TERMS OF REFERENCE

TECHNICAL ASSISTANCE FOR FINANCIAL AND ENVIRONMENTAL ANALYSIS OF SAAREMAA FIXED LINK

1. BACKGROUND INFORMATION:

1.1. Beneficiary country: Estonia.

1.2. Contracting Authority: Ministry of Economic Affairs and Communications (MoEAC).
Contracting Authority's Representative: Estonian Road Administration (ERA).

1.3. Country background:

Estonia is an accession country to European Union. The member states of the European Union have decided to further support the accession countries for membership of the EU by giving them assistance to prepare for accession. Part of this preparation is being implemented by the ISPA initiative (Instrument for Structural Policies for Pre-Accession) managed by the EU Commission (DG Regional Policy). After accession to EU the accession countries can apply for further assistance through EU Cohesion Fund (CF) to bring their environment and transport infrastructures into compliance with European standards.

The overall objectives of ISPA and CF in the transport sector are:

- To extend and give access to the Trans-European Transport Network (TEN);
- To provide good links between candidate countries and the European Union;
- To assure interconnection and interoperability of national networks with TEN and access to such networks; and
- To promote sustainable mobility.

The principle aim of the national ISPA and further CF transport strategy is the systematic improvement of the infrastructure through rehabilitation, renovation and construction, with particular emphasis on the main roads carrying the main traffic flows.

The Government of the Republic of Estonia has identified the road rehabilitation and reconstruction programme of main roads on Pan-European transport corridors and TINA network including linking peripheral regions to the more developed regions and islands with mainland, creation optimum combination and integration between various modes of transport bottlenecks.

1.4. Current state of affairs in the road sector:

As of 1 January 2003, the total length of the road network in Estonia was 55 168 km, of which 16 443 km (29,8%) are state roads. 51,8 % of state roads are paved. The total density of the road network is 1203km/1000km^2; of which the density of the state road network is 380km/1000 km^2.

The total length of the road network of Saare County is 1,088.6km, 47% of which are paved and the remainder are gravel roads. Historically developed centres and strategic points for connections, such as harbours, with the rest of the world, determined the road network in Saaremaa. According to Saaremaa Development Plan and the county development priorities it is necessary to improve infrastructure in Saaremaa and on the other smaller islands in the county to international standards. Above all this means improving the connections between Saare County (and other Western Estonian islands) and the mainland. It is however not decided that such improvement needs to be in form of fixed link. ~~and onward to the Trans-European transport network.~~

The Government of the Republic of Estonia has identified road rehabilitation and reconstruction programme of main roads by financing this from EU ISPA and Cohesion Funds, state budget and foreign loans.
The financial and environmental analysis of potential Saaremaa Fixed Link will be implemented under the framework of ISPA measure 2002/EE/16/P/PA/010.

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1.5. Related programmes and other donor activities

- ~~PHARE 1997, Rehabilitation of Tallinn-Pärnu-Ikla road km 176,0-192,2, cost ca 1 MECU.~~

- Rehabilitation of Paldiski access roads 1998, ca 1 MECU road rehabilitation ca 20 km.
- The World Bank loan 2000-2005, rehabilitation ca 180 km of roads (incl. 58,5 km in year 2001), road reconstruction 5,4 km, 25 MUSD.
- ISPA - Rehabilitation of Via Baltica: Ikla-Tallinn-Narva road, Phase I, ISPA contracts 1 and 2: 120,6 km, 16,9 MEUR, 2002.
- ISPA - Rehabilitation of Via Baltica: Ikla-Tallinn-Narva road, Phase II, ISPA contracts 3 and 4: 120,4 km, 30,3 MEUR, 2003-2004
- ISPA - Technical Assistance for reconstruction of Väo-Maardu section of E20 Tallinn-Narva Road, 0,5 MEUR, 2003-2004
- ISPA measure 2002/EE/16/P/PA/010 - Technical Assistance for project preparation and management at Estonian Road Administration
- ISPA Imeasure 2002/EE/16/P/PA/009 - Technical Assistance for construction and reconstruction of local state owned ports, 0,5 MEUR, 2004-2005.
  This includes also the design of ports of Kuivastu and Virtsu that are related to the studies of Saaremaa Fixed Link. The contract will be implemented within the period August 01, 2004 - July 31, 2005. The Consultant shall consider the development perspectives of these ports.
  This project will be implemented and co-ordinated through the Estonian Road Administration as ISPA Implementing Agency. The Consultant will receive the information and data of this project from the Estonian Road Administration.

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2. CONTRACT OBJECTIVES & EXPECTED RESULTS

2.1. Overall objectives

The Saaremaa Fixed Link project aims at improving the east-west transport corridor with emphasis on both regional and international traffic through in Estonia.

