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ScienceDirect

Procedia - Social and Behavioral Sciences 87 (2013) 103 – 116

Procedia
Social and Behavioral Sciences

SIDT Scientific Seminar 2012

Public engagement for planning and designing transportation systems

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Abstract

Public Engagement (PE) can be considered as the process of involving stakeholder concerns, needs and values in the transport decision-making process. The overall goal of engagement is to achieve a transparent decision-making process with greater input from stakeholders and their support of the decisions that are taken. Often transportation planning and infrastructure design follow a DAD (Decide, Announce, Defend) approach, i.e. neglect to involve stakeholders throughout the project, right from the inception to its implementation, thus inducing oppositions of different levels up to outbursts of the so called NIMBY syndrome. The objective of this paper is to highlight the role of PE in planning and designing transportation systems, describing its interactions with other more formal phases of decision-making and some of the tools that can be used for the various levels of PE. The case study of the Regional Metro System project of Campania region will be described as an example of a successful experience of PE in Italy.

Keywords: Public Engagement; Transportation planning; Tools; Regional Metro System project

1. Introduction

Public Engagement (PE), or Stakeholders Engagement (SE), is the process of identifying and incorporating stakeholder concerns, needs and values in the transport decision-making process. It is a two-way communication process that provides a mechanism for exchanging information and promoting stakeholder interaction with the formal decision-makers and the transport project team. The overall goal of engagement is to achieve a transparent decision-making process with greater input from stakeholders and their support of the decisions that are taken (Kelly et al., 2004).

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doi:10.1016/j.sbspro.2013.10.597

Some administrations pay little attention to stakeholder engagement, either in the belief that professionals are best placed to make transport decisions, considered essentially technical in nature, or because local politicians believe that they best represent stakeholder interests. This approach is known in the literature as Decide, Announce, Defend (DAD) syndrome (Susskind & Elliot, 1983; Elliott, 2009 Marincioni & Appiotti, 2009). The administration promoting the project Decides with its experts the action to be taken, only later when the choice has been made it Announces it to the public and finally it will Defend the choice from the criticisms.

Involving stakeholders in the transport decision-making process, and reconciling their views with the judgments of key decision-makers can be a challenging and difficult task. At the same time it can be a rewarding experience, which enhances the decision-making process and the value of what is produced or implemented. Effective engagement can bring about better policy directions, improved local services, possibly new ways to initiate or plan for a particular situation and a better understanding of the local situation by technical experts and community members (Bickerstaff et al., 2002; Booth & Richardson, 2001; Innes & Booher, 2004).
It has only been in more recent years that stakeholders have become engaged in the earlier stages of the transportation planning process, and invited to give their ideas and aspirations for possible project options.

There are still major differences in the levels of stakeholder engagement in different countries. Prototypal are the cases of France, England and the United States. In France, the National Public Debate Commission was established in 1995 with the Barnier law, specifically related to the protection of the environment, it proposes public debates to be organised between the various actors during the implementation phase of the large-scale public projects promoted by the State, local authorities, public organisations or companies presenting a high degree of social and economic consequences or having a significant impact on the environment (Bobbio, 2004; 2007; 2010; Blanc, 1998; Fourniau, 2001).

The Code of Practice on Consultation is applied to all UK public consultations by government departments and agencies (HM Government, 2008), including consultations on EU directives. Non-departmental public bodies and local authorities are also encouraged to follow this code. Though the code has not a legal force, and cannot prevail over statutory or mandatory external requirements (e.g. under European Community law), it should otherwise generally be regarded as binding on UK departments (UK Government, Planning and Compulsory Purchase Act, 2004; UK Government, Localism Act, 2011; UK, Government, National Planning Policy Framework, Department of Communities and Local Government, 2012) and their agencies, unless Ministers conclude that exceptional circumstances require a departure from it.

Significant is the introduction of the Office of Public Engagement in the Unites States. This Office is the embodiment of the President's goal of making government inclusive, transparent, accountable and responsible (http://www.whitehouse.gov/administration/eop/ope). It removes obstacles and barriers for engagement and works to improve public awareness and involvement in the work of the Administration.

