TENDER BOOK

FEASIBILITY STUDY FOR THE OBJECTIVE
"Modernization and development of airport infrastructure - *ECONOMIC ACTIVITIES*"

INFORMATION ABOUT THE CONTEXT THAT DETERMINED THE PURCHASE OF SERVICES

SIBIU INTERNATIONAL AIRPORT R.A. (SIA) is an airport in full process of development and modernization. The number of flights and passengers recorded on SIBIU INTERNATIONAL AIRPORT R.A. is growing. Air traffic to and from Sibiu creates economic benefits, requiring the development of the airport in terms of modernization and increasing the security level.

General information:

- Aircraft take-off | landing runway: 2630m
- Runway directions: 09/27
- Runway width: 45m
- PCN: 56/R/D/W/T
- Lighting system and navigation means:
- Runway with approach of CAT I precision in direction 27
- ILS / DME, NDB, PAPI
- Platform: 16 parking spaces;
- The surface of the platforms: 50,264.75 sqm.

Currently, the passenger traffic on SIA is done both on departures and arrivals flows through a single terminal. Due to the increase in the number of passengers from year to year (and especially in the last 2 years), the capacity of the existing passenger terminal tends to become insufficient.

At the same time, it should be mentioned that the airport does not ensure an easy connectivity of the passengers from the pick-up area who use intra / inter county public transport in their way to SIA.

The deficiencies of the current situation related to movement surfaces:

• lack of correlation between PDA characteristics compared to aircrafts characteristics, e.g. PDA length allowing the landing / take-off of category D aircrafts, relative to the width of the PDA (no sidewalks) and PCN;
• beacon system that requires an upgrade in order to improve operating minimum requirements;
• lighting of the platform with a low intensity for parking spaces 11-15;
• low capacity of the Californian Bearing Capacity Index (CBR) in the runway;
• lack of proper sidewalks of the runway and lanes;
• non-existence of an aircraft de-icing / anti-icing platform equipped with a drainage system for collecting the excess de-icing liquid used on the aircraft.
Necessity and opportunity of the proposed investment objective:

OBJECTIVE NO.1 – Construction | extension of the passenger terminal. Construction / extension of the passenger terminal

The objective is to expand the existing terminal and to create the necessary facilities for passengers to meet a projected increase in traffic according to the realistic scenario of the traffic study provided by SIA, up to 2 - 2.5 mppy (millions of passengers per year). At the same time, the development of the road infrastructure in the public area will be considered to ensure the necessary facilities for the arrival / departure of passengers to / from the airport.

The terminal will provide the necessary spaces and will be equipped with all the systems, facilities and equipment necessary for the airport activity specific to an international airport, using state-of-the-art technologies for processing passengers and their luggage, focusing on automated systems. It will also provide the spaces, facilities and equipment necessary for performing the activities specific to the airport administration, as well as those for institutions operating in an international airport in accordance with national and European legislation. The provider will prepare the general estimate so as to ensure easy separation and identification of costs according to the type of activity: airport (economic, respectively non-economic) and commercial.

OBJECTIVE NO. 2 – Ensure airport connectivity

2.1 Creating facilities for buses

The airport is extremely well located, next to a main national road segment and close to the A1 highway. So, there are already many regional, national and international bus routes coming or going through Sibiu, and investments in a ground transportation centre could bring additional business to the airport.

OBJECTIVE NO. 3 – Modernization, rehabilitation and expansion of PDA, compatibility with other movement surfaces

3.1. Construction of sidewalks, including modification of the rainwater collection system;

According CS ADR-DSN.B.080 transverse slopes on runways, CS ADR-DSN.B.100 Slopes on runway turn pads, CS ADR-DSN.B.165 Objects on runway strips, CS ADR-DSN.B.175 Grading of runway strips, the transverse slope of the runway does not comply with the regulatory requirements, although the transverse slopes are the same as those of the runway they do not comply with the regulatory requirements. There are also objects buried in the levelled area of the runway lane for which no slopes were provided (beacon manholes, panel foundations, runway edges, gutters). The current width of the runway is 45 m, with grass covered sidewalks.

