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Access to mobility: a basic social service

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SUMMARY

Romania owns a network of public roads, classified according to their importance and role, with a relatively low density compared to the developed countries in Europe, but rationally distributed throughout the territory, which ensures a good accessibility of the population to the basic social services. The national programs in the field of the road transportation aim mainly at:

- amplifying the transportation capacities at national, county and local level through the rehabilitation, modernization or development of the existing capacities;
- realizing new high capacity transportation networks such as highways and express roads;
- building bypass roads for the urban agglomerations;
- building local road networks at rural level to allow the villagers' access to hospitals, schools, local administration, etc.

As to the community consultation, there is a legal regulation framework, based on the Law for the Protection of the Environment, providing from this point of view favorable premises for a sustainable development of the road transportation. The following stages are taken into account in the community consultation:

- identifying the development requirements of the road network;
- identifying the population's options at the macro-level;
- identifying the detail options, required for assessing the impact upon the natural and human environment, adopting certain solutions to minimize the negative effects and enhance the positive ones, respectively.

The community consultation process at the level of identifying the detail options unfolds during the entire realization of the project (starting with the design phase) and applies with positive results to the large projects (highways, rehabilitation of major roads). The other projects are not neglected either, the evaluation of their impact upon the environment being mandatory.

The transfer of technology is one of the most used modalities for the realization of highly performant road infrastructure projects. The report shows the methods applied in Romania for the realization of the technology transfer. It is emphasized that Romania has a technologic transfer knot within the INTERCHANGE network.

1. INTRODUCTION

The access to mobility, as a fundamental right of the members of a society, is one of the main targets in the design of the road transportation system as well as in the actions promoted by the executives for the development, modernization and maintenance of the public road network as a component of this system.

Romania owns a 198,589km long public road network (including the streets of the urban and rural agglomerations), which is reflected by a 0.83km/km² density, among the most reduced in Europe. Based on road classes, the situation is shown in Table 1.

Table 1

Class of the road	Length, km	% from the total
National roads, including highways	14,810	7.46
Local roads:		
- county roads	36,010	18.13
- rural roads	27,781	13.99
- streets	119,988	60.42
TOTAL NETWORK	198,589	100.00

The basic changes occurred in Romania during the last decade have been also reflected by the dynamics of the road traffic, showing a spectacular rise. Thus, in 1990, the annual daily average intensity on the national roads was of 3,221 vehicles/day, reaching 4,546 vehicles/day in 2000, showing a 41% rise. This traffic is generated by the 3,940,210 motor-vehicles registered at the end of the year 2000, which is a still low number compared to the developed countries, but the increase rate is pretty high.

The economy of the country suffered important changes as well, changes that determined the increase of the population's mobility following its connection to the country's economy. Consequently, the necessity to develop some of the existing routes and to create new ones appeared and the road policy is oriented towards:

- amplifying the transportation capacities at national, county and local level through the rehabilitation, modernization or development of the existing capacities,
- realizing new high capacity transportation networks such as highways and express roads,
- building bypass roads for the urban agglomerations,
- building local road networks at rural level to allow the villagers' access to hospitals, schools, local administration, etc.

All these actions aim at increasing the road transportation efficiency in the context of an important increase of the traffic volume on the one hand, and, on the other hand, at providing the access to social service for the entire population, in the circumstances of an ever increasing mobility.

2. THE ACCESS TO MOBILITY

Romania's public road network, in spite of its low density level, is equally distributed on the territory and provides, in the main, a relatively good accessibility within the entire country. The national level statistics concerning the degree of modernization of the public roads in Romania and their technical condition (Table 2) shows a relatively inadequate state of affairs, which generated a series of programs at the level of the central and local administrations aiming mainly at the actions mentioned in the introducing chapter.

The condition of the network is poor particularly with respect to the local roads. These are mainly gravel-surfaced or even earth roads. Taking into account this state of affairs, the executives developed special, well-defined programs, which aim at increasing the population's accessibility, especially in the rural areas, in efficient and civilized conditions, with increased comfort and safety. In this context, we want to mention the following:

- program of gravelling the earth roads in the rural communities,
- modernization of local gravel-surfaced roads,
- modernization of streets,
- rehabilitation of modern pavements,
- rehabilitation of bridges, etc.

