on mobile networks.
		In the proposed interactive multimedia visitor can change the tower location, configuration and position of the user and experience how the user mobile is switched from one network to another. In that way visitor able to understand how entire system of latest mobile network works.

| 4 | Tailor made medicine & mRNA Vaccine | Smart manufacturing essentially involves the digitalisation of the manufacturing enterprise, with enhanced connectivity and seamless data and information exchange through closely inter-connected devices and systems.5 The smart manufacturing paradigm can essentially transform the enterprise by improving productivity and customer experience, as well as revolutionizing values chains.6 Digital technologies such as Internet of Things (IoT), autonomous robots, augmented reality, cloud computing, etc, lead the current era of digitalisation and facilitate ubiquitous data and information exchange between machines, humans and even enterprises.

In the context of vaccines, smart manufacturing refers to the adoption of smart devices (such as sensors, radio frequency identification [RFID] devices, etc) to generate, process, store and exchange data, and services (including digital tools and applications) to connect these devices during each step of the vaccine manufacturing process. Data collected during each stage, such as temperature, composition, etc, of the vaccine products by the smart devices can be monitored and analyzed using cloud-based applications. This can drive informed decisions and strategies to enhance the safety, quality and efficiency of the manufacturing process.

Moreover, digital automation tools will be deployed at large scale to complement the efforts to make the vaccine manufacturing process smart. Owing to the safety concerns presented by human-induced contamination and mishandling with vaccine production, interest in adopting autonomous and intelligent devices has grown tremendously in recent times and can be expected to dominate the industry in the future. The recent advancements in augmented reality (AR) technology have created new opportunities for digitally interacting with devices, products and humans using gestures, thereby limiting the need for physical interactions. For example, AR devices can be used to develop touchless applications whereby the human operator can interact with a vaccine product using gestures to obtain its properties.

Finally, blockchain and similar digital record-keeping technologies will be adopted to boost the visibility and transparency of the vaccine manufacturing process and supply chain, control counterfeits, and enhance trust among people. This lays the foundation for the development of future smart factories aimed at vaccine manufacturing, as illustrated in

The biopharma sector has witnessed significant transformations in recent times. The main driver for this change has been novel platform-based vaccine technologies and smart vaccine manufacturing techniques. The benefit of vaccines based on platform technologies is that they can be easily designed and developed. By embracing digital tools and transformative technologies, the biopharma industries will be well positioned to address the global need for safe and effective vaccines.

Moving forward, biopharma companies are exploring the possible extension of the platform-based vaccine technology to tackle diseases beyond COVID-19, such as influenza, cancer and AIDS (Acquired Immune Deficiency Syndrome), among others. If this becomes a reality, then it will be possible for us to develop customisable and personalized vaccines to tackle these life-threatening diseases in the near future. |

5	Digital technology in medical field	Digital health innovations are designed to help save time, boost accuracy and efficiency, and combine technologies in ways that are new to healthcare. These innovations can meld medicine and the internet of things, mHealth and IoT, medicine and augmented reality (AR), and blockchain and EMRs.
		The internet of medical things (IoMT) refers to the combination of medical devices and applications connecting to health IT systems that use networking technologies. IoT use cases range from telemedicine technology to improve communication between patients and doctors, to decreasing the potential for exposure to contagious diseases and to various smart sensor technologies that can collect data at the user level. For example, demand for telehealth services rose as a result of COVID-19, with a greater number of providers relying on technology to deliver virtual services to patients.
		Innovative IoT applications in healthcare continue to emerge. Cleveland Clinic ranked smartphone-based pacemaker devices as a top innovation for 2021. Using a mobile app, smartphone-connected pacemaker devices can be designed to securely and wirelessly transmit data to a patient's network, giving patients better insight into the health data from the pacemakers and transmitting the health information to their physicians.
		Digital health technologies such as MHealth, including wearables, apps and mobile technology that provide access to health care support and monitoring, is experiencing growth, particularly for helping manage long-term, chronic conditions. The COVID-19 pandemic has led to a rise in demand for personal health monitoring via wearables, which straddle the line between consumer and medical devices. Vendors of wearable devices added features for heart rate variability, pulse oximeters, electrocardiography and continuous glucose monitoring.
		Another significant application is blockchain-based EMRs, which aim to reduce the time needed to access patient information while improving data quality and interoperability. Blockchain's benefits -- access security, data privacy and scalability -- are attractive in digital healthcare.
		Using AI in healthcare applications can augment human decision-making by automating and speeding up previously labor-intensive tasks. Many hospitals, for example, use AI-based patient monitoring tools to collect and treat the patient based on real-time reports. In medical imaging, the use of AI can reduce the number of clicks needed to perform a task and determine the next steps based on context. Another AI application, digital twins, can be used to model medical devices and patients and show how devices would work under actual conditions.
		AR, which integrates digital information with the user's environment in real time, is applicable in patient and doctor education, surgical visualization and disease simulation.
		Big data -- which draws information from all these health systems and applications -- poses both benefits and challenges. The amount of data is massive and continues to proliferate.

