

UNITED NATIONS CHILDREN'S FUND in KAZAKHSTAN

TERMS OF REFERENCE

National or International Institutional consultancy to conduct market assessment for satellite-based solutions to connect remote rural primary and secondary schools to the broadband internet

1. Programme information:

Programme (Outcome WBS & Name):	Outcome 2: By 2025, children and adolescents, in particular the most vulnerable, are equipped with skills and knowledge to be healthy, resilient and ready for adult life.
Project (Output WBS & Name):	Output 2.2: By 2025, education for primary and secondary school age children and adolescents provide inclusive, quality, equitable access and supportive learner-centred approach.
Activity:	2.2.3. Develop connectivity business models to connect remote schools and areas in Kazakhstan (Giga) to have access to the internet, benefit from digital learning tools, on-line safety and other learning platforms that are in line with DPG standards
Funding source	SC229909

UNICEF is mandated by the United Nations General Assembly to advocate for the protection of children's rights, to help meet their basic needs and to expand their opportunities to reach their full potential. Guided by the Convention on the Rights of the Child, UNICEF strives to establish child's rights as international standards of behaviour towards children.

2. Background Information

UNICEF Kazakhstan is seeking for national or international consultancy services provided by institutions that possess extensive experience in conducting market assessments and feasibility case studies for satellite-based connectivity projects in medium and higher income countries.

Nearly 3.7 billion people remain unconnected from the internet, and by extension, unconnected to digital products and services that could dramatically improve their lives. Approximately 29% of 18-24 year-olds, most of them in Sub-Saharan Africa, do not have digital access (~360m people) and thereby lack access to the same information, opportunity and choice as their more-connected peers¹. Unless things change, a big part of this rapidly growing group of young people is in danger of being left behind, excluded from the modern digital world.

Kazakhstan is a pathfinder country for the global Giga initiative² in Central Asia. In 2019 UNICEF, ITU and the Ministry of Digital Development have launched "Giga" initiative to connect every school to the internet, and every young person to information, opportunity and choice. Giga is anchored in the findings 1A and 1B of the Secretary-General's High-level Panel on Digital Cooperation, which state, respectively, that by "2030 every adult should have affordable access to digital networks" and calls for "a broad, multi-stakeholder alliance, involving the UN, create a platform for sharing digital public goods." In 2021 a total of 7,400 schools were mapped for Project Connect to show their connectivity status. UNICEF conducted a feasibility study presenting the best technical and economically sustainable solutions for school connectivity in Kazakhstan. In support of the Giga acceleration, UNICEF Kazakhstan explores satellite-

¹ Data is taken from the International Telecommunication Union ("ITU"), a specialized agency of the United Nations responsible for information and communication technologies and a partner of UNICEF in school connectivity projects.

² <https://giga.global/>

based solutions, but also development or improvement of the existing technical solution for monitoring of internet speed in schools. In advanced eco-systems of other countries, satellite-based solutions cover 5-15% of rural and remote schools. One of the innovative solutions, country would like to test are any Non-Geostationary Orbit (NGSO) satellite-based solutions in schools. This would be a unique opportunity to improve the speed of connectivity in many unconnected remote schools in the country.

The market assessment shall contribute to the implementation of the Giga initiative in Kazakhstan. The study shall be conducted by the consultancy service institution.

3. Purpose of the assignment

To achieve its goal in Kazakhstan and connect all schools in the country, Giga requires to carry out an in-depth market assessment of the satellite-based connectivity solutions for schools that are available in Central Asia region with focus on Kazakhstan³, to provide the government with information to support strategic decision making for the most practical, superior technical, and economically viable solution. The market assessment is a technical, economic and financial review of available satellite-based connectivity service providers and solutions which provides stakeholders with the comprehensive information and analyses to decide upon the best technical and financial options amongst a list of appropriate scenarios and case studies which include different technical, economic, and financial assumptions.

The conclusions and recommendations contained in the market assessment should provide government policy-makers, businesses and investors with the knowledge readily available to make an informed decision about the viability of the satellite communication (SatCom) internet connectivity models, help create funding strategies, design policies, guidelines and decide on priorities for school connectivity improvement.

The outputs from the case studies should also demonstrate how satellite solutions enables economic and social development in the country (i.e. expand the reach and increase the use of satellite broadband ICTs to reap the developmental and economic benefits they facilitate) and assist key stakeholders in identifying and exploring various potential private and public sector partnership models.

4. Scope of work

The market assessment will consist of two main components: 1) a desk review of available case studies from countries implementing advanced satellite-based connectivity solutions for schools; and a 2) comprehensive overview of the satellite communication market in Kazakhstan and Central Asia, considering its historical development, present situation, and forecasting future trends in technology, supply and demand.

