

INVITATION FOR EXPRESSION OF INTEREST

TO ACT AS A TECHNICAL EXPERT AND CONSULTANT (“Expert” or “Consultant”) TO THE HELLENIC REPUBLIC ASSET DEVELOPMENT FUND (“HRADF”) FOR THE EXECUTION OF A SURVEY AND THE ANALYSIS OF RESULTS REGARDING PAVEMENT DEFLECTION AT TRAFFIC SPEED OF THE EGNATIA MOTORWAY AND THREE VERTICAL AXES (I) SIATISTA - IEROPIGI/KRISTALLOPIGI, (II) THESSALONIKI – SERRES - PROMACHONAS AND (III) THESSALONIKI - EVZONI

June 28, 2017

1. Introduction

1.1. Pursuant to:

- I. the provisions of the single article of Law 3985/2011 “Medium Term Fiscal Strategy 2012-2015” (Government Gazette A’151/2011), which approved the Medium Term Fiscal Strategy 2012-2015 and the “Privatisations Program 2011-2015” (Chapter B’, Part II “**Privatizations**”),
- II. Law 3986/2011 on “Emergency Implementation Measures for the Medium-Term Fiscal Strategy Framework 2012-2015” (Government Gazette A’ 151/2011), the Hellenic Republic Asset Development Fund SA (the “**HRADF**” of the “**Fund**”) was established with the sole object of developing assets of the Hellenic Republic and are included in the Privatization Program,
- III. the provisions of Law 4046/2012 (Government Gazette A’28/2012) “Approval of the Draft Agreements for Financial Assistance Facility between the EFSF, the Hellenic Republic and the Bank of Greece, of the Memorandum of Understanding between the Hellenic Republic, the European Commission and the Bank of Greece and other provisions for the reduction of public debt and the salvage of the national economy” that updated the Privatization Program included in Annex IV,
- IV. the provisions of paragraph 4.4 (Structural Policies for the enhancement of competitiveness and development - Privatization) of Law 4336/2015 (Government Gazette A’94/2015) “Ratification of draft agreement for the Financial Support from the European Stability Mechanism and provisions for the implementation of the Financing Agreement” and,
- V. the Joint Ministerial Decision No 215/10.8.2012 issued by the Inter-ministerial Committee for Asset Restructuring & Privatization (ICARP) (Government Gazette 2316B’ 10/8/2012), transferring to the Fund - for a maximum period of forty (40) years - the right to operate, maintain and exploit the Egnatia Motorway and roadside sites thereto, as well as all property, tangible and intangible, rights related to the Egnatia Motorway, together with three vertical axis, namely: (i) Siatista - Ieropigi/Kristallopigi leading to Albania, (ii) Thessaloniki – Serres - Promachonas leading to Bulgaria and (iii) the Thessaloniki - Evzoni transversal part of Patra – Athens –Thessaloniki Evzoni motorway axis leading to FYROM,

the concession of the right to operate, maintain and exploit the fully constructed Egnatia Motorway horizontal axis (approximately 665 km in length) in Northern Greece, together with the abovementioned three vertical axes leading to Albania, FYROM and Bulgaria (approximately 230 km in combined length), all together referred to as (“**Egnatia**” or “**Motorway**”), is foreseen in the on-going Privatization Program of the Hellenic Republic (the “**Transaction**” or “**Project**”).

1.2. Within the framework of this Transaction, the HRADF is seeking to engage a highly experienced and technically equipped consultant (“**Expert**” or “**Consultant**”) to undertake the scope of execution and analysis of results of a survey regarding pavement deflection at traffic speed of the Motorway.