The overall objectives of the project of which this contract will be a part are as follows:

- To ensure sustainable development of Saaremaa
- To ensure sustainable and environmentally sound mobility of persons and goods, offer high-quality transport infrastructure on acceptable economic terms, taking into account their comparative advantages; facilitate a smooth movement of passengers and goods between Saaremaa and mainland.
- Establishment and development of the connections, key links and interconnections, need to eliminate bottlenecks, fill in missing sections and complete major routes;
- Establishment and development of infrastructure for access to the network, making it possible to link islands and peripheral regions with the more developed regions in Estonia and with the other regions of the European Union.
- To have optimum combination and integration of the various modes of transport;
- To improve safety and network reliability;
- To reduce the travelling time and user operating costs;
- The contract shall be carried out in compliance to achievement of Community policies, in particular concerning transport and Trans-European networks (TEN).

2.2. Specific objectives

The main objective of this contract is to identify the most feasible solution for the connection between the mainland and Saare county from the economic point of view (including construction and operation) and its possible socio-economic and environmental impacts on the site and for island Saaremaa at large.

2.3. Results to be achieved by the Consultant

The Consultant has to complete the following studies and tasks:

- Financial analysis:
  - Study Report No 1: Analysis and review of the existing situation and available studies (evaluation of existing traffic prognosis (e.g taking into account the impact of the new Eurovignette directive and possible future infrastructure charging possibilities), identification of the need to update and revise the traffic prognosis, analysis of the possibilities to improve the existing ferry connections, analysis of alternatives to a fixed link based on the existing feasibility study).
  - Study Report No 2: Analysis of technical solutions and their economic feasibility (an updated traffic prognosis, estimation of construction costs for different technical solutions on alternative

routes, proposals for improved ferry connections (incl cost estimates), calculation of the economical feasibility for alternative solutions, cost-benefit analysis for the alternative solutions). Evaluation if a fixed/improved link would give any added European value to the Trans-European Transport network. Evaluation of possible environmental charges to Estonia by European Commission if project brings damage to valuable natural sites and species.

- Study Report No 3: Analysis of the financing alternatives. Proposals for the different financing options of the project together with analysis of the risks and assumptions, associated with each option (analysis of the costs for users (ferry vs fixed link), analysis of the rate of state subsidy/ user cost over the proposed period of time for the different technical solutions, analysis of the possible financing scenarios of construction and operation the fixed/improved link and the possibility of EU co-financing).
- Study Report No 4: Analysis of the social and economic impacts and needs for the Saaremaa Fixed/improved Link.

- Report of Preliminary Environmental Impact Assessment of Saaremaa Fixed/improved Link.
- Public hearings to discuss draft and final report of the Preliminary Environmental Impact Assessment
- Terms of Reference for further development of the project.
- Presentation to introduce Saaremaa Fixed/improved Link and results of the project.
- Seminar to discuss the results. The findings and conclusions of the studies have been presented at a seminar for discussion with the involved parties prior to finalizing the studies.

The studies completed by the Consultant will be the main base for Estonian Government to make decisions about further development of the Fixed/improved Link project.

3. ASSUMPTIONS & RISKS

3.1. Assumptions underlying the project intervention

Estonian Road Administration and local authorities (Saare and Lääne County Governments; Hanila and Muhu rural municipalities, Estonian Fund for Nature, Ministry of the Environment, Estonian Maritime Administration) will provide all available data and documents related to this project.

3.2. Risks

- Public consultation procedures, and involvement of NGO's may raise additional requirements. These must be discussed with the Contracting Authority prior to incorporate them in the study and will be subject to an additional contract with the Contracting Authority if these requirements exceed the scope of current ToR.
- The documents made available by Estonian Road Administration and local authorities are partially in Estonian language, as well as local norms, standards, regulations etc. An approximate amount of documents to be translated into English is about 200 pages. A reseasonable time frame for all translation of documents should be about 30 man/days. The Consultant should foresee additional expenses for translation these documents and make key project documents available in Estonian for public hearings.

4. SCOPE OF THE WORK

4.1 General

4.1.1. Project description

Ministry of Economic Affairs and Communications together with the Road Administration has identified the Technical Assistance (TA) project for financial and preliminary environmental impact analysis of Saaremaa Fixed Link to be co-financed by ISPA programme.

One of the essential problems for the Islands of West Estonia is the traffic between mainland and Muhu and Saaremaa islands. Traffic between the mainland and the islands is connected with a ferry line. The distance of ferry route from the mainland and Muhu Island is 7.1 km. Nowadays Saaremaa is known as a good recreation place with unique nature and a large number of tourist sights. The further development of transport systems is a matter of high importance for Saaremaa due to the advantageous geographical location of the island.

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Fixed/improved link means not just an improvement of the existing ferry traffic, reducing the lines and delays for travellers, but also new possibilities for land use, community, economy business and higher living standards. The fixed/improved link will support the region's diverse economy and provides safe travel capacity for automobiles, trucks, recreation vehicles, sea traffic, pedestrians and bicycles, will create a solid base for further development of the tourism industry (which already plays an important role for the island's economy), transport infrastructure and services sector on Saaremaa. Drastically increasing number of visitors due to easy access from mainland will however pose serious threat to unique and vulnerable natural ecosystems of Saaremaa and Muhu islands. While possibly bringing economic benefit, the fixed link will surely assist in damage of the nature in Saaremaa and Muhu islands.