3.2. PCN growth

Air-field dimensions and related information:
- The layout of the runway is oriented east-west, the identification numbers for the ends are 27 and 09.
- Length = 2630 meters
- Width = 45 meters
- Pockets at the end of the runway:
- Width = 60 meters
- Length = 100 meters
- Ascending slope: 0.48% from 27 to 09 on a length of 600 meters
- Ascending slope: 1.09% on a length of 1460 meters
- Ascending slope: 0.77% on a length of 570 meters
- Transverse slope: at the threshold 27 - 1.15%, at the threshold 09 - 1.11%.

The runway surface is made of concrete, and following the Technical Report prepared in 2016 by SC TRANSPROIECT 2001 SA, a report that includes the result of non-destructive bearing capacity investigations performed on the runway at Sibiu International Airport, PCN value =

58 /R/D/W/T. In the conditions of maintaining the existing structure, the runway has a service capacity of 36500 equivalent movements of the aircraft with classification number ACN = 56, for category D of the foundation layer.

3.3. Expansion of runway system, reconfiguration of parking positions on the platform

This objective aims to optimize the use of parking positions by reconfiguring them in order to ensure the fastest possible processing of passengers, by using of some "nose-in" positions for the largest aircraft in the families of aircraft used by airport operators (ICC and FSC) (A321neo and B737).

The sidewalks of the 3 runways (E, W, N) are grass covered.

3.4. Power supply for parking positions

The power supply aims to reduce the consumption and wear of the electric generator sets that are currently used, including the reduction of pollution and costs.

3.5. Equipment batteries charging point

The characteristics and location of the charging point of the equipment batteries will be set in the Feasibility Study.

3.6. Concrete platform for the accumulation and recycling of de-icing substances

The characteristics and location of the platform for the accumulation and recycling of de-icing substances will be set in the Feasibility Study.

3.7. Replacement of the entire existing lighting system with an economical one (LED type)

The current lighting system of the platform consists of 11 pillars containing 90 spotlights. Each spotlight is composed of 2 lamps of 600 W each. This results in an hourly consumption of 108 kw in the case of simultaneous use of all 180 lamps.

OBJECTIVE NO. 4 – Providing infrastructure, equipment and machinery for navigation assistance, safety and security

Modernization and modification of the beacon system in compliance with Regulation 139 and the Conditions of the Annexes of the Operation Certificate. The objective aims to replace the existing lamps with some LED type ones, resulting in both the reduction of energy consumption and the modernization of the system, the current spotlights being an outdated model, their production and procurement being more and more difficult.

4.1 Construction of technical shed for airport equipment

The technical characteristics, dimensions and location of the technical shed for airport equipment will be set in the Feasibility Study.

In order to achieve the investment objective "MODERNIZATION AND DEVELOPMENT OF AIRPORT INFRASTRUCTURE - ECONOMIC ACTIVITIES", some preliminary stages are planned at the level of contracting entity. Thus, the realization of the Feasibility Study with specific elements D.A.L.I, respectively the establishment of the main technical-economic indicators and the correct and viable solution, in terms of fulfilling the need and opportunity, requires the following activities and initiatives, included in the table below:

No.	Activity / initiative	The planned time duration for the activities	Expected results
1	Elaboration of technical-economic documentation – SF phase with specific DALI elements	2020-2021	Feasibility study with specific DALI elements
2	Submission to finance the project and its evaluation	2020-2021	Project evaluation
3	Signing the financing application	2020-2021	Approval of the financing application
4	Contracting of design services at CAP + PAD level - if applicable + POE - PT, including technical assistance during the investment period	2020-2021	Technical project including the technical documentation for the construction authorization for the achievement of the elaborated investment objective
5	Verification of the technical design and of the execution details by project verification specialists certified on fields / subdomains of construction and specialties of installations	2020-2021	Technical project and execution details verified by project specialists certified on fields / subdomains of construction and specialties of installations
6	Obtaining the authorizations, approvals, agreements, etc. necessary for the execution of the works	2020-2021	Authorizations, approvals, agreements necessary for the execution of the obtained works
7	Execution of works	2021-2023	Execution of works elaborated in the technical-economic documentations
8	Equipping the construction to fulfil the objective of the contracting entity	2023	Equipment, installations, staff trained in their use