2. The Asset in Brief

The Egnatia Motorway horizontal axis, crosses the regions of Epirus, Macedonia and Thrace in Northern Greece starting from the Igoumenitsa Port, which provides ferry links to Italy, and ending at Kipi in the Evros area (Greek -Turkish border). It is a dual carriageway facility with a typical cross section of two traffic lanes per direction, a central reserve and an emergency lane. The three (3) vertical axes are:

- Siatista – Ieropigi / Krystallopigi leading to Albania
- Thessaloniki - Evzoni transversal part of Patra – Athens – Thessaloniki Evzoni (PATHE) motorway leading to FYROM
- Thessaloniki – Serres - Promachonas leading to Bulgaria

The general alignment of the Motorway is presented in **Figure 1**

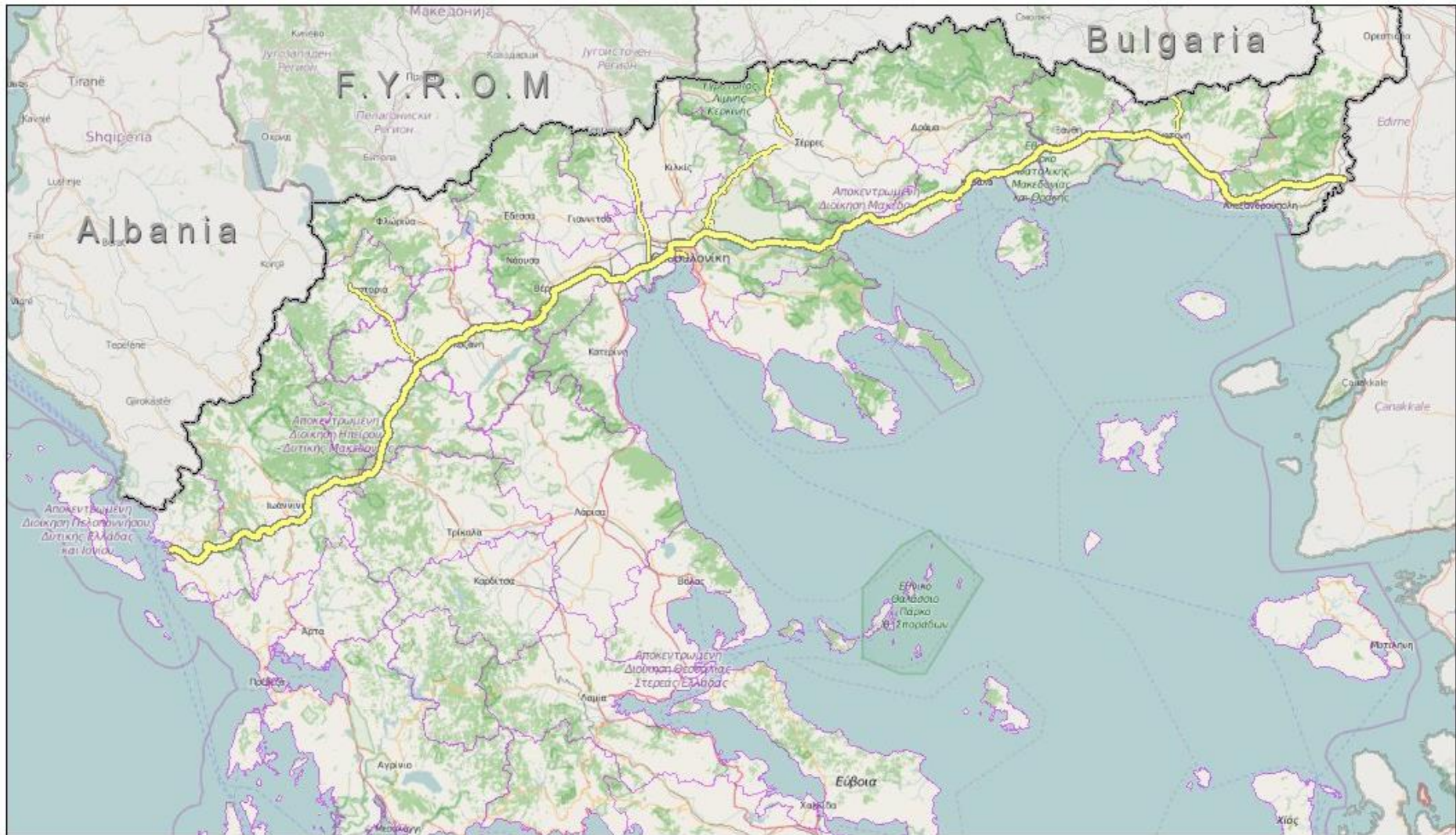


Figure 1: The Egnatia Motorway Project

3. Scope of the Assignment

The survey scope consists of using a “Traffic Speed Deflectometer” (TSD) in order to assess the pavement bearing capacity at traffic speed (40 – 80 km/h) without influencing motorway traffic and producing survey raw and analysed results. The pavement speed deflection measurements must be taken under real traffic load (13 tons), while simultaneously taking into account the pavement quality. Here follows the specification of the equipment and the survey process:

➤ Doppler lasers

The TSD should have a standard setup consisting of at least seven Doppler sensors including the reference sensor. Doppler sensors must be kept clean and in high standard of maintenance at all times. The acceptable level for the data rate is higher than 600 samples per second. The reporting interval of raw data from the Doppler sensors describes the frequency at which raw data from the testing is stored. The tenderer must declare the frequency achievable - it is desirable to have a high frequency of the raw data.

➤ Instrument positions

Pavement deflections are usually measured in the nearside wheel path in the direction of travel. The tenderer must declare the location of the device sensors to identify the critical point in the deflection bowl created by the TSD as well as the location of sensors used to express the condition of pavement layers underneath the surface course.

➤ Recording of longitudinal profile

Determination of the longitudinal profile during the TSD test is not a requirement, but it is desirable. Both types of instrumentation should be placed in the same line, i.e. in the nearside wheel path.

➤ Driving speed

TSD tests should be conducted at a constant speed. The device should move at a speed comparable to normal truck traffic. The desired speed range should be 40-80km/h.

➤ Load registration

Loading, during a speed survey, may vary significantly from the static load due to dynamic effects. It is desirable that the TSD device possesses instrumentation to enable estimation of dynamic loading.

➤ Temperature registration

Pavement temperature should be measured during the TSD survey.

To enhance reliability it is important that the measuring gauges are positioned in a way that they provide correct readings without bias from exhaust pipes, shady areas, etc. Of importance is also sampling frequency of the temperature gauges and data interval for processed data. The tenderer must describe the TSD relevant specification.

➤ Location measurement

Correct location referencing of survey results are of prime importance. The TSD must be equipped with appropriate location referencing systems (e.g. a GPS system, odometer systems or inertial devices). The requested accuracy is defined as 1 m in horizontal space.

➤ Additional measuring systems

Any additional TSD survey systems (such as laser profilers, video recording systems for registration of pavement condition, Ground Penetrating Radar, laser systems for pavement defect registrations, etc.) must be described by the tenderer as well as the possibility of combining testing data using specific systems.

➤ Conditions during survey

TSD measurements must remain practically free from influence by the conditions of surface moisture, pavement temperature, pavement moisture, pavement surface colour, cross wind and driving speed. Respect of this requirement will have to be substantiated in the relevant survey report.

➤ Survey Results

Data content and format delivered will be proposed by the survey team and approved by HRADF. They should include deflection characteristics and indices like the International Roughness Index (IRI). The indices will be used for characterisation of pavement structural condition.

The TSD processing software should be able to deliver data points for every 10m.

➤ Evidence of performance

The TSD service supplier should provide evidence of performance of his device for similar projects. The evidence should include as a minimum a list of relevant projects with measured length, data files, road types and production time.

➤ Calibration

There is a need to ensure that the recorded measurements are converted to the correct value for the required measurement i.e. that voltages recorded by a laser are converted correctly to distance. Evidence must be provided that the survey contractor implements regular calibration of their equipment (where appropriate), performed according to the schedule recommended by the manufacturer.

➤ QA

The equipment provider must briefly describe the processes used for testing (accreditation / validation) and quality assurance of the equipment. Response must be focussed on the quality assurance of the equipment itself, and tests applied on the equipment, and should not refer to QA certification of the contractor or manufacturer.

In conclusion, the TSD must be equipped with the following features (*at a minimum*):

- Laser dopplers capable of measuring the speed pavement deflection contactless and under temperature condition control.
- Location equipment consisting of odometer devices, GPS, inertia devices or combination of the above providing a collective horizontal accuracy of 1 m.
- Equipment to simultaneously measure the International Roughness Index (IRI) according to international standards (such as ASTM E950).
- Cameras producing high quality frames of pavement and surrounding view every 5 - 10 m.