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The ferry is the bottleneck in the connection between the island and the mainland. The main problems are the inefficiency of the ferry services and the cost factor resulting from irregular traffic and also the long journey time, waiting times between ferry departures (non-existing on the mainland where a vehicle can leave at any time of the day or night) and connection interruptions, additional delays due to storms, heavy ice during winter time, technical incidents. As the cost of the ferry connection shows steady increase despite of heavy subsidies (see table 1) and crossing is very time-consuming, many businesses situated in Saaremaa and having their raw materials and products markets in mainland, bear significant additional expenses.

Table 1

Year	1995	1998	2002
Cost of the ferry ticket for three passengers + car (EEK)	68	140	175
State subsidies for ferry connections (million EEK) (All 4 ferry connections to islands in West Estonia)	23,9	52,6	100,0
Estimated subsidies for Virtsu - Kuivastu ferry connection	5,9	12,2	30,0

Waiting in long lines for ferries is also very time-consuming and uncomfortable for people travelling to and from Saaremaa. In the year 2001 the average daily traffic was 850 vehicles, increasing to 950 in 2002. According to the information received from the Saaremaa Shipping Company the number of vehicles crossing the strait by ferry in June has increased from 34 113 vehicles in year 2001 to 40 445 vehicles in year 2002 (increase 18,6 %). The total number of vehicles, crossing the strait by ferry in year 2001 was 307 733, in year 2002 - was 349 242. (Increase 13.5%).

In terms of the number of tourists, Saaremaa together with other west-coast islands is, after Tallinn, the second most frequently visited tourist region. According to the information received from Saare County Government the number of tourists visiting Saaremaa annually is estimated to be about 250 000.

As regards sea traffic, the development strategy of the county gives priority to the foundation of a deep-sea port on the western coast of Saaremaa. The project of the deep-see port is however frozen due to a court case to discuss violations in Environmental Impact Assessment. ~~under the preparation~~. As Saaremaa does not have a deep-harbour, attracting international cruise boats is almost impossible. ~~The deep-harbour with a fixed link between the island and the mainland in connection with TEN would give a transit corridor for transport, which is important to Estonia as a whole. In particular, it would facilitate the development of a west-east road network and infrastructure in the southern parts of Estonia. The fixed link together with the deep-harbour will make this part of West Estonia the part of Trans -European Transport Network (TEN).~~ Increasing volume of cargo from mainland to the deep-sea port of Saaremaa will however have its negative impact to unique and vulnerable natural ecosystems of Saaremaa and Muhu islands. Scope of such adverse impact should be assessed.

Commented [PM5]: Pole võimalik nii väita, kui pole tõestust vastavate transpordi- või majandusalaste uuringutega!

Since 1997 the task group, initiated by the Saaremaa county government, has been studying the possibilities to improve the connection with mainland and first of all the possibilities for having the fixed link with mainland. As a result of the work of this task group several reports and studies were published, most general of those Feasibility Study in year 2000 by the group of different Estonian and international organisations (financed by PHARE-INTERREG II A program) and Financial Report in year 2001 by PriceWaterhouseCoopers.

The following studies and reports are available.

- Traffic prognosis.
- Geological Investigations.
- Report of environmental impact.

- Development strategy of Saaremaa region.
- Preliminary cost estimate of possible structures.

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These study reports are available in Road Administration.

Based on those studies the Government of Estonia discussed the project and confirmed the continuation.

The proposed project will be continuation of earlier studies to give financial analysis, detailed cost benefit analysis and preliminary environmental impact assessment in order to find out the economical, environmental and social impact of the project to the region.

4.1.2. Geographical area to be covered

The project area is being located in West Estonia, Lääne and Saare counties.
Saaremaa is the second largest island in the Baltic Sea, lying in the Gulf of Riga. It has given the name to an archipelago of about 600 smaller islands and islets around it with a total area of 2,900 square kilometres. Saaremaa is also the biggest island of the Republic of Estonia, situated close to the western mainland coast of Estonia.
Saaremaa is a tourist destination, revisited by 35% of foreign and 95% of domestic tourists.
There are approximately 40,000 inhabitants in Saaremaa. There is an increasing trend towards urbanisation: at present 41% of the population, some 16,500 are resident in the capital town of Kuressaare. The larger rural centres are Kärla (1,500) and Orissaare (1,400). Saaremaa is connected to Muhu Island across the Väike Strait by the road constructed on the embankment.

The area of Muhu Island is 200 km^2 with population 2169 inhabitants. Currently, Muhu Island has a connection with the mainland by ferries. The distance between mainland and Muhu island across the Suur Strait is about 7 km. The nearest point is the harbour of Virtsu, which is located in southern part of Lääne county. Virtsu village is characterised mainly by its harbour and fishing industry. The population is 906.

4.1.3. Target groups

The group most interested in the fixed/improved link is the residents of the Saaremaa and the mainlanders who need to cross Suur Strait. Passengers, who cross the Suur Strait on a weekly basis either for work, family or property related reasons account for about half of the ferry passengers and based on surveys 79% of them support a fixed/improved link. Constantly increasing ferry traffic expenses and delays are forcing companies of Saaremaa, whose raw materials and market is located primarily on the mainland, to absorb additional costs. The fixed link would give equal ~~socio-economic~~mobility prerequisites to residents and companies of Saaremaa and mainland. Saaremaa is a tourist destination. Tourism already plays an important role for the island's economies. Different target groups, like bird watchers, hunting tourists, people interested in ethnology, visitors to Kuressaare sanatorium for mud treatment, bikers etc. find their special interests met in Saaremaa. Connected to the plan for construction of deep-sea port for short cruise ship visits, the fixed link will thus enormously increase volume of visitors, causing absorption problems for islands' vulnerable nature and unique cultural heritage.