Description of the requested services

Feasibility study with DALI elements in compliance with the provisions of Government Decision 907/2016 + studies specific to the field of application + studies requested by the financier

The object of the service contract to be awarded consists in the realization of the technical-economic documentation (at the SF phase with DALI elements), as follows:

1. Topographic study endorsed by OCPI Sibiu (Land Registry Office);
2. Preparation of technical expertise;
3. Preparation of geotechnical study;
4. Preparation of technical and economic documentation that must comply with the framework content provided by GD 907 / 29.11.2016, including all necessary specialized studies depending on the specifics of the investment (including environmental impact evaluation documentation) and also all studies requested by the financier (e.g. Opportunity study, Institutional analysis, etc.);
5. Cost-benefit analysis;
6. Lists of quantities related to the works (General estimate + itemized estimates, according to Annex 6,7,8 and Forms: F1, F2, F3, F4, F5, F6. We inform you that the tenderer declared winner is not obliged to send the F3 form upon submission of the documentation (DALI), but if, during the project evaluation period, the financier requests the submission of the F3 form, the Provider undertakes to complete and submit the form to the Contracting Authority;
7. The types of expenditure will be clearly reflected: economic (eligible + ineligible) and non-economic (eligible + ineligible) and separate estimates will be drawn up for the two types;
8. Technical documentation for obtaining approvals and agreements required by urban planning certificates;
9. Obtaining the approvals / agreements / authorizations necessary for the demolition of the existing structures on the land on which the construction is to be located - if applicable;
10. Writing the financing application and preparing the financing file according to the financier's requirements;
11. Updating the technical-economic documentation at the request of the contracting authority;
12. Technical assistance from the Provider during the project evaluation period and until the signing of the financing contract;
13. Preparation of Fire Safety Scenario.

The technical-economic documentation will be made in accordance with the legislation in force (GD 907/2016) and taking into account the provisions of the Applicant's Guide related to Priority Axis 2 - Development of a multimodal, quality, sustainable and efficient transport system, Specific Objective 2.3: Increasing the sustainable use of airports.

In case the Applicant's Guide will be updated or the financier will request the update / modification of the documentation, the technical-economic documentation will also be updated / modified / improved according to the requirements, whenever it is required.

This tender book is an integral part of the awarding documentation and is the set of requirements based on which the tenderers will develop the technical and financial proposal for the purchase of the Feasibility Study with specific DALI elements related to the investment

objective: "MODERNIZATION AND DEVELOPMENT OF AIRPORT INFRASTRUCTURE - ECONOMIC ACTIVITIES" at Sibiu International Airport RA in order to establish the main technical-economic indicators related to the investment objective and to apply a correct and viable solution, regarding the necessity and the opportunity to achieve it.

Requested services: activities to be performed, obligations of the Tenderer

Elaboration of technical-economic documentation Feasibility Study with DALI elements. The Romanian Civil Aeronautical Authority (A.A.C.R.) authorizes and supervises the organizations that perform activities in the airport field, based on its attributions in accordance with the provisions of the Romanian Government Decision (GD) no. 405/1993 and of the applicable orders of the Minister of Transport. As a result, the organizations performing civil aeronautical activities in the airport field with an impact on flight safety, must hold a certificate of authorization, issued by the A.A.C.R, based on the provisions of RACR-AD-AACDA - the revision in force. Thus, the Tenderer designated as the winner, has the obligation to present, at the signing of the Contract, the Authorization Certificate issued by the Romanian Civil Aeronautical Authority (AACR), within the validity period, with the obligation to maintain the validity of the certificate throughout the contract, for the performance of activities in the field of civil aviation, for designing the construction works - AAP code, in accordance with the provisions of RACR-AD-AACDA, rev. 2019 approved by the Order of Minister no. 611/2019, for the approval of the Romanian Civil Aeronautical Regulation regarding the authorization of civil aeronautical agents in the airport field. In accordance with the provisions of RACR-AD-AACDA, rev. 2019 approved by the Order of Minister no. 611/2019, for the approval of the Romanian Civil Aeronautical Regulation on the authorization of civil aeronautical agents in the airport field, in the case of foreign legal entities, AACR recognizes, without further evaluations, the certificates or similar authorization documents issued for an equivalent purpose by the aeronautical authority or similar bodies from the countries of origin within the European Union. At the same time, legal entities that do not hold the required certificates or do not come from the European Union, will be subject to the similar authorization procedure applicable to Romanian legal entities.