On the other hand, PE and traditional transportation planning approaches, models and tools have interacted very little. Although almost all scientific contributions on transportation planning recognise the difficulty of the corresponding public decision-making process and the multiple conflicting interests involved from several decades (Manheim, 1979; Meyer & Miller, 2000; Ortuzar & Willumsen, 2001; Cascetta, 2009), little effort has been made to include PE in the planning conceptual model and extend the role of traditional planning tools, such as mathematical models and DSS, to be used in PE activities. The main contribution of this paper to the literature is to propose an integrated planning framework explicitly considering the possible relationships among the main planning activities and different stakeholders assuming a bounded rationality, or cognitive, approach. Different tools for different levels of PE are also described systematically and an experience of PE in Italy is also reported. The paper is organised as follows. In section 2, PE will be analysed in relation to transportation planning. In section 3 the case study of the Campania Regional Metro System project is presented as an experiment of PE in transportation planning, while in section 5 conclusions and further perspectives are reported.

2. Public Engagment and transportation planning

2.1. The role of Public Engagement in decision-making for transportation systems

Decision-making processes in transportation system engineering can be grouped into four main typologies in terms of temporal and space criteria (Cascetta, 2009).

Strategic planning involves decisions on long-term (10-20 years), capital investment programs for the realization of new infrastructures (e.g. roads, railways, ports) and/or the acquisition of vehicles and technologies (e.g. rolling stock and control systems). Feasibility studies of transportation projects fall within the context of "programming by projects" based on the formulation of a reference scheme identifying the relevant connections and the subsequent evaluation of the projects related to individual connections in order to assess their technical feasibility, economic convenience, priority level and mode of realization. They involve decisions on medium/long term and they deal with infrastructures as well as services. The short/medium term tactical planning is concerned with decisions on projects requiring limited resources, usually assuming minor or no changes in the infrastructures. Urban traffic plans or public transport plans are examples of tactical plans under the public point of view. Finally short-term operations management programs generally define particular aspects of individual mode operations, optimizing the use of the available resources usually from a company point of view. Traffic-signal control plans, design of transit timetables, and organization of factors necessary for producing transportation services are some examples of these programs.

Transportation decision-making plays a fundamental role in the state, region or community's vision for its future. It includes a comprehensive consideration of possible strategies; an evaluation process that encompasses diverse viewpoints; the collaborative participation of relevant transportation-related agencies and organizations; and open, timely, and meaningful Public Engagement (FHA and FTA, 2007).

The way transport decisions are made in different countries is changing. While there remain important political and cultural differences, there is a tendency for more groups to become involved in the transport decision-making process (Kelly et al., 2004; Aparicio, 2007).

In their paper, Burall and Shahrokh (2010) provide nine recommendations for engaging the public in the decision-making process. Among them it is clearly said that "Providing feedback to the public on the results of decision-making (and how public/stakeholder views have or have not been taken on board) will strengthen the understanding and legitimacy of policies in contentious areas. Effective feedback helps the public to understand the impact they are having on policy which in turn builds trust".

There is no simple recipe for making good decisions. The appropriate style of decision-making varies according to the particular situation. Experienced managers and teams know when and how to make decisions, based on a set of general principles and applying these in the context of an understanding of the local environment, the people and the priorities.

There is a wide range of people and organisations that have an interest in a particular project and become involved, to varying degrees, in decision-making. These are known collectively as "stakeholders". They may have a professional interest in the project, their opposition may make it very difficult to proceed with the project. Given the broad range of stakeholders involved, they are likely to have conflicting interests; this needs to be recognised and carefully managed as part of the engagement process. Stakeholders can be grouped into seven broad categories: institutions/authorities, users, transport operators, business and unions, local communities, media and financial institutions. Examples of each are shown in Table 1.

Stakeholders are sometimes classified into "primary" and "secondary". In general terms, primary stakeholders can be defined as those with a direct interest, either because they depend on it or they are directly involved in its exploitation in some way.