6	Digital technology in Finance	The Indian Financial services sector was dominated by traders, brokers, and middlemen who used to conduct transactions on paper. Today, the buzz of a trading floor has been replaced by a cool silence of computers that conduct trades. And the need to rush to banks for the smallest of transactions has been replaced by a few taps on our mobile devices. All of this has been possible due to the rapid digitization of the Indian finance industry.

IT companies such as Infosys are creating Core banking solutions such as Finacle which are being used by one of India's largest public sector banks, Bank of Baroda. Another public sector bank, State Bank of India underwent rapid digitalization by offering SBI YONO, which was developed by IBM. SBI YONO currently has 54 million Monthly active users. There has been a rapid shift in the way consumers view payments due to apps like YONO.

For instance, in India, the volume, as well as the value of UPI transactions, have doubled post covid.. In India MSMEs were the most impacted due to such transactions as 87.3 percent of the 41.4 lakh transactions conducted across the MSME ministry were done digitally.

Consumers have not only hugely benefited from the digitization of payments but by the revolutionization of investing. Around 10.7 million Demat accounts were opened by retail investors between April 2020 and January 2021. This has allowed the Indian stock markets to reach $3 Trillion in 2021, within 4 years which has been unprecedented. Another reason for this milestone is the digital transformation of trading institutions like the NSE. NSE NEAT (National Exchange for Automated Trading) has more than 181,000 terminals across India that allow traders to make high volumes of trade with minimal latency.

Furthermore, the stock market in India has also been impacted by the rise of fintech platforms like Sharekhan which allow retail investors to buy and sell stocks easily. The number of monthly active users in Sharekhan has almost tripled from 275,000 in FY 2014 to 764,000 in FY 2022. Similarly, financial institutions like Equirus have also been transformed by digital transformation by offering apps such as Equirus Wealth, which allows retail investors to invest in Mutual funds in a hassle-free manner. Along with that, trading is also computerized in Equirus Portfolio management services (PMS) which coupled with the steadfast leadership of experienced individuals has allowed the Equirus Long Horizon fund to achieve a return of 19.48 percent.

Digitalisation has a wide range of implications for taxation, impacting tax policy and tax administration at both the domestic in the form of **GST & Efilling** and international level, offering new tools and introducing new challenges. As a result, the tax policy implications of digitalisation have been at the centre of the recent global debate over whether or not the international tax rules continue to be 'fit for purpose' in an increasingly changing environment

Technical Presentation:

The bidders are required to give a presentation for technical evaluation on **shall be communicated later** at National Science Centre Delhi either in person or through video conference before the committee in which the bidders will present the following:

1. What treatment they propose to give to the storyline of each film.
2. Sample multimedia to be present on "Nine pillars of Digital India".
3. At least two recent multimedia of similar nature developed by the agency Work order and completion certificate of the two films that are shown to the committee.
4. There will be marking according to the QCBS method having the ratio of 70:30 for Technical and Financial selection.
5. The marks obtained during the technical presentation shall be added to the final score of the technical scrutiny of the tender.
6. Distribution of marks for technical presentation shall be calculated on the following basis:
   a. Past work experience (at least 2 Multimedia)   - 10 marks
   b. Awards, recognitions etc.   - 10 marks
   c. Treatment to storyline to sample multimedia   - 10 marks
   d. Presentation of storyboard of sample multimedia   - 10 marks
   e. Sample Multimedia on Nine pillars of Digital India   - 30 marks.

7. No TA/DA will be admissible to the proposer/ applicants. Proposer or their authorized representatives will attend the presentation at their own cost.

Financial bids of only those bidders shall be opened who will qualify the technical presentation. The decision of the committee, duly appointed by Director, NSCD will be final in this regard and will be binding on all respondents.