Results to be obtained following the provision of services.

The implementation of the Contract in accordance with the provisions of this Tender Book must lead at least to the achievement of the following results:

Table 1. Deadlines for reports expressed in days from the date of issuance of the order to start the contract (t0).

Report number	Name	Document form	
		Draft	Final
Report I	Starting report		15 days from t0
Report II	Analysis of the existing situation and technical expertise		45 days from t0
Report III	Airport development strategy	45 days from t0	60 days from t0
Report IV	1. Analysis of technical options	60 days from t0	90 days from t0

	2. Documentation for obtaining the Urban Planning Certificate	-	90 days from t0
Report V	1. Feasibility study with specific DALI elements	180 days from t0	240 days from t0
	2. Documentation for obtaining the necessary authorizations / approvals (including the Decision for inclusion in the Environmental Impact Evaluation stage and the Environmental Impact Report)	-	180 days from t0
Report VI	Specialist assistance for the entire period from the submission of SF / DALI to the Contracting Authority and the submission of the financing application to the financier's bodies, until the date of approval of the financing application.		The period from the submission of SF / DALI to the Contracting Authority and the submission of the financing application to the financier's bodies, until the date of approval of the financing application.

Explanations:

- Starting report - 15 days from t0;
- Analysis of the existing situation - 45 days from t0;
- Technical expertise - 45 days from t0;
- Airport development strategy in draft format - 45 days from t0;
- Final airport development strategy - 60 days from t0;
- Analysis of technical options, draft- 60 days from t0;
- Analysis of technical options, final - 90 days from t0;
- Documentation for obtaining the Urban Planning Certificate - 90 days from t0;
- Feasibility study with specific DALI elements, draft - 180 days from t0;
- Documentation for obtaining the necessary authorizations / approvals (including the Decision for inclusion in the Environmental Impact Evaluation stage and the Environmental Impact Report), final –180 days from t0;
- Feasibility study with specific DALI elements, final - 240 days from t0;
- Specialized assistance for the entire period from the submission of the SFI to the Contracting Entity and the submission of the financing application to the financier's bodies, until the date of approval of the financing application - the period from the submission of SF to the Contracting Entity and submission of the financing application to the financier's bodies until the date of approval of the financing application.

The reports from I to IV will include methodologies, analysis and results in accordance with the tasks they detail, as well as Documentations for obtaining the Urban Planning Certificate.
Report V will include the following documents:
• Feasibility study with specific elements of DALI in accordance with the provisions of GD 907/2016 as well as the regulatory framework related for projects financed from European funds (Framework Regulation 1303/2013, Delegated Regulation 480/2014, EU Regulation No. 2015/207, CBA Guide of the EC DG Regio 2014). The feasibility study with DALI elements will include, among others (in the main body of the SF, as annexes or as separate documents);
• Presentation of the project in the context of the entire airport infrastructure (including all key components: runway, lanes, platforms, terminal, connection to the local transport network / system, etc.);
• The regulatory act of the Environmental Protection Authority for the proposed project, as well as all the environmental documentation related to the development of the environmental impact evaluation procedure;
• Declaration of the Competent Authority responsible for Water Management;
• Analysis of options;
• Detailed estimation of the investment cost;
• Cost-benefit analysis including economic, financial, financial sustainability analysis, risk analysis;
• Calculation of the necessary financing;
• A brief business plan presenting the commercial and financial situation of the airport based on data from recent years and forecasts for the future;
• Analysis of institutional capacity (administrative, legal, technical, financial);
• Vulnerability analysis to climate change. It is recommended to use the European Commission's Guideline - Non Paper Guideline for Project Managers: Making vulnerable investments climate resilient.
Report V involves the presentation in final form of the following documents:
1. Topographic study - endorsed by the Office of Cadastre and Land Registration
2. Geotechnical study;
3. Hydrological study;
4. Hydrogeological study;
5. Study on the possibility of using high efficiency alternative systems to increase energy performance;
6. Technical expertise;
7. Documentation for obtaining authorizations / agreements required by the urban planning certificate (including for the Decision for inclusion into the environmental impact evaluation stage, the Environmental Impact Report - if requested by the competent authority) (fees related to authorizations shall be paid by beneficiary) - number of copies required by the endorser and electronic support;
8. S.F / D.A.L.I including General estimate in RON currency with two decimals
9. Cost-Benefit Analysis or Cost-Effectiveness Analysis;
10. Measurements in the WGS 84 system and the determination of the share of land in the Black Sea 75 system, for the investment objective that is the subject of this topic, including the Documentation for obtaining the AACR approval;
11. Institutional analysis.