Table 1. Stakeholders classification

Institutions and Authorities	Users	Transport operators	Business and Unions	Local communities	Media	Financial institutions
European Union	Direct users (passengers)	Transport operators	National and local industry associations	Transport users associations	TV station	Banks
National government and authorities	Direct users (freights)	Transport operator associations	National and local trade unions	Local interest groups (e.g. borough associations)	Radio station	Funds
National parliament	Indirect users (passengers)	Consultants	National and local craft unions	Environmental associations	Newspapers	Insurances
Regional governments and Authorities	Indirect users (freights)		Retailers associations	Citizens		
Regional transport authority			Industry in public works	Visitors		
Local authorities (Provinces and Municipalities)			Industry in vehicles production			
Political parties and single members			Industry in technology production			

Source: our elaborations

Secondary stakeholders would be those with a more indirect interest, such as those involved in institutions or agencies concerned with managing the resource or those who depend, at least partially, on wealth or business generated by the resource (Wheeler & Sillanpaa, 1997). Examples of primary stakeholders are for transportation planning, institutions/authorities, directly responsible for providing transportation services, economic operators (e.g. shop owners), transport operators and transport users; while local communities and unions or business associations belong to the secondary stakeholders group.

Gardner et al. (1986) propose a classification of stakeholders based on two levels of interests and two levels of power (see Table 2) and suggest different engagement for the various groups.

Table 2. Stakeholders identification: interest/power matrix

POWER			
	STRONG	INSTITUTIONAL STAKEHOLDER	KEY STAKEHOLDER
	WEAK	MARGINAL STAKEHOLDER	OPERATIONAL STAKEHOLDER
		LOW	HIGH
		INTEREST	

Source: Gardner et al. (1986)

As said, different strategies can be identified to cope with different stakeholder typologies. For example, it is necessary to keep institutional stakeholders (strong power and low interest) informed. Key stakeholders (strong power and high interest) are the most demanding ones (e.g. mayors or elected officials of areas impacted by projects, unions, etc.) as they have potential for veto rights and should be not only informed but also involved (consulted) on various options and their effects. The marginal stakeholders (weak power and low interest) are the ones requiring the least effort. The last group of operational stakeholders (weak power and high interest) (e.g.

transport operators, citizens directly affected, travellers, etc.) could be involved in the process in the listening and information dissemination phases with the appropriate tools as they have the potential to become key stakeholders by empowering themselves, or by being empowered as part of the process management strategy. Cascetta and Pagliara (2012) apply those principles to identify relevant stakeholder groups for transport infrastructures, decisions and projects.

Different levels of PE can be identified and adopted in real life public decision-making processes. Kelly et al. (2004) proposed five levels of PE. The first one deals with the "Stakeholders identification"; the second one deals with a systematic "Listening" of the current social, cultural and economic climate as well as expectations and requests from stakeholders. By "Information giving" is meant the information relative to the project provided to the stakeholders. "Consultation" is the level in which decision-makers listen to the different points of view of the other stakeholders on the proposed project(s), with the aim of improving the project itself before its implementation or to make any change during its implementation. "Participation" concerns with an extension of the consultation level where the groups, who are directly interested, become joint partners of the project choice and in the project implementation.

Different models of decision-making can be used to describe real-life processes related to public and private fields. These include strongly rational, bounded rational and a-rational models, as described in detail in Cascetta et al. (2012). In the following explicit reference will be made to a bounded rationality or cognitive rationality model. Bounded rationality assumes that actors are goal-oriented, but it takes into account the cognitive limitations of decision makers in attempting to achieve these goals (Jones, 1999; Simon, 1999). This is intrinsically best suited to consider PE activities including conflicting objectives and the possibility of reaching a consensus. Decisions are still rational, i.e. they are based on the comparison of alternative courses of actions and plans, on the basis of their expected effects. However, plans are generated exploring a number of alternatives until a solution satisfying decision-makers and a number of relevant stakeholders as large as possible, is reached.