Table 2

Class of the road	Modern pavements		Flexible bituminous pavements		Gravel-surfaced roads		Earth roads		Total
	km	%	km	%	km	%	km	%	km
National roads including highways	13,370	90.3	1,247	8.4	193	1.3	-	-	1,480
Local roads, out of which:	26,337	14.3	28,968	15.8	67,533	36.7	60,941	33.2	183,779
- county	5,735	15.9	15,820	43.9	11,827	32.9	2,628	7.3	3,610
- rural	574	2.1	2,364	8.5	14,987	53.9	9,856	35.5	27,781
-streets	20,028	16.7	10,784	9.0	40,719	33.9	48,457	40.4	119,988
Total network	39,707	20.0	30,215	15.2	67,726	34.1	60,941	30.7	198,589

It is noticeable that most of these programs are financially supported through budget grant-in-aid and external credits, as well as through their integration within non-reimbursable financing programs (PHARE, ISPA, SAPARD). The amounts collected at national level in the special fund for public roads are partially also turned to the local administrations for financing road projects.

Romania, a country with a severe climate (hot summers and harsh winters), with temperatures ranging from $+(30...35)^{\circ}\text{C}$ to $-(20...30)^{\circ}\text{C}$ and a very diverse relief, is often subject to accessibility problems generated by snow up or road blocking caused by landslide, flooding, etc. From this point of view, we emphasize the existence of special programs for identifying the risk areas and eliminating the effects of natural calamities. The road administrations also draw up and develop specific programs for the winter maintenance of roads.

3. COMMUNITY CONSULTATION

In the context of a worldwide clear direction towards a sustainable development by defining the optimum of the interaction among the economic, human, environmental and technological systems, the community consultation has become a mandatory procedure in the promotion of road infrastructure projects in Romania, too. The legislative background of the community consultation is based firstly on the Law of Environment Protection, issued in 1995 and then modified in 2000 and 2002. It defines three main phases in identifying the public's options, namely:

- identifying the development requirements of the road network, aiming at establishing the priority projects,
- identifying the population's options at the macro-level, aiming at establishing the dimension of the road network development programs (increasing of traffic capacity on the existing network and/or creating new routes),
- identifying the detail options to acquire certain information required for assessing the impact upon the natural and human environment, adopting certain solutions to minimize the negative effects and enhance the positive ones, respectively.

The figures 1, 2 and 3 show schematically the unfolding of the community consultation process, emphasizing the participants and the roles they play.

The conclusion has been reached that in order to efficiently turn to good account the results of the community consultation within improving the projects subjected to debate, the contact between the implied factors has to be realized since the early stages of the project and continued along the entire designing process.

The method used in realizing the community consultation for the motorway Bucharest – Brasov will be synthetically presented further on.

The public consultation has been organized in four steps.

Step I – Preliminary community consultation

The purpose of this first step was to advertise the project and to realize a first contact with the persons affected by its carrying out.

The reference material including the introduction of the purpose and a short description of the project was handed in to the headquarters of the local administration (County Councils and City Halls) and to the governmental agencies for the environment protection in the area (County Environment Protection Boards). The material enclosed questionnaires where the interested parties could express their opinions concerning the project. These questionnaires also included personal data in order to identify the communities affected by the project.

Notifications concerning the starting of this project and the modality to get information about it were published in nationwide media.