Necessary resources / expertise required to perform contract activities and obtain the results

Main experts:

- Project manager;
- Airport operations specialist;
- Designing engineer for railways, roads and bridges
- Architect
- Transport economics specialist
- Environmental and biodiversity specialist

Profile of key experts

Project manager	
Educational and / or professional qualification	Relevant university studies in the field of engineering or economics with a bachelor's degree or equivalent.
General professional experience	General post-graduate professional experience of at least 5 years in the field for which the graduation diploma was obtained.
Specific professional experience	Involvement as team leader / project coordinator / project manager / project director / design team leader / project chief in at least one project / study including feasibility studies and / or technical projects for construction / rehabilitation / expansion of airport infrastructure / national transport infrastructure
Airport operations specialist	
Educational and / or professional qualification	Relevant technical university studies in the field of engineering or architecture, with a bachelor's degree or equivalent.
General professional experience	General post-graduate professional experience of at least 5 years in the field for which the graduation diploma was obtained.
Specific professional experience	Experience in performing projects / studies for at least one airport/air-field passenger / freight terminal, which included operational analysis / capacity analysis of airport / air-field facilities / analysis of passenger / freight flows.
Designing engineer of road construction	
Educational and / or professional qualification	University studies in engineering - constructions of railways, roads and bridges graduated with a bachelor's degree or equivalent.
General professional experience	General post-graduate professional experience of at least 5 years in the field for which the graduation diploma was obtained
Specific professional experience	Involvement as a specialist designer in at least 1 technical study, including SF / DALI and / or technical project for the construction / rehabilitation / extension of airport infrastructure / national transport infrastructure.
Architect	

Educational and / or professional qualification	Relevant university studies in architecture with a bachelor's degree or equivalent with the right to sign in Romania (in accordance with the updated Law no. 184/2001)
General professional experience	General post-graduate professional experience of at least 5 years in the field for which the graduation diploma was obtained
Specific professional experience	Involvement as an architect in the elaboration of at least one project for the construction / extension of an airport/air-field terminal building / buildings of special importance.
Transport economics specialist	
Educational and / or professional qualification	Relevant university studies in the engineering or economic field graduated with a bachelor's degree or equivalent.
General professional experience	General post-graduate professional experience of at least 5 years in the field for which the graduation diploma was obtained.
Specific professional experience	Involvement as a key expert for the cost-benefit analysis performed within at least one technical-economic documentation (including feasibility study) for an objective in the transport infrastructure of national interest.
Environmental and biodiversity specialist	
Educational and / or professional qualification	Relevant university studies in the field of engineering or environmental sciences / ecology / geography, graduated with a bachelor's degree or equivalent.
General professional experience	At least 5 years of post-graduation professional experience in the field for which the graduation diploma was obtained
Specific professional experience	Involvement as a key expert in the preparation of environmental documentation for at least one project.

Secondary experts

The Provider will make available the necessary secondary experts to perform the activities by specialties, experts who will complete and support the team of main experts.