Obviously, non-cosmetic use of quantitative methods requires a rational decision-making process. In this view, Figure 1 shows the stages of a bounded rational decision-making process, the activities that can be supported by quantitative methods, integrated with the five PE levels. A transparent transportation planning process is more likely to be successful.

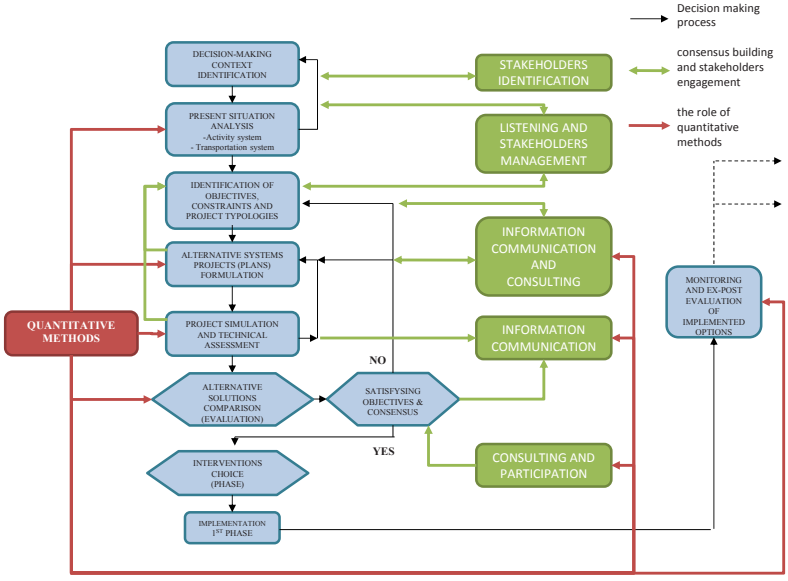


Fig. 1. Framework of the overall bounded rationality transportation decision-making framework with PE and the roles of quantitative methods

The phases relative to the present situation analysis and the identification of objectives, constraints and project typologies, should be supported by stakeholders listening. This level is fundamental for identifying the problems associated to the development of a given option (project), but also for defining the stakeholders' needs and preferences. It is important is to stress the dynamic nature of the process where objectives leading to the minimization of opposition (maximization of consensus) are considered in the initial stages of the process. Objectives can be reconsidered and reformulated, even after the formulation of alternative project options, taking advantages of what has been learnt during the process. Information dissemination and consultation are the PE phases that can play a role in alternative project formulation. The most critical phase is the one corresponding to the comparison of alternative solutions, where wider public consensus allows to choose a satisfying alternative, i.e. the one with a higher probability to be implemented.

2.2. Some Public Engagement tools

The "Engagement Tools" are designed to provide guidance for engaging stakeholders in the decision-making process to achieve an accepted solution to a transport problem.

The tools provide various options to engage and most can be used on their own, or as a series of exercises for larger groups or controversial projects. The majority of engagement tools are grouped into two broad categories (see Table 3). Selecting the most effective technique of engagement is crucial to the success of the whole process. Not only can the use of inappropriate techniques give poor results, but in some circumstances, it can create unnecessary barriers to the project as a whole, if it appears that the decision-makers are being selective in who or how they engage. Different techniques may be used to engage people in the process. No one "correct" technique will suit every issue. Very rarely are "pure" models adhered to. Using more than one technique may increase the likelihood of gaining a more representative response. An appropriate choice must be made in each situation. The technique to be used will be related to the purpose of the engagement and who is being engaged. It may also be determined by the level of expertise and experience the organisation has in conducting engagement activities and by the resources available.

PE can take very different forms ranging from the identification of specific stakeholders to meetings with the stakeholders to more structured participation forms, like the citizen's juries (http://www.peopleandparticipation.net/) as shown in Table 3. For example, the printed material, like letters, posters, brochures and technical reports are very important tools within the information communication and consulting PE levels. Telephone and media may be of help during the listening and stakeholders management levels as well as during the information communication and consulting levels. For the consulting and participation PE levels very effective are the conferences, the referendum, but also telephone and internet tools can play a role.