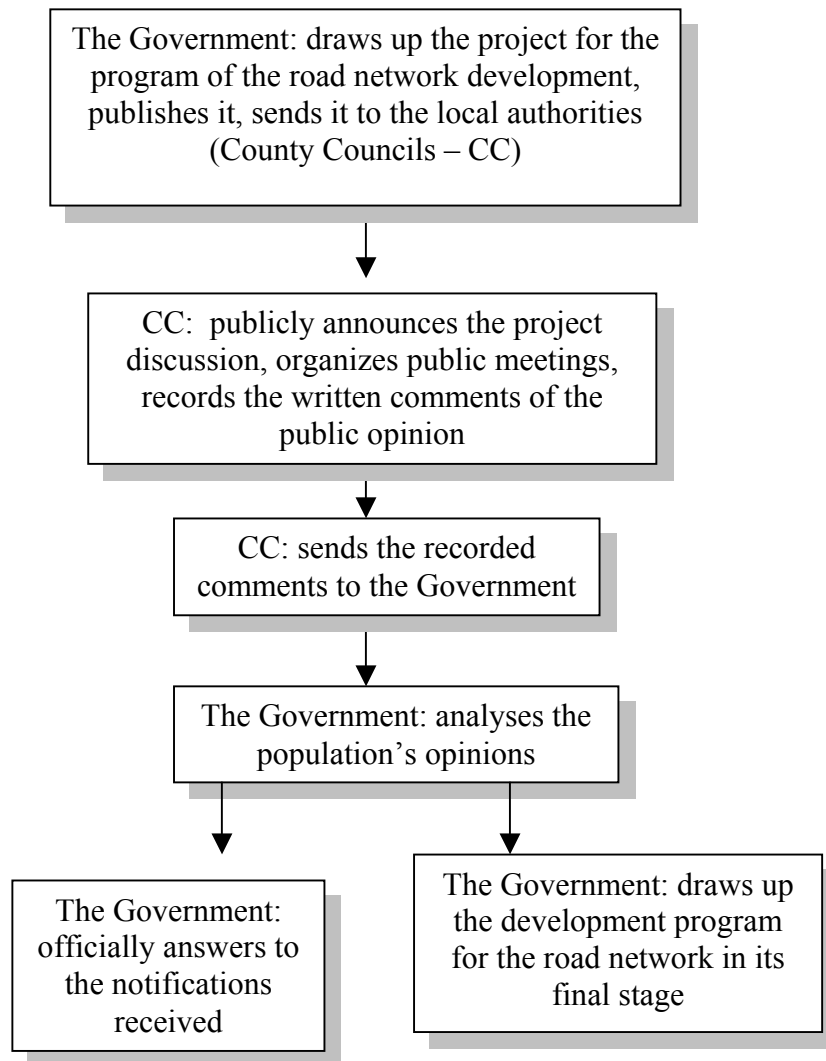


Figure 1. Step I. Identifying the requirements for the development of the road network.