The market assessment report with the case studies should include the following components and research questions⁴:

1. Executive Summary:

- An overview of the study, including its objectives, and scope.
- The key findings and recommendations for decision-makers.
- Summary of the market assessment's feasibility.

³ The reference information may be also available for the final decision about the satellite service providers list.

⁴ The scope of work may be modified depending on the specific requirements from the Giga team and the Kazakhstan country. This will be fine-tuned during the negotiation of the Institutional Contract (against established LTAs) with the selected provider.

2. Introduction

- Background and significance of satellite-based broadband internet access for schools, considering the relevance of the technology to connect the hardest-to-reach schools and its economic sustainability.
- Explanation of the study's objectives.
- Scope and limitations of the assessment.

3. Methodology:

- Detailed description of the research protocol, such as primary research (surveys, interviews) and secondary research (industry reports, databases) on satellite-based broadband internet access for schools and case studies.
- Explanation of the sampling technique and data collection process.
- Discussion on any limitations or potential biases of the study.
- Analysis of the economic advantages, benefits and challenges of satellite-based internet for educational institutions in Kazakhstan based on examples from the case studies.

4. Market Assessment:

- An overview of the satellite communication market, including its historical development, present situation, and forecast on future trends in relation to the technologies used, the supply and demand side. This will also provide information on competitive landscape.
- Overview of the available satellite connectivity solutions in the Kazakhstan and Central Asian markets, with a special emphasis on the Low Earth Orbit (LEO)/ Medium Earth Orbit (MEO) solutions and the suitability of these solutions for country-specific coverage of schools. This analysis should consider the capital and operational expenses required to implement these solutions, recommend models for these technologies to be used financially sustainably in the country, and assess if these solutions are (or not) vendor locked.
- Summarize all domestic communication satellite service providers, including their coverage zones, business models for providing services, and services pricing.
- Conduct market research to evaluate the current and potential capacity (in Gbps) of GSO and NGSO satellites over the next few years in Kazakhstan, and compare it with the anticipated demand for such capacity. Break down capacity by communication satellite services provider.
- Global Mapping and Analysis of School connectivity via satellites solutions
- Provision of insights into the key market drivers, market failures, shortcomings, challenges, and opportunities to deliver affordable and quality connectivity for schools.
- Market assessment should consider the following dimensions that UNICEF typically uses to assess shortcomings: availability, affordability, competition, quality, adaptability, delivery, funding structure⁵:

4.1. Technological Analysis:

- Overview of satellite communication technologies.
- Review of different satellite constellations (Low Earth Orbit (LEO)/ Medium Earth Orbit (MEO) Geostationary Equatorial Orbit (GEO)) and their applications, as well as their status in the country and region.
- Advantages and limitations of each technology, with consideration to connecting schools with quality and affordable internet.
- Review of the availability and reliability of satellite infrastructure and equipment.
- Exploration of the compatibility of satellite systems with existing school networks and devices.

⁵ Source: Healthy Markets for Global Health: A Market Shaping Primer, USAID https://www.usaid.gov/sites/default/files/2022-05/healthymarkets_primer.pdf

4.2. Market Size and Forecast:

- Current market size estimation of the communication satellite industry globally, regionally in Central Asia and with a deep dive in Kazakhstan.
- Breakdown of market sizes by satellite type, application, and geography.
- Analysis of factors influencing market growth and potential future disruptions.
- Historical analysis of market growth and forecasting future trends for satellite solutions addressing school connectivity issues.

4.3. Competitive Landscape:

- Identification and profiling of the major communication satellite operators, and service providers in the Central Asia region with focus on Kazakhstan.
- Analyses of satellite market share, product portfolio, key partnerships, and competitive strategies to connect schools to the satellite-based internet.
- Assessment of the potential impact of providing connectivity through satellite-based solutions in remote and/or disadvantaged schools on learning outcomes.
- Assessment of the entry barriers, transparency and market information, competitive intensity, and market concentration.
- Recommendations on interventions that could be implemented to improve market access, competitiveness and competition in this sector.

4.4. Regulatory Environment:

- Review of the regulatory frameworks and policies governing the satellite industry at a global level for reference but with a deep understanding of the situation of Central Asia and Kazakhstan.
- Review of recent regulatory changes for satellite communication services and their impact on Kazakhstan and Central Asia.
- Analyses of the licensing requirements, spectrum allocation, and international regulation for satellite-based connectivity, and especially for the utilization of newer technologies like LEO/MEO satellites.
- Analysis of barriers and enablers for implementing satellite-based broadband in educational institutions, including sustainability and cost considerations.
- Recommendations for policymakers and regulators on application of satellite-based solutions for schools.
- Examining the following aspects:
 - The authorization procedures for satellite services.
 - The impact of national telecommunication laws on satellite operations, considering legal interception requirements, traffic routing, gateway placement within the country's jurisdiction, etc.
 - The requirement for public consultations or additional reviews when deploying satellite services.
 - Enforcement options concerning non-Kazakhstani satellite network operators.
 - Compliance requirements for telecommunication equipment, including user terminals.