Citizens' juries consist of a small panel of non-specialists, modelled on the structure of a criminal jury. The group set out to examine an issue of public significance in detail and deliver a "verdict" (Coote and Lenhaglan, 1997; French and Lower, 2005). In the same table the 5 levels of PE is reported and the impact of each tool within them is specified as well.

Table 3. Some Public Engagement tools

PE TOOLS	PE LEVELS				
	STAKEHOLDERS IDENTIFICATION	LISTENING AND STAKEHOLDERS MANAGEMENT	INFORMATION COMMUNICATION AND CONSULTING	INFORMATION COMMUNICATION	CONSULTING AND PARTICIPATION
Printed material					
Letter			xxx		
Poster			xxx		
Brochure and Newsletter			xxx		
Technical reports			xxx		
Telephone and media					
Telephone		xx	xx		xx
Radio and TV shows		xx	xxx		
Internet					
Internet sites			xxx		xx
Forum/chat	xx	xx	xxx	xx	xx
Surveys					
Questionnaire		xx		xxx	
Direct surveys	xxx	xxx		xx	
Information events					
Exhibition			xxx		
Public meetings	xx	xxx	xxx		
Stakeholders group engament					
Focus group		xxx		xxxx	
Techinical tables		xxx		xxxx	
Wider stakeholders group engagement					
Stakeholdes conference		xxxx	xxx	xx	xxx
Citizens'jury					xxx
Referendum					xxx

Source: Cascetta and Pagliara (2013)

3. The Regional Metro System (RMS) project of Campania: an experience in Public Engagment

3.1. The RMS project: the background

The case study of the Campania Regional Metro System (RMS) project is here described in terms of extended use of PE in transportation planning, including the strategies, the actions and the PE tools promoting the citizens' participation to it.

During the second half of the last century very limited investments were activated to complete and/or upgrade the existing railway network. In addition they followed an un-coordinated design process, i.e. decisions taken by individual rail companies, without any global vision of the regional railway system. Furthermore unfinished expansion projects had very long construction times and lacked coordination with land-use decisions which in fact were often independent or even in open contrast with the rail system (de Majo, 2006).

The planning process, started in 1996 in Naples and extended in 2001 to the whole region, adopted a completely different approach. The main concept of the RMS project was to provide high frequencies, even-spaced timetable, (easy to memorise); rendez-vouz between runs of different lines; fleet of vehicles homogenous w.r.t to performances and quality; integrated fares, integration with other modes and land-use.

The RMS project extended the railway network from 1,179 km in the year 2000 to the expected 1,349 km in the year 2015, an increase of 14% (see Table 4). At the same time, to improve accessibility and interconnectivity, an innovative strategic role has been given to the stations of the RMS network, building new ones (on new or existing lines) and also upgrading existing stations. The RMS will increase the number of new or upgraded stations by 30% from the year 2000 to 2015, from 340 to 442.The RMS project follow a system approach, it includes all the elements of a railway-based public transport system such as new rolling stock with high quality

standards, integrated timetables and a bus train integrated fare system (Cascetta et al., 2007; Cascetta & Pagliara, 2008; Pagliara & Papa, 2011; Cascetta & Cartenì, 2012).

The new regional service timetable supported the system approach rather than having single operators "working" separately from the other. It promotes a synchronisation of services as well.

The overall strategy was to improve the quality of public transport services, looking in more detail at such innovative aspects as the integrated rail timetables grouped under "Metrocampania". The objective is to increase the use of transport with low environmental impacts and reduce that of the private car. In the year 2004, the services were re-designed and increased of almost 215,000 trains/km per year (Negro & Gentile, 2005).

