

NOTICE FOR THE CALL OF A PRELIMINARY MARKET CONSULTATION PURSUANT TO ART. 66 OF LEGISLATIVE DECREE 50/2016 – FFML SYSTEM LOMBARDA SPA PEDEMONTANA MOTORWAY

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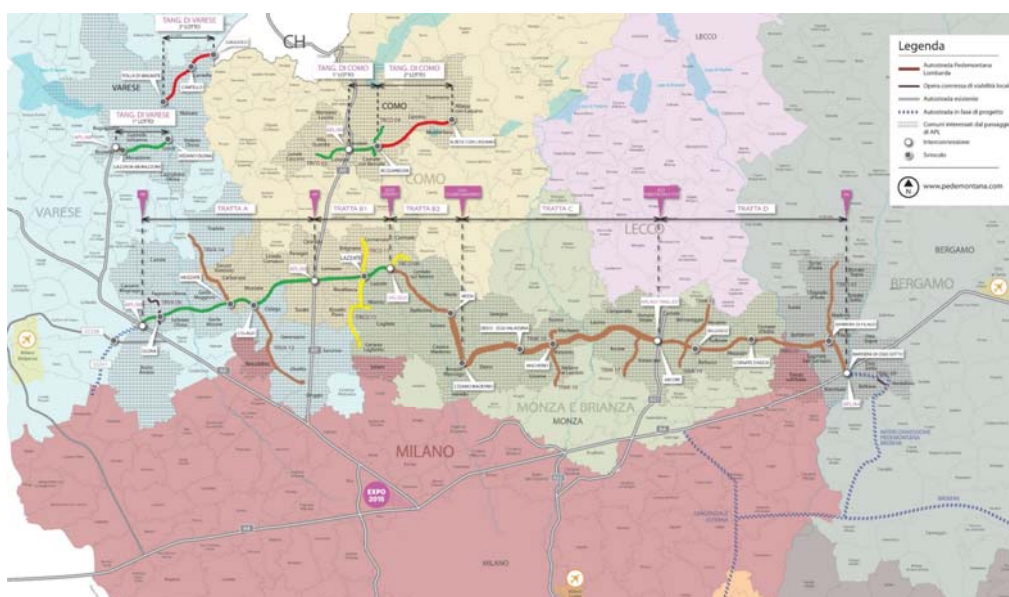
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1. OVERVIEW

Autostrada Pedemontana Lombarda S.p.A. (APL) is a road concession holder having as its business purpose “The promotion, study, design, construction and management of the Lombarda Pedemontana Motorway - granted under concession and divided into the functional sections Cassano Magnago-Dalmine, Gazzada-Valico del Gaggiolo (Varese bypass system), Villa Guardia-Tavernerio (Como bypass system) - as well as those adjacent roads or motorways, complementary and in any case implemented as connected works”.

The development of the motorway route as envisaged by the project is shown in the plan below, which also highlights the sections already completed and open to traffic and the routes still to be completed:



-  SECTION A – COMO BYPASS – VARESE BYPASS OPEN TO TRAFFIC
-  SECTION B1 – OPEN TO TRAFFIC
-  SECTION B1 CONNECTED WORKS – IN PROGRESS
-  SECTIONS B2-C-D – TRVA 13 AND TRVA 14 – WORKS NOT YET STARTED
-  LOTS NOT YET ASSIGNED

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Sede di Assago (MI) e siti operativi.
Per le attività di:
Esercizio e Manutenzione di autostrade e tangenziali in concessione. Progettazione, Direzione Lavori e coordinamento delle attività finalizzate alla realizzazione di Autostrade in concessione.

UNI EN ISO 9001:2008
UNI EN ISO 14001:2004



Limitatamente al sito di Assago (MI).
Per le attività di Progettazione, Direzione Lavori e coordinamento delle attività finalizzate alla realizzazione di Autostrade in concessione.



CERTQUALITY
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APL adopts a tolling system called Free Flow Multilane (FFML) that allows

the amount of the toll to be commensurate with the use of the infrastructure, avoiding the use of physical tools and barriers that could influence the free flow of traffic; in the FFML system, in fact, there are neither barriers nor toll stations thus obtaining greater safety, less land consumption due to the lack of traffic lanes and islands, elimination of the risk of queues and reduction in slowdowns and traffic on neighbouring roads and therefore pollution reduction.