4.5. Customer Analysis:

- Identification of the major customer segments (education, government, commercial, etc.) and their specific requirements.
- Analyses of education institution preferences, needs, and procurement rules.

- Assessment of customer satisfaction levels and key decision-making factors focusing on educational institutions.
- Willingness to pay for new services like LEOs?

4.6. Cost Analysis and Funding Mechanisms

- Assessment of pricing strategies, adaptability of the product for schools and cost implications of satellite-based broadband internet access.
- Identification of potential funding sources and mechanisms for schools.
- Cost-effectiveness comparisons with alternative internet connectivity options.
- Financial projections and risk analysis.

5. Best Practices, Case Studies and Implementation Guidelines

- Compilation of best practices for implementing satellite-based broadband in schools in at least 5 countries (a selected range from OECD, CIS, Japan, Singapore, China, others).
- Guidelines for selecting satellite internet service providers and equipment.
- Recommendations for ensuring sustainable and reliable satellite connectivity in schools.

6. Conclusion, Opportunities and Recommendations:

- Summarize the key findings and insights from the study including the emerging satellite connectivity trends, growth opportunities, and untapped regions for education institutions in remote areas
- Provide actionable recommendations for schools, education institutions, policymakers, and stakeholders.
- Discuss potential strategies for market entry, expansion, or school connectivity diversification.
- Emphasize the feasibility, potential risks and benefits of satellite communication in schools.

5. Research Methodology

After selection of the service institution, the research approach, data sources and research questions will be agreed in consultations with UNICEF and its national partners. The interviews with key informants will be held on the central and regional decision-making levels, academia, non-governmental organisations and businesses with reaching at least 20 – 30 specialists in the area of space, communication, governance and education.

The report must be submitted in English, but the consultancy service provider should be able to work also in the official national languages of the Republic of Kazakhstan (Kazakh and Russian). The assessment's executive summary with recommendations should also be provided in Russian.

Methodological limitation and issues to be considered:

- Research questions need to be narrowed down during the inception phase.
- Reach out to the key informants will be organized by the consultancy service provider, if the key informants are high level government officials, the reach out will be also supported by UNICEF
- The interviews will be conducted in English, Russian or Kazakh, depending on the proficiency level of the key informant
- The equal number of female and male respondents should be recruited for the interviews
- The desk review analysis of the case studies would be based on the open source data as well as other sources shared by key informants or UNICEF

Ethical considerations:

Even though this particular assignment does not foresee any direct interaction with beneficiaries UNICEF recommends following the ethical principles⁶ and standards when doing research. In addition, UNICEF follows Procedures for Quality Assurance in Research that are an important guide in ensuring high quality of its studies and research⁷.

When engaging human subjects, informed consent must be sought from all participants (including assent from children if needed). The nature of the informed consent and assent must be noted in the ethics section of the proposal and final report. The sample consent and assent forms are attached in the Annex C1 to these TOR.

Protection protocols for children and, where relevant, other groups, must be developed during the inception phase in consultation with UNICEF and in place to provide safe environments for data collection, to respond to any safety concerns or grievances, and to refer them to local supports both during and after the evidence generation activity if necessary, given due consideration to the particular vulnerability of children and young people.

UNICEF will be responsible for arranging a review of the agreed with UNICEF methodology by an Ethical Review Board (if needed) and Quality Assurance Review. The checklists for this process will be shared by UNICEF at the inception phase. The selected contractor will be responsible for addressing the comments by Ethical Review Board (if needed) and Quality Assurance Review.

The approval letter from the External review board should be included in the annex of the final report.

Analytical findings and recommendations should take into account gender perspective and consider gender trends in the regions.

Administrative issues:

Prior to submitting their offer, institutions are strongly encouraged to:

- Review the standard UNICEF Contractual Provisions and the UNICEF General Terms and Conditions of Contract (Services) for the supply of services publicly available on the UNICEF Supply website⁸.
- Review the UNICEF policies publicly available on the UNICEF Supply website⁹.

Offerors should familiarize themselves with the obligations imposed on suppliers and their personnel and sub-contractors under the *UNICEF Policy Prohibiting and Combatting Fraud and Corruption*¹⁰ and the *UNICEF Policy on Conduct Promoting the Protection and Safeguarding of Children*¹¹.