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The tourist high season is from May to August. The county is interested in investments in health and conference tourism but also in other undertakings that would enable an extension of the tourist season.

Development of transport systems is a matter of high importance for Saaremaa due to the advantageous geographical location of the island. It will increase the role of Saaremaa in the economic environment and to the transport scheme of the Baltic Sea region.

4.2. Specific activities

In order to achieve the contract objectives the Consultant shall carry out the following tasks:

4.2.1. Analysis and review of the existing situation and available studies

- An identification of information and data needed for evaluation purposes.
- Identification of remaining information gaps and suggestions how to overcome these.
- Evaluation of existing traffic prognosis.
- Identification of the need to update and revise the traffic prognosis.
- Analysis of the possibilities to improve the existing ferry connections.
- Analysis of alternatives of a fixed link based on the existing studies.

4.2.2. Analysis of technical solutions and their economic feasibility

Based on data, collected by the Consultant and existing studies, to carry out the economic evaluation, together with technical, financial, socio-economic analysis of the different alternatives (including the existing ferry connection) of Fixed/improved Link:

- To update traffic prognosis: the Consultant has to ensure that forecast scenarios for future development in transport flows reflect: low growth, medium growth and high growth (taking regarding different EU transport policy developments, like Eurovignette).
- The Consultant has to carry out the analysis of the existing ferry connection.
- Evaluate forecast of future traffic volumes and costs if Fixed Link will be not realized. To evaluate the needs, possibilities and to propose solutions how to improve ferry connections and estimate the cost.
- To make the proposals to the Government of Estonia whether it is appropriate to manage ferry traffic between Virtsu-Kuivastu after fixed link is constructed. If necessary, additional data has to be collected.
- To carry out the analysis of technical solutions of project options.
- The Consultant has to undertake the economic evaluation of the project for the thirty year-period. In that perspective the economic costs of construction to the proposed standards have to be compared with the economic benefits derived for different alternatives and the residual value.
- To carry out analysis of economic losses due to environmental damage caused by replacement of ferry line by fixed link (such as decreasing eco-tourism and birdwatching due to prevailing massive tourism and destruction of valuable habitats).
- Carry out the economic analyses (feasibility study) for each alternative based on forecast of traffic volumes, vehicle operating costs, construction and maintenance cost, including the external costs of each mode. The analysis has to be made using the internationally recognized method and based on comparison with the continuation of ferry traffic. The results have to be presented in Net Present Value terms, using the discount rate appropriate to public investments in Estonia at the present time. The Economic Internal Rate of Return has to be calculated.
- Estimate the economic benefits of improving the connection between Saaremaa and mainland by assessing vehicle operating costs for various types of vehicles using the World Bank's HDM-IV Model or other equivalent calculation model and compare this situation without improvement. Consultant should check compliance of available vehicle operating cost data with similar to Estonia country vehicle operating cost data.
- Cost benefit analysis has to include preliminary estimation of the costs of the objects planned for construction:
    - Cost to transport system administrators and operators: ferry operating costs, port maintenance, bridge/tunnel/road maintenance, change of ferry/bridge/tunnel company ticket income, and depreciation of investments;
    - Passenger's costs: current passengers: ferry tickets/bridge or tunnel tolls, time costs, vehicle costs; new passengers: change in consumer surplus;
    - External costs: traffic accidents, road traffic and ferry traffic emissions and other environmental costs (e.g. loss of habitat, land-take etc, noise), both direct and induced costs;
    - Description of methodology;
    - Alternative options considered;
    - Direct and indirect costs and benefits in construction stage;
    - Direct and indirect costs and benefits in operational stage;
    - Key assumptions made in valuing costs and benefits;
    - Assessment of costs and benefits which cannot be fully quantified or valued;
    - Main beneficiaries of project and anticipated rate of utilization;
    - Results of analysis expressed in terms of IRR, NPV or benefit-cost ratios;
    - Assessment of risk and uncertainties (estimated effect on results of changes in main parameters);
    - Identify how the costs and risks are distributed in the society.
- To estimate the construction cost of different technical solutions on different alternative routes. (There are cost estimates included in existing Feasibility Study. The Consultant has to evaluate those and bring up additional ones if appropriate).
- To explain fully how operating and maintenance costs will be covered during the operating life of the project and what provision has been made for the efficient use and maintenance of the facilities constructed.
- Analyze the predictable socio-economical and cultural effects deriving from the construction of the Fixed Link.
- To identify the possible benefits, risks and hazards for the society and the environment achieved by realizing the project. To identify how these benefits are distributed in the society and geographically.