Table 4. The RMS project infrastructures

	Base scenario	**Completed (2011)**	**Under construction**	**Planned**	**Total**	**% Change**
Total extension of the railway network (km)	1,179	54	50	66	1,349	+14%
N. of stations	340	39	30	33	442	+30%

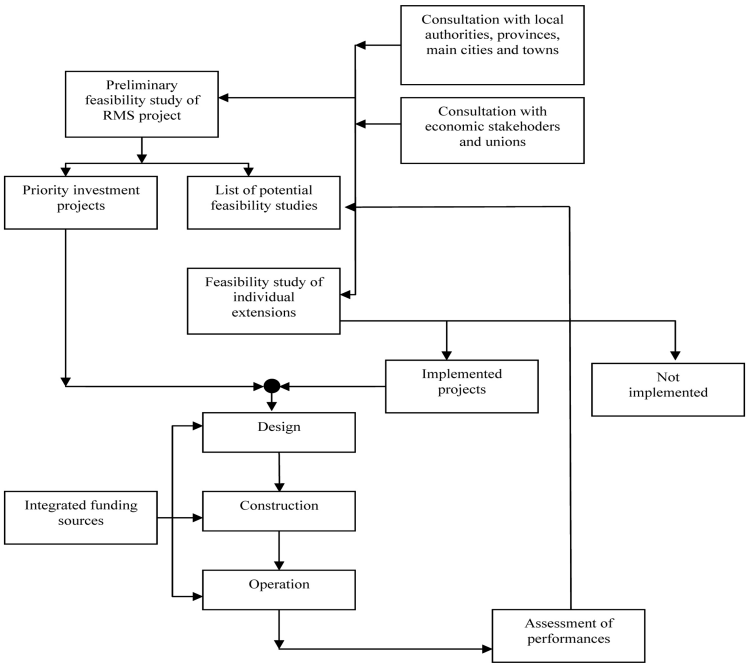
The project of fare integration "Unicocampania", one of the most extensive such ventures in Europe, involved a single fare structure for services provided by thirteen public companies covering 27,000 bus runs and 1,500 train runs every day. The new fare system was designed to promote an integrated use of carriers and modes, to foster customer loyalty and the use of monthly and annual season tickets, with the diffusion of a culture of legality and enhancement of local public transport. A "UNICO" fully integrated ticketing system to travel within the whole region covering twelve zones including Naples and all the municipalities of the region and "UNICO" tickets to travel within the five main urban areas of Campania.

Finally a new concept of transport infrastructures underlined the RMS project: infrastructures were conceived and designed to become opportunities to carry out an aesthetic and urban renewal of the surrounding areas. The project of wide, bright and smart places made the use of public transport more pleasant and attractive. Moreover, the involvement of famous architects in the project of the stations and the introduction within and outside the stations themselves of artistic elements, such as sculptures, innovative building materials, modern art works, make the new section of the "Art Metrò" a unique example in the world (Cascetta, 2005; Cascetta & Cartenì, 2012).

3.2. The decision-making process

A twofold temporal perspective was adopted in the planning process, also to maximise PE and achieve wider consensus (see Fig. 2). At a first planning level, the objective was to identify a set of "priority projects" to be completed in the mid-term (5-10 years), maximising the social benefits with respect to the current physical and economical constrains. This was called the "invariant" scenario, consisting of new infrastructures, mostly redirecting projects already under construction. Moreover improved transportation services, aiming at optimising the budget available, and outlining a first hypothesis of the Public Transport (PT) network were also considered. The invariant scenario also included integrated pricing conveying and reinforcing the message of "new role" of the overall system. In a second planning level, the design of the overall public transportation system was extended by means of a set of options (i.e. the "options" scenario) included in the first stage and including some

of the extensions proposed by stakeholders to be verified through specific "feasibility studies" to evaluate the economic validity and, if the case, the funding of extensions and integration of the basic scenario, to find out the best technical solutions.



Source: Cascetta and Pagliara (2008)

Fig. 2. The RMS decision-making process

The basic idea was to identify a set of ready to start, maximum consensus, new infrastructures to be presented as representative of the new RMS approach, together with quality of service improvements, new timetable, integrated fares, etc. that could be implemented in a relatively short time and could win wide consensus among travellers and stakeholders.