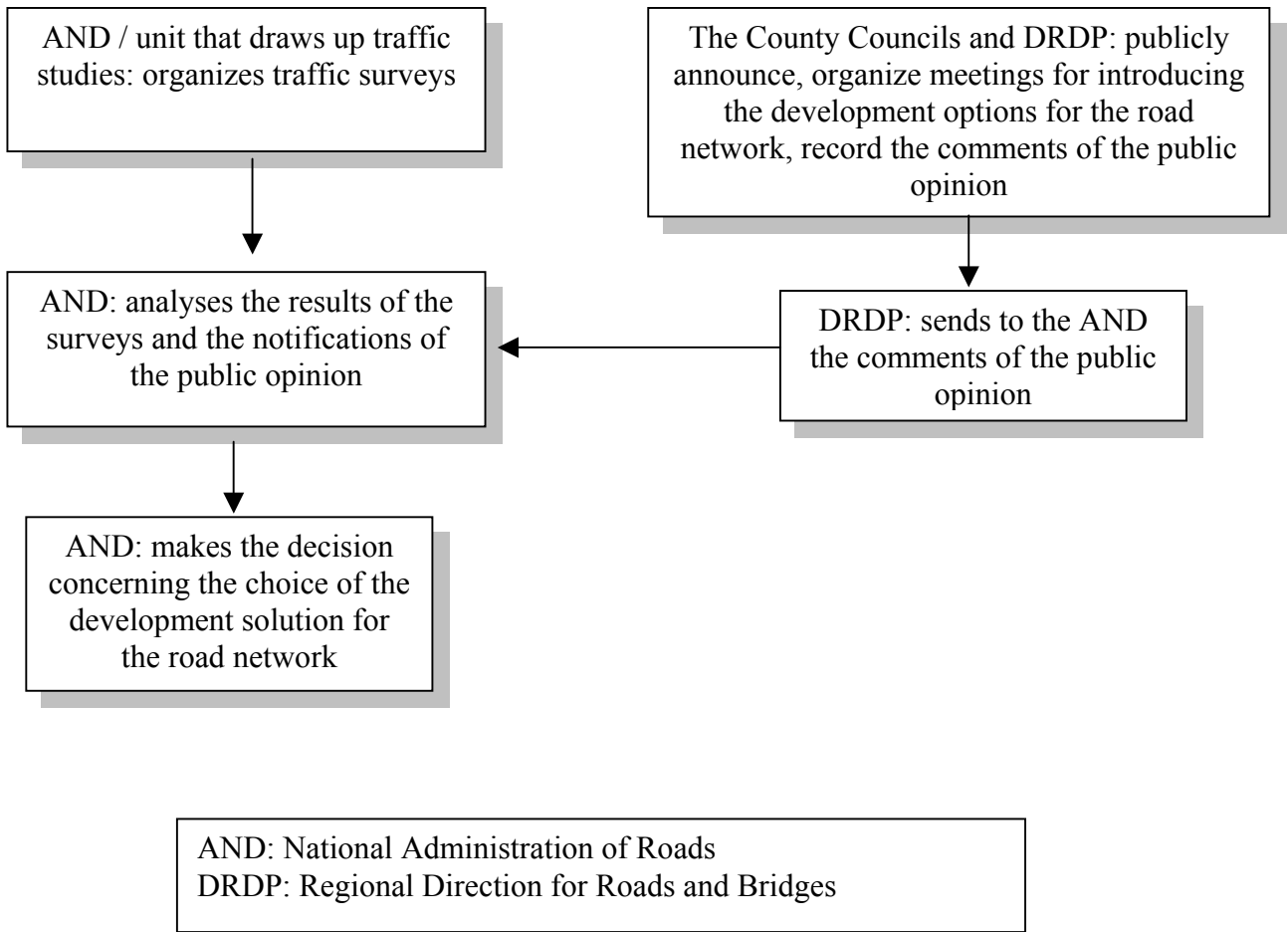
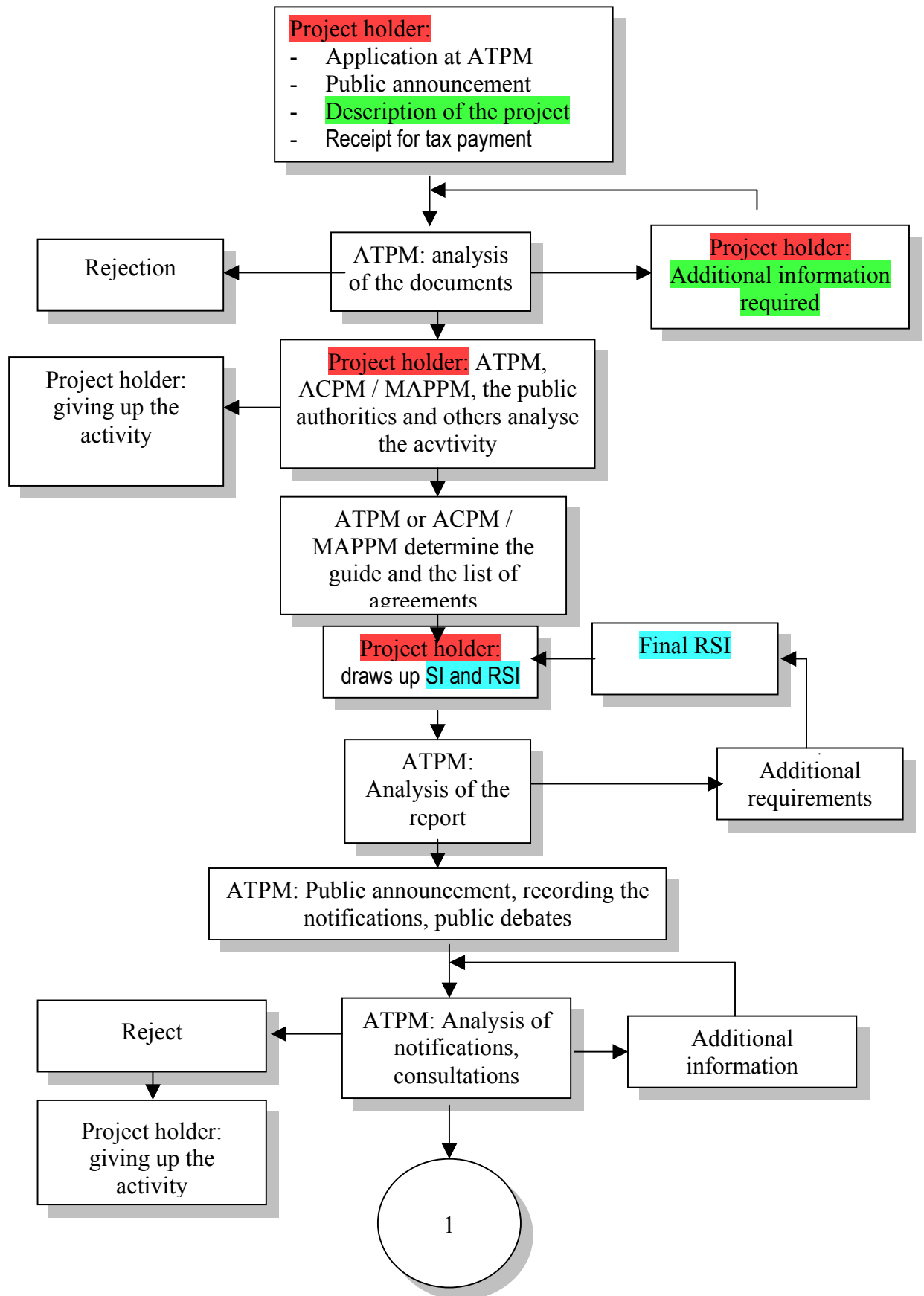