6. Delivery of Services:

No.	The expected deliverables, include but not limited to below list:	Time frame
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⁶ https://www.unicef-irc.org/publications/pdf/brief_12_interviewing_eng.pdf;
<https://www.unicef.org/media/reporting-guidelines>

⁷ <https://www.ungm.org/UNUser/Documents/DownloadPublicDocument?docId=427627>

⁸ [UNICEF standard contractual texts | UNICEF Supply Division https://www.unicef.org/supply/resources/procurement-policies](https://www.unicef.org/supply/resources/procurement-policies)

⁹ [Procurement policies | UNICEF Supply Division](https://www.unicef.org/supply/resources/procurement-policies)

¹⁰ <https://www.unicef.org/supply/documents/unicefs-policy-prohibiting-and-combatting-fraud-and-corruption>

¹¹ <https://www.unicef.org/supply/documents/safeguarding-policy>

1	<p>Inception report with the proposed methodology, research questions and timetable</p> <p>The Inception report will cover the following areas:</p> <ul style="list-style-type: none"> - desk review that leads to conceptual framework; - conceptual framework that underpins the content of the desk review and market assessment; - data collection & analysis toolkit - specific methods and data sources to answer each research question; - any proposed modifications to the research questions, as well as additional sub-questions; - ethical issues and approaches, processes for ethical review and oversight; - sampling strategy for accuracy of the analysis; - further thoughts on any other areas (e.g., risks, methodological limitations, and so on); - detailed workplan and timeline. 	5 weeks after contract signature
2	Completion of the field works and reporting on the response rates	8 weeks after contract signature
3	First draft version of report covering all research questions and structure agreed during the inception phase and shall represent the service provider's independent view of the market assessment and connectivity feasibility	11 weeks after contract signature
4	Second version of report shall include any additional comments or analysis required by UNICEF and quality assurance review facility	14 weeks after contract signature
5	<p>Validation of the findings of the report with national stakeholders.</p> <p>A presentation of the major findings and recommendations of the survey, delivered online to UNICEF Office and national stakeholders (exact date to be agreed).</p>	18 weeks after the contract signature.
6	Final version of report in a form and substance acceptable to UNICEF	25 weeks after contract signature
TOTAL		

The reports must be submitted in English, but the consultancy service provider should be able to work also in the respective official national languages of the country. In addition, the executive summary with recommendations should be produced in both English and the official national language.

7. Duration

The service is estimated to be completed within 25 weeks starting from the Contract signature.

8. Payment schedule:

Payment will be made within 30 working (banking) days upon submission, approval and satisfactory approval of deliverables and upon full and satisfactory completion of the assignment: 20% of payment due following delivery of Deliverable 1, 20% of payment due following delivery of Deliverables 2 and 3, 20% of payment due following delivery of Deliverables 4 and 5, 40% of payment due following delivery of Deliverable 6

Payment will be made by bank transfer in KZT for KZ residents, and in USD for non-residents of Kazakhstan.

UNICEF reserves the right to withhold all or a portion of payment if performance is unsatisfactory, if work/outputs is incomplete, not delivered or for failure to meet deadlines

9. Supervision and reporting:

The contractor will be supervised and report to UNICEF Education Specialist in Kazakhstan with a regular de-briefing on the progress of the assignment to the UNICEF Deputy Representative and Communications unit and will work on a regular basis with all involved staff of UNICEF CO: Programme Specialists and Officers and with identified national and sub-national stakeholders/partners.

These Terms of Reference are discussed within UNICEF global and country teams via digital communication channel.

The Education Specialist and Supply Unit will interact with the contractor in negotiation and communicating through e-mail correspondence while outside of Kazakhstan as well as support the contractor in the country. All raw data collected will remain the property of UNICEF.

10. Evaluation process and methods

Proposals submitted in response to this call will be evaluated in terms of technical quality and financial cost.

Your technical proposal should address all aspects of the above terms of reference. It will be evaluated against the pre-established technical evaluation criteria.

1) TECHNICAL PROPOSAL REQUIREMENTS

The list below explains the technical proposal requirements. Your submission should address all aspects and criteria outlined in the Request for Proposal and include the following:

1. Title Page:

- a. This should clearly indicate the name of the bidding entity, contact person and must reference the RFPS which the bid is submitted for.

2. Bidder profile:

- a. Please complete Annex B.1
- b. Include a description of your mission, background and focuses with emphasis on relevant experience and services.
- c. Include curriculum vitae/resumes and bios of key personnel, which demonstrate qualifications in areas relevant to the scope of work.
- d. Include any other information which exemplifies the bidder's qualifications.

3. Qualifications and technical background:

- a. Proposed methodology, course of action and solutions to be provided for each of the main services / activities. Information should provide enough information for UNICEF to judge whether the proposer has the skills and personnel profile(s) required to carry out the category of work, as well as the vision and forethought to lead on new and innovative learning design solutions.
- b. Share at least three samples of work related to the specific services which demonstrate a diversity of styles and skills in your portfolio. Any file / email must be no more than 10MB or will not be accepted.