Less ready and more controversial extensions were decided upon in subsequent stages on the basis of individual technical and economic studies, and, if accepted, design and funding phases.

Feasibility studies were carried out for some rail lines in the options scenario and some of them are:

- Extension of Line 6 from Naples till Bagnoli
- New sections of Circumflegrea
- New sections/renewal of Circumvesuviana
- Rail link Salerno - Fisciano - Mercato S. Severino - Avellino
- Metropolitan system of Benevento
- Metropolitan system of Caserta

3.3. PE levels and tools

The sequence of decision and proposition is here described in details since it is fundamental to understand and apply the proposed approach with reference to both area-wide planning and specific infrastructure design as distinguished in section 2.1.

A first feasibility study of the RMS project was approved within the regional Council in 2001. In that study a detailed program of PE tools, to be adopted for the subsequent feasibility studies of the new and extended lines, was clearly stated. The first level of PE is the "stakeholders identification"; referring to Table 1 of this paper, for the RMS project, they were, among the institutions and authorities, the European Union; the national government; the Secretary of Transport; the Parliament; the regional government; the regional council and as well as the local secretary of transport. Users, both direct and indirect were considered as well as the regional and local transport operators. Local communities, media and financial institutions, like banks, funds and insurances were in the list of stakeholders.

"Listening" is the second level of PE, indeed preliminary meetings with stakeholders and with those responsible for the feasibility study to outline objectives, times, methodologies and also requests and problems. A number of meetings with different stakeholders were organized during both the area-wide and the specific infrastructure design type. Meetings to discuss proposed alternatives to be evaluated; meetings to discuss results and generate new options to be evaluated; meetings to present final results to institutional stakeholders; public events to announce the results to media and to the general public. These meetings were organized with the authorities at the province level and local levels, with the operators, with the trade unions and with the industrial unions. Public meetings were organised by the project team, the institutional stakeholders (e.g. provinces) or by hundreds of external stakeholders (e.g. business associations) to discuss a certain aspect of a project. The were very helpful in explaining issues to the public and stakeholders and for obtaining support from influential members of the community.

Each step had the objective of involving the stakeholders from the very beginning to make them aware of the progress of the work till the final announcement to the media.

The role of quantitative tools and Decision Support Systems in the above process was fundamental. Throughout the planning process, the availability of inputs from targeted, and continuously adapted models to forecast the different impacts of the RMS as a whole and of individual options were essential. The implementation of large-scale projects, in terms of both infrastructure and transportation services, would have had impacts on users' behaviour (i.e. travel demand) in terms of the quantity and spatial distribution of trips and of modal share and network flows. Travel choices were affected by the changes in level-of-service parameters perceived by the users (travel time, frequency and reliability of services, monetary costs, etc.) and, as a result, the accessibility conditions of the different zones changed. In order to forecast the whole complex system of impacts of the RMS on mobility and on transport networks, a mathematical model was developed, able to simulate users' behaviour in relation to their travel choices, network flows and the main impacts such as operational costs, energy consumption, pollutant emissions and road accidents (Cascetta et al., 2008) Quantitative effects of alternative options were very useful in the discussion with stakeholders about alternative options.

The third level of PE is the "information" one. Information to the public was also given in printed documents. These ranged from a few words announcing an event to a full report providing details of the project. Posters, for example, provided a useful way of presenting information to the general public conveying the main ideas of a project progressing over time.

The opening of new stations was announced through the use of posters related to the specific event as part of the general project. For example, the one for the opening of the Dante station is depicted in Figure 3. Dante station's intervention has been fundamental for recovering the whole area previously left to cars.

Fig. 3. Poster prepared for the opening of Dante station – The slogan: In Naples an art-based metro

Another poster one developed for the inauguration of the corridor linking station Museum with the Archeological Museum is reported in Figure 4. Other posters were used to inform and involve the general public for the introduction of new services and new rolling stock (both trains and buses).