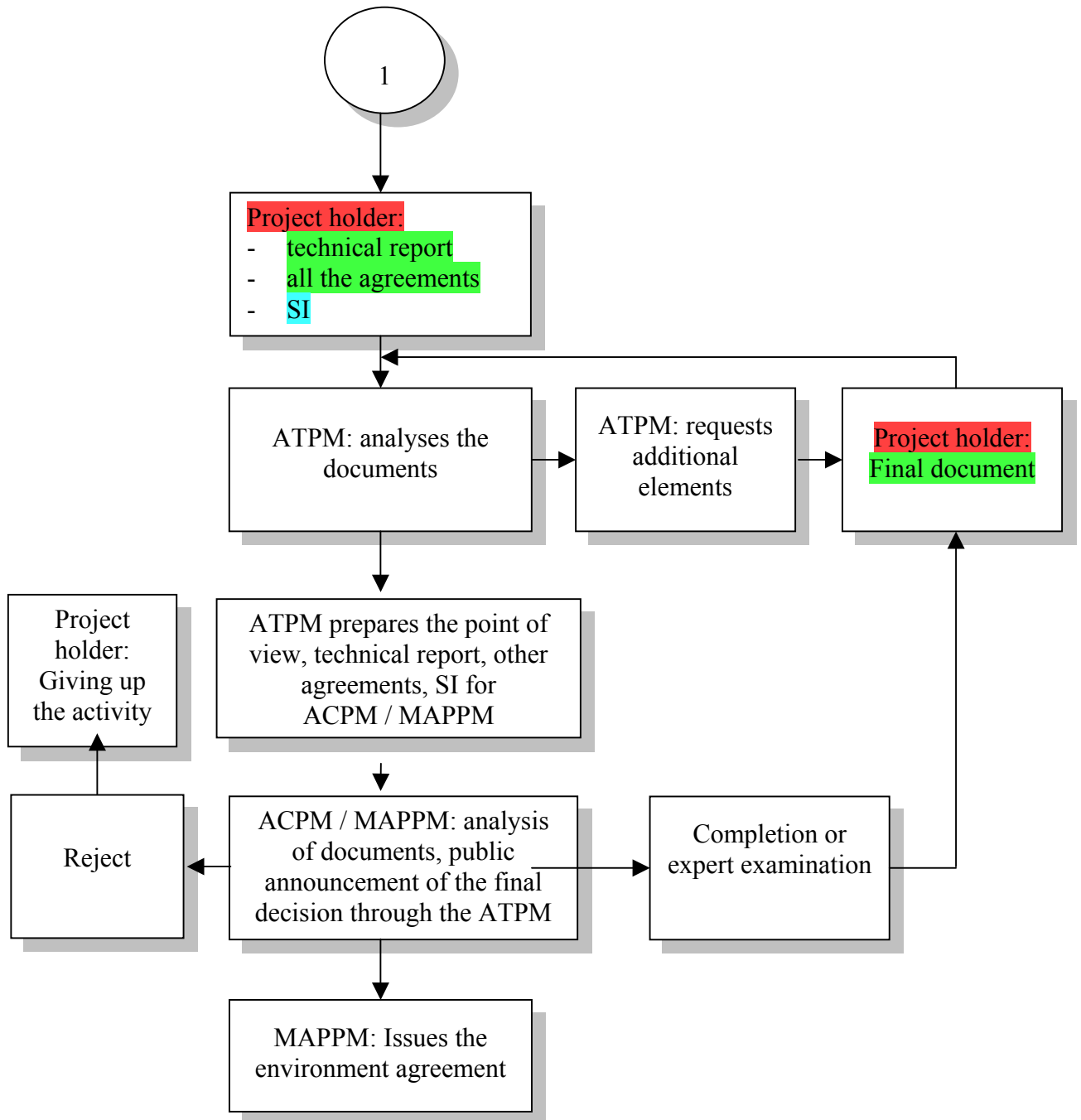