- c. Provide a list of software or tools being used and level of expertise where relevant.
 - d. Provide a list of previous UN contracts carried out in related fields of work, if any.
 - e. At least three (3) reference letters or evaluation forms from previous contracts of a similar nature within at least 3 years. Note that letters that do not explicitly refer to the name of the contracted entity will not be considered.
 - f. List of actions to meet the requirements of the ethical and quality assurance reviews by UNICEF
4. **Other:** Clarifications the proposer would like to make that are not expressed elsewhere, in support of their proposal. Innovative, out-of-the-box ideas are welcome.
5. **Legal and Financial documents of the Bidder:**
- a. The copy of Registration Certificate of legal entity;
 - b. Reference on the account availability in the servicing bank of the Legal Entity.

***No price information should be contained in the technical proposal.**

Please make sure to provide sufficient information/supporting documentation to address all technical evaluation criteria.

2) FINANCIAL PROPOSAL REQUIREMENTS

- **Financial proposal:** Please complete Annex A.1 - Financial proposal template

Financial proposal should include all possible costs related to implementation of the tasks under the present TOR and specify the total budget, which is to be estimated in KZT (for residents of Kazakhstan) or USD (for non-residents of Kazakhstan) and contain detailed breakdown of budget items. Payments shall be based upon delivery of the services/tasks specified in the ToR as per the payment schedule.

The financial proposal must be submitted as per below Annex A.1 structure and recommended template and sent as **a separate file in non-editable format (PDF)**.

For national bidders: if the bidder is a VAT payer, the breakdown of expenses should include prices without VAT and prices including VAT. If the bidder is not a VAT payer, this should be clearly indicated in the price offer.

For international bidders: financial offer shall not contain any taxes included, as UNICEF is tax exempt.

11. Proposal evaluation criteria:

The evaluation and award criteria that will be used for this RFP is composed of a Cumulative Analysis evaluation (point system with weight attribution). The weighting ratio between the technical and financial proposals will be 70:30. The respective importance between technical and financial scores will be weighted as 70% and 30%.

An offer is considered technically acceptable (and therefore eligible for opening of financial offers) when it obtains a minimum of **90** Points out of **120** during the course of the technical evaluation. The final selection of the contractor will be based on a combination of the technical and financial proposals with a weighting of 70% for the technical proposal and 30% for the financial proposal. In the case of cumulative analysis, the proposals scoring below 90 of the available technical points will be considered as non-compliant and will be rejected from further consideration.

Technical quality will be evaluated using the criteria outlined below.

Item	Technical Evaluation Criteria*	Max. Points Obtainable
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1	Overall response	25
1.1.	Completeness of response	10
1.2	Understanding of objectives, issues, target audience, and how the bidder proposes to perform the tasks in order to meet the objectives and requirements of the ToR	10
1.3	Compliance with SDG Goal 12 – “Ensure Sustainable Consumption and Production Patterns”	5
2	Institution and Key Personnel	55
2.1	Range and depth of contractor’s experience with similar projects	15
2.2	At least three samples of previous work (e.g. reports and studies)	15
2.3	Key personnel: relevant experience and qualifications for the assignment	25
3	Proposed Methodology and Approach	40
3.1	Description of methodology and approach, strategic thinking, creativity, applicability; project work plan and timeline	25
3.2	Description of approach to ensure quality of services (list of actions to meet the requirements of the ethical and quality assurance review by UNICEF)	15
TOTAL TECHNICAL SCORES		120

*UNICEF is one of the largest procurers of supplies and services in the United Nations. These supplies and services have a wide-ranging impact on children, their environment, health, learning, protection and inclusion. Given the scale of UNICEF’s supply operations and the importance of ‘leading by example’, how UNICEF pursues procurement is important in its own right but also in relation to [the Sustainable Development Goals \(SDGs\)](#), particularly Goal 12 – “Ensure Sustainable Consumption and Production Patterns” and its target 12.7 – “promote public procurement practices that are sustainable, in accordance with national policies and priorities”.

Sustainable procurement encompasses three pillars:

Economic pillar: Strives for best value for money and, in particular, the whole life costs (WLC)¹² of a product or service as well as wider support for economic development;

Environmental pillar: Strives for reduction of the negative environmental impact a product or service has over its whole life cycle, including issues such as greenhouse gas emissions, preservation of natural ecosystems, waste reduction and management, and air and water pollution;

Social pillar: Strives for the promotion of human rights, elimination of child labour, the promotion of local markets, fair labour conditions and wider ethical issues in supply chain.

The bidders who tend to promote any of the above sustainability pillars in their business will be given an advantage during technical and financial evaluation considering overall technical compliance and identical prices offered. In this regard, the bidders are encouraged to include cases and references related to sustainable business commitment in their technical proposals, where applicable.