- To analyze and give the information if a fixed link would give any added European value to the Trans-European Transport Network.
- Based on the financial and economic analysis and results of preliminary EIA, the Consultant has to propose the final option and dimensions for construction.

The result of this technical and economic feasibility study has to be comparison of different alternatives with reference alternative and between themselves.

4.2.3. Analysis of the financing alternatives. Proposals for the different financing options of the project together with analysis of the risks and advantages, associated with each option

The Consultant has to carry out:

- Analysis of the costs for users (ferry vs. Fixed Link)
- Analysis of the rate of state subsidy/user cost over the proposed period of time for the different technical solutions.
- To carry out pre investment study to establish a plan of possible financing scenarios of construction and operation of the fixed link:
  - Financing from the national budget;
  - Financing with the assistance of a loan;
  - A toll bridge/tunnel company;
  - EU funds;
  - PPP (Public-Private Partnership);
  - Other possibilities including combinations of above listed.
  - Analysis of the risks and advantages, associated with each option.
- Analyze and justify the level of public investments for the project.
- Analyze of possible changes in the crossing cost for the user (ferry, fixed link).
- Comment the financial implications for the economy of Estonia. This has to include the ability of the national economy to pay for such a project, the positive and negative impact on the balance of external trade and the supply-demand implications of such a project, taking place in Estonia (e.g. the labour market, construction materials supplies, and secondary economic effects).

Conclusions of the study have to include:

- Recommendations for the next steps of the project development.
- Recommendations for any Government policy initiatives or legislative changes which Government should make to promote the overall objectives of the project~~project~~.

4.2.4. Preliminary Assessment of Environmental Impacts

The preliminary environmental impact assessment of alternative options for a fixed link of Saaremaa shall be based on:

- Estonian Environmental Impact Assessment and Auditing Act of 14 June 2000;
- Directive 85/337/EEC of June 1985, Directive 96/61/EC of 24 September1996, Directive 97/11/EC of March 1997, Directive 92/43/EC (Article 6) of 21 May 1992, Recommendation 2002/413/EC of May 30, 2002~~.~~
- Following recommendations by HELCOM: 15/1, 16/3, 17/3, 19/1, 21/3, 21/4, 24/10.

The objective of Preliminary Assessment is to identify significant environmental and social impacts both for the construction site and island Saaremaa in early phase of the design. The Consultant shall complete Preliminary Assessment report including:

1. Characteristics of the Project:

- Brief description of the proposed project.
- Reasons for proposing the project.
- A plan showing the boundary of the development including any land required temporarily during construction.
- The physical form of the development (layout, buildings, other structures, construction materials etc.).
- Description of the main processes including size, capacity, throughput, input and output.
- Any new access arrangements or changes to existing layout.
- A work programme for construction, operation and commissioning phases, and restoration and after-use where appropriate.
- Construction methods.

Commented [PM8]: Kõik siin toodud direktiivid, ja soovitused tuleks pealkirjadega välja tuua

Commented [PM9]: Näitab, kuidas Natura 2000 alal keskkonnamõjude hindamist teha

Commented [PM10]: "Implementation of Integrated Coastal Zone Management in Europe" ehk möödapääsmatu juhis antud kontekstis

- Resources used in construction and operation (materials, water, energy, etc.).
- The relationship with other existing/planned projects.
- The relationship with existing planning recommendations such as VASAB 2010
- Information about alternatives being considered?
- Information about mitigating measures being considered.
- Other activities, which may be required as a consequence of the project.
- Details of any other permits required for the project.

2. Location of the Project

- Maps and photographs showing the location of the project relative to surrounding physical, natural and man-made features.
- Existing land-uses on and adjacent to the site and any future planned land uses.
- Zoning or land-use policies.
- Protected areas or features.
- Sensitive areas.
- Details of any alternative location, which have been considered.

3. Characteristics of the Potential Impact

- A brief description of the likely impacts of the project considering the following factors:
- Impacts on people, human health, fauna and flora, soils, protected areas (incl. those of Natura 2000), land use, material assets, water quality and hydrology, air quality, climate, noise and vibration, the landscape and visual environment, historic and cultural heritage resources, and the interactions between them.
- Nature of the impacts (i.e. direct, indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative).
- Extent of the impact for broader region of islands Muhu and Saaremaa (geographical area, size of the affected population/habitat/species).
- Magnitude and complexity of the impact.
- Probability of the impact.
- Duration, frequency and reversibility of the impact.
- Mitigation incorporated into the project design to reduce, avoid or offset significant adverse impacts.
- Cross-border nature of the impact.

43. The Terms of Reference for detailed environmental studies and for Strategic Environmental impact Aassessment (SEA) to be carried out according to Directive 2001/42/EC.

The Consultant shall assist the Estonian Road Administration in introduction of the results of the preliminary environmental studies to the Saare and Lääne County Governments; Hanila and Muhu rural municipalities, environmental and other interested NGOsEstonian Fund for Nature, Ministry of the Environment, Estonian Maritime Administration and public.
The Consultant shall prepare the materials for introduction of the project and the results of the studies.
The Consultant shall present clarifications to the requests from the local authorities and public concerning the environmental studies. The Consultant should involve local licensed EIA expert(s) to the preparation of the report.