Figure 2. Step II. Identifying the population's options at the macro level.





	Tasks of the project holder	-	ATPM: Local Agency for the Protection of the Environment
	Tasks of the Consultant	-	ACPM: Central Agency for the Protection of the Environment
	Consultant for SI and RSI	-	MAPP: Ministry of Waters, Forests and the Protection of the Environment
		-	SI: Impact study
		-	RSI: Report for the impact study

Figure 3. Step III. Procedure of acquiring the environment agreement according to the Law for the Protection of the Environment no. 137/1995 and the Order no. 125/1996

Within this preliminary step, the designer and the developer of the environment impact study held meetings with the representatives of the local administration. The latter provided information concerning the towns and villages that would be affected by the construction of the highway: demographics, development stage, present use of land to be occupied by the works, activities to be influenced by the realization of the project, etc. The General Urbanism Plans of the localities were also studied in order to take into account the future development of the areas crossed by the highway.

Step II – Public consultation concerning the route of the highway, throughout the designing process

The purpose of step II was to establish the route bringing the minimum negative impact to the physic, natural and human environment. The route variants researched by the designer were discussed within public meetings organized at the headquarters of the three County Councils.

The meetings were announced by the newspapers and through bill posting in all the concerned towns and villages (fig. 4).

CONSULTARE PUBLICA: Traseul autostrazii Bucuresti-Brasov

RETEAUA DE BAZA TINA PRIN ROMANIA

Autostrada Bucuresti - Brasov

Integrare in Retele de Transport Trans-European
Descongestionare si Siguranta a Traficului
Rentabilitate si Dezvoltare Zonala

Scopul dezbaterii publice:

A adaptarea traseului la conditiile locale, cu implicatii minime asupra cadrului natural si vietii social-economice si cultural-istorice
Sprijinul Societatii Civile in actiuni de decizie

SEDINTA SE DESFASOARA LA
CONSILIUL JUDETEAN, Sala de 200 locuri
14 Februarie a.c., ora 10⁰⁰

Sunt INVITATI sa participe persoane fizice si juridice interesate, organizatii guvernamentale si neguvernamentale, detinatori de proprietati, sau avand in administratie, ori din transport si siguranta circulatiei rutiere

ORGANIZATORI :

Beneficiar

Proiectant General

ADMINISTRATIA NATIONALA A DRUMURILOR
SEARCH CORPORATION
ECO TERRA Impact de Mediu

CU SPRIJINUL -
CONSILIULUI JUDETEAN PRAHOVA

Figure 4. Posting bill for the organization of community consultation meetings.