For more details, please refer: [Sustainable Procurement Indicators \(ungm.org\)](http://ungm.org)

12. AWARDS

The recommendation for Award(s) will be made based on best combination of technical and price scores and based on the results of the reference checks and financial stability of the vendors(s). For the required services, UNICEF may select several providers based on the final assessment scores and/or any other criteria that UNICEF deems in its best interest (regardless of the overall combined technical/commercial score). For example, UNICEF may consider diversity of geographical location among vendors to ensure an optimal support of UNICEF’s projects all over the world or any other consideration).

¹² WLC is synonymous with Life Cycle Cost (LCC), a costing methodology that considers the total cost of a product or service over its lifetime, from concept through to disposal, including procurement, hiring or leasing, transportation, maintenance, operations, utilities, training, and waste management.

UNICEF reserves the right to accept any proposal, in whole or in part; or, to reject any or all proposals, depending on the availability of funds.

13. *Qualification Requirements*

The assignment is expected to be undertaken by a consultancy service institution with a team of international and national experts to produce the expected results.

Required background and experience:

Background, Expertise and skills required	<ul style="list-style-type: none"> • At least eight years of experience in preparing market assessments, case studies, feasibility studies from technical, economic and financial perspective for telecom, satellite, aerospace projects (greenfield and brownfield) in developing and emerging countries. • Strong track record of similar assignments (at least 3 similar projects) prepared for the governments and/or Development Finance Institutions. • Expertise in research protocols and methodologies applied to social development issues focusing on children. • At least five years of experience in public-private-partnerships (roles and responsibilities) in telecom sector in upper middle/higher income countries. • Global and/or regional presence in Europe/Central Asia or in Kazakhstan is desirable. • Knowledge on the landscape for the country telecom ecosystem in the education sector, including the Universities and schools. • Fluency in Kazakh, English and Russian or usage of translation services for project implementation. • Work experience and knowledge of the Kazakhstan and CIS region is an asset. • Documented experience in working with UN and in particular with UNICEF is considered a strong asset.
Experience of the proposed team	<p>While all bidders are welcome to propose their own team composition, it is anticipated that the process would benefit from international and national expertise including:</p> <ul style="list-style-type: none"> • Senior team leader [to supervise the work and assure consistency, quality and liaison with stakeholders] – a minimum of 10 years of relevant professional experience • Financial expert (financial analyst/ modeler) – a minimum of 5 years of relevant professional experience • Technical expert (telecom) – a minimum of 5 years of relevant professional experience • Regulatory / telecom policy expert – a minimum of 4 years of relevant professional experience.

Other conditions

Documents produced during the service will be considered strictly confidential and the right of distribution and/or publication belongs to UNICEF.

The use or publication of data or survey results by the consultancy service provider will not be allowed under any circumstances. The contract signed with the consultancy service provider will include other terms and conditions as defined by UNICEF.

14. Procedures and logistics

Travel costs are not to be included into the proposals. Travel will be determined on need-to basis and will be pre-approved by UNICEF Kazakhstan Country Office according to UNICEF policies.

For travel expenses, please note that 1) travel costs shall be calculated based on economy class travel, regardless of the length of travel; 2) costs for accommodation, meals and incidentals shall not exceed applicable daily subsistence allowance (DSA) rates, as promulgated by the International Civil Service Commission (ICSC); and 3) travels and other incidental expenses that were not known ex ante or any additional costs with regards to the travel expenses submitted in the proposal should be justified by the vendor and accepted by UNICEF before this are incurred. Such expenses may be paid as reimbursable against actual cost incurred and, in these cases, necessary documentation shall be submitted with the invoice for reimbursement (e.g. proof of airline ticket purchased).

Travel arrangements including purchase of the air tickets is the responsibility of the selected contractor and estimated cost of travel should be clearly indicated in the financial proposal. Cost estimates should be exclusive of all taxes as UNICEF is exempted from all taxes. UNICEF does not provide or arrange health insurance coverage for the selected contractor.

Geographical location: The service will be carried out remotely.

15. UNICEF general terms and conditions

UNICEF's general terms and conditions will apply to the contract awarded to the selected contractor. Please note that, in the evaluation of the technical merits of each proposal, UNICEF will take into consideration any proposed amendments to the UNICEF General Terms and Conditions. Proposed amendments to the UNICEF general terms and conditions may negatively affect the evaluation of the technical merits of the proposal.

UNICEF reserves the right to withhold all or a portion of payment if performance is unsatisfactory, if work/outputs is incomplete and not provided timely as indicated in the individual work plan of the contractor. These ToR are an integral part of the contract (PO) to be signed with the international or national consultancy.

UNICEF retains the right to patent any intellectual rights, as well as copyright and other similar intellectual property rights for any discoveries, inventions, products or works arising specifically from the implementation of the project in cooperation with UNICEF. The right to reproduce or use materials shall be transferred with a written approval of UNICEF based on the consideration of each separate case. Selected contractor should always refer to UNICEF Kazakhstan support in developing the materials when publishing the results of the assignment accomplished while in Kazakhstan in open source and other academic journals, books and websites.