In order to allow toll collection, the system must be able to: record the passage of the vehicle, identify it, classify it, transmit the data, process the data and manage invoicing.

The element that characterises this tolling method is the unequivocal identification of the vehicle in transit and its characteristics.

The photo/video detection of the vehicle in transit is an absolutely essential characteristic of the system.

Video tolling, through the use of appropriate technological equipment, allows optical detection of the passage of vehicles in transit, recognition of the number plate, their classification based on their volumetric characteristics and determination of the applicable toll rate.

Through electronic tolling it is possible to identify and classify vehicles in transit equipped with OBE. The OBE is always associated with a registered user with an agreed payment method.

The fundamental element of the FFML is the exchange and processing of data, which takes place between the **Peripheral System**, as defined in the following paragraphs, and the **Central System** of APL.

2. PERIPHERAL SYSTEM

The peripheral technological system of APL allows the collection and aggregation of all the information related to the transits that are necessary for the tolling process to be successfully concluded.

The peripheral system consists of:

- Metal portals;
- Electrical power supply systems;
- Hardware components installed on the portals:
 - o Technological sensors for the collection of transit information (Electronic Tolling and Video Tolling);
 - o Network and processing devices;
- Portal software components:
 - o Software developed by the Technology Provider:

Portal Management

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- FFM gate management and integration software (on P278R3 gate controller "Master")
- Video analysis and historical Sentinel video recording extraction software (on NAS server)
- FFM WEB Monitor statistical analysis and performance software (on NAS server)
- Software for data acquisition and spooling from gate controller to Proxy (on NAS server)

Proxy

- Software for data acquisition and spooling from portals to central system
- X-Monit and TMI monitoring and diagnostic software

Classifier sub-system

- Classification system monitoring software (on IPC server)

RF sub-system

- Antenna and transactions management software with OBU -stack-application] (on P278R3 gate controller "Master")
- Software developed by Third Party Suppliers:

OCR sub-system

- Level 1 OCR on ANPR cameras
- Level 2 OCR on P278R3 "OCR" gate controller

Classifier sub-system

- TEMS server for laser sensor management [LMS111 - classification based on outline / LMS511 - classification based on axles] (on IPC server)

RF sub-system

- Antenna and transaction management software with OBU [executor]

The Software components of the peripheral system are available in APL in executable format under unlimited license without transfer of ownership of the source codes.

3. OPERATION AND PERFORMANCE

The APL FFML peripheral technological system performs the detection of transits under the metal portals, identifying, for each vehicle:

- The code of the front and rear number plates, through Cameras and OCR Systems;
- The Class based on the APL classification system, using Laser Scanner classifiers;
- The code of any on-board OBU device, using DSRC antennas;
- The date and time of transit;
- Context images using DOME cameras.

Transit detection takes place in any traffic and weather conditions.

The data thus detected is then processed on dedicated Servers positioned in the Shelter placed on

board the Portal before being subsequently sent to the Proxy for the processing by the Central System. The portal software manages the correlation of the different transit data coming from the peripheral sensors and reconstructs the single transit, unequivocally assigning the number plate, class, transit time and, if present, the on-board OBU code.

The system has been active since November 2015 and has undergone a lengthy fine tuning and optimisation process and is now able to detect transits with a level of reliability that allows 99.5% of vehicles equipped with OBU and 97% of vehicles without OBU to be intercepted and recognised.

Data exchange between the peripheral system and the central system takes place as follows:

At predetermined time intervals, the Portal controller (Proxy) packs a group of messages in an XML file and sends it to the central system.

The Proxy subsystem unpacks the messages and stores them in this structure without performing checks (other than those determined by the data type of the database).

The data concerns: - general transit characteristics; - final data deduced from the controller with an algorithm starting from the data detected by the various sensors; - data detected by the Laser Camera (TIC) for volumetric classification; - data detected by the front and rear Photo Cameras; - data detected by the Outline/Axle classifiers (where present); - data detected by ETC Boa in the dialogue with generic OBU; - data detected by ETC Boa in the dialogue with Telepass OBU; - data detected by ETC Boa in the dialogue with SET OBU.

The technology used for the development of the data exchange application is on FRAMEWORK J2EE.

Attached to this document is the technical documentation related to the free flow peripheral system.