About seven days prior to the meetings, the public could find out data concerning the project from the advertising materials distributed in every town. The materials had been particularized for every locality concerned, showing the characteristics of the whole project and the details specific to the concerned area.

In the Prahova County, where lies the most of the highway route, an exhibition to introduce the project was organized for a week. The time and the place of the exhibition were announced by the press and by bill posting in the municipal town Ploiesti.

During the public debates the route variants were presented showing their implications and questions asked by the interested parties were answered. The following information was underlined when presenting the route variants:

- types of surfaces to be occupied (farming, wooded, built, etc.),
- distances to the inhabited areas, cultural objectives and protected areas,
- interfaces of the project with other roads, power networks, gas, communication, water, etc.,
- water courses crossed and their uses (collecting, feed piping, etc.).

Step II also included consultations of governmental organizations and of specialized institutions with the view to gathering data concerning the present condition of the environment factors in the corridor of the highway and the existence of protected areas (natural reserves, archeological monuments or sites, health protection areas, etc.).

All these data needed to be known and correlated for the adopted technical solutions not to bring important negative alterations to the environment in general and, especially to the sensitive areas. The protective measures proposed in the impact study took into account the notifications received from these organizations.

The designer also had several meetings with the representatives of the local authorities to establish the route and to adopt solutions that minimize the negative impact. Thus, the determination of the route tried to take into account the issues specific to each area and solutions were sought to ensure the continuity of the traditional way of life. For example:

- where it proved to be possible, the route was designed to superpose on the existing local roads, thus reducing the fragmentation of the agricultural lands or efforts were made to cut them through the extremities,
- the location of the culverts which reestablished the access to the farming lands was chosen after consulting the concerned population,
- the location of the road junctions was decided together with the representatives of the localities in the highway corridor.

Step III – Consultation before closing the project and the impact study

This step covered the public presentation of the project and of the impact upon the environment before closing and handing them over to the beneficiary (the National Administration of Roads).

A summary of the impact study was drawn up for this step and handed in to the local administrations.

The summary included:

- the presentation of the project,
- the description of the existing condition of the environment factors along the highway route,
- the pollution sources, the impact upon the environment and the protection measures proposed both for the working and for the operation stages of the highway.

The local press announced the places where these reference materials could be found, the period when they can be analyzed, as well as the date and place of the public debate meetings.

This step was completed by organizing meetings at the County Councils to discuss the study of the impact upon the environment.

When drawing up the final version of the project and the environmental impact study, the opinions and the requests formulated during these meetings by the concerned parties were also taken into account. A reference material entitled “Public Consultation” was drawn up including all the opinions expressed during the community consultation process, as well as the answers given by the designer.

Step IV – Final consultation

This last step was organized according to the Romanian legislation in force, namely the Order of the Ministry for Waters, Forests and Environmental Protection no. 125/1996, which states the regulation of the economic and social activities having an impact upon the environment. The order stipulates the public discussion of the environmental impact study after its submission to the authorities for the environment protection, before issuing the decision concerning the environment agreement. Step IV is organized by the authority for the environment protection.

4. THE TRANSFER OF TECHNOLOGY

The transfer of technology is one of the most largely used methods with good results in the realization of highly performant road infrastructure projects. The means of realizing the transfer of technology promoted in Romania includes the following:

- professional training of staff, both in Romania and abroad,
- acquiring highly technical tools and equipment,
- participation of Romanian specialists to international workshops in the road field,
- entering into roads and bridges working contracts with experienced companies from the developed countries,
- organizing road technical manifestations with international participation in Romania.

Romania is part of the INTERCHANGE network for Exchanging Technology and Information in the Road Field, which operates under the patronage of the PIARC, and has an office in our country.

5. CONCLUSIONS

The achievements of the last years in the Romanian road field show important progress in the domain of the increase of the population's accessibility to the basic social services. They consist of the application of modern methods, consistent with those used worldwide in realizing projects.

The community consultation has a basic legal frame, a body of experienced specialists, well-defined methodologies which form the premises of a sustainable development of the public road network.

Romania is connected to the international system of technologic transfer, thus ensuring the technical compatibility with the countries of the world and, implicitly, the integration of the road transportation system of our country to the European system.