Annex A.1 - Financial Proposal and Recommended Template

Instructions for completing the financial proposal:

Important: Please include costs as required, expressed in Kazakhstan tenge (KZT) – for national bidders or United States dollar (USD) – for international bidders.

Professional Fees - Please list each person's all-inclusive daily rate covering a standard person-day. Rates quoted must be all inclusive and therefore taken together sufficient to cover the efforts of the entire team assigned for each task.

The costs indicated should indicate the **maximum amounts per expert within the service area**. Offerors should review the expected activities and typical products expected under each service area and propose prices commensurate with the level of complexity of the expected deliverables.

As the market assessment will consist of several sections, it is proposed to provide the cost for each chapter separately:

Title of the section	Main content	Cost in KZT or USD
1. General overview	Satellite communication market, available satellite connectivity solutions in the Kazakhstan and Central Asia, Global Mapping and Analysis of School connectivity via satellites solutions	
1.1. Technological Analysis:	Overview of satellite communication technologies. Review of different satellite constellations (GEO, MEO, LEO) and their applications, as well as their status in the country and region. Advantages and limitations of each technology, with consideration to connecting schools with quality and affordable internet. Review of the availability and reliability of satellite infrastructure and equipment. Exploration of the compatibility of satellite systems with existing school networks and devices.	
1.2. Market Size and Forecast:	Current market size estimation of the communication satellite industry globally, regionally in Central Asia and with a deep dive in Kazakhstan. Breakdown of market sizes by satellite type, application, and geography. Analysis of factors influencing market growth and potential future disruptions. Historical analysis of market growth and forecasting future trends for satellite solutions addressing school connectivity issues.	
1.3. Competitive Landscape:	Identification and profiling of the major communication satellite operators, and service providers in the Central Asia region with focus on Kazakhstan. Analyses of satellite market share, product portfolio, key partnerships, and competitive strategies to connect schools to the satellite-based internet. Assessment of the potential impact of providing connectivity through satellite-based solutions in remote and/or disadvantaged schools on learning outcomes. Assessment of the entry barriers, transparency and market information, competitive intensity, and market concentration.	

	Recommendations on interventions that could be implemented to improve market access, competitiveness and competition in this sector.	
1.4. Regulatory Environment:	<p>Review of the regulatory frameworks and policies governing the satellite industry at a global level for reference but with a deep understanding of the situation of Central Asia and Kazakhstan.</p> <p>Review of recent regulatory changes for satellite communication services and their impact on Kazakhstan and Central Asia.</p> <p>Analyses of the licensing requirements, spectrum allocation, and international regulation for satellite-based connectivity, and especially for the utilization of newer technologies like LEO/MEO satellites.</p> <p>Analysis of barriers and enablers for implementing satellite-based broadband in educational institutions, including sustainability and cost considerations.</p> <p>Recommendations for policymakers and regulators on application of satellite-based solutions for schools.</p>	
1.5. Customer Analysis:	<p>Identification of the major customer segments (education, government, commercial, etc.) and their specific requirements.</p> <p>Analyses of education institution preferences, needs, and procurement rules.</p> <p>Assessment of customer satisfaction levels and key decision-making factors focusing on educational institutions.</p> <p>Willingness to pay for new services like LEOs?</p>	
1.6 Cost Analysis and Funding Mechanisms:	<p>Assessment of pricing strategies, adaptability of the product for schools and cost implications of satellite-based broadband internet access.</p> <p>Identification of potential funding sources and mechanisms for schools.</p> <p>Cost-effectiveness comparisons with alternative internet connectivity options.</p> <p>Financial projections and risk analysis.</p>	

In case if travel costs are included into the proposal. They should cover the budget with daily subsistence amount and travel by air (economy) if it is planned to conduct work in-country and other cities outside of the location of the contractor, venue for delivery of events.

The simple average costs for the proposed team per service area will be used to determine the score during the evaluation of the financial proposals.

The below recommended template provides for the detailed budget breakdown.

Breakdown of Costs by Cost Components as per Scope of Work of TOR and sections of assessment:

<i>No</i>	<i>Deliverable</i>	<i>Unit of measurement</i>	<i>Quantity</i>	<i>Cost per unit, KZT/USD</i>	<i>Amount, KZT/USD</i>
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	Expenses				
1	Inception Phase				
1.1	Expert 1 fee				
1.2	Expert 2 fee				
1.3					
2	Implementation including field works and data processing for sections of the market assessment				
2.1	General overview				
	a) Technological Analysis:				
	b) Market Size and Forecast:				
	c) Competitive Landscape:				
	d) Regulatory Environment:				
	e) Customer Analysis:				
	f) Cost Analysis and Funding Mechanisms				
3	Data processing				
3.1	Expert 1 fee				
3.2					
4	Report preparation				
4.1					
4.2					
	Total				
	VAT (if applicable)				
	Total with VAT				

[Name and signature of the authorized person of the Contractor]
[Position]
[Date and Stamp]

Annex B.1: Bidder Profile

GENERAL INFORMATION

Please check the box when appropriate.