Speed deflections must be measured at different distances from the centre load. (Indicatively at 100, 200, 300, 600, 900, 1500 mm distances); in data post processing the pavement structural indexes will be evaluated as proposed by the contractor and approved by HRADF.

The structural indices must be able to represent the pavement bearing capacity highlighting the structural condition of the upper layers and deeper layers separately for each one.

Besides assessing the pavement bearing capacity, the survey will establish the International Roughness Index (IRI), according to international standards (such as the ASTM E 1926). IRI is the standard international index for driving comfort evaluation. Appropriate equipment shall be used for this measurement such as a laser profilometer compliant with international standards (such as the ASTM E 950-98 (2004) "Standard Test Method for Measuring the Longitudinal Profile of Travelled Surfaces with an Accelerometer Established Inertial Profiling Reference"). The profile data will be processed to evaluate the IRI.

The survey crew will consist of two members as a minimum (driver, technician). Egnatia Odos SA (the current motorway manager and operator) will provide escort to the TSD as needed.

The survey will cover the entire length of the Egnatia Motorway horizontal axis in both directions on the heavy traffic lane only. The survey will also cover the interchange ramps and the three (3) vertical road axes that belong to the concession scope (see Chapter 2 and Figure 1 above).

4. Duration and Budget

4.1. Duration: The field survey duration shall not exceed a period of **three (3) weeks after notice** to proceed while the provision of analyzed data, including the calculation of indices and pavement bearing capacity should be provided at the **end of the second (2nd) month after notice** to proceed. The exact form of deliverables will be proposed by the Consultant and approved by HRADF and its Technical Advisor.

4.2. Lump Sum fee: The maximum available budget for the award of the services described above is EUR 150,000 (including all travelling, accommodation and out of pocket expenses) plus VAT (if any).

5. Necessary Qualifications

Interested Parties should be able to demonstrate their standing and professional experience in relation to this assignment. Interested parties are kindly requested to submit an offer in writing, which should include the following:

5.1. Track Record & Experience (weight 30%): Proof of relevant experience in the provision of expert technical advisory services in infrastructure concessions and motorway projects in particular. The dossier of the Expression of Interest should include obligatorily a catalogue of all relevant projects in which the interested party has participated in the last 10 years (**DOSSIER A'**).

5.2. Project Team (weight 20%): Proposed team composition including relevant experience of the members of the team. Expressions of Interest should include CVs of all members of the engagement team (**DOSSIER B'**).

- 5.3. Methodological Approach (weight 20%):** Interested Parties should submit in their proposal a brief description of the proposed approach to the assignment, identification of critical issues, equipment to be used and methodologies to be applied as well as its deliverables including an indicative timetable (**DOSSIER C'**).
- 5.4. Maximum Budget (weight 30%):** The maximum available budget for this assignment is Euro 150,000 (plus VAT, if applicable) including all traveling, accommodation and out-of-pocket expenses. The Expression of Interest should include a detailed Budget analysis and structure (**DOSSIER D'**).
- 5.5.** Interested Parties must declare in writing that they do not have a conflict of interest, as well as that they do not have any relationship of economic or of any other nature with Egnatia Odos S.A., its subsidiaries and affiliates, and that they are not retained by the latter. Such a declaration confirming the absence of any conflict of interest shall be in effect throughout the term of the engagement of the Consultant with HRADF.
- 5.6.** Interested Parties must meet all the qualifications as described above under 5.1 through 5.5. Interested Parties, who fail to submit their Expressions of Interest fully compliant to the qualifications required under 5.1 through 5.5 of this Invitation, shall be disqualified from the Tender.
- 5.7.** The Consultant must observe and abide by the rules provided for in art. 7 of the Law 3049/2002 and particularly their professional code of conduct and relevant confidentiality rules even after the conclusion of their engagement.