4.2.5. Terms of Reference for further development of the project.

During the implementation of the technical assistance the Consultant has to identify a need for further activities and studies of Fixed/improved Link project. The Consultant must produce Terms of Reference (ToR) for any needed further activity or study.

Future activities shall include how:

- to make specific geological studies;
- to carry out preliminary design of structures;
- to carry out detailed environmental studies and impact assessment;
- to tender out the realization of project by concession project.

More specifically the future activities and studies must be described by the Consultant and depend on the proposals made by the Consultant according to paragraph 4.2.3.

4.2.6. Presentation to introduce Saaremaa Fixed/improved Link and results of the contract.

The Consultant has to prepare the material for the presentation using the PowerPoint slides, 3D visualization/modeling system and video clip (introducing the Fixed/improved Link project), handouts of the slides and video, article, introducing the results and conclusions of the Saaremaa/improved Fixed Link studies. The presentation has to be prepared in Estonian and in English.

4.2.7. Seminar to discuss the results.

The Consultant has to organize a one-day overview seminar to present the findings and conclusions of the studies, discuss the solutions and summarize the results for 30-40 participants who are involved with the project prior to finalizing the report. The Consultant has to prepare a summary report with conclusions for seminar participants. The seminar languages are Estonian and English with the simultaneous translation. Consultant is responsible for the organization of the seminar and the venue. The Consultant must meet all costs of the seminar.

4.2.8. Time schedule

The project's milestones are:

- An Inception report shall be submitted to the Contracting Authority for approval by the end of week 3
- Financial analysis:
  - The Study Report No 1 shall be submitted to Contracting Authority for approval by the end of month 3;
  - The Study Report No 2 shall be submitted to Contracting Authority for approval by the end of month 6;
  - The Study Report No 3 shall be submitted to Contracting Authority for approval by the end of month 7;
- Draft ToR of the preliminary Environmental Impact Assessment shall be submitted after its final public hearing to Ministry of Environment for approval by the end of month ??
- The Preliminary Environmental Impact Assessment Report shall be submitted after its final public hearing to Ministry of Environment for approval by the end of month 7;
- ToR for future implementation of the project shall be submitted to the Contracting Authority for approval by the end of month 7;
- Presentation for the introducing Saaremaa Fixed/improved link and results of the project shall be submitted to the Contracting Authority for approval by the end of month 7;
- Seminar to discuss results to be held by the end of month 8;
- The Final Report shall be submitted for approval to the Contracting Authority within 2 weeks from the end of the assignment.

The Contracting Authority will review the reports received and comment them within 20 days.
In case of need the Consultant shall revise and resubmit the reports for approval within 15 days.

4.3. Project management

4.3.1. Responsible body

The Contracting Authority, Ministry of Economic Affairs and Communications, will be responsible for contracting and overall project monitoring, approval of reports and payments.
The Estonian Road Administration as ISPA Implementing Agency is responsible for overall administration and management, daily support of the project and ensures the conformity of progress reports and payment applications to the EU ISPA requirements and procedures.
ERA will designate the Project Manager and a Steering Committee.

4.3.2. Management Structure

The Contracting Authority will monitor the implementation of the project and ensure that the studies and reports prepared by the Consultant will meet the objectives of the project.
Project Manager will provide the Contracting Authority with reports on the financial and technical status of the project, which will be developed by the Consultant according to EU ISPA requirements and procedures, following also Visual Identity Guidelines, August 2003.
The Contracting Authority will make the final approvals of inception, bi-monthly progress and final reports.
The payment applications shall be approved by Ministry of Finance.
Road Administration will approve the study reports.

The Contracting Authority shall arrange and chair an inception and regular monthly progress meetings. All involved parties of this project will attend these meetings. The Contracting Authority shall keep the minutes of an inception meeting. The Consultant shall keep the minutes of monthly meetings.
The Contracting Authority will be responsible for organizing public hearings during the preliminary Environmental Impact Assessment process. The Consultant shall arrange, chair and keep the minutes of ad-hoc meetings.
The Contracting Authority will report the progress of the project to the ISPA Monitoring Committee.

5. LOGISTICS AND TIMING

5.1. Project location

The project area will be located in West Estonia, Lääne and Saare counties.
Map is enclosed.

5.2. Commencement date & Period of execution

The provisional commencement date is October 04, 2004 and the period of execution of the contract will be 8 months from this date.

Commented [PM11]: See on liiga lühike periood, kuna silla üht keskset keskkonnamõju (mõju rändlindudele) ei saa uurida; rände tippaeg ei jää selle 8 kuu sisse

6. REQUIREMENTS

6.1. Personnel
6.1.1. Key experts

The Consultant shall be a company or consortium with extensive experience in design of bridges/tunnels of the same nature and complexity comparable to this project, hydrotechnical engineering, preparation of feasibility studies of transport infrastructure projects, environmental impact assessment.

Relevant experience in the design of bridges/tunnels in similar climatic conditions as Estonia is desired.

All experts who have a crucial role in implementing the contract are referred to as key experts.