Fig. 4. Poster for the opening of the corridor linking Museum station with the Archeological Museum. – The slogan: Arts meet!

Many posters were developed for promoting the "UNICO" ticket, involving also local show business characters.

Leaflets and brochure provided an introduction for the general public, or could offer guidance to transport users on how they would have needed to adapt to forthcoming changes in the system. A brochure was prepared and distributed to secondary school students to promote sustainable mobility and the use of public transport as part of it.

For the RMS project several technical reports have been prepared by ACAM (Agenzia Campana per la Mobilità sostenibile – Sustainable Mobility Agency for Campania region) since 2006. Several books have been produced as well (Cascetta, 2005).

Local radio and television were used intensively to promote the project. Concerning the RMS project, announcements at the local TV and radio news have been made every time a new progress of the RMS project was carried on. Communication videos at the stations have been proposed to the citizens as well.

Newspapers were similarly included in the information giving process. In addition to articles related to specific events, e.g. the opening of new metro lines or presentation of new rolling stock, advertisements for the

promotion of new feature of the system as a "public transportation product" were implemented. These newspaper campaigns were coordinated with radio and TV in multimedia campaigns.

Besides dispensing information and arousing interest in a transport plan or project, information events were promoted to elicit stakeholder feedback and support. The idea of meeting people face-to-face and providing information was considered a fundamental step toward getting informed feedback.

For the RMS project, several exhibitions were organised on the stations of the project. The first one in Venice in September 2006. The second one, named "METROPOLIS", in Naples in a very nice location of Castel dell'Ovo close to the sea. In Figure 5, the poster of the exhibition is reported. The third one was in Milan at the "Triennale" from the 13th of September till the 10th of October 2007, entitled "METROPOLIS: the rail transport challenge in Naples and Campania". From this exhibition a catalogue was also prepared. The last one in Bruxelles in June 2007.

Fig. 5. Poster of the exhibition "METROPOLIS" in Naples

Internet is increasingly being used as a tool for engaging with the public as part of the transport decision-making process. MUOVERSI is an integrated information system on multimodal mobility in the Campania region providing information in real time. The Service Centre, where all the information are collected, elaborated and distributed, is based on an open architecture based on a new generation module-based system among the most advanced in Europe.

The main characteristic of the system is that it is represented by the completeness of the information relative to regional transportation system and by the capacity of the system to provide information on every media starting from the data and information received and elaborated by the centre (www.muoversincampania.it).

The fourth and fifth levels of PE are "consultation" and "participation". Technical meetings with members of the municipalities were considered for the discussion of the projects related to the individual lines together with the discussion with the transport Committee of the regional Council. There was a strong consulting with the national Secretary of Transport and with the European Community.

4. Conclusions and further perspectives

Traditional transportation planning seldom encompasses ideas and techniques developed under the name of Public Engagement. On the other hand PE does not make full use of the potential of quantitative methods developed over the decades for the design and evaluation of transportation projects. This paper proposes a new conceptual framework of transportation planning based on bounded rationality principles and well suited to include PE principles and tools.

In Italy there is still a clear lack of placing effective PE tools in transportation planning. The Regional Metro System Project (SMR) represents an experience of success of the use of PE tools to involve the public to the

whole decision-making process. However, in Italy, there are several limitations to settle down firm roots for PE, among them a cultural limitation of the decision-makers on the potentiality offered by these methods.

From the examples discussed in this paper the following general conclusions can be drawn:

- PE is not necessarily a way to win support for a project. It depends critically on a number of factors including how and when PE is carried out.
- PE can be of any help if the whole planning/design process takes it into account from the beginning.
- Different PE tools are to be adopted for different stakeholders.
- PE has the potential for building alliances and coalitions of different stakeholders on specific projects.
- The plan/project has to be considered by the majority of the stakeholders as "useful". PE has the task to explicitly motivate the usefulness, and the solution chosen among the alternatives taken into account.
- Quantitative analyses are useful tools to assess and compare. Their role is not always recognised and used in PE. However their results have to be adopted to non-technical stakeholders.

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