4. CONSULTATION OBJECTIVES

APL is looking for new suppliers with the skills and experience to implement a software solution that is functionally alternative to the one currently used and that allows complete replacement of the current portal software, while guaranteeing the following conditions:

- Maintenance of the functionality of the system as described above;
- Maintenance of the same detection performance levels at the time of system replacement.

In addition, the switch from one software solution to the other must take place with traffic open, ensuring absolute continuity of the service in complete safety for operators and drivers transiting under the portals.

The software replacement may involve only the software developed by the Technology Provider, or also that developed by third parties.

For purely informative purposes, it should be noted that the sections still awaiting implementation

must envisage implementation of the FFML system.

Finally, APL is also interested in understanding if the market is available - and under what conditions - to make the ownership of the source code available, in order to better structure any future assignments concerning the evolution/ordinary maintenance of the system.

5. PROCEDURES AND DEADLINES FOR SUBMISSION OF THE DOCUMENTATION - HEARINGS.

Each interested economic operator must send - preferably by **12.30 pm (Italian time) on 22/05/2018** - a declaration of interest (*Annex 1*):

- in hard copy format, in a sealed envelope to the following address: Autostrada Pedemontana Lombarda S.p.A., Via del Bosco Rinnovato 4/A, Building U9, 20090 Assago (MI) (3rd floor) – General Protocol Office.

or:

- in digital format, to the following certified e-mail address: pedemontana@pec.it

The declaration must be signed (in hard copy or digitally) by the legal representative of the interested economic operator or by a person with appropriate powers: the declaration must be accompanied by a photocopy of a valid identity document of the signatory and appropriate documentation attesting the signature powers of the signatory (Chamber of Commerce certificate, power of attorney, etc.).

Each interested economic operator may participate in the preliminary consultation only after submission of a **confidentiality commitment** (*see Annex 2*), to be submitted this too preferably by **12.30 pm (Italian time) on 22/05/2018**. The confidentiality commitment must be signed in the manner and under the conditions referred to in the previous paragraph.

After receiving any declarations of interest, APL will contact the individual economic operators to develop an agenda of meetings to be held between the delegated APL function and each economic operator at the APL registered office: in the meantime, each economic operator may request further information, justifying the request. The meetings will be minuted.

Once the first phase of meetings with individual operators has taken place, APL reserves the right to formulate further specific requests and/or additional documents to be made available to said operators, with discussions that may be individual or of a group nature among all the interested parties: APL also reserves the right to continue the consultation with one or more operators at its discretion and to subsequently dictate the procedures for closing it, requesting the interested economic operator, by way of example, a final written document.

In the expression of interest, each economic operator must indicate its contact address, a certified email address, an email address and/or fax to which communications are authorised to be sent.

6. FURTHER USEFUL INFORMATION

APL is committed to confidentiality, not divulging to third parties any data or information contained in the documents and in the information that will be received from the interested parties in response to this Notice.

The outcome of this procedure is in no way binding for APL, which reserves the right to the most ample discretion with respect to the decisions to be taken as a result of this consultation. This Notice does not constitute an invitation to tender, an offer to the public pursuant to Art. 1336 of the Italian Civil Code, a promise to the public pursuant to Art. 1989 of the Italian Civil Code or any other form of commitment towards third parties: the Notice in fact is of a merely cognitive and exploratory nature with regard to the target market.

APL reserves the right not to proceed with the call of the subsequent procedure in relation to the subject of this consultation.

It is specified that the official language of the consultation is Italian: this Notice is also made available in English. Should the economic operator wishes to submit documents in English or in another language, the documents themselves must be accompanied by an Italian translation accompanied by a sworn report signed by an expert registered/not registered in the relevant Register. All translation costs shall be borne by the economic operator, without exception. Should the economic operator require a simultaneous translation during meetings/hearings to be held at APL, the same shall bring its own translator: also in this case, all costs attributable to this activity shall be borne solely by the economic operator.

No forms of allowance, reimbursement or compensation will be provided for any interested participants.

Any interested participants may not claim any right and/or interest in this regard - not even in terms of the right/interest to be invited to a possible future procedure - and APL reserves the right to use that collected in the preliminary market consultation for the planning and execution of any tender procedure and always provided that the documents/information/data collected are used without causing “the effect of distorting competition” and/or “an infringement of the principles of non-discrimination and transparency” pursuant to arts. 66 and 67 of Legislative Decree 50/2016.

Signed

The Procedure Manager

Dr. Ivano Tonelli