Full name of entity:	
Address:	
Country:	
Contact Person, Position Title:	
E-mail address:	
Website:	
Telephone:	
Fax:	
Alternative Contact person, Position Title:	
E-mail address:	
Type of Entity:	<input type="checkbox"/> Private Sector <input type="checkbox"/> NGO <input type="checkbox"/> Foundation <input type="checkbox"/> Other: (please indicate)

MAIN SERVICES

<p>Briefly describe your entity's main services and areas of expertise (max 150 words)</p>
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--

REGIONS WHERE YOU WORK IN

List all regions and countries where you have already carried out related work including details of such work. (max 150 words)
--

GEOGRAPHIC PRESENCE

List all countries where you have offices and staff in – location & number of employees per region, etc. (max 150 words)
--

ADDITIONAL INFORMATION

Company established in (year):	
--------------------------------	--

Years of experience providing similar service(s):	
Number of employees (if any):	
Annual turnover (USD):	
Registration with UNGM[1]	<input type="checkbox"/> If so, provide registration number:
Experience working with UN Agencies over the last 5 years	<input type="checkbox"/> No <input type="checkbox"/> Yes. If yes, briefly mention the UN agencies and the type of work done, including the details of referees

[1] United Nations Market Place (www.ungm.org)

ANNEX C.1. Sample consent and assent forms

Consent forms for adults

The consent form will be translated into local language after inception report is approved

Mr. / Ms Name:

Location:

Is invited to participate in the market assessment that is implemented in partnership with UNICEF in 2023. This market assessment aims to the review of satellite-based connectivity solutions for schools that are available in Central Asia region with focus on Kazakhstan, to provide the government with information to support strategic decision making for the most practical, superior technical, and economically viable solution and case studies of countries experience. Once completed, the market assessment report will be provided to UNICEF and other stakeholders, including the Ministry of Digital Development, Innovations and Aerospace Industry and Ministry of Education. This assessment will be conducted from August to December 2023 in Kazakhstan. The research team is composed of _____ (names of researchers).

The participant is invited to participate in interviews (30 min to 1h30). There will be no financial compensation to participate in the study.

The participant certified that he/she accepts to participate freely in this study. He/she could decide to withdraw from the study at any time, without having to justifying him/herself. He/she has the right to refrain from answering to certain questions, without having to justify him/herself. This will not have any harmful consequence.

The participant allows the research team to take written notes during the interview.

The research team will ensure that the participant's name or function will not appear in the report, except in the case that the respondent is a public official who is willing to provide his/her title and position, and if it is considered important for the evaluation.

Those data will not be used in another manner than the one described in the present document.

This form is signed by the participant. A copy is provided if the participant wishes.

Date:

Signature of participant:

Signature of research team:

Assent forms for children

The assent form will be translated into local language after inception report is approved

Name:

Location:

You are invited to participate in a research regarding your participation in the project led by the research company _____(name). This assessment aims at understanding the usefulness and impact of this project on children. It aims at analyzing whether the project had positive consequences on your situation and your reintegration in your community and your family. When it will be finalized, the report will be provided to UNICEF and other stakeholders and recommendations will be drafted to improve the Internet connectivity in schools based on your experience. This assessment will be conducted from August to December 2023 in Kazakhstan. The evaluation team is composed of _____(names of research team). You can reach them by email on the following address: _____ or by phone on the following number: _____

¹³

You are invited to participate in an interview that will not take more than 30 minutes. There will be no remuneration to participate in the study.

By signing this document, you certify that you accept to participate freely in this study. You can decide to refuse to answer to any question, without giving any explanation. You can also decide not to answer some questions if you do not want to. This will have no consequence.

You can report an abuse or report that you feel under threat to the evaluation team. If you do so, the team will ask you if you want them to talk to the center or to authorities. If you accept, the team will tell the responsible person as soon as possible. If you refuse, the team will discuss with UNICEF and will tell you the decision that will be taken. You will be informed of your decision and of the process.

The research team will take some notes during the interview to ensure that the team does not forget what you said.

The research team will ensure that your name will not appear in the report.

The notes we will take will not be used in another manner than the one described here.

Please sign the form. You can have a copy if you want to.

Date:

Signature of participant:

Signature of guardian/responsible person:

Signature of research team:

¹³ This number will be provided when the team members are in Kazakhstan.