The profiles of the key experts for this contract shall be as follows:
- Team Leader - is responsible for overall management of the project.
- Expert in transport economy - carry out financial, economic and cost-benefit analysis.
- Expert in bridge design - carry out the technical analysis.
- Expert in tunnel design - carry out the technical analysis.
- Expert in environmental studies - carry out preliminary environmental impact assessment for different project options and for final project option.

Team Leader is responsible for overall management of the project including:
- communicating and maintaining liaison with parties related to this contract;
- being available at all reasonable times for meetings and discussions with the Contracting Authority;
- progressing the technical documentation of the project and the delivery of project outputs;

Qualifications and skills:
He/she shall provide evidence of the qualifications and acquired skills capability to fulfill the tasks and responsibilities set for the Team Leader for this project. Excellent knowledge of English language is required. He/she has to have a full university degree in the field demanded.

General professional experience:
He/she needs to have the personal and professional experience in the implementation of institutional and technical aspects targeted by this project minimum 15 years. He/she has to be managed at least 2 major road, bridge or tunnel development projects and at least 1 bridge or tunnel development project of the same nature and complexity comparable to this project during past 10 years. He/she has to have experience as a team leader / project manager in international transport projects.
He/she shall provide evidence of previous experience to fulfill the tasks and responsibilities set for the Team Leader for this project.

Expert in transport economy is responsible for carrying out financial, economic and cost-benefit analysis. :
- progressing the documentation of the studies and the delivery of project outputs;

- participation in meetings, workshops and seminars to present and discuss the findings and conclusion of the studies with parties concerned

Qualifications and skills
He/she shall provide evidence of the qualifications and acquired skills capability to fulfill the tasks and responsibilities set for this project. Good knowledge of English language is required. He/she has to have a full university degree in the field required.

General professional experience:
He/she needs to have the relevant professional experience in similar transport infrastructure projects minimum 10 years. He/she has to be completed at least 2 projects of similar complexity and nature during past 10 years. He/she must have an experience in international co-operation.

Expert in bridge design is responsible for carrying out the technical analysis of proposed project options including:

- progressing the technical documentation of the studies and the delivery of project outputs;
- participation in meetings, workshops and seminars to present and discuss the findings and conclusion of the studies with parties concerned.

Qualifications and skills
He/she shall provide evidence of the qualifications and acquired skills capability to fulfill the tasks and responsibilities set for this project. Good knowledge of English language is required. He/she has to have a full university degree in the field required.

General professional experience:
He/she needs to have the relevant professional experience in similar transport infrastructure projects minimum 10 years. He/she has to be completed at least 2 projects of similar complexity and nature during past 10 years. He/she must have an experience in international co-operation.

Expert in tunnel design is responsible for carrying out the technical analysis of proposed project options including:

- progressing the technical documentation of the studies and the delivery of project outputs;
- participation on meetings, workshops and seminars to present and discuss the findings and conclusion of the studies with parties concerned

Qualifications and skills
He/she shall provide evidence of the qualifications and acquired skills capability to fulfill the tasks and responsibilities set for this project. Good knowledge of English language is required. He/she has to have a full university degree in the field required.

General professional experience:
He/she needs to have the relevant professional experience in similar transport infrastructure projects minimum 10 years. He/she has to be completed at least 2 projects of similar complexity and nature during past 10 years. He/she must have an experience in international co-operation.

Expert in environmental studies is responsible for carrying out preliminary environmental impact assessment for different project options and for final project option including:

- progressing the technical documentation of the studies and the delivery of project outputs;
- participation on meetings, workshops and seminars to present and discuss the findings and conclusion of the studies with parties concerned

Qualifications and skills
He/she shall provide evidence of the qualifications and acquired skills capability to fulfill the tasks and responsibilities set for this project. Good knowledge of English language is required. He/she has to have a full university degree in the field required.

General professional experience:
He/she needs to have the relevant professional experience in similar transport infrastructure projects minimum 10 years. He/she has to be completed at least 2 projects of similar complexity and nature during past 10 years. He/she must have an experience in international co-operation.

The Tenderer shall indicate in its Organization and Methodology that sufficient time of the key experts work in Estonia is foreseen to complete the studies, participate in study meetings and workshops, public consultation.

6.1.2. Other experts

CVs for experts other than the key experts are not examined prior to the signature of the contract. They should not have been included in tenders.

The Consultant has to select and hire other experts as required according to the profiles identified in the Organization & Methodology and objectives of the contract.

The Consultant has to pay attention to the need to ensure the active participation of local professional skills where available, and a suitable mix of international and local staff in the project teams. The team carrying out preliminary environmental impact assessment should have local staff member(s), having EIA license(s). All experts must be independent and free from conflicts of interest in the responsibilities accorded to them.

Project Steering Committee will guide and supervise the work of Consultant.

The selection procedures used by the Consultant to select these other experts shall be transparent, and shall be based on pre-defined criteria, including professional qualifications, language skills and work experience. The selection of experts has to be subject to approval by the Contracting Authority.

Note that civil servants and other staff of the public administration of the beneficiary country cannot be recruited as experts.