6. Selection Process

- 6.1.** The assignment will be awarded in accordance with the provisions of the Law 3986/2011 and article 2.4 of the Procurement Regulation of HRADF (Min. Finance Decision 2/16128/0025/2014, Governmental Gazette B' 476/26.02.2014), as in force.
- 6.2.** Interested Parties are assessed and evaluated in accordance with the table below. The tender will be awarded at the Interested Party with the highest score.
- 6.3.** Interested Parties are evaluated on the basis of the following criteria and their respective weighting:

Criterion	Weighting
Track Record & Experience - DOSSIER A'	30 %
Project Team - DOSSIER B'	20 %
Methodological Approach - DOSSIER C'	20 %
Budget - DOSSIER D'	30 %

- 6.4.** HRADF may request additional documents and/or clarifications and/or information from the Interested Parties in connection with any issue related to their Expression of Interest, as deemed necessary.

- 6.5. The Expression of Interest, consisting of i) DOSSIERS A', B', C' and D', ii) the declarations confirming the absence of any conflict of interest and, iii) any other supporting documentation which proves the required experience and expertise of the Interested Parties as well as of the individual members of their proposed team, are permissibly submitted **only** electronically by e-mail at the e-mail address: info@hraf.gr, marked **"EGNATIA MOTORWAY: INVITATION FOR EXPRESSION OF INTEREST FOR THE APPOINTMENT OF A TECHNICAL EXPERT AND CONSULTANT"**. In addition, the Interested Parties may also submit to HRADF, at their discretion, a hard copy of DOSSIERS A', B', C' and D' in a sealed envelope, at the premises of HRADF, (1, Kolokotroni Street & Stadiou, 7th floor, Athens 10562, Greece). In case of any discrepancy or any other inconsistency between the hard copy and the electronic submission, the e-mail submission shall prevail.
- 6.6. **DOSSIER D' must be protected with a password; if not, the Interested Party shall be automatically disqualified.** Following the assessment of DOSSIERS A', B', C', and provided that the declarations confirming the absence of any conflict of interest are included, **only** the Interested Parties which comply with the requirements under para. 5.6 (regarding DOSSIER A', B', and C') will be **invited via e-mail to send the password for DOSSIER D'**. Interested Parties who fail to comply with the above requirements will be notified accordingly. Following the assessment of DOSSIER D', Interested Parties (invited to send the password for DOSSIER D') will be notified about the outcome of the process.
- 6.7. The Expressions of Interest must be submitted **not later than July 18th, 2017, 17:00, Athens time**, irrespectively of the means of their submission. Expressions of Interest submitted after the aforementioned deadline shall be deemed inadmissible and thus immediately rejected. In the case of a late receipt, the Expression of Interest shall not be evaluated.
- 6.8. HRADF reserves the right to enter into discussions and negotiations with the preferred bidder for the improvement of its bid, prior to the final award of the assignment.

7. Terms and Conditions

- 7.1. The Expressions of Interest to be submitted and this Invitation, as well as the Consultant's engagement letter for the project, are governed by and construed in accordance with the laws of the Hellenic Republic, taking also into consideration the prevailing market's levels, the practice of HRADF and its internal policy, including terms and conditions customary in the circumstances.
- 7.2. The Interested Parties accept hereby the approved expenses policy of HRADF on the reimbursement of the expenses of its advisors.
- 7.3. HRADF or any of its advisors, or agents, or employees, or officers are not to be held responsible or liable in respect of any error or misstatement/misrepresentation in, or omission from, this Invitation. No person acquires against HRADF and its officers, agents, employees and officers, or its parent company (the Hellenic Corporation of Assets & Participations S.A.) or the HRADF's other advisors any right or claim for compensation, or indemnification, or other, for any reason or cause related to this Invitation and/or the Expression of Interest and/or the participation in the tender. No representation, warranty or undertaking, expressed or implied, is, or will be made, in relation to the accuracy, adequacy or completeness of this Invitation and the tender process in general.

- 7.4.** HRADF reserves the right, at the fullest extent possible and at its exclusive discretion, to cancel, suspend, amend or postpone this procedure, without any prior notice or update, as well as to terminate any negotiations or discussions at any stage of the process, without incurring any liability whatsoever as against any participant and/or any third party.
- 7.5.** Any dispute arising under, or out of, or in connection with the present Invitation, including the Expressions of Interest submitted and the Consultant's engagement letter for the Project, shall be subject to the exclusive jurisdiction of the Courts of Athens, Greece.