Copyright

NSC, Delhi shall hold proprietary rights on the use, marketing contents, and intellectuals etc. of the final edited films and all shooting materials

NATIONAL SCIENCE CENTRE
(A Unit of National Council of Science Museums)
Bhairon Road, Near Gate No. 4, Pragati Maidan,
New Delhi-110001

TENDER No.: NSCD/18011/E-Tender - 25 /2023-24

TECHNICAL (Techno-Commercial) BID

Notes: ALL PARTICULARS / INFORMATIONS (CHECKLIST) SHOULD BE GIVEN IN THE FOLLOWING FORMAT WITH COMPLETE DETAILS.

CHECKLIST

Sl.No.	Title	Submitted (Yes / No)
	Form -1 : Application Form	
2.	Form -2 : Proposer's Experience	
3.	Form -3 : Sample Script	
4.	Form -4: Sample copy of earlier work/s	

I/We hereby declare that the above statements are true. I/We also declare that the decision of the National Science Centre regarding selection of eligible firms for opening of Financial Bid (Part- II) shall be final and binding on me/us.

Date   Official Seal   Signature of the Tenderer/ Constituent
Attorney

Form -1

APPLICATION FORM

S.N.	Particulars	Details
1.	Name of Proposer	
2.	Name of the firm/company	
3.	Complete Address for communication (Address with pin code, telephone numbers, fax no and emails).	
4.	i. Phone /Mobile Number i. Email Id	
5.	Legal status of Organization Is it a registered firm/company? (If a partnership firm, state the name/s and address/es of your partners. If company, state the names and addresses of Directors, photocopies of the certificate of registration should be attached)	Yes/No
6.	i. PAN Number i. GST Registration No. i. Average Financial Turnover of the Firm/company during last 3 years	(i) (ii) (iii)
7.	Brief Description of the Proposer's Activities	
8.	Number of years' experience in Multimedia making. (Attached work orders of earlier works with other government departments/autonomous bodies /PSUS and other)	
9.	Number of films produced in Science & Technology/ Mobility/Automotive Sector	
10.	Has the Agency/ it's sister concern/any director ever been blacklisted/defaulter by any organization? If yes, please provide details thereof	
11.	State the Name of the Banker including IFSC Code and Account Number of the Tenderer for releasing digital mode of payment	
12.	Whether agreed to accept 30 days' credit Payment Terms as per clause 9 of General Terms & Conditions of the Tender. (Please mention 'Yes' or 'NO')	
13.	Minimum time required to complete the tendered item at NSC, Delhi	
14.	Whether agreed to complete the work as per scope of work (Annexure-G) positively by 40 days as per clause 3 of the General Terms & Conditions of the Tender (Please mention 'YES' or 'NO')	
15.	Enclosed EMD for Rs.60,000/-	Online Transfer .... DD No .... dated .... drawn on bank ....
16.	Any other relevant information	

Form -2

PROPOSER'S EXPERIENCE

1. Brief description of the proposer's activities related to Multimedia production (attach separately) in the last three years

S.No	Name of the Production	Year of Production	Format	Duration	Language	Organization for which produced	Copy of the work order / documentary proof placed at

2. Experience in the production of Multimedia on science & technology in the last three years

S.No	Name of the Production	Year of Production	Format	Duration	Language	Organization for which produced	Copy of the work order/documentary proof placed at

Awards, certificates and accolades received for video production/ programmes

S.No.	Programmes	Details

SIGNATURE OF THE PROPOSER WITH STAMP

TREATMENT, APPROACH AND SCRIPT

Instructions:

Enclose a detailed sample script for proposed sample multimedia which may include description of contents, visuals, music etc. Present the treatment and approach to be adopted for the film/s. Give a detailed description of how a typical Multimedia would look like.

SIGNATURE OF THE PROPOSER WITH STAMP

Form – 4

SAMPLE COPY IN PORTABLE MEDIA STORAGE OF EARLIER WORKS

Sample copy of earlier works developed by the applicant

I/ We enclose a sample works developed by our firm/ agency titled _____ for _____ in portable media (to be delivered physically or electronically)

1. Name of the Multimedia:
2. Year of production:
3. Brief description of the Multimedia (not more than 200 words)
4. Awards/ accolades won by such work, if any:
5. Any other information:

SIGNATURE OF THE PROPOSER WITH STAMP

BANK DETAILS OF NATIONAL SCIENCE CENTRE, DELHI

Name of the Account Holder	NATIONAL SCIENCE CENTRE, DELHI
Account No.	2417101004100
Bank Name	CANARA BANK
Bank Address	6, Bhagwan Das Road, New Delhi
IFSC Code	CNRB0002417
MICR Code	110015045
Type of Account	Saving Account
Branch Code	2417
GST No.	07AAAAN2541C1Z5