6.1.3. Support staff & backstopping

The Consultant has to ensure that experts are adequately supported and equipped. In particular it must ensure that there is sufficient administrative, secretarial and interpreting provision to enable experts to concentrate on their primary responsibilities.
It must also transfer funds as necessary to support its activities under the contract and to ensure that its employees are paid regularly and in a timely fashion.
If the Consultant is a consortium, the arrangements should allow for the maximum flexibility in project implementation.

6.2. Office accommodation

Office accommodation of a reasonable standard is to be provided by the Consultant. The costs of the office accommodation are to be covered by the Consultant.

6.3 Equipment

The Consultant has to provide the experts with equipment, technology and software needed for studies, surveys, and investigation.
No equipment is to be purchased or provided on behalf of the Contracting Authority. Any equipment related to this contract, which is to be acquired by the experts, must be purchased or provided by the Consultant. These costs are to be covered by the Consultant.

7. REPORTS

7.1. Reporting requirements

During the period of execution of the contract the Consultant shall prepare the inception report, bi-monthly progress reports and a final report in addition to any required in Section 4.2 of these Terms of Reference.

An Inception Report

An Inception report has to be submitted within a period of three weeks from commencement of duties. This inception report has to:

- Define clearly the aims and objectives of the assignment;
- Set out the organization of the project and expert's detailed work programme;
- Identify the constraints, risks, assumptions and problems arising in the initial period of services.

Bi-monthly Progress Reports

Reports on the progress of the services have to address the following issues:

- Progress on individual tasks and the expected finalization of individual tasks as well as whole assignment, detailed comparison and analysis between the work programme and activities realized;
- Summaries of results achieved under individual tasks including working papers;
- Any delays encountered/foreseen;
- Any other problems encountered/ foreseen and suggestions for overcoming these problems.
- Visualisation drawings, photos

The bi-monthly progress reports have to be submitted by the fifth calendar day of the month before the regular monthly meeting.

Final Report

The final report has to be submitted within 2 weeks from the end of the assignment. The Final Report has to give overview of the general progress (detailed comparison and analysis between the work programme and activities realized) and major problems encountered. The draft final progress report must be submitted at least one month before the end of the period of execution of the contract. The draft final report must be amendment as necessary.

All the reports shall provide information on:

- General progress: (actions, meetings with Recipient Institutions, suppliers, customers, etc.).
- Conclusions of the studies.
- Problems encountered (and the solutions found or not found).
- Recommendations (short-term and within the life of the project as well as long-term and beyond the project).

The reports have to distinguish between activities achieved and considered finished and activities currently under way so that the evolution of the contract is clear.

The data exchanged in digital form has to be in the following format:

- Text documents in MS Word 6/95 or later.
- Sheets in MS Excel 5.0/95 or later.
- Drawings in AutoCAD 2000.
- Other formats as well as the use of project blanks and other arrangements have to be agreed upon on the inception meeting.

7.2. Submission & approval of reports

The draft versions of above progress reports shall be submitted to the ERA and the Contracting Authority for comments. After the reports have been amended according to the comments the hard copies of the progress reports must be submitted to:

An Inception Report, Bi-monthly progress reports and the Final Report shall be submitted to:

- European Commission, DG Regional Policy - two hard copies and electronic version;
- Delegation of the EC in Estonia - a hard copy;
- Ministry of Economic Affairs and Communications - a hard copy and electronic version;
- Estonian Road Administration - a hard copy and electronic version;
- Ministry of Finance - a hard copy;
- Ministry of Environment (only the reports dealing with the EIA) - a hard copy;

All progress reports, documents and correspondence are in English, except cases when the Contracting Authority has to present to the Estonian authorities documents in Estonian according to the Estonian legislation. Reports of the preliminary environmental impact assessment that are going to be presented to the public hearings must also be available in Estonian. Final versions of all study reports must be in English and Estonian.
The Contracting Authority will review the reports received and comment them within 20 days.
In case of need the Consultant shall revise and resubmit the reports for approval within 15 days.
The rest of the studies, reports and documents have to be submitted in 6 hard copies and 3 copies in digital format on CD.

8. MONITORING AND EVALUATION

8.1. Definition of indicators

The main indicators of evaluation will be time and the attainability of the objectives set by the Contracting Authority.

8.2. Key indicators

- An Inception Report has been completed. Report is approved by the Contracting Authority;
- Study Report No 1 of Financial Analysis is completed. Report is approved by the Contracting Authority;
- Study Report No 2 of Financial Analysis is completed. Report is approved by the Contracting Authority;
- Study Report No 3 of Financial Analysis is completed. Report is approved by the Contracting Authority;
- ToR of Preliminary Environmental Impact Assessment is completed. ToR is approved by the Ministry of Environment;
- Report of Preliminary Environmental Impact Assessment is completed. Report is approved by the Ministry of Environment;
- ToR for future implementation of the project is completed. Report is approved by the Contracting Authority;
- Presentation for introducing Saaremaa Fixed link and results of the project are prepared. Presentation is approved by the Contracting Authority;
- Seminar to discuss results is held;
- The Final Report is completed. The Contracting Authority approves report.

8.3. Special requirements

The Consultant has to apply for preliminary technical requirements and acquire relevant preliminary approvals from all authorities related to the